

Marquesan



Trends in Linguistics

Studies and Monographs 169

Editors

Walter Bisang

(main editor for this volume)

Hans Henrich Hock

Werner Winter

Mouton de Gruyter
Berlin · New York

Marquesan

A Grammar of Space

by

Gabriele H. Cablitz

Mouton de Gruyter
Berlin · New York

Mouton de Gruyter (formerly Mouton, The Hague)
is a Division of Walter de Gruyter GmbH & Co. KG, Berlin.

- ⊗ Printed on acid-free paper which falls within the guidelines
of the ANSI to ensure permanence and durability.

Library of Congress Cataloging-in-Publication Data

Cablitz, Gabriele H., 1966–
Marquesan : a grammar of space / by Gabriele H. Cablitz.
p. cm. — (Trends in linguistics. Studies and monographs ; 169)
Includes bibliographical references and index.
ISBN-13: 978-3-11-018949-0 (hardcover : alk. paper)
ISBN-10: 3-11-018949-6 (hardcover : alk. paper)
1. Marquesan language — Grammar. 2. Space and time in language. 3. Marquesan language — Locative constructions. I. Title.
PL6471.C33 2006
499'.42—dc22
2006022886

ISBN-13: 978-3-11-018949-0

ISBN-10: 3-11-018949-6

ISSN 1861-4302

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

© Copyright 2006 by Walter de Gruyter GmbH & Co. KG, D-10785 Berlin
All rights reserved, including those of translation into foreign languages. No part of this
book may be reproduced or transmitted in any form or by any means, electronic or mechani-
cal, including photocopy, recording or any information storage and retrieval system, with-
out permission in writing from the publisher.
Cover design: Christopher Schneider, Berlin.
Printed in Germany.

To Hannah and Hans-Dieter

Acknowledgements

The present book is the product of my Ph.D-project on the Marquesas islands between 1997 and 1999. The Ph.D-thesis was finally defended in February 2002 at the *Institut für Allgemeine und Vergleichende Sprachwissenschaft* of the *Christian-Albrechts-Universität* of Kiel (Germany).

Many people have supported me during my Ph.D-project. This research has been generously supported by the Max Planck Institute for Psycholinguistics in Nijmegen and the German Max Planck society. I would like to thank in particular Wolfgang Klein and Stephen Levinson who have given me the opportunity to work in a stimulating linguistic environment and who have also given me crucial and important guidance and support throughout my Ph.D-project. I greatly profited from their discussions, suggestions and invaluable comments on my ‘work in progress’.

I cannot be thankful enough to my main supervisors Ulrike Mosel and Gunter Senft of whom I had excellent guidance and moral support from the very beginning to the very end of my project, in good and in not so good times. It has been an absolute pleasure to work with Ulrike Mosel, to profit from her great knowledge about Polynesian and Oceanic languages, to get ‘caught’ by her enthusiasm to do linguistic field work and language documentation. Her constant inspiration and constructive criticism and the countless hours of discussing my data and my chapters ‘in progress’, of giving me insightful and invaluable comments of how to rearrange my chapters and contents, and of preventing me from making essential mistakes. She has the great gift of being (sometimes ‘painfully’) critical, but being extremely constructive and encouraging at the same so that one never loses one’s own inner motivation. I cannot say less of Gunter Senft who has been my day-to-day supervisor at the MPI. His constant encouragement, inspiration and his intellectual and moral support have likewise resulted in the present dissertation. I cannot thank Gunter Senft enough for reading my (non-ordered) chapters ‘in progress’ and for having the patience to re-read my chapters and provide me with insightful and invaluable comments and suggestions. I could not have asked for better supervisors. I would also like to thank Helmut Lüdtke for being my co-promotor at the University of Kiel, and for getting me interested in linguistics in the first place.

My research on the Marquesan language would not have been possible without the warm and hospitable nature of many Marquesan people. Foremost I would like to thank my three wonderful guest families on ‘Ua Pou island who ‘adopted’ me as a member of their families: Samuel and Jeanne (Mafeau) Teikiehuupoko, Varii and Hauto Huuti, Fatari and Teipu Hikutini and members of their families who have been good friends and teachers throughout my stay at Hakama’i’i and Ha’akuti: Amerama, Ela, Mairé and Teiki Huuti. I would also like to thank Adelaide (at the mairie), Vaa, Pootu Kaiha and Rataro and many others at Hakama’i’i for interesting discussions about Marquesan life and for making my stay a pleasant one. Most enjoyable were my encounters with the wonderful children of Hakama’i’i and Ha’akuti with whom I spent many cheerful hours and by whom I had many insights into their little Marquesan worlds. I am very greatful to my wonderful teachers Marie-Madeleine (Titi) Bruneau, George (Toti) Teikiehuupoko, Samuel Teikiehuupoko, Tehina (Dora) Teikiehuupoko, Ben Teikitutoua and Moetini who provided me, despite their various other occupations, with a lot of detailed and insightful information about the Marquesan language. It is those people who were always very willing to explain and teach their language to me and who have greatly contributed to this work. I am very indebted to Titi Bruneau who did not only do the painstaking transcription of my recordings, but who also introduced me to many people at Hakama’i’i, Hakahau and Taioha’e and accompanied me to find storytellers and other secrets of the Marquesan language and culture. I would also like to thank her for her friendship and her trust.

I would also like to thank Maxime et Titi, Marino, Puhetini and Roberto Bruneau, Marie-Hélène, Joselito Kaiha, Amerama, Ela and Meire Huuti, Claire et Toti Teikiehuupoko, Mafeau and Samuel Teikiehuupoko, Ben and Rosita Teikitutoua and all the children of Hakama’i’i and Ha’akuti for having volunteered to play the space games. Further, I would like to thank Patrice and Hina Deheurle, Pierre Tahiatohiupoko, Raïssa and Harald Kolumetini, Tahia and Patrick Fitu, Ateri Otto, Fetu Peterano, Kea (Tahia Titi Ku'a), Mimio Puhetini, Rimo and Mama Ve'a Tamari'i and their family, Maeva Tissot and Moeaki and their family for their hospitality and friendship. I also had interesting discussions about the Marquesas and French Polynesia with Heidi Baumgaertner, Ross Clark, Jacques Dordillon, Étienne Hokaupoko, Robin Hooper, Lucien Kimitete, Denise and Robert Koenig, Mgr. Le Cléac'h, Margaret Mutu, Pierre and Marie-Noël Ottino, Daniel Palacz, Louise Peltzer, Père Gilbert, Kate Riley and many others. I would also like to thank Michael Koch who provided me with my very first

contact with French Polynesia and the family Tamari'i on Tahiti and Nuku Hiva. In my memory are always the late Henri ("Ritt") Rittmeister and all the friendly people at the *Musée des îles* at Punaauia.

Back at the MPI there are also many more people whom I would like to thank. In our group I would like to thank Marlene Jonas who always has an open ear and makes everyone feel welcome. In the technical group I would like to thank in particular Rick van Viersen for his technical support of the field work equipment, and everybody in the technical group for helping me with computer problems. I also would like to thank Karin Kastens and Lanneke van Dreumel from the MPI library for their help and getting all the literature which I needed. Likewise I want to thank the administration for having to deal with complicated accounts of field work expenses and the like. Thanks also to Alex Dukers for being helpful in sorting out my stimuli material.

I enjoyed many laughters and moral support from my two unforgettable friends, Wenda Bergsma and Veerle van Geenhoven, and without their friendship the MPI time would certainly not have been the same. I would also like to thank Shanely Allen, Heike Behrens, Melissa Bowerman, Penny Brown, Eve Danziger, Ken Drozd, Sonja Eisenbeiss, James Esseg-beiy, Christine Dimroth, Petra Gretschi, Irene Krämer, Ulrike Nederstigt, Eric Pederson, Marianne Starren, Mary Swift, David Wilkins, Angelika Wittek and Roberto Zavala for their support and social gatherings. I particular would like to thank Birgit Hellwig, Eva Schultze-Berndt, Roman Skiba and Claudia Wegener for being more than colleagues.

Outside the MPI, very special thanks go to Liz, Teo and Sally Knab for their unconditional friendship and hospitality without limits, for giving me a home whenever I needed one, and for helping me in overcoming the insurmountable task of formating this book (special thanks to Teo). The Netherlands would not have been the same without Katja, Jelle, Lennart and Mariël Nieuwland (also thanks for the two parcels), Tracie Stewart and Birgit (Pauli) Offt.

Finally, I would like to thank my father, Werner Cablitz, for supporting my first degree, my Welsh family, and my brother Hans-Dieter who has always just been there for me. I want to dedicate this book to my late grandmother Hannah Taylor and my brother Hans-Dieter, for all the love and care they gave to me.

Gabriele Cablitz

Contents

Acknowledgements	vii
Abbreviations	xix

Chapter 1 Motivations for a study of space

1.	Why studying the language of space?	1
2.	Motivations for studying a less familiar non- Indoeuropean language	3
3.	Problems in language and space research	5
4.	Aims of this study	7
5.	Structure of this study	12

Chapter 2 Ethnographic and linguistic background and methodology

1.	Geographical, historical, and ethnographic background	15
1.1.	Some geographical, and historical notes	15
1.2.	Present-day linguistic situation from a historic perspective	18
1.3.	Linguistic transmission, language attitudes, and socializing practices	21
1.4.	Code-switching in the Marquesan speech community	25
1.5.	Child-directed speech	33
2.	The Marquesan languages	37
3.	Fieldwork and methodology	44
3.1.	Previous work on the Marquesan languages	44
3.2.	Data of the present study	44
3.2.1.	Data collection and local consultants	45
3.2.2.	Data collection techniques: elicitation and other methods of data collection	46
3.2.2.1.	Interactive tasks and games for the elicitation of spatial language	48
3.2.2.2.	Elicitation of line drawings stimuli	49
3.2.2.3.	Elicitation of modelled actions and motion scenes	50

3.2.2.4.	Placement tasks	50
3.2.3.	Some remarks on data transcripts and stimuli material	51

Chapter 3 Grammatical sketch

1.	Some general remarks on Marquesan grammar	54
2.	Phonology and orthography	54
3.	Basic simple clauses and their structure	57
4.	Word classes	65
4.1.	Full words	66
4.1.1.	Nominals	70
4.1.2.	Verbals	77
4.1.2.1.	Transitive verbals	77
4.1.2.2.	Ditransitive verbals	81
4.1.2.3.	Intransitive verbals	83
4.1.2.4.	Neuter verbals	88
4.1.2.5.	Other verbals	95
4.2.	Numerals	96
4.3.	Proforms	100
4.3.1.	Personal pronouns	100
4.3.2.	Possessive pronouns	101
4.3.3.	Demonstratives	102
4.3.4.	Deictic local nouns	106
4.3.5.	Deictic temporal nominals	109
4.3.6.	Deictic verbals	110
4.3.7.	Interrogative proforms	111
4.3.8.	Anaphoric pronoun <i>ai</i>	114
4.4.	Particles	115
4.4.1.	Conjunctions	116
4.4.2.	Emphatic and interrogative particles	120
4.5.	Interjections	122
5.	Morphological processes	122
5.1.	Affixation	122
5.2.	Reduplication	128
5.3.	Compounding	131
6.	Morphosyntax	132
6.1.	The noun phrase	132
6.1.1.	Morphosyntactic properties of noun phrases	134
6.1.1.1.	Articles	134
6.1.1.2.	Prepositions	143

6.1.1.3.	Attributes	155
6.1.1.3.1.	Prenuclear modifiers	156
6.1.1.3.2.	Postnuclear attributes and modifiers	160
6.1.2.	Some basic construction types of noun phrases	167
6.1.2.1.	Possessive constructions	167
6.1.2.2.	Nominalisation	172
6.2.	The verbal phrase	176
6.2.1.	Tense-aspect-mood particles	178
6.2.2.	Negation	200
6.2.3.	Verbal modifiers	203
6.2.4.	Directional particles	204
6.2.5.	Verb serialisation	205
6.2.6.	Noun incorporation	209

Chapter 4 Theoretical background of language and space research

1.	Defining space	211
2.	Objective properties of space	211
3.	The interrelation between space, spatial language and spatial conceptualisation	213
4.	Spatial reference	217
4.1.	Defining spatial reference	217
4.2.	Some basic assumptions about spatial localisation	219
4.3.	Three basic requirements of spatial reference	224
4.4.	Static and dynamic localisation	228
4.4.1.	Concepts of Path	232
5.	Subjectivity in spatial reference	233
6.	Assignment of names to object parts and inherent properties of objects	237
6.1.	The asymmetrical body axes	238
6.2.	Full body analogy	239
7.	Functional properties	241
8.	Topological properties	241
9.	Psycholinguistic models of spatial reference	243
9.1.	Two-point versus three-point localisation	245
9.2.	Spatial frames of reference	249
9.2.1.	Intrinsic frame of reference	249
9.2.2.	Relative frame of reference	251
9.2.3.	Absolute frame of reference	254
10.	Different types of location	259

10.1.	Object regions and places	259
10.2.	Landmarks	261
10.3.	Partitioned regions in confined spaces	265
11.	Small-scale and large-scale reference	265
12.	Direction and goal	267

Chapter 5 Semantic and morphosyntactic analysis of locative constructions in North Marquesan

1.	Preliminary remarks	280
2.	Defining a construction	287
3.	The meaning of a locative construction and its units	288
4.	Types of attributive noun phrases expressing the relatum	293
5.	Some remarks on Marquesan locative prepositions	299
6.	Different types of locative constructions in North Marquesan	299
6.1.	Locative constructions with place names	301
6.1.1.	The semantics of place names	301
6.1.2.	The class of place names in North Marquesan	303
6.1.3.	Meaning contribution of locative prepositions to place names	305
6.1.4.	Summary	308
6.2.	Locative constructions with body-part terms	309
6.2.1.	The semantics of body-part terms	309
6.2.2.	Body-part terms in North Marquesan	311
6.2.3.	North Marquesan body-part terms used as locatives: type-3-constructions	320
6.2.3.1.	Prepositions and articles in type-3-constructions used in the relative frame of reference	321
6.2.3.2.	Prepositions and articles in type-3-constructions used in the intrinsic frame of reference	322
6.2.3.3.	Construction types with ' <i>ima a'e</i> 'left hand' and ' <i>ima oko</i> 'right hand'	326
6.2.4.	Summary	329
6.3.	Locative constructions with local nouns	331
6.3.1.	The class of local nouns in North Marquesan	331
6.3.2.	The semantics of North Marquesan local nouns	335
6.3.3.	Meaning contribution of the locative prepositions	339

6.3.3.1.	Local nouns used in the intrinsic and relative frame of reference	339
6.3.3.2.	Local nouns used in the absolute frame of reference	344
6.3.3.2.1.	In large-scale reference	345
6.3.3.2.2.	In small-scale reference	351
6.3.3.3.	Summary	360
6.3.3.4.	Local nouns expressing topological relations	361
6.3.3.5.	Summary	375
6.3.3.6.	Local nouns expressing spatial relations on the UP/DOWN-axis	377
6.3.3.7.	Summary	395
6.3.3.8.	Constructions with local nouns in non-spatial conceptual domains	397
6.4.	Locative constructions with <i>hope</i> ‘part, region’, <i>keke</i> ‘side’, and <i>vahi</i> ‘place’	400
6.4.1.	Summary	412
6.5.	Locative constructions with common full words, proper names of persons and personal pronouns	412
6.5.1.	Summary	423

Chapter 6 Modifiers in locative constructions

1.	Introductory remarks	426
2.	Directional particles	427
2.1.	Directional particles in verbal phrases and nominalised verbal clauses	430
2.1.1.	Spatial uses of <i>mai</i> and <i>atu</i> in verbal phrases	433
2.1.1.1.	Usage of <i>mai</i> and <i>atu</i> in a <i>demonstratio ad oculos</i> -situation	433
2.1.1.2.	Usage of <i>mai</i> and <i>atu</i> in narratives and reported events	439
2.1.2.	Non-spatial uses of directional particles in verbal phrases	444
2.1.3.	Summary	449
2.2.	Directional particles in noun phrases	450
2.2.1.	Directional particles in noun phrases with common full words and personal pronouns	450
2.2.2.	Directional particles in noun phrases with local nouns and body-part terms	452
2.2.2.1.	<i>I-</i> and <i>mei</i> -marked construction types	454
2.2.2.2.	<i>Ma</i> -marked construction type	461

2.2.2.3.	<i>Kapai-</i> , <i>kauta-</i> and <i>kako</i> -constructions	463
2.2.2.4.	' <i>Uka</i> 'up, top' and ' <i>a'o</i> 'down, underside' with directional particles	464
2.2.2.5.	' <i>Oto</i> 'inside' and <i>vaho</i> 'outside' with directional particles	466
2.2.3.	Summary	466
3.	Demonstratives in locative constructions	467
3.1.	Summary	475
4.	Other modifiers in locative constructions	475
4.1.	Meaning contribution of <i>toitoi</i> 'real, genuine'	476
4.2.	Meaning contribution of ' <i>oa</i> 1. 'far (away)', 2. 'EMPHATIC'	480
4.3.	' <i>Ina</i> 'a little'-constructions	484
4.4.	Summary	486
5.	Expressing different degrees of distance in locative constructions	487

Chapter 7 Usage of locative constructions in large-scale and small-scale reference

1.	Introductory remarks	489
2.	Large-scale reference	489
2.1.	Places on land and on sea	491
2.1.1.	' <i>Oto</i> 'bay' and <i>vaho</i> 'ocean'	491
2.1.2.	' <i>Uka</i> 'up' and ' <i>a'o</i> 'down'	492
2.1.3.	The body-part term <i>tua</i> 'back'	494
2.1.4.	Summary	495
2.2.	Systems of spatial orientation in large-scale reference	496
2.2.1.	Spatial orientation within a valley	497
2.2.2.	Spatial orientation on sea	510
2.2.3.	Summary	518
3.	Small-scale reference	519
3.1.	Frames of spatial reference	519
3.1.1.	Intrinsic frame of reference	521
3.1.2.	Relative frame of reference	529
3.1.3.	Absolute frame of reference	534
3.1.4.	Summary	549
3.2.	Preferred frame of spatial reference	550
3.3.	Polysemy of the local noun <i>ko</i>	555
3.4.	Difficult classifications	558

3.5.	Topology	562
3.5.1.	Summary	573

Chapter 8 Summary and conclusion

1.	A general summary	575
2.	Some grammatical features of Marquesan	577
3.	Linguistic encoding of space in Marquesan	578
4.	Semantic encoding of space in Marquesan	592

Appendix	598
Notes	618
References	652
Index	672

Abbreviations

1. Interlinear glossing

AGS = agentive preposition
al = alienable
ANA = anaphoric particle
ana = anaphoric
ART = article
bp = body-part
CAUS = causative prefix
CL = classifier
COM = comitative
CONJ = conjunction
CONT = continuous
cs = code-switched word
Dem = demonstrative
DIR = directional particle
dist = distal
DL/dl = dual
DO = direct object
dur = durative
EMPH = emphatic particle
excl = exclusive
FW = full word
gen = general
IMP = imperative
inal = inalienable
INCH = inchoative
incl = inclusive
indef = indefinite
INTJ = interjection
irr = irrealis
LD = locational-directional
preposition
lit. = literal meaning, non-
idiomatic translation

loc = location, locative
loc.n. = local noun
lw = loan word
MOD = modifier
neg = negation
NOM = nominalising suffix
NP = noun phrase
NUM = numeral particle
OBL = oblique object
PART = particle
PASS = passive suffix
PATH = path preposition
Perf = perfect, perfective
PL/pl = plural
PN = proper noun
POSS = possessive preposition
PPr = possessive pronoun
PPS = personal pronoun
PREP = preposition
PRES = presentative preposition
PROHIB = prohibitive
prox = proximal
RED = reduplication
STV-P = state verbal particle
TAM = tense-aspect-mood
marker
TOP = topicalising preposition
tow = towards
unspec = unspecific
VOC = vocative
1.sg = first person singular

1.dl = first person dual
1.pl = first person plural
2.sg = second person singular
2.dl = second person dual
2.pl = second person plural
3.sg = third person singular
3.dl = third person dual

3.pl = third person plural
‘=’ = morpheme boundary
‘-’ = reduplication boundary

2. Languages

Engl = English
Fr = French
Haw = Hawaiian
Mao = Maori
MQA = Marquesan
N-MQA = North-West Marquesan
Sam = Samoan
S-MQA = South-East Marquesan
Tah = Tahitian
PPN = Proto Polynesian

3. Other abbreviations

A = agent
add = addressee
ch = chapter
E = elicitation
FoR = frame of spatial reference
Nuc = nucleus
O = object
S/Subj = subject
VP = verbal phrase
NP = noun phrase

Chapter 1

Motivations for a study of space

1. Why studying the language of space?

The present book is a study of the grammatical structures of the Polynesian language Marquesan, spoken in French Polynesia, in which I focus on how space and spatial relations are expressed in this Oceanic language of the Austronesian language family. The question I want to address in this introductory chapter is what we expect to learn from a study of space and, in particular, why we focus on space and spatial language in a hardly documented non-Indoeuropean language.

In the past three decades a number of different scientific disciplines such as psychology, linguistics, sociology, anthropology, geology – to name only a few – have been concerned with the study of space. All these different scientific disciplines investigate how space models and effects the thinking and behaviour of human beings. But why is space an ideal domain to investigate the relationship between human thinking and human behaviour?

Every human behaviour is somehow bound to space and time (Schweizer 1985). Space plays a crucial role in our everyday lives: we live *in* space and are surrounded by space, all our daily actions, experiences, movements and existence is bound to space. We communicate *in* space and *about* space. It is a fundamental part of our everyday life and behaviour to talk and know about locations: the description of a route, the arrangement of a meeting-point or the identification of objects and the localisation of events require complex knowledge about space. Spatial knowledge is therefore crucial and vital in order to guide our actions and behaviour, verbal and nonverbal alike, sensibly in an environment.

The question of how our knowledge about space is expressed in the languages we speak is in particular of interest to the linguist and psycholinguist. Whereas a linguist tends to analyse all syntactic, semantic and pragmatic rules and regularities of a language, researchers of *language and space* try to go one step further. Apart from analysing the structure and

2 Motivations for a study of space

function of natural language, they also want to investigate how the linguistic encoding of space sheds light on one of the most fundamental categories of human thinking, namely spatial cognition (Klein 1990: 9). Space is the domain *par excellence* to study the relationship between language and thought. Space is concrete and therefore easily accessible by our sensory organs, in particular by our visual and tactile perception. A study of spatial reference is therefore a study of how language, perception and cognition meet. It is a well-known fact that not only humans, but *all* species store and use spatial information when recognising or searching for objects or when navigating in space. However, humans are the only species which have the ability to express their spatial experience *through language* (Landau and Jackendoff 1993: 217). And, unlike other species, only humans can transform and transcendent their spatial perception and knowledge into more abstract spatial conceptualisations (Klein 1994: 164). We understand an abstract idea or problem more clearly when we describe it in spatial images. Lakoff and Johnson (1980) have pointed out that spatial language and spatial images provide numerous metaphors which also structure other semantic, more abstract domains of language. Spatial expressions are used when referring to time relations (e.g. *before next week, in two weeks*), to emotions (e.g. *I'm feeling down, my spirits are up*), to social relations (e.g. *upper, middle and lower class*) or even to kinship (e.g. a *close or distant relative*) or in the domain of music (e.g. *high and low notes*). Nonspatial abstract domains are often expressed by the most basic spatial concepts, namely in terms of UP/DOWN-relations and proximity and non-proximity. Levinson comments that “such metaphorical extensions to other domains provide (sic!) clues to the importance of spatial thinking” (1992: 6). Based on observations like these some researchers take the extreme position that all human thinking is in one way or another spatialised, a position that has become known as the localism theory in cognitive linguistics.

The importance of the study of space is also emphasized by other scientific disciplines which are closely related to the mysteries of the origin of human language and human thinking. Developmental psychologists, such as Piaget and Inhelder (1956), claim that the acquisition of spatial knowledge plays a fundamental role in the overall cognitive development of children. According to archaeologists the rise of abstract notions of space is paced by the evolution of *homo sapiens*. This is, for instance, manifested in the development of the shape of stone tools (Wynn 1989). Anthropologists have often noted that humans, regardless of their culture, impose a geometrical order on their environment, thus structuring their space and environ-

ment systematically and marking off their spatial understanding of the world from the arbitrariness and material detail of nature (Leach 1976: 51; Levinson 1992: 6).

Wunderlich (1982) summarises the importance of the study of language and space as follows:

Das Thema “Sprache und Raum” ist, ..., ein weitgefächertes. Lexikologische, psycholinguistische, semantische und pragmatische, sprachvergleichende und entwicklungsgeschichtliche Interessen kommen hier zu ihrem Recht In seiner weiteren Entfaltung könnte gerade dieses Thema zu einem besseren Verständnis der menschlichen Sprache beitragen, indem es ihre Fundierung in sehr generellen Prinzipien der menschlichen Erfahrung und Kognition aufdeckt. (Wunderlich 1982: 57–58) [The topic “language and space” is.... very varied. The domain of lexicology, psycholinguistics, semantics and pragmatics, cross-linguistics and evolutionary science all have a say in this. In future research, especially this topic could contribute to a better understanding of human language in that it uncovers its foundation in very basic principles of human experience and cognition.]

An in-depth study of language and space, like the one I am presenting here, therefore contributes to a better understanding of human language in general because it reveals the very basic principles of human experience and cognition. What these principles are is a matter of debate in current language and space research. The debate about these principles will lead us to the next question I want to address. It is the question of how the study of space in a less familiar, non-Indoeuropean language contributes to the general understanding of space in language.

2. Motivations for studying a less familiar non-Indoeuropean language

Many linguistic and psycholinguistic researchers assume that spatial cognition is basically innate (Jackendoff 1983, 1996; Landau and Jackendoff 1993). Innateness of spatial concepts implies that they are genetically predisposed concepts which do not need to be learned. Since all human beings are genetically equipped in the same way, innateness also implies that these concepts must be universal, i.e. that they are found in all languages of the world in one way or another.

Linguists taking a universalist position in language and space research also have in common that they study only a few familiar Indoeuropean

4 Motivations for a study of space

languages and make generalisations of their findings to be valid for all languages, namely that the semantic structuring of space in one language represents innate mental categories to be found in other, if not all languages (Landau and Jackendoff 1993).

This view has been challenged by a number of linguists and anthropologically oriented linguists working on less familiar, non-Indoeuropean languages (Levinson 1992; 1996; Lucy 1992; 1994; Senft 1997; Nuyts and Pederson 1997, among others). These studies claim that there is far more variability in linguistic encoding and conceptualisation than universalist theories would allow.

In the last decade systematic research on spatial language and conceptualisation in non-Indoeuropean languages has brought to light that there are numerous languages which have culture- and language-specific encodings of spatial relations that are fundamentally different to those of familiar and well-studied Indoeuropean languages (Haugen [1957] 1987; C. Brown 1983; Bowden 1992, 1997; Brown and Levinson 1993; Levinson 1996, 1997; Senft 1997; Bickel 1997; among others). For instance, speakers of many non-Indoeuropean languages preferably use names for salient landmarks of the environment such as slopes, river streams, winds, fixed stars instead of using ‘front’-/‘back’-, and ‘left’-/‘right’-expressions which are common in languages like German, English, Dutch or French. Thus, instead of saying *there is a crumb on your left or right cheek*, a speaker of those languages would say *there is a crumb on your upriver or downhill cheek*. According to Bowden, the most interesting aspect about these locatives is the “simple fact of their existence [which] shows that not all of the important conceptual aspects of locative systems are universal” (Bowden 1992: 57).

Non-universal or culture-specific concepts of space basically challenge the view of universality in spatial cognition and conceptualisation. The existence of culture-specific concepts also questions the universalist view of the basic nature of the relationship between language and conceptualisation, namely that linguistic knowledge and conceptual knowledge exist independently from each other and that conceptual knowledge is prior to linguistic knowledge. This also implies that conceptualisation underlies language and that language maps onto conceptual knowledge, as often claimed in first language acquisition studies (see Johnston and Slobin 1979; Johnston 1988; Landau 1996). However, if not all spatial concepts are universal, it would seem that concepts do not necessarily underlie language and that they are not prior to language, a position taken in recent studies on

first language acquisition (see Choi and Bowerman 1991; Bowerman 1996). Thus, how do concepts develop and can the emergence of concepts also be influenced by language? It is the question of how much the way we talk about spatial relations also influences our way we think about space. The idea of linguistic relativism and determinism and language-specific conceptualisation and categorisation are one of the major concerns in recent language and space research which is in particular represented by Lucy (1992), Levinson (1996, 1997), Levinson and Gumperz (1996), Bowerman (1996) and Senft (1997). Universalism, on the one hand, and language specificity combined with linguistic determinism, on the other hand, are the two current main stream positions in research on spatial language and spatial conceptualisation.

Although the number of studies on language and space has tremendously grown in the last two decades in the domain of non-Indoeuropean languages (Weissenborn and Klein 1982; de León and Levinson 1992; Senft 1997; Nuyts and Pederson 1997 and others), it is still not known to what extent languages vary in the way space is semantically structured and categorised. In his anthology on spatial reference in Austronesian and Papuan languages Senft (1997: 22) concludes that “(w)e certainly do know much about the topic in many languages, but to reach a description and analysis of the semantics of space and spatial reference, we must know much more about this topic – and our knowledge must be based on research in many more languages!”. The present study is thought to be a contribution to this field by thoroughly investigating the spatial language in the East-Polynesian language Marquesan, comprising an in-depth analysis of its locative constructions as well as the use of these constructions. In my description and analysis of the semantic structuring of space in Marquesan, I will show that there is, on the one hand, a great variety of culture- and language-specific ways of referring to space, but that there are also a number of aspects in the Marquesan spatial reference system which are strikingly similar to other languages.

3. Problems in language and space research

Given the present state of the art in language and space research, it is difficult for a linguist or psycholinguist of the universalist camp to ignore the existence of culture-specific linguistic encodings of spatial relations. We have to account for them in one way or another.

6 Motivations for a study of space

There are basically three problems that arise from recent findings in language and space research, namely the evaluation of culture-specific concepts and language-specific encodings of spatial relations; the problem of accessibility to the human mind, i.e. the so-called black box problem (Nuyts 1992), and the formal classification of spatial lexemes with respect to other classes of lexemes. One of the central (and most difficult) questions is how to evaluate these culture-specific concepts and fundamentally different ways of referring to space. Do we have to discard almost all notions of universals with respect to space and spatial reference as proposed by Levinson (1996) and Senft (1994, 1997), or do culture-specific concepts of space also leave room for universal concepts as well? In his study on Oceanic locatives Bowden (1992) proposes that particular languages leave slots for culture-specific concepts of space when grammaticalised markers of location (e.g. ‘upriver’) are particularly important to their speakers, but there is also a core set of locative concepts which is destined for grammaticalisation *in all languages* (Bowden 1992: 58). In this view culture-specific concepts, however, do not challenge the view of universality as such, but only its absolute status. The question of spatial conceptualisation is differently focused, namely to what extent and in which way is spatial conceptualisation universal and how much variability exists across languages and cultures? And is the variability of linguistic encoding of spatial relations constrained in some ways? Throughout this study I will demonstrate that Bowden’s position is valid for Marquesan: the analysis of Marquesan data will reveal that there is a culture-specific as well as a universal component in the semantic structuring and linguistic encoding of spatial relations.

If one wants to make general claims about the relationship between language and thought, the evaluation of culture-specific concepts and ways of linguistic encoding and referring to space is inevitably linked to the black box problem of the human mind. The debate of whether culture-specific encodings of spatial relations do indeed have an effect on human conceptualisation or not, will be difficult to solve because human cognition does not reveal itself “directly on the observable surface of human behaviour; it only ‘appears’ indirectly, in disguise, coded in or filtered through the ‘structured principles’ of the many different types of behavioural systems, linguistic and otherwise” (Pederson and Nuyts 1997: 3). The nature of the relationship between language and conceptualisation remains to be speculative because the researcher cannot directly access the black box of the human mind. Linguistic behaviour is only an indirect manifestation of the human mind, and therefore linguistic structures may not necessarily manifest cog-

nitive or mental structures. Both theories, i.e. the universalism as well as the linguistic relativism theory can therefore not be really verified with respect to the relation between language and thought.

As for linguists to whom linguistic structure is the major resource of their theories, their utter and foremost task is to undertake a thorough and careful analysis of the linguistic and semantic structures of the domain space in the particular language under investigation. Lucy (1994), for instance, has cautioned researchers to make hasty overgeneralisations by imposing a ready-made external framework on a language without having made a careful analysis of its linguistic structures. He has pointed out that researchers “often fail to address the most basic issue, namely, how the class of spatial lexemes itself is to be distinguished from other classes in formal terms such that it constitutes a valid object of linguistic comparison” (Lucy 1994: 625). The basic question is: what do we define to be spatial language and what are the formal criteria of doing so? Thus, can spatial expressions be distinguished from other expressions on the basis of formal properties and classes? This basically addresses the question of how expressions, which refer to locations and places, can be distinguished from expressions referring, for instance, to concrete objects. The difference between the language of objects (“what”) and locations or places (“where”) is also of major concern in Landau and Jackendoff (1993) though with quite different theoretical underpinnings than in Lucy (1994). Despite the very different approaches of the two current main stream positions in language and space research I regard the formal classification of spatial language as a crosscutting and starting point for any study investigating the domain space in a particular language. This is one of the major concerns of the present study.

4. Aims of this study

The reason to study spatial language in Marquesan has been motivated by two interesting aspects of the language, namely the semantic structuring of space, and the formal classification of Marquesan spatial ‘expressions’. My study is therefore mainly concerned with the linguistic analysis of the form, the meaning and the use of spatial expressions or lexemes, as well as a general formal classification of lexemes in Marquesan.

As reported for numerous other non-Indoeuropean languages, Marquesan shows culture-specific aspects of linguistic encodings of spatial rela-

8 Motivations for a study of space

tions. In Oceanic languages one often finds ‘grammaticalised¹ forms’ for SEA and LAND (Bowden 1992). Bowden remarks that “(a)ny language whose speakers inhabit coastal regions will undoubtedly have means available to express the concepts SEA and LAND” (1992: 57). This is indeed the case in the Marquesan speech community, an island population of the South Pacific. According to Bowden SEA and LAND are the most striking examples of non-universal locatives in Oceania, and, as we will see throughout this study, the concepts SEA and LAND play a central role in the locative or spatial system(s) of Marquesan. Speakers do not only use these expressions to refer to the places which are associated with the concepts SEA and LAND, but they are also used to refer to objects in a so-called *table-top space* (e.g. *The bowl is seaward of the bottle* or *Put the inland light switch on*). A major concern in this study is the formal classification of words like *seaward* and *inland* and how these spatial words correspond to formal classes of other spatial ‘expressions’. I therefore want to identify the formal classes of Marquesan ‘spatial lexemes’ in general to constitute a valid object of linguistic comparison as suggested in Lucy (1994). According to Talmy (1983) spatial expressions belong to the ‘fine-structural level’ of language and often form closed word classes. In Indo-european languages these closed word classes of spatial expressions are, for instance, prepositions. In his study on the grammaticalisation of Oceanic locatives Bowden (1992: 2) remarks that the locative concepts which are formally encoded by prepositions in Indo-european languages do not find their semantic counterparts in the prepositions of Oceanic languages. The lexical sources of spatial ‘expressions’ in Oceanic languages are mainly nominal: 38 % derive from body-part terms, and 20 % from landmark nouns (Bowden 1992: 35). The term preposition or adposition is often avoided in grammars of Oceanic languages because spatial ‘expressions’ share many properties with nouns (Biggs 1973: 41; Clark 1976: 54–55). These nouns are often called ‘local nouns’ (Bauer 1997; Mosel and Hovdhaugen 1992), ‘locative nouns’ (Elbert and Pukui 1979), ‘L-class nouns’ (Clark 1976), ‘compound prepositions’ (Ray 1926), ‘complex prepositions’ (Besnier 2000) or simply ‘locatives’ (Biggs 1973; Bowden 1992).

Although some of these terms (e.g. ‘compound preposition’) express that we are dealing with a complex linguistic structure, they do not appropriately captures the linguistic phenomena in Oceanic languages (see Bowden 1992). Spatial ‘expressions’ in Marquesan are, as we will see throughout chapter 5, *complex noun phrase constructions* composed of several units (or parts of speech) which combine in varied and complex ways. Al-

though the lexical head of these noun phrase constructions often contains the ‘richest’ spatial information of the whole construction, other parts of the construction semantically interact in complex ways with the lexical head and often contribute crucial spatial information to its lexical head. I will also show that the compatibility and non-compatibility of certain formal properties of a lexical head is due to its semantics. The most intriguing contrast is between proper names of places (=place names) and landmark expressions: both classes of nominals denote the same type of location in large-scale reference, namely places (e.g. the ‘place of Amsterdam’ and the ‘sea-place’), but they have quite different formal properties.

In focus of the analysis of the locative constructions is the lexical head: only the formal properties of a lexical head enable us to form classes. I can identify three major nominal classes of spatial lexemes which denote locations or places and which can be clearly distinguished from other nominals denoting, for instance, concrete objects. On the basis of formal properties, it will be shown throughout this study that the Marquesan language distinguishes between the *language of objects* and the *language of locations*; thus, speakers of Marquesan are evidently sensitive to a “what”- and “where”-category in the language, a universal claim made by Landau and Jackendoff (1993). However, despite an obvious distinction between a “what”- and “where”-category there are interesting borderline cases which are in particular represented by words which denote landmarks such as sea, river, valley, or mountain. Bearing in mind that speakers of Marquesan use landmark expressions to refer to spatial relations in a table-top space (e.g. *the spoon is inland of the plate*), it will be interesting to see how the grammaticalised forms² of ‘sea’ and ‘land’ formally contrast, on the one hand, with other landmark expressions, and, on the other hand, with other closed-class spatial nominals such as ‘inside’ and ‘outside’. Moreover, the analysis will show that there are words which share formal properties with more than one class. This is most evident with respect to the landmark expression ‘sea’.

In Marquesan, like in many other Polynesian languages, lexical items are often multifunctional and one cannot easily form classes such as nouns and verbs because there is no verbal or nominal morphology which would identify a lexical item as being a verb or a noun (see Broschart 1991). It is rather the phrasal level that enables us to define a lexical item as being either ‘verbal’ or ‘nominal’. Look at the following two Marquesan examples of the word *koko'oua* ‘very old man’. In (1.1) *koko'oua* occurs as the lexical

10 Motivations for a study of space

head of a noun phrase, whereas in (1.2) *koko'oua* occurs as the lexical head of a verb phrase because it is marked by the verbal aspect particle *u*:

- (1.1) ..., *u pe'au: "I hea 'oa hua tau ko-ko'oua nei?"*
TAM say LD where EMPH ART PL RED-old.man Dem.prox
'..., (he) said: "Where are **these very old men** then?"'
(Lav-U/N-366)

- (1.2) *E hoa 'a vai te vehine na Peva, ..., o taea nei u ko-ko'oua.* (Lav-U/N-099)
VOC friend TAM leave ART woman for P. PRES 1.dl.incl
Dem INCH RED-old.man
'Hey friend, leave the woman for Peva, ..., we both **are now very old men.**'

Thus, a lexical item is classified as nominal or verbal when it functions as the lexical head of a noun phrase or a verb phrase respectively. In other words: lexical items cannot be pre-categorised on the lexical level. The analysis of the morphosyntactic structure of verb phrases and noun phrases is therefore crucial for the classification of lexical items.

In this study two of the three problems in language and space research (see ch.1, § 3) are therefore discussed, namely 1) the problem of formal classification of spatial lexemes, and 2) the evaluation of culture-specific ways of encoding spatial relations such as *the spoon is seaward of the plate*. Whereas the classification of spatial lexemes, the meaning analysis and usage of locative constructions are my major concern throughout this study, I will only indirectly evaluate culture-specific aspects of the linguistic structuring of space in Marquesan (see ch. 8 in particular). It is not my aim to discuss to what extent the semantic structure of space in Marquesan could also reflect conceptual structure because language is only an indirect manifestation of the human mind. We cannot really access spatial conceptualisation by mere description and analysis of the linguistic structures (see black box problem above). However, my study presents a first step towards such an aim, namely by analysing the semantic and morphosyntactic regularities of spatial lexemes in depth. I will regard the linguistic encoding of spatial relations as a possible reflection of spatial conceptualisation in Marquesan. However, I do not take the position that the linguistic encoding of space also determines and constrains spatial thinking.

As for my study of spatial reference in Marquesan I will mainly deal with static localisation, thus the domain of motion verbs and other spatial

verbs is not included in this grammar of space. The stimuli and tasks used for data collection (see ch. 2, § 3.2.2.–3.2.2.4.) are designed for the elicitation of static spatial configurations. However, we find examples in the collected data which seem to express dynamicity. For instance, the location and orientation of objects are sometimes expressed by motion verbs (e.g. ‘the cow is *descending* seawards’) although the stimuli clearly do not depict dynamic, but static location. Moreover, in the interactive tasks used for data collection the consultants often express dynamicity such as ‘move x towards y’ or ‘put x at y’ etc.. The fact that the interactive tasks elicit static as well as dynamic localisation is due to the nature of the task, namely its ‘collaborative reference’ and its instructive language (see de León 1991). Furthermore, it is sometimes necessary to present data of dynamic localisations because it contributes in general to a better understanding of the Marquesan locative constructions, in particular with respect to the usage of the path preposition *ma*.

The present book is regarded as a *reference grammar* of space: throughout the empirical parts of this book³, cross-references are made in order to establish links between the various phenomena of the grammar in general and the grammar of space in particular.

Apart from forming classes of spatial lexemes and analysing the meaning composition of the locative noun phrase constructions, this grammar of space also includes the description of how these locative constructions are actually used on different scales of reference: namely, on small-scale (i.e. on a table-top space) and large-scale (i.e. in a wider geographical space) reference. The necessity of such a differentiation into scales of reference will become evident in chapter four.

My approach of presenting and analysing the data is descriptive. The analysis of the meaning composition of a locative construction is only motivated by how speakers actually use these constructions in particular contexts and situations. Moreover, it is one of my major objectives to describe the full range of contexts and situations by using as many data sources and text types as possible (see in particular ch. 2). This will give the reader a more thorough understanding of how Marquesans communicate about space.

5. Structure of this study

The study is structured in the following way. Seven chapters follow this introductory chapter. Chapter two describes the socio-historic and socio-linguistic background, the research methodology used for data collection and the genetic affiliation of North Marquesan by including the dialectal situation of the Marquesan vernaculars. The ethnographic background is necessary in order to get a better understanding of the local environment – which is essential for a study of space – as well as the current linguistic situation of the Marquesan speech community. The description of the socio-linguistic background focuses in particular on language endangerment in the bilingual speech community by examining linguistic transmission, language attitudes and socialising practices. Two other sections also deal with child-directed speech and the frequently observed French-Marquesan code-switching. These sections give an insight into the complex linguistic situation in the Marquesan speech community elucidating the factors which contribute to rapid linguistic change and an increasing loss of their linguistic heritage.

The third chapter consists of a general description of the grammatical structure of North Marquesan. Apart from giving an overview of the phonology, orthography, some basic simple (verbal and non-verbal) clauses and morphological processes (affixation, reduplication and compounding), the grammatical description focuses on the problem of word classification – in particular that of verb-noun-distinction and the classification into word classes. A second major part of the grammatical sketch is dedicated to the morphosyntactic properties of noun phrases (articles, prepositions, attributes, possessive constructions and nominalisation of verbal clauses) and verb phrases (TAM-particles, negation, modifiers, verb serialisation and noun incorporation).

The fourth chapter presents the basic theoretical assumptions of language and space research by providing the reader with a systematic overview of the variability found across various languages. Chapter 4 discusses those aspects of spatial reference which are relevant for an evaluation of the semantic structuring of space in North Marquesan in relation to other languages. This includes in particular psycholinguistic models of spatial reference (e.g. Hermann's [1990] 6-H-model, Levinson's [1996] frames of spatial reference), scales of reference (small-scale vs. large-scale), types of locations (object region vs. landmarks vs. places) and the notions of path, direction and goal.

The next three chapters represent the core of the grammar of space for North Marquesan analysing the form, meaning and use of various spatial lexemes and locative constructions.

In chapter five all the different locative noun phrase constructions found in my data base are analysed with respect to their morphosyntax and composed meanings. It is shown for all locative construction types that the particular morphosyntactic constructions are determined by the semantics of the lexical head. For all construction types it is demonstrated in detail how the meaning of the various ‘units’ or parts of speech of a construction (e.g. preposition, lexical head and modifier) semantically interact with each other and compose the meaning of the whole constructions. Apart from linguistic also extra-linguistic contextual factors play a role in the meaning derivation of a locative construction. A particular focus will be put on the extra-linguistic factor of scale of reference. It will be shown that the distinction between small-scale reference (= table-top space) and large-scale reference (= places), is crucial in order to interpret an utterance as expressing goal or direction.

Locative constructions are presented with respect to the formal classes of spatial lexemes which occur as lexical head of these noun phrase constructions. The three major classes of spatial lexemes are place names, body-part terms and local nouns. Location-denoting nominals (i.e. place names, body-part terms and local nouns) can be formally distinguished from other nominals denoting concrete, movable entities such as objects and persons. It is shown that speakers of Marquesan are obviously sensitive to a “what”- and “where”-category in their language, a universal claim made by Landau and Jackendoff (1993). The contrast between a “what”- and “where”-category in Marquesan is shown by describing how simple location is marked when referring to concrete entities vs. locations:

being at person x’s place or *looking towards object y*

(=objects and persons)

vs.

being at place x or *looking towards place y.* (=locations)

The analysis of body-part terms is probably the clearest example of how speakers of Marquesan distinguish between the domain OBJECT and the domain space. Another interesting borderline case are landmark expressions (e.g. river, mountain, island, ocean): they are an interesting ontological category because they hold an intermediate position between ‘being an

14 *Motivations for a study of space*

entity' and 'being a place' (Lyons 1977). Again the formal marking reveals whether landmarks are perceived and conceptualised as 'first-order entities' such as humans, animals and movable objects (Lyons 1977) or as places.

The sixth chapter analyses the meaning contributions of directional particles (*mai* 'hither', *atu* 'thither', *a'e/ake* 'upwards' and *ihō* 'downwards'), demonstratives and four other modifiers which are semantically similar to adverbs such as Engl. *again*. Directional particles and demonstratives are modifiers which add deictic information to the lexical head and their uses are in particular described with respect to the *demonstratio ad oculos*-situation (Bühler 1934) as these uses are crucial for an understanding of how Marquesans communicate in everyday situations. It is also discussed how the different modifiers can be combined with each other in order to express different scales of distance.

This chapter shows that the Marquesan locative construction type with local nouns is constructionally quite different from the comparable Indo-european locative construction type with local nouns such Engl. *in front of* and Fr. *à gauche de* because the Marquesan type allows modification, whereas the Indo-european type does not.

Chapter seven describes how the various locative constructions are used in large-scale and small-scale reference. It will be shown in which way the usage of various locative constructions corresponds to the psycholinguistic models of frames of spatial reference. Aspects of so-called topological relations such as CONTAINMENT and HANGING RELATIONS are also discussed. The data of three different age groups show that the Marquesan language is currently undergoing rapid linguistic change in the domain space.

Chapter eight summarises the results of the study.

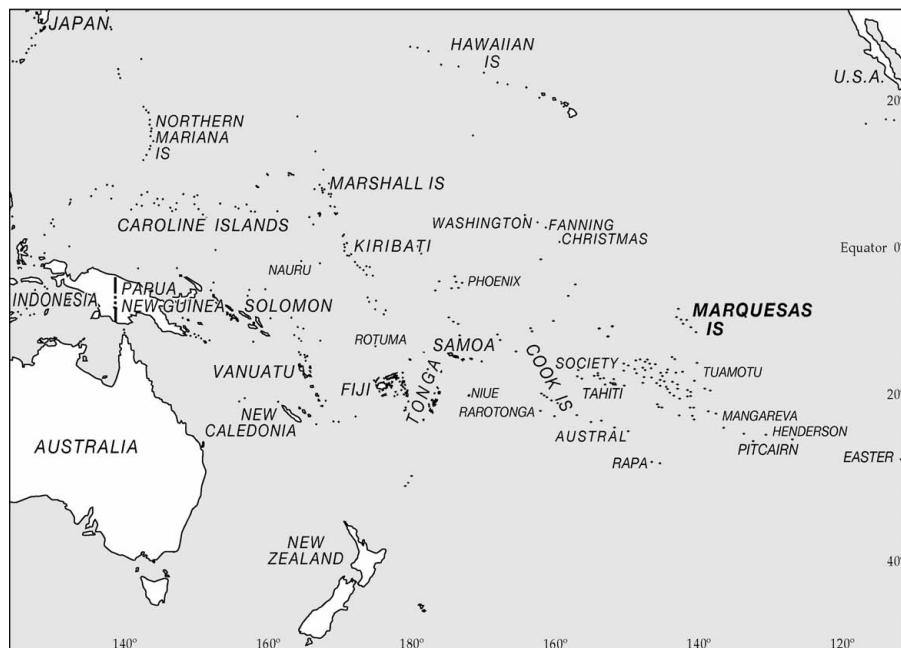
Chapter 2

Ethnographic and linguistic background and methodology

1. Geographical, historical and ethnographic background

1.1. Some geographical and historical notes

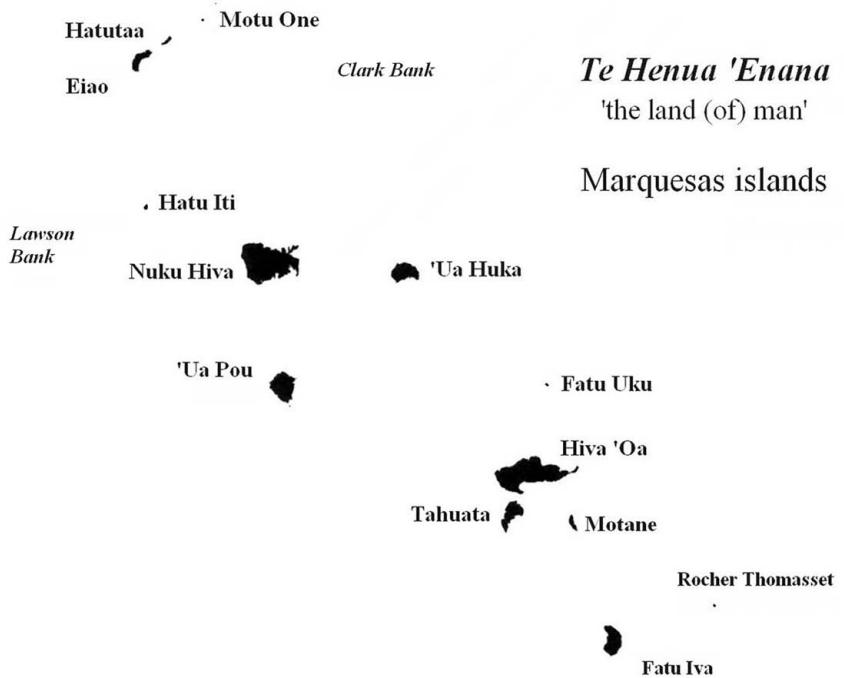
The Marquesas islands are situated in the Pacific ocean on the southern hemisphere between 7° 50' and 10° 35' longitude and 138° 25' and 140° 50' latitude west of Greenwich (GB) (Hughes and Fischer 1998: ix).



Map I: Polynesia and the Pacific region

16 Ethnographic and linguistic background and methodology

The Marquesas islands belong to one of the five archipelagos of French Polynesia. Tahiti which is the political, economical, educational and administrative capital of French Polynesia is situated at about 1400 km southwest of the Marquesan archipelago. Geographically, linguistically and, to some degree, also culturally two distinct groups are generally distinguished in the Marquesan archipelago: the northwest and the southeast Marquesas (Thomas 1990: 1).⁴ The Marquesan archipelago has twelve islands of which six are inhabited. In the northwestern part of the archipelago there are four uninhabited (Motu One, Hatutu, Eiao, Motu Iti) and three inhabited islands (Nuku Hiva, 'Ua Pou, 'Ua Huka); in the southeastern part there are two uninhabited (Fatu Uku, Mohotani/Motane) and three inhabited islands (Hiva 'Oa, Tahuata, Fatu Iva).



Map 2: Map of the Marquesan archipelago (modified from Cablitz [2005: 197])

In a 1996 census the INSEE⁶ counted 219 521 inhabitants for the whole of French Polynesia of which 8064 live on the Marquesas islands (Blanchard 1997: 74). It has been estimated that about 10 000 indigenous Marquesans have emmigrated to Tahiti or to France due to marriage, further education or in the search for salary labour. About five percent of the population

is not of Marquesan origin of which the majority are French ex-patriates (Mutu and Teikitutoua 2002: 1) or of Chinese origin.⁷ The French ex-patriates are either married to indigenous people or are staying and working there for a limited period of time.

Apart from Motu One and Hatutu, the Marquesas islands are of volcanic origin on which one typically finds black lava, basalt and red tufa. The landscape of the Marquesas is characterised by high volcanic mountains and rugged steep cliffs. Due to the cold Humboldt stream coming from the Antarctic there are no coral reef formations around the islands. The mountainous topography of the islands on which most valleys are deep and narrow and equally inaccessible by land as well as by sea are thought to have caused great isolation and a clanish and aggressive culture which have promoted warfare even between neighbouring valleys and tribes of one island (Handy 1923; Kellum-Ottino 1971; Hughes and Fischer 1998; also Thomas 1990, but with a modified view).

Although the first European contact by Alvaro de Mendaña y Castro was already made in 1595, it took almost another 200 years before European contact became more intense by the end of the eighteenth century (Thomas 1990: 1). The pre-European history of the Marquesan archipelago is still a matter of debate among experts: archaeologists have divergent theories about the first settlements of the indigenous population (see Hughes and Fischer 1998: 2). However, it is generally assumed that the indigenous population of the Marquesan archipelago belong to the Lapita cultural complex which originated from south-east Asia or western Melanesia (Thomas 1990: 6; Ottino 1997: 7). Some researchers believe that the first settlers of the Marquesas arrived 200 BC ± 150 from Tonga or Samoa and that the Marquesas was the dispersal center during the settlement of eastern Polynesia (Ottino 1997: 7). According to Thomas (1990) it is more likely that the Marquesas and the Society Islands were settled at about the same time and that both regions played a crucial role in the settlement of eastern Polynesia.

The contact between Marquesans and other eastern Polynesian populations was sporadic. Even the development of exchange and trade relations within the Marquesan archipelago was said to be very sparse, but intensive enough to create a relatively homogeneous culture (Thomas 1990: 9).

In the settlement period (150 BC to AD 100) the Marquesan population was small and dwelled by the coast or near stream mouths. In the expansion period (AD 1100–1400) the population increased dramatically and dwellings moved more and more towards the interior of the island, partly to be

18 *Ethnographic and linguistic background and methodology*

better protected from enemy attacks (Thomas 1990: 8). Today, most dwellings and villages are by the coast or have easy access to the sea.

1.2. Present-day linguistic situation from a historic perspective

Today the Marquesan speech community is bilingual with Marquesan and French being used, partly in different and partly in the same domains of everyday life. Contemporary Marquesan is quite evidently characterised by French-Marquesan code-switching and by having many loan words from French, Tahitian and English (see ch. 2, § 1.3).

In many areas of the Marquesas, in particular in the more urbanised ones, children do not acquire Marquesan as their first language any more. On Nuku Hiva (Taioha'e), Hiva 'Oa (Atuona) and 'Ua Pou (Hakahau)⁸ most children under age fifteen have acquired French as their first language and have little and sometimes no competence in Marquesan at all. In smaller valleys (Hatihe'u, Taipivai (Nuku Hiva) etc.) children under age ten are mostly addressed in French at home and have only passive knowledge of the indigenous language (Riley 1996: 62). The shift from Marquesan to French can also be observed more and more in the most isolate areas of the archipelago.⁹

The present linguistic situation on the Marquesas islands and the linguistic transformations of its language are complex and can only be explained by historical, cultural, religious and economic transformations since the first European contacts became more intense in the late eighteenth century. Historical events such as the arrival of Captain David Porter of the US Navy in 1813 who brought weapons and alcohol and the 1842 French annexation of the Marquesas islands had considerable and partly catastrophic effects upon Marquesan society (Thomas 1990: 2). When the French arrived in 1842 the traditional chiefs were replaced by French officials which essentially fractured the indigenous political system (Thomas 1990: 4). The demographic situation underwent a dramatic development in the first 100 years of intense European contact partly due to excessive alcohol consumption and epidemics brought in by European vessels¹⁰ (Bailleul 1996). The missionaries forbade distinct cultural practices such as tattooing, chanting and dancing and also the elaborated Marquesan system of *tapu* 'taboos'.

In the nineteenth century the French government was predominantly present in the political and administrative sectors. The educational sector was taken over by the French Catholic congregation of the Picpus Fathers

who started a mission at Tahuata in 1838 and gradually established missions at all other islands (Thomas 1990: 4). Conversion to the Christian religion took place over a protracted period of time. Only by 1900 a large number of Marquesans had converted to the Catholic religion (Thomas 1990: 4) and schools were only gradually established (Lamaison 1996: 168). Although the French colonial powers and the Catholic missionaries collaborated at first in the establishment of schools on the Marquesas, the education was merely in the hands of the Catholic missions which also financed great parts of the expenses for the schools (Lamaison 1996: 171). Education was strictly catholic and lessons were of course in French. The schools were very successful until the separation of state and church during the Third French Republic. As a consequence, all schools were closed in 1905 and no serious instruction took place until 1924 (Lamaison 1996; Le Cléac'h 1996: 167). Lamaison (1996: 171) gives detailed numbers of how many pupils visited the schools in which years, but it is not known how these numbers relate to all Marquesan children. However, we can assume that children from the most isolate areas of the Marquesas were not sent to school in the nineteenth century and that these areas were the least affected by the French language. Schooling in these areas remained difficult and it was only in 1965 that the last primary schools were established in the most isolate areas of the Marquesas (Le Cléac'h 1996: 167).

The influence on the Marquesan language in the nineteenth century is more marked through the contact with the English than the French language.¹² Due to regular sandalwood trade with vessels of mostly English and American origin, Marquesan has a number of English loan words denoting things which did not exist in pre-European time: e.g. Marq. *aisu* < Engl. *shoe*, Marq. *tauera* < Engl. *towel*; Marq. *haraoa/faraoa* ‘bread’ < Engl. *flour*; Marq. *hepe/isepe* < Engl. *ship*;¹³ Marq. *haanere* < Engl. *hundred*, N-MQA *peto* ‘dog’< Engl. *pet*.¹⁴

When France’s interest in French Polynesia as a nuclear testing ground increased tremendously after the Second World War, in particular in the 1960s, the French dominance was not only felt in the educational and administrative sectors, but also in the economical sector and in the domain of mass media. A media revolution of radio and TV took place in the (mid) 1980s (Marere 1988). TV broadcastings were first only in French and later also in Tahitian; 95% of today’s broadcastings are in French. No other indigenous language of French Polynesia has had the privilege to be broadcasted on TV so far. Tahitian has always been more privileged than other indigenous languages of French Polynesia. In 1978 it became the second

20 Ethnographic and linguistic background and methodology

official language of French Polynesia next to French. In 1974 a Tahitian Academy,¹⁵ *Fare Vana'a*, was founded in order to standardise and conserve the language. Projects for the making and publications of a dictionary,¹⁶ a grammar and school text books were strongly supported by the local government and the French Polynesian territory (Ward 1985; Riley 1996). Two hours of Tahitian per week became compulsory in any school of French Polynesia. In addition, Tahitian is an obligatory subject when doing the *baccalauréat* and it is also needed when employment in administration is sought, an employment which is desired by many young people.

For the local government in Pape'ete (Tahiti) these were of course measurements in order to protect the Polynesian cultural heritage. This *ma'ohi* movement had little interest in the preservation of other indigenous languages (and cultures) of French Polynesia regarding them as simple dialects of Tahitian for a long time (Riley 1996). Only in 1998 the local government recognized Marquesan for the first time as a distinct language and announced plans for the creation of a Marquesan academy.

The local government's measurements for the promotion of Tahitian¹⁷ was a reaction to the overwhelming influence of the French language, especially in normal and higher education and in the economical and professional sector. To have a good command of the French language is nowadays a basic requirement when seeking salary labour. Due to these economic pressures and professional requirements Tahitian parents gradually shifted from Tahitian to French as their home language. For the same reasons this tendency can be observed in many Marquesan households increasingly (see above).¹⁸

The Marquesans have shown some resistance against the Tahitian *ma'ohi* movement by creating the *Motu Haka* association in 1978, an association for the preservation of the Marquesan language and culture.¹⁹ Although the association was successful in restoring the right to teach Marquesan instead of Tahitian in all schools of the Marquesas, it had very little support from the local government to finance projects such as the ones undertaken in the Tahitian Academy. The only position financed by the local government, *Maître formateur en langue marquise* 'language trainer for Marquesan', was abolished in the beginning of the school year 1994/95 (Riley 1996: 61).

Even if the home language is still Marquesan, all Marquesan children from age three are exposed to a full immersion in French during school hours. From that age they have to attend the *classes préparatoires*, a sort of kindergarten in which French is spoken exclusively. All school classes

begin early in the morning (7.30 am) and finish late in the afternoon (3.30 pm). During school breaks it is forbidden to speak Marquesan and the school teachers always address the children in French, even after school hours.

In those areas where Marquesan is still used as a home language, schooling is only assured until age eight or nine. At that age children leave their home valley to go to the more urbanised areas of the Marquesas where they can continue their school education at the *collège* until about age 15. They stay in boarding schools where the main language of communication with the boarding school supervisors (outside school hours) is French. When young Marquesans want to do the *baccalauréat* they have to leave for Tahiti where the *lingua franca* is French. As a result of this Marquesan is less and less used in everyday situations and is gradually and increasingly replaced by French.

The establishment of French as a second language on the Marquesas was mainly protracted through the interruption of the schooling at the beginning of the twentieth century. The Marquesan speech community was only gradually becoming bilingual in nineteenth century, but it was not until the twentieth century, in particular after the Second World War and in the 1960s that French took over many domains of everyday life. External factors such as the French educational system, the media revolution and economic pressures have mainly contributed to this development.

1.3. Linguistic transmission, language attitudes and socialising practices

Linguistic transmission in the Marquesan speech community is complex due to the fact that it is a bilingual speech community and that an increasing shift from Marquesan to French can be observed. Reasons for language shifting and language attitudes of some speakers towards their indigenous language have already been mentioned above. Although economic pressures are one of the main reasons for this shift, other factors contribute to it as well. Especially socialising practices shed more light on the complex linguistic situation. In the following I will give a more detailed picture of why and when Marquesan children are exposed to what kind of linguistic input during the first language acquisition period.

Within the Marquesan speech community, children are exposed to Marquesan, French and often also to French-Marquesan code-switching (see ch. 2, § 1.4) which result in a complex linguistic input during the child's first

22 *Ethnographic and linguistic background and methodology*

language acquisition process.²⁰ Moreover, in everyday day life and outside school hours French and Marquesan are often not used in distinct contexts and situations,²¹ but both languages are used in all situations of daily life.

The attitude of the Marquesan speech community towards the French language is basically divided into two different camps. One camp quite consciously shifts from Marquesan to French because they believe that French as a world language opens the doors to the western and industrialised world (Tetahiotupa 2000: 79). Many of these are primary school teachers who have obtained or wish to obtain salary labour. Motivated by their own success, they encourage and prompt parents and caretakers to use French as a home language in order to assure success in school and in later life. These efforts are in particular made in those areas of the Marquesas where Marquesan is still used as a home language.²² In the endeavour to come up to contemporary requirements I could increasingly observe during my fieldwork between 1997 and 1999 that parents shifted from Marquesan to French as a home language even in the remotest and most isolate areas of the Marquesas. This shift can be clearly observed when caretakers address their youngest children (1+) in French whereas their older children (4+) are addressed in Marquesan, especially when there is a bigger age gap (two to three years) between the latter and the former. One of the problems concerning this shift to French as a home language is that parents often have a poor command of the French language. The increasing shift from Marquesan to French and the complex and diverse linguistic input causes insufficient linguistic transmission of any language spoken in the Marquesan speech community and it will inevitably lead to a kind of semi-lingualism as already described for the Tahitian speech community by Tetahiotupa (2000).

The other camp laments the increasing loss and change of their indigenous language and appeal publicly to reintroduce Marquesan as the language of instruction in schools. Ironically, when these Marquesans address these problems in public they often do it in French. And most ironically, these Marquesans educate their own children at home in French (Riley 1996: 65).

Riley (1996: 62) also mentions other more affective reasons why French is often preferred to Marquesan. At Tahiti Marquesans are often ashamed of speaking Marquesan because it is stigmatised by Tahitians as being the language of savages and anthropophagues.²³ On the Marquesas especially women use French as a sign of politeness, of being well-educated and of showing that they belong to the modern western world. Marquesan men do not display this behaviour. Their conversations are (most of the time) ex-

clusively in Marquesan and they engage less in code-switching. The same behaviour pattern can also be observed among youngesters and it seems very likely that Marquesan turns out to be a gender-oriented language.

The fact that male youngsters use more Marquesan than same-aged female youngsters is a reflection of how they are socialized and how they socialize. Many everyday activities in contemporary Marquesan society are gender-divided. Male youngsters spend a lot of time with their fathers and male caretakers: they do coprah, go fishing and hunting.²⁴ Female youngsters typically engage in household activities with their mothers or female caretakers. The gender-division of language choice (i.e. French or Marquesan) is not typical for all areas of the Marquesas. It can be well observed in those areas where the home language has shifted from Marquesan to French. However, this tendency can also be observed in those areas where Marquesan is still the basic home language and where women are talking most of the time Marquesan among each other. Conversations are occasionally in French²⁵ and the speech of Marquesan adults is characterised by some features of French-Marquesan code-switching. In the following I will report observations from two villages, Hakama'i'i and Ha'akuti on 'Ua Pou island, where I collected child language data.

In order to get a better insight into what kind of linguistic input children are exposed to, it is important to know with whom children socialize in their speech community. In the first years of their lives, i.e. until age 3, young children stay close to their caretakers (mostly of the female gender) and follow them around wherever they go. Until the age an infant starts to walk, it is rarely addressed by speech, but it is exposed to a diversified speech and multiple codes (i.e. Marquesan, French, Marquesan-French codeswitching).

Caretaking is typically divided amongst the female members of a household²⁶, i.e. either the mother herself, the grandmother or an older sister is taking care of the child. It is, in fact, a wide-spread phenomenon in Polynesian societies that mothers do not exclusively take care of their own children. If the children grow up with their parents, it is often the older sibling who takes care of them. These girls are often more fluent in French than their mothers and are inclined to speak French to their younger brothers or sisters, in particular when they want to get authority. In the following interaction between an 11-year-old girl and her 4-year-old cousin we can see how the 11-year-old girl tries to get authority over her younger cousin by switching from Marquesan to French. The 4-year-old girl is distracted by

24 Ethnographic and linguistic background and methodology

other children and does not pay attention to the older cousin's (=D) instructions:

(2.1)

D: *Ma tai uhhh eejj ejj regarde!*
 PREP sea INTJ INTJ INTJ look.csFr
 'Seaward uh eh ejj ejj *regarde!*'

A:²⁷ *'A'e at'i'i ana*
 be.not like CONT
 'It is not like that.'

D: *Merehina regarde ici!*
 M. look.csFr here.csFr
 'Merehina *regarde ici!*'

A: *'Inei='i!*
 here=EMPH
 'Here!'

D: *'A to'o~ Merehina! Merehina regarde ici! mai a'e!*
 IMP take M. M look.csFr here.csFr hitherask.favour
 'Take it!~ Merehina! Merehina *regarde ici!* come here please!'

The learning of social rules and cultural values often takes place in children's peer groups themselves when they engage in all sorts of different games and activities. The children's behaviour in peer groups often reflect and reproduce the cultural assumptions and communicative practices of their speech community such as demonstrating toughness through insulting, accusing, threatening or teasing their interlocutors (Riley 2001). In the context of my data collection of *space games* (see below, ch. 2, § 3.2.2.1) this behaviour can be often observed when children interpreted spatial expressions and descriptions incorrectly. And in particular when children fail to communicate they often switch from Marquesan to French.

Younger children also spend a lot of time with their grandparents who are sometimes monolingual speakers of Marquesan,²⁸ in particular in the remoter parts of the Marquesas. It occurs quite frequently that Marquesan children are adopted by their grandparents during the first years of their lives, i.e. until they have reached the age of entering school life. Sometimes children are even adopted before law by their grandparents and stay with

them until they leave home. If Marquesan children grow up with their grandparents, the home language is and remains Marquesan.²⁹ All these factors result in a complex and diversified sociolinguistic situation with varying degrees of linguistic competences and a resulting ‘semi-lingualism’ (see Tetahiotupa 2000: 78).³⁰

1.4. Code-switching in the Marquesan speech community

It has already been mentioned that speakers of Marquesan engage in code-switching. Code-switching in the Marquesan speech community is briefly illustrated here because it is a typical feature of everyday conversation and it frequently occurs in my space data.

Code-switching is a language contact phenomenon of bilingual communities in which “fluent bilinguals sometimes produce discourses which, in the same conversational turn or in consecutive turns, include morphemes from two or more of the varieties in their linguistic repertoire” (Myers-Scotton 1998a: 91). The following examples from my Marquesan data illustrate Myers-Scotton’s definition of code-switching:

- (2.2) ***Justement il faut pa'i koe e tekao même***
 precise.Adv 3.sg have.to IwTah.indeed 2.sg TAM say although
 o au ***inclus dedans na='u pa'i t=u='u***
 PRES 1.sg include inside TOP=1.sg IwTah.indeed POSS.Pr.1.sg
 mata e ***ti'ohi a'a.***
 eye,face TAM look.at Dem
 ‘*Justement il faut* indeed that you say, *même* it's me *inclus dedans* for me indeed my eyes are looking over there.’³¹ (FA-T/M-H-17: 91)

- (2.3) ***Là là mais ma mua o te piha***
 Dem Dem CONJ PREP front POSS ART cow
 e tumu 'akau ***ici ma mu'i ihoa là.*** (FA-T/M-H-17:61)
 TAM trunc wood here PREP behind indeed Dem
 ‘*Là là mais* in front of the cow is a tree *ici*, behind is indeed *là*.’

According to Myers-Scotton code-switching cannot be considered as a lack of proficiency in a language in which the conversation began and from which the speaker switches to another language or linguistic code (1998a: 91). There are profound motivations why a speaker might engage in code-switching. Often speakers want to manifest a certain kind of social iden-

26 Ethnographic and linguistic background and methodology

tity.³² On the other hand, bilinguals engage in code-switching because they feel a need to accommodate to their addressee(s):³³ switching between different linguistic codes therefore also facilitates communication in multilingual communities (Myers-Scotton 1993a; Finlayson, Calteux, and Myers-Scotton 1998). In order to engage in code-switching a speaker must be sufficiently bilingual, although he or she might speak one language better than the other.

Within the Marquesan speech community an utterance like (2.2–2.3) is negatively evaluated as *charabia*, a kind of double Dutch or gibberish which is immediately connected with the increasing loss of their linguistic heritage.³⁴

Code-switching can be more observed in those areas of the Marquesas where the shift from Marquesan to French as a home language has taken place or is currently taking place. Women generally engage more in code-switching than men do and children under age ten engage less in code-switching than adults do.

The main motivations for Marquesans to engage in code-switching are of a pragmatic nature. Speakers of Marquesan often switch to French when they want to emphasize something or when they want to clarify misunderstandings. Look at the following metalinguistic discussion of the meaning of the spatial terms *mua* ‘front, first’ and *mu'i* ‘behind’. The discussion arises from an interactive task of explaining spatial arrays.³⁵ A longer passage is cited here in order to illustrate in coherence how code-switching is produced in discourse:

(2.4)

D1: 'A'o'e 'a'o'e o te mua 'inei devant!
be.not be.not PRES ART front Dem.prox in front
'No, no the front is here *devant!*'

M1: 'Ai!
Intj
'Ai!'

D2: *Pehea t=o koe pe'au te='a si na koe expliquer*
how ART=POSS 2.sg say ART=Dem if TOP 2.sg explain
pehea t=o koe pe'au ia='u?
how ART=POSS 2.sg say DO=1.sg
'How do you say that; if you could *expliquer* what you said to me.'

M2: *I he kaokao te mua, ma ko o te tumu 'akau*
 LD ART side ART front PREP side POSS ART trunc wood
 ‘The front is at the side, at the side of the tree.’

D3: *E ho'i ma ko! i hea='ia te ma ko ma ko*
 TAM indeed PREP side LD where=Perf? ART PREP side PREP side
ma ko ma ko?
 PREP side PREP side
 ‘It is indeed at the side! Where is the side at the side at the side at the side?’

M3: *Ça dépend mehemea pe'au anake koe mehemea ma ko.*
 Dem depend as if say after.that 2.sg as if PREP side
 ‘*Ça dépend* as if you say after that that it is like *ma ko*.’

D4: *Pehea='ia t=o koe positionner?*
 how=Perf ART=POSS 2.sg positioning
 ‘How is your *positionner*?’

M4: *A='a pe'e=nei e pokō 'i mua pe'e='a, 'i mua.*
 Dem=Dem like=Dem.prox TAM head LD front like=Dem.dist LD front
 ‘There, there the head is like this in front, like that in front.’

D5: *Voilà tumu 'akau ma mu'i comme ça hein, 'a='a ma*
 Dem trunc wood PREP behind like Dem INTJ Dem=Dem PREP
mu'i te tumu 'akau 'i mua te piha.
 behind ART trunc wood LD front ART cow
 ‘*Voilà* the tree is behind *comme ça hein* there the tree is behind, the cow is in front.’

M5: *Ai c='est difficile parce que aussi bien ici, hein, là là*
 INTJ Dem=be difficult because also Adv here INTJ Dem Dem
mais ma mua o te piha e tumu 'akau ici ma
 but PREP front POSS ART cow TAM trunc wood here PREP
mu'i ihoa là.
 behind indeed Dem
 ‘*Ai, c'est difficile parce que aussi bien ici, hein, là là mais* in front of the cow is a tree *ici* behind is indeed *là*.’

D6: *Non, je ne vois pas comme ça.*
 no 1.sg Neg see Neg like Dem
 ‘*Non, je ne vois pas comme ça.*’

28 *Ethnographic and linguistic background and methodology*

M6: *Si*

oh yes

‘*Si!*’

D7: *Pe'au au ma te kaokao o te tumu 'akau*
 say 1.sg PREP ART side,flack POSS ART trunc wood
 ‘I said at the side of the tree.’

M7: *Ma te kaokao o te tumu 'akau?*
 PREP ART side POSS ART trunc wood
 ‘At the side of the tree?’

D8: *Pe'au au a'a ia='u?*
 say 1.sg Dem DO=1.sg
 ‘Am I talking there to myself?’

M8: ***Eh bien ici 'a!***
 INTJ Adv here Dem
 ‘*Eh bien ici* there!’

D9: *'A 'a 'a ia='u o=ia nei mua 'a, 'i*
 Dem Dem Dem OBJ=1.sg PRES=Dem Dem.prox front EMPH LD
mua, 'i mu'i.³⁶
 front LD behind
 ‘There, there there! Front is here! in front, behind!’

The preceding dialogue clearly illustrates that the speakers do not only switch between languages by uttering one sentence in one language and the following sentence in another language (=intersentential), but they also switch languages within a sentence constituent (noun phrase, verb phrase etc.). This is called intrasentential code-switching. When analysing bilingual (or code-switched) constituents there is evidence that there is a dominant language (Myers-Scotton 1993b). This dominant language is called Matrix Language (=ML). The ML supplies the grammatical frame of the constituent, i.e. the ML marks the grammatical relations with so-called system morphemes. The other, less dominant language often provides the lexical structure, the so-called content morphemes which are embedded into the system morphemes (=Embedded Language [=EL]) (Myers-Scotton 1993b). The basic difference between content morphemes and system morphemes are that the former assign or receive thematic role whereas the latter do not (Myers-Scotton 1998b: 293). Content morphemes are typically

nouns, verbs and adjectives; system morphemes are typically inflectional affixes, determiners and adpositions. According to Myers-Scotton (1998b: 292) there is always an ML in bilingual constituents. In two constituents of the following example the content morphemes are provided by French, the EL, whereas Marquesan, the ML, supplies the system morphemes (e.g. determiner in a noun phrase, nominalisation suffix):

- (2.5) *Te tête o te='a horave ti'ohi koe 'i te positionner='ia o te='a horave....*
 ART head POSS ART=Dem horse look.at 2.sg LD ART
 position=NOM POSS ART=Dem horse
 ‘The *tête* of that horse, (if) you look at the *positionner* of the that horse...’ (FA-T/M-H-17: 129)

One of the most typical occurrences of code-switching are when the heads of verb phrases are replaced by French verbs which are mostly produced in the infinitival form:

- (2.6) *'A'e 'a'e ha'atti'a na koe e corriger t=a='u tekao.* (FA-T/M-H-17: 142)
 be.not be.not accept for 2.sg TAM correct
 ART=POSS=1.sg speech,talk
 ‘(I) don’t accept that you *corriger* my speech.’
- (2.7) *'A tamata a'e koe tamata a'e koe reconstituer, mehemea o koe e kite ana.* (FA-T/M-H-17: 99)
 IMP try INT 2.sg try INT 2.sg reconstruct as if
 PRES 2.sg TAM know CONT
 ‘Please try (it) yourself, please try yourself to *reconstituer*; as if you always know (better).’

There are a number of utterances where the conjunctions ([2.8] and [2.9]) and discourse particles ([2.10] and [2.11]) come from EL-French:

- (2.8) *Ma mu'i ou ma te tua?* (FA-T/M-H-17: 24)
 PREP behind CONJ.or PREP ART back
 ‘Behind *ou* at the back?’
- (2.9) *'A'e he papua parce que 'a'e he papua, aua koe*
 be.not ART enclosure CONJ.because be.not ART enclosure PROHIB 2.sg

- e *haka=tivava pu.* (FA-T/M-H-17: 104-105)
 TAM CAUS=lie only
 ‘There is no fence *parce que* there is no fence, don’t only make it up
 (that there is a fence).’

- (2.10) *Voilà o ia 'a'e ia e hakako mai ia taua*
 Dem PRES Dem be.not 3.sg TAM teach DIR DO 1.dl.inc
no taua e haka=kite e. (FA-T/M-H-17: 205–206)
 TOP 1.dl.incl TAM CAUS=see EMPH
 ‘*Voilà* that’s it, it is not her who is going to teach us; it is us two
 who have to show (her).’
- (2.11) *Ei ei en plus ena te='a mea te='a ha'ina*
 INTJ INTJ in.addition exist ART=Dem thing ART=Dem object
e ti'ohi ana t=o taua titotohe='ia paotu.
 TAM watch CONT ART=POSS 1.dl.incl quarrel=NOM all
 ‘Ei ei, *en plus* there is that thing that object³⁷ which is watching all
 our quarrelling.’ (FA-T/M-H-17: 248)

According to Myers-Scotton (1998b: 293) discourse particles and conjunctions are comparable with prototypical content morphemes such as verbs, nouns or adjectives because they can assign thematic roles or are heads of sentence constituents (e.g. verb phrases, noun phrases, complement phrases).

Code-switching mostly occurs within a sentence constituent, although there can be EL-islands. EL-islands are constituents in which all the grammatical morphemes (or system morphemes) come from the EL and are well-formed from the point of view of the respective EL grammar (Myers-Scotton 1998b: 297). The language of EL-islands is classified as EL because in bilingual constituents the same language typically provides the content morphemes. The following example illustrates two French EL-islands in French-Marquesan code-switching discourse:

- (2.12) *Mea justement e Titi! 'A'e pa'i e tahakahaka*
 STV-P exactly VOC T. be.not IwTah.indeed TAM clarify
t=a koe pe'au. Si au moins tu disais me
 ART=POSS 2.sg say if PREP+ART least 2.sg say with
te=na tau po'i a koe e tapapa ana 'i mua 'i
 ART=Dem PL people POSS 2.sg TAM arrange CONT LD front LD
mua te hoa ma hope te hoa un aligné!
 front ART one PREP behind ART other ART alignment

'Justement Titi! You did not clarify your speech. *Si au moins tu disais* about your objects that you were aligning them, one in front, the other behind, *un aligné!*' (FA-T/M-H-17: 147–149)

Code-switching of Marquesan children in Hakama'i'i and Ha'akuti is characterised by using discourse particles like *ben* 'well', *hein*, French colour terms and other nominal attributes:

- (2.13) *Te='a mea jaune vai ma mua o te='a papua.*
ART=Dem thing yellow leave PREP front POSS Art=Dem fence
'That *jaune* thing, leave (it) in front of that fence.' (FA-H- [7;10])³⁸
- (2.14) *To'o te tumu 'akau tuku 'i'a ma tai o te='a*
take ART trunc wood put there PREP sea POSS ART=Dem
te='a mea rond. (FA-T- [8;6])
ART=Dem thing round
'Take the tree there seaward of that that *rond* thing.'

Other French content morphemes are typically nouns and verbs:

- (2.15) *To'o koe te sabin tuku ma te kaokao.*
take 2.sg ART fir put PREP ART side
'You take the *sabin* put (it) at the side.' (FA-P- [7;2])
- (2.16) *'A'e 'ina! 'Io te='a point ma uta o*
be.not there.add PREP ART=Dem point PREP inland POSS
te='a arbre ka=ko atu 'i'a. (FA-V- [8;10])
ART=Dem tree towards=side,across DIR there
'It's not there! At that *point* inland of that *arbre* put it further across over there.'

Children do not use French verbs as frequently as adults do. If they do, the verbs forms are often finite (see [2.17–19]). There are no occurrences in my data where adults use French finite verb forms in code-switching. Look at some examples from the child data:

- (2.17) *'A'e o koe pere'o'o! Ej tiens~ tuku 'i vaveka~ 'ina.*
be.not POSS 2.sg IwTah.car INTJ hold put LD middle there.add
'You haven't got a car! ej *tiens~* put (it) in the middle~ there.'
(FA-M- [9;10])

32 *Ethnographic and linguistic background and methodology*

- (2.18) **Prends** koe te mea~ puaka, puaka 'a'e he titi.
 take 2.sg ART thing pig pig be.not ART breast
 'You *prends* the ehh³⁹ pig which has no breasts.' (FA-R- [13;1])
- (2.19) 'A'e koe **comprends?**⁴⁰ (O- (7;10))
 be.not 2.sg understand
 'Don't you *comprends*?'

There is an interesting usage of Fr. *tout droit* 'straight ahead': in (2.20) it is transitivised with the Marquesan causative prefix *haka-* 'make'. Further it is interesting that the French form is used because Fr. *tout droit* exists as a loan word from French, *tutoro*, which is phonologically integrated into the Marquesan language. It is a lexeme which is, according to adult speakers of Marquesan, a linguistic innovation by children. Note that the integrated loan word *tutoro* is used in the same utterance:

- (2.20) ... ko atu **haka='ua** ko atu 'ina 'ina 'ina
 across DIR CAUS=two across DIR there.add there.add there.add
 a **haka=toutdroit** te='a piha **tutoro** 'ina.
 INTJ CAUS=all.straight ART=Dem cow all.straight there.add
 '...further across again, further across there there there ahhh! Turn
 that cow *toutdroit*, straight there!' (FA-R- [13;1])

There are very few EL-islands in Marquesan child discourse. Here are some of the few examples:

- (2.21) Ma mu'i! ma mu'i ma mu'i ma ko te='a
 PREP behind PREP behind PREP behind PREP across ART=Dem
 mea **l'=arbre** ma mu'i o te='a puaka!
 thing ART=tree PREP behind POSS ART=Dem pig
 'Behind! behind behind, that thing *l'arbre* is acrossward behind
 that pig!' (FA-Va- [6;4])
- (2.22) Te upoko 'i tai hu'i te upoko 'i tai~ 'a'e 'ina~
 ART head LD sea turn ART head LD sea be.not there.add
 te upoko 'i tai **comme ça.** (FA-M- [9;10])
 ART head LD sea like that
 'The head is seawards, turn the head seawards~ it is not there~ the
 head is seawards *comme ça.*'

- (2.23) 'A *to'o~ Merehina!* *Merehina regarde ici mai a'e.*
 IMP take M. M. look.at here come INT
 'Take (it)~ Merehina! Merehina *regarde ici* come here please.'
 (FA-M- (9;10))

There are also cases of a mixed ML, i.e. that the system morphemes are provided by Marquesan as well as French. The locative phrase in (2.24) is constructed with system morphemes from Marquesan (the location marking preposition '*i*') and French (the location marking preposition *à* and the definite masculine article *le*: *à + le* → Fr. *au*) and the content morpheme *milieu* 'middle' from French:

- (2.24) *To'o te='a mea vert te='a mea jaune ...*
 take ART=Dem thing green ART=Dem thing yellow
tuku 'i au milieu au milieu.
 put LD PREP+ART middle PREP+ART middle
 'Take that *vert* thing that *jaune* thing... put (it) at *au milieu au milieu.*' (FA-Hi- [9;6])

The code-switched locative phrase '*i au milieu*' is often produced in Marquesan child discourse. Mixed MLs in code-switched constituents are the first signs of an ML turnover (i.e. the EL becomes the ML) which can lead to language shift and eventually language death (Myers-Scotton 1998b: 301).

1.5. Child-directed speech

In the first year of life an infant is most of the time carried around by all members of a household. Until a Marquesan child learns to walk it is rarely addressed or spoken to. Although Marquesans like to play around with infants, caretakers engage very little in verbal play or interaction with the infant. Only when an child becomes more mobile, caretakers have a greater need to address the child because it is exposed to more dangers.

In Riley's research on language socialisation in the Marquesas she observed that caretakers often use a kind of babytalk register such as e.g. *kok-onana* 'piggyback', *vivi* 'hurt', *kokoi*⁴¹ 'horse', *titi* 'baby-bottle, breast' (Riley 1996: 12). Further, one can often observe⁴² that caretakers and older siblings accommodate their speech to that of younger children by simplifying the morphosyntactic structure of sentence constituents (e.g. omission of

34 *Ethnographic and linguistic background and methodology*

articles and prepositions, no TAM-particles, usage of less complex locative noun phrases) and by using shorter sentences and the lexical inventory of toddlers and pre-school children. There is also a tendency of frequently repeating utterances and constituents. The following example drawn from an interactive game with farm animal toys (e.g. trees, cows, pigs) between a mother (=M) and her three-year-old daughter⁴³ (=C) illustrate the above mentioned accommodations. Accommodation here means that the mother produces simplified utterances in order to accommodate to the young child's speech and to facilitate comprehension of the toddler. The mother gives instructions to place a tree; the child does not verbally react to the mother's instructions. The girl's reactions are commented in parenthesis:

(2.25)

- (M) *To'o te mea~ te tumu 'akau 'eita, 'a'o'e 'eita~ sapin to'o
 take ART thing ART trunc wood grass be.not grass csFr.fir take
 to'o sapin! to'o!
 take csFr.fir take
 'Take the thing~ the tree. grass, is not grass~ sapin take~ take sapin!
 take!'
 [mother insists because child does not take the tree]*

*Sapin! i sea sapin?
 csFr.fir LD where csFr.fir
 'Sapin! Where is sapin?'
 [child selects a tree out of toys]*

*Hm! tuku i tai! Tahia, tuku 'ina, 'ina, vaveka
 INTJ put LD sea T. put there.add there.add middle
 vaveka.
 middle
 'Hm! Put sewards! Tahia, put there, there middle, middle.'
 [child puts it far aside]*

*Vaveka! i'a! vaveka!
 middle there middle
 'Middle! there! middle!'*

- (C) *E aha? [child does not seem to understand the mother's instructions]
 TAM what
 'What?'*

(M) *Vaveka!*

middle

‘Middle!'

[mother points slightly to the place in middle]

Vaveka tuku vaveka, na'e~ 'a'e o=ia ana~ sapin!
 middle put middle after be.not PRES=Dem CONT csFr.fir
 ‘Middle, put middle, after that~ that’s not the one~ *sapin!*’
 [child takes another object in the meantime].

tuku vaveka.

put middle

‘Put middle.’

Further, in (2.25) the mother tries to accommodate to the lexical knowledge of her three-year-old daughter by using the French lexemes for tree (=sapin) or more simplified expressions ('eita ‘grass’) instead of the more complex Marquesan compound *tumu 'akau* ‘tree’ (lit. ‘trunc wood’). Quite striking is also the constant omission of articles and/or prepositions of noun phrases in subject and object position and the omission of prepositions with locative phrases. It is very likely that we are dealing with an accommodation strategy because two French content morphemes are produced (which is unusual for code-switching utterances).

In other interactions it can be further observed that older children and adults accommodate their lexical production to the knowledge of toddlers and younger children by using e.g. *pepe* ‘baby’ for *'enana* ‘man’ or *papua* ‘garden’ for *tumu 'akau* ‘tree’⁴⁴ etc.. Note that the mother in (2.26) is referring with *pepe* to a toy man:

(2.26) 'A to'o pepe~ [child does not react], 'a to'o pepe!
 TAM take baby TAM take baby
 ‘Take baby’ ‘Take baby!’

In data of interactive space games with younger children older children quite often produced the less complex locative noun phrases instead of the adult-like complex noun phrases with possessive constructions. In (2.27) we can actually see how the older child changes from the more complex locative noun phrase (*ma uta o te'a arbre* ‘inland of that *arbre*’) by producing the less complex noun phrase *'i uta*⁴⁵ ‘inland’:

36 Ethnographic and linguistic background and methodology

- (2.27) *To'o te 'enana tuku ma uta o te='a arbre*
 take ART man put PREP inland POSS ART=Dem tree
ma uta o te='a arbre~ ma uta! 'i uta 'i uta!
 PREP inland POSS ART=Dem tree PREP inland LD inland LD inland
 ‘Take the man put (it) inland of that *arbre* inland of that *arbre*~
 inland! inland inland!’ (FA-V- [9;0])

In another mother-child-interaction a 4-year-old child still had difficulties in comprehending the local landmark expressions ‘seaward’, ‘inland’ and ‘across’ (used in the absolute frame of spatial reference⁴⁶). Instead of using these spatial expressions the mother used *ad hoc* landmarks of the room in which the interaction took place such as the video camera (being always in the center of attention), herself or body-parts of the child (e.g. *'io Mama* ‘towards Mama’, *'io to koe vaevae* ‘at/towards your foot’) etc..

Child-directed speech of adults differs from that of older children to young children. Often adults address a young child in the same way as they would address an adult. Only if they realise that younger children do not comprehend their speech, they change their communication strategy. They slow down their speech and use more simplified utterances. Often verb phrases are not modified by TAM-particles at all and clauses have no subject noun phrases.

The speech of young children is rarely corrected by adults. By age three a child is thought to understand a great deal of the home language. Incomprehension of younger children (3+) is often thought to be disobedience, especially by older siblings.

Unlike many Western language communities, Marquesans do not have a ‘what’s-this’-routine of teaching children labels for things (Riley 1996: 17). A ‘possession questioning’ (*na ai* ‘for whom’)-routine is more typical for adult interaction with toddlers: adults often question children who the possessor of things is because possession is of social importance.⁴⁷ Of further social importance and of frequent address is the *o ai* ‘who’-routine. Marquesan children have to learn very early about the important persons of their social universe (Riley 1996). Sometimes a Marquesan child’s social

relations can be very complex because a number of children do not grow up with their biological parents. Although they are often adopted within the family (e.g. by the grandparents, a sister/brother, an aunt/oncle), a common feature of many Polynesian societies, the biological parents have an important status as the life-giving force of the child. One way of showing proper

respect to the biological parents is to know their names and parental ties (i.e. who they are). In addition to that, a child also has to know the social and parental ties with their adoptive parents. Identifying a person by building up that person's parental and social ties is a very typical feature in conversations among Marquesan adults (Riley 1996).

There are also a number of other language routines for the purpose of socialising the Marquesan children into their contemporary culture. The most prominent of these routines are insulting and teasing the children (the concept of *hakame'e* 'make fun, mock') and talking in a rough commanding tone to them in order to toughen and prepare them for adult life. There is one obvious reason for this behaviour: showing weakness is disdained in Marquesan society (Riley 2001).

There is one more language routine which has to be briefly mentioned here. It is a prompting routine in which the child is explicitly prompted to say certain phrases. These phrases are prompted with the verb of saying, e.g. 'say to Teiki: get the milk!'. The child is then expected to repeat the target phrase 'get the milk' to Teiki. According to Riley these prompting routines⁴⁸ are explicit language teaching strategies of caretakers in order to teach children 'proper' phrases.⁴⁹

2. The Marquesan languages

The Marquesan languages, Northwest Marquesan (=N-MQA) and South-east Marquesan (=S-MQA) (see Green 1966: 16), belong to the Eastern Oceanic branch of the Austronesian language family (Pawley 1966; Green 1966; Marck 1996; Ross, Pawley, and Osmond 1998: 6). Within the Eastern Oceanic branch, N-MQA and S-MQA belong to the Proto-Central-Eastern (=PCE) subgroup of Proto-Eastern Polynesian which itself is a subgroup of Proto-Central Pacific (Pawley 1966; Green 1966; Marck 1996). The languages most closely related to N-MQA and S-MQA are Hawaiian and Mangarevan which form the Proto Marquesic subgroup within Proto-Central Eastern Polynesian and which are distinct from Proto-Tahitic (Tahitian, Tuamotuan, Cook Island Maori (also: Rarotongan) and New Zealand Maori) within the same subgroup (Green 1966: 9).

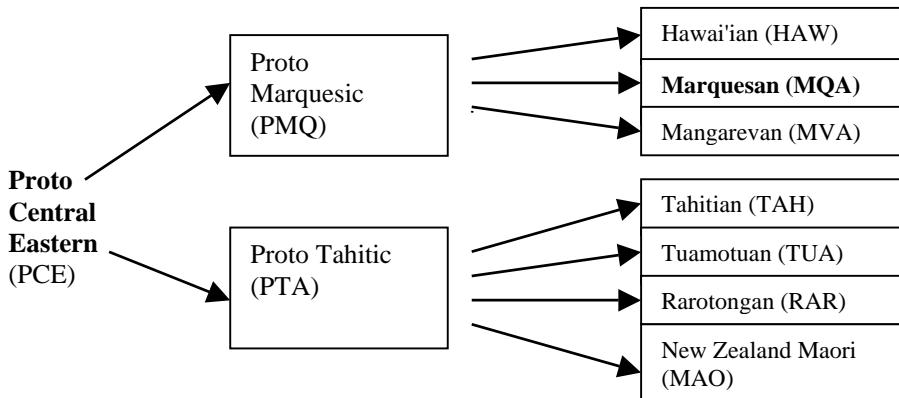


Figure 1. Subgrouping within Proto Central Eastern (PCE) (after Pawley 1966; Green 1966; March 1996)

Both Marquesan languages have evolved from Proto-Central Eastern (PCE) from which they are distinguished by shared phonological innovations which came about in tenth century A.D. (Hughes and Fischer 1998: xiv). PEP (=Proto-East Polynesian) *r was replaced by a glottal stop⁵⁰ (e.g. PEP *raro 'down, below' > N-MQA, S-MQA 'a'o); PEP *a before stressed *o or *u was replaced in N-MQA and S-MQA by /o/ (e.g. PEP *tahua 'public place' > N-MQA, S-MQA *tohua*; Hughes and Fischer 1998: xiii). These phonological innovations in the two Marquesan languages distinguish them as being an autonomous subgroup within Proto-Central Eastern and also as being distinct from Proto-Tahitic. One of the most characteristic distinctions between modern Tahitian and the Marquesan languages is e.g. the preservation of PEP *r in Tahitian (e.g. Tah. *rima* 'five, hand' (MQA 'ima); Tah. *rua* 'two' (MQA 'ua) (see Lemaître 1995).⁵¹

According to Green (1966: 16) the two distinctive languages spoken on the Marquesan archipelago, namely N-MQA and S-MQA, were initially mutually unintelligible.⁵² Green's distinction is geographically determined: N-MQA is spoken on Nuku Hiva, 'Ua Pou and Ua Huka and S-MQA on Hiva 'Oa, Fatu Iva and Tahuata.

The vernacular of 'Ua Pou island (=N-MQA) has some lexical and phonological characteristics and is therefore not only distinguished from S-MQA, but also from the other two vernaculars of N-MQA (see Mutu and Teikitutoua 2002; Clark 1999).

A number of phonological innovations distinguish N-MQA from S-MQA in several cognates of PCE. Some of the most characteristic differ-

ences⁵⁴ between N-MQA and S-MQA are the following phonological innovations:

1. Much like modern Tahitian, S-MQA retained PCE *f whereas N-MQA replaced PCE *f with /h/ (Hughes and Fischer 1998: xvii):

N-MQA	S-MQA	PCE
<i>haka</i>	<i>fana</i>	* <i>fanga</i> ‘bay’
<i>ha'e</i>	<i>fa'e</i>	* <i>fare</i> ‘house’
<i>henua</i>	<i>fenua</i> ‘land’	
<i>hakai</i>	<i>fanai</i> ‘feed’	

This f/h-distinction between N-MQA and S-MQA is also reflected in loan words⁵⁵ from French and English:

N-MQA	S-MQA
<i>hitoro</i>	<i>fitoro</i> < 1wFr. <i>citron</i> ‘lemon’
<i>haraoa</i>	<i>faraoa</i> < 1wEng. <i>flour</i>
<i>piha</i>	<i>pifa</i> < 1wEng. beef

2. N-MQA retained PCE *k whereas S-MQA replaced it by a glottal stop (see Le Cléac'h 1997; Dordillon 1931):

N-MQA	S-MQA
<i>makimaki</i>	<i>ma'ima'i</i> ‘want, desire’
<i>to'iki</i>	<i>to'i'i</i> ‘child’
<i>maki</i>	<i>ma'i</i> ‘wound, injury’
<i>upoko</i>	<i>upo'o</i> ‘head’

Due to interisland communication over centuries a number of lexemes which retained PCE *k were introduced in S-MQA, and vice versa, a lot of lexemes with the replacement of PCE *k to a glottal stop are used in N-MQA: (Hughes and Fischer [1998: xvii]; Dordillon 1931):

N-MQA	S-MQA
<i>kai</i>	<i>kai</i> (earlier S-MQA ' <i>ai</i> ' ⁵⁶ ‘eat’)
<i>'o'e</i> (earlier N-MQA <i>koke</i> ⁵⁷)	<i>'o'e</i> ‘fruit of a young coconut’

In a number of cognates, the vernacular of 'Ua Pou has retained PCE **k* whereas other vernaculars of N-MQA are following S-MQA by replacing historic **k* with a glottal stop:

'Ua Pou	Nuku Hiva	Ua Huka
<i>koe</i>	'oe	'oe 'you (2.sg)'
<i>kotou</i>	'otou	'otou 'you (2.pl)'
<i>kite</i>	'ite	'ite 'see'
<i>kafaro</i>	'afaro	'afaro 'straight'
<i>haka-</i>	ha'a-	ha'a- 'make' ⁵⁸

The influence from N-MQA to S-MQA and vice versa can be observed for different phonological innovations. Many lexemes from S-MQA are introduced into N-MQA and vice versa.⁵⁹

Mutual loans from one Marquesan language to the other have created many allolexemes, i.e. doublets and triplets in the Marquesan languages (see Elbert 1982). Many of these doublets and triplets are often used by one and the same speaker, thus the usage of these allolexemes is neither based on regional demarcation nor can one observe any complementary distributional rules.

- ko'aka* – 'o'aka 'find'
- anake* – ana'e 'then, after that'
- kama'i'i* – kamariri 'cold'
- maha'e* – ma'a'e – *tuha'e* 'forget'
- horave* – *hovare* – *isovare* 'horse' (< IwEng. *horse*)
- hepe* – *ihepe* – *isepe* 'ship' (< IwEng. *ship*)
- pino* – *piro* – *pi'o* 'bad smelling' (Elbert 1982: 513)
- pu'u'u* – *pururu* – *punu* 'hammer' (Elbert 1982: 513)

3. S-MQA retains PCE **t* whereas N-MQA has assimilated PCE **t* to /n/ in a phonological environment where the following or preceding syllable has an /n/ or /k/ (Hughes and Fischer 1998: xviii):

N-MQA	S-MQA
<i>anunu</i> ⁶⁰	<i>anatu</i> 'always, continually'
<i>'enana</i>	<i>'enata</i> 'man, human being'
<i>nino</i>	<i>tino</i> 'body'

4. PEP velar nasal ***h** developed in N-MQA to /k/ and in S-MQA to /n/ (Hughes and Fischer 1998: xvi):

N-MQA	S-MQA	PEP
<i>moko</i> (<i>mo'o</i>)	<i>mono</i>	* <i>maho</i> ‘shark’
<i>ikoa</i>	<i>inoa</i>	* <i>ihoa</i> ‘name’
<i>kakahu</i>	<i>nenahu</i> ‘bite’ (Dordillon 1931)	

N-MQA speakers of the Taipivai Valley on Nuku Hiva have retained PEP **h* until recently. In 1995 there were still two speakers of Taipivai left who pronounced N-MQA lexemes with /k/(<PEP **h*) as a velar nasal (see also Handy 1930: 8 who spells the Taipi cognates <ngk>):

N-MQA	Taipi ⁶¹	S-MQA	PEP
<i>tako</i>	<i>tango</i>	<i>tano</i>	* <i>taho</i> ‘dark’
<i>kakahu</i>	<i>ngangahu</i>	<i>nenahu</i>	* <i>ngau</i> ‘bite’ ⁶²
<i>'okohu'u</i>	<i>ongofulu</i>	<i>'onohu'u</i>	* <i>sangafulu</i> ‘ten’ ⁶³

5. PCE **a* is retained in N-MQA, but is realised as /e/ in S-MQA (Hughes and Fischer 1998: xvii–xviii; examples taken from Le Cléac'h 1997; Dordillon 1931):

N-MQA	S-MQA
<i>anaiho</i>	<i>aneiho</i> ‘only’
<i>kakahu</i>	<i>nenahu</i> ‘bite’
<i>mama'o</i>	<i>mema'o</i> ‘distant’
<i>mamae</i>	<i>memae</i> ‘painful’

The differences between N-MQA and S-MQA are not based on a syntactic level, but primarily on a phonological, and partly on a lexical and morphological level (Green 1966; Hughes and Fischer 1998). On the lexical level each island vernacular has distinct lexical items, though some lexical items are typically classified as either being N-MQA or S-MQA:

N-MQA	S-MQA
<i>peto</i>	<i>nuhe</i> ‘dog’
<i>me'ama</i>	<i>mahina</i> ‘moon, month’
<i>tivava</i>	<i>tikoe</i> ‘lie, wrong’
<i>hohonu</i>	<i>tiketike</i> ‘deep’

Most of the lexical distinctions are not between N-MQA and S-MQA, but between the vernaculars of different islands. The vernaculars of 'Ua Pou and Nuku Hiva which are generally classified as belonging to N-MQA (Dordillon 1931; Green 1966; Zewen 1987; Le Cléac'h 1997), show a number differences in the lexicon:

Nuku Hiva	'Ua Pou
<i>tava'i'e</i>	<i>ma'ita</i> 'white'
<i>paepae</i>	<i>upe</i> 'stone platform of traditional houses'
<i>'apai</i>	<i>ko</i> 'left or right side of valley'

Some island vernaculars have lexemes of which no semantic counterparts in other island vernaculars of the archipelago exist (see Le Cléac'h 1997).

'Ua Pou (N-MQA)

harara 'beautiful, stunning', *ti'e* 'big furoncle, rage', *momoke* 'become savage', *naha* 'hollow', *mititai* 'desire to eat a fish with *popoi* (=fermented breadfruit)', *panie'e* 'rub oneself with coconut oil', *horope* 'more than true', *ko'e'o/korero* 'detach, fall apart', *kaoheohe* 'slender, slight'

Nuku Hiva and Ua Huka (N-MQA)

matakaka 'big eyes caused by anger', *pa'ate'a* 'emmigrant', *teva* 'split (itr.)'

Hiva 'Oa, Fatu Iva and Tahuata (S-MQA)

pa'eo 'spear made out of iron wood', *pavai* 'dike', *pinini* 'of lesser importance', *mahinatea* 'very white', *kiki* 'eatable plant'

On some islands the same cognates have distinct meanings:

	Nuku Hiva	'Ua Pou	Hiva 'Oa
<i>koutu/outu</i>	'reef, rocks'	'black crab' ⁶⁴	'reef, rocks'
<i>ko'ehi</i>	'coconut milk'	'coconut milk'	'fresh breadfruit paste with coconut milk'
<i>hohonu</i>	'deep, profound'	'deep, profound'	'high, dignified'
<i>mou'i</i>	'doubt, fear'	'doubt, fear'	'joy, delight'

The last three examples are the favorite examples of my consultants when discussing differences between N-MQA and S-MQA. These examples are interesting because they have opposing meanings in both Marquesan languages. In folk etymological beliefs of Marquesans these differences are due to a desire of northern (Nuku Hiva, 'Ua Pou and Ua Huka) and southern Marquesans (Hiva 'Oa, Fatu Iva and Tahuata) to distinguish each other culturally and linguistically so that they 'deliberately' changed the meanings of lexemes to denote the opposite. However, differences in meaning of the same cognate can be explained by (normal) semantic change as e.g. in the case of *hohonu* 'deep, profound' (N-MQA) and 'high' (S-MQA) both meanings are semantically related and the difference in meaning is a matter of (spatial) perspective of the language user. As for *koutu* 'reef, rocks' (Nuku Hiva) and 'black crab' ('Ua Pou) both denotata are semantically related due to the fact that these black crabs dwell on reefs and rocks on the Marquesas. Altogether there are a number of differences in the lexical domain, but they cannot be geographically determined as phonological differences between N-MQA and S-MQA can be.

In the domain of morphology there are a few differences between N-MQA and S-MQA (e.g. possessive particles, verbal nominalisation suffixes⁶⁵ and particles of the numeral system; see Zewen 1987).

The purpose of this chapter was to briefly demonstrate the linguistic diversity within the Marquesan archipelago which is primarily phonological and partly lexical and morphological. According to Le Cléac'h (1997: 3) the lexical domain shows a rich diversity, but does not constitute a real obstacle for the communication between speakers of the different vernaculars within the Marquesan archipelago.

Although the phonological differences between N-MQA and S-MQA can cause mutual unintelligibility, today's increasing interisland exchanges through cultural, religious and sporting events, educational and professional measures and marriage facilitate communication between speakers of N-MQA and S-MQA. Further, mutual influence between the two languages can be felt more and more: historically distinct forms of N-MQA and S-MQA are used throughout the Marquesan archipelago without being geographically restricted. However, Green's historical argument that there are two distinct Marquesan languages which have both directly derived from Proto-Central Eastern Polynesian by having shared and distinct linguistic innovations, is still valid today.

3. Fieldwork and methodology

3.1. Previous work on the Marquesan languages

Grammatical structures of N-MQA are presented in recent descriptions of N-MQA grammar (Zewen 1987; Mutu and Teikitutoua 2002). There are also a number of older descriptions written in the nineteenth century (Bushmann 1843; Gracia 1843; Gaussin 1853; Dordillon 1904, 1931), a Marquesan-English glossary of 1799 by William Pascoe Crook, S. Greatheed, and Tima'u Te'ite'i (Hughes and Fischer 1998) and a comprehensive bilingual dictionary Marquesan-French and French-Marquesan (Dordillon 1904, 1931). A recent bilingual glossary has been published by Mgr Le Cléac'h (1997) which shows in particular dialectal differences between vernaculars of the Marquesan archipelago. The same author, Mgr Le Cléac'h, only recently finished translating the old and new testament into Marquesan in 1995. A prayer and hymn book already existed long before the Bible translation.

A number of specialised terminologies have fairly recently been published such as wordlists for shellfish and fishnames (Lavondès, Richard, and Salvat 1973; Lavondès and Randall 1978), fishing terminology (E.S.C. Handy 1923), tattooing (W. Handy 1922) and typonyms (Laporte 1995), and a lunar calendar (Suggs 1997). A comprehensive summary of wordlists⁶⁶ can be found in Le Cléac'h (1997: 165–217). Moreover, Marquesan legends were collected by E.S.C. Handy (1930) and Henri Lavondès in the 1960s and 1970s of which only some have been published so far (Lavondès 1996.)⁶⁷

3.2. Data of the present study

The data of the present study was mainly collected on the islands of Nuku Hiva and 'Ua Pou and therefore represents the language of the northwestern part of the Marquesan archipelago, i.e. N-MQA. My corpus was accumulated during four field trips between July 1995 and August 1999 amounting to 14 months of fieldwork in total. The first field trip was mainly undertaken on the island of Nuku Hiva; for the following three field trips most of the data collection was done on the island of 'Ua Pou. As my project aimed at the investigation of how speakers of Marquesan linguistically encode spatial relations, it seemed reasonable to collect the data mainly on one

island because there is variation between the vernaculars of the different islands in the northwestern part of the archipelago. The analysis of my data is therefore mainly based on the 'Ua Pou vernacular. Additionally I was given narrative material which was collected by Henri Lavondès during the 1960s and 1970s on 'Ua Pou island.

With respect to the linguistic encoding of space, there is not only variation between island vernaculars, but also between the various varieties of one island vernacular spoken in the different valleys of one and the same island. This concerns some parts of the spatial referential systems of the 'Ua Pou vernacular (see ch. 7, § 3.1.3). Note that these differences are not only due to geographical isolation, but also to other external factors (e.g. geo-physical phenomena, language contact etc.).

3.2.1. Data collection and local consultants

Linguistic fieldwork is often described as the practical side of research in linguistics in which a complex of methods are used for data gathering such as elicitation, interviews, participant observation and audio- and/or video-recording of a broad variety of spoken texts and natural and spontaneous interactions (e.g. legends, myths, songs, natural conversations) (Senft 1995a: 595–601).

In line with Senft (1994, 1995a, 1995b), I basically used the following methods of data gathering during my field trips:

1. Elicitation of morphosyntactic features (=direct questioning).
2. Elicitation of line drawings stimuli.
3. Elicitation of modelled actions and motion scenes.
4. Elicitation of narratives with films, picture story stimuli.⁶⁸
5. Controlled elicitation procedures: interactive tasks designed for the description of spatial configurations with toys (Levinson 1992; Senft 1994) and placement tasks.
6. Participant observation.⁶⁹
7. Broad collection of spoken texts (personal narratives, legends, cooking recipes, political discourse, natural dialogues etc.).
8. Some written texts by native speakers (rituals, legends, dairy).

Some of these techniques and stimuli were designed by members of the *Cognitive Anthropology Research Group* (=CARG)⁷⁰ of the Max Planck Institute for Psycholinguistics in Nijmegen (Netherlands).

The data were gathered in collaboration with ten main local consultants⁷¹ (four men, six women) and a number of other consultants who volunteered and participated in the placement tasks and interactive games (for procedure see below). All these local consultants are linguistically as well as culturally deeply rooted within the 'Ua Pou speech community. None of these consultants lived for extended periods of time on Tahiti. The ages of my main consultants range from 22 to 69 years of which most of my main consultants were older than 40 years. All of my main consultants are literate, received schooling and have a good command of the French language and are fluent or have a good comprehension of Tahitian.

Elicitation and recording sessions sometimes lasted over six hours, and often an elicitation sessions ended up in doing spontaneous interviews on certain topics which evolved from the elicitation or recording sessions. Sometimes these conversations or spontaneous interviews also inspired my consultants to tell personal stories and legends. During elicitation sessions the language of communication was mainly French. When eliciting naturally spoken texts (e.g. narratives, legends) I conducted the conversations in Marquesan. During those enterprises I was often accompanied by a local field assistant who mainly conducted the conversation in order to prevent some kind of foreigner talk of my informant which would have resulted in a less authentic version of spoken Marquesan.⁷²

The data were mostly transcribed by native speakers, and partly by myself. My own transcribed data were checked later together with native speakers.

3.2.2. Data collection techniques: elicitation and other methods of data collection

My main emphasis on the description of how speakers of Marquesan encode spatial relations is on naturally spoken language, i.e. how do they naturally and spontaneously communicate with each other about spatial relations. Although communication about space is one of the most fundamental aspects of everyday verbal communication I did not precede by being the fly on the wall⁷³ in trying to understand the Marquesan way of referring to space by mere participant observation. Instead, I used the vari-

ous interactive tasks designed by the *Cognitive Anthropology Research Group* of the Max Planck Institute for Psycholinguistics in Nijmegen, Netherlands. These tasks are controlled in that they are specifically designed for verbal communication about spatial relations, but they elicit natural ways of communicating about space and “in contrast to direct elicitation or researcher-subject experimentation they allow for some *form of natural interaction* – induced interaction – breaking the dyad between researcher and subject” (de León 1991: 2 [emphasis mine]; see below for details). Most importantly, the researcher does not, or only peripherally, interact in the task as such and is only present to audio- and video-tape the interaction. The verbal interaction is solely left to the participating local consultants. This creates a more or less natural way of conversing about space (see below for details). This elicitation technique is contrasted with other kinds of elicitations such as direct questioning, elicitation of line drawings and placement tasks.

During my second field trip I therefore collected data by using these interactive tasks in order to have a natural set of space data. In addition to that I also elicited the *Topological Relations Picture Book* and I modelled actions of caused motion⁷⁴ to my consultants who were asked to describe these actions. Inbetween my second and my third field trip I analysed these data and only proceeded on the third and fourth field trip with specific elicitation sessions on the structure of locative constructions. The direct questioning elicitation technique is therefore considered to be an additional measure to understand the fine-grained differences of spatial encoding more thoroughly.

Ambiguous interpretations of spatial expressions found in the data of the interactive tasks were further clarified by undertaking placement tasks (see below). Moreover, placement tasks also had the purpose of eliciting fine-grained differences in locative constructions and how various classes of reference objects⁷⁵ influence the placement and linguistic reference to objects.

In the following I will describe the various elicitation techniques in order to give an insight of how the data were actually collected and to point out some particularities of the space data.

3.2.2.1. Interactive tasks and games for the elicitation of spatial language

The kit of stimuli designed by the *Cognitive Anthropology Research Group* of the Max Planck Institute for Psycholinguistics (Nijmegen) for the elicitation of spatial language comprises the following interactive tasks (see Senft 1994; Danziger 1993; Danziger and Hill 1993; Wilkins 1995):

1. Photo-object matching task (e.g. *Farm Animals* game [=FA]).
2. Photo-photo matching task (e.g. *Men and Tree* game [=MT]).
3. Route Description tasks (=RD).

Throughout this book I refer to these interactive tasks as *space games*. All three interactive tasks are ideally played with two local consultants in each game. In each game one of the two players is the Director (=D) whereas the other player is the Matcher (=M). The Director's task is to describe the stimuli (a photo, a route etc.) to the Matcher or instruct the

Matcher in such a way that he or she can, for instance, rebuild a spatial configuration (=*Farm Animals*) or walk a certain route (=*Route Description*). The Matcher's task is to recognize and choose the matching photo (*Men and Tree*), reconstruct the description of the spatial configuration with toy objects (*Farm Animals*) or act out the route described by the Director (=*Route Description*) by the verbal instruction or description of the Director. Due to the nature of these tasks, the language used in the space games is mainly instructive (e.g. *put the toy man in front of the tree*).

Director and Matcher are set side by side with a screen⁷⁶ which separate their fields of vision. In my version of the games, the Director was not allowed to see what the Matcher was doing. The reason for this is that one wants to find out how the Matcher comprehends the mere linguistic structure without having other additional clues by hand or eye gesture of the Director. The separation by a screen also reduces the extensive usage of deictic expressions such as *here* and *there* and *over there*. Moreover, when the players cannot see what the other one is doing they have to elaborate and clarify their speech more clearly which will help the researcher to understand the meaning and underlying conception of spatial expressions more thoroughly. This kind of verbal interaction is also called "collaborative reference" (see de León 1991: 5).

In the beginning of the task, i.e. when describing the first photo, the players normally were a little uneasy of how to proceed, but after the second and third photo they normally became quite routinised and their speech

resembled that of everyday communication about spatial relations. Whereas in everyday situations speakers would probably tend to use more deictic expressions to localise objects, the design and set-up of the space games generally motivated the players to make precise descriptions of the spatial configurations depicted on the stimuli.

The photo stimuli are photos of complex spatial configurations with toy objects including pigs, cows, horses, enclosures, troughs, trees and men (see the photo stimuli of the *Farm Animals* game in appendix 1). Thus, in the data of the three interactive tasks there are frequently utterances like *put the cow in front of the enclosure* or *turn the pig's head towards us* etc..

Child and adult data were collected for all three interactive tasks. I recorded the language of children from age 3;11 to 14 years of age. These data are not presented in this study. Occasionally I present the data of mother-child-dyads in which the mother is the Director.

As for the adult data the following sets of players were collected:

- *Farm Animals*: seven sets of players.
- *Men and Tree*: three sets of players.
- *Route Description*: three sets of players (one incomplete).

3.2.2.2. Elicitation of line drawings stimuli

The *Topological Relations Picture Book* designed by M. Bowerman and E. Pederson (Danziger 1993: 19) comprises a set of 71 line drawings which depict so-called topological relations of the type 'cup on table', 'cat under chair', 'rabbit in cage' as well as so-called objects with *negative parts*⁷⁷ such as 'crack in cup', 'hole in towel' etc.. During the elicitation session, the consultants were simply asked in Marquesan 'where is x?'. In the line drawings of the *Topological Relations Picture Book* the object to be localised was made salient by colouring it yellow. The data was elicited with ten consultants. When the consultants were giving more than one response I always asked for their preferred expression. When the responses were deviating from that of other consultants I always asked whether or not they would also accept the response of other consultants. There are sometimes considerable differences between consultants. However, similar ways of expressing topological relations is consistent within the same age group (see ch. 7, § 3.5).

3.2.2.3. Elicitation of modelled actions and motion scenes

I basically did two elicitations of this type. The *Come & Go Questionnaire* designed by Wilkins (1993) exists of 20 motion scenes of abstract drawings (see appendix 4). These abstract scenes are not intended to be stimuli, but are thought and designed to be a basis for the researcher's own enactment. I proceeded in the way that I acted out those scenes by using toy objects on a table-top space. If my enactment was not clear, I additionally explained my enactment with the toys in French and then asked my consultants to express these motion scenes in Marquesan. I did this questionnaire with three consultants.

Another method of eliciting language was undertaken by modelling actions to my consultants who were asked to describe the modelled actions. These included actions which describe so-called caused motion events (e.g. 'put the coconut into a sack or push the paper into a protecting foil' etc.). Many of these actions were inspired by M. Bowerman's "Topological Paths and Static Relations" (see Danziger 1993: 40–50). I called this elicitation *Caused Motion* elicitation which was accomplished with three consultants.⁷⁸ Occasionally I draw on these data.

3.2.2.4. Placement tasks

I did a number of placement tasks in order to elicit all systematically recurring spatial expressions and constructions which I found in the data of the space games by basically controlling the reference objects by way of varying them in size, featuredness (e.g. a car with a featured FRONT/BACK-axis) and non-featuredness (e.g. a ball). Studies in the usage of 'front'-/‘back’-expressions (e.g. Hill 1982; Miller and Johnson-Laird 1976) pointed out that factors like occlusion and locomotion play a role in spatial reference. Thus, I tested whether my consultants made a different placement (by using the same spatial expression or construction) when the reference object was large and occluding than when the object was small and/or flat, i.e. non-occluding. Note that I did not elicit the same spatial expression successively by just varying the reference object, but the spatial expressions and constructions as well as the reference objects were varied (e.g. 'put x inside y', followed by 'put x in front of y' etc.).

I proceeded by instructing the consultant to 'put an object in front/back/inside' etc. of the reference object. Before making the instruc-

tion, the reference object was placed in front of the consultant. Moreover, I let the consultants choose the object which had to be placed from a pile of objects. This pile of objects contained point-like objects (e.g. marbles, sweets) as well as spatially extended objects (e.g. ropes, longish balloons). This technique was motivated by my claims in the literature: it was generally assumed – by those taking a more universalist position (see Landau and Jackendoff 1993; Talmy 1983) – that the object to be localised is conceived as a point-like figure and that its geometry does not play a role in the reference. Other researchers investigating the spatial reference in the Maya language Tzeltal (Levinson 1994) made quite contrary findings, namely that the shape and geometry of the object to be localised plays a crucial role in the reference.

As we will see throughout this study the spatial extension of the theme does play a role in spatial reference. However, in Marquesan the location of spatially extended objects is expressed like point-like objects moving along a path.

3.2.3. Some remarks on data transcripts and stimuli material

I used the following conventions in the transcriptions:

- Square brackets for the repetition of the same word:
- e.g. *te [te] 'enana* ‘the [the] man’.
- Curved brackets when the speaker produced a lapse:
- e.g. *tuku {ke} koe...* ‘{ye} you put...’.
- A tilde (~) when there was a longer pause.
- code-switched words are in italics in the translation (see above), e.g.
‘*a tuku te arbre* ‘put the *arbre*’.
- A dash is used to mark the change of speaker:
- e.g. *O ai te'a 'enana? – O Teiki te'a.* ‘Who is that man? – That is Teiki.’

52 *Ethnographic and linguistic background and methodology*

Table 1. Abbreviations of data sources

Abbreviations of data sources	Names of sources and tasks
C&G	<i>Come & Go Questionnaire</i> (Wilkins 1993)
CH	<i>Chicken Film</i> (CARG)
CM	<i>Caused Motion</i> elicitation
CONV	Natural conversations
E	Elicitation sessions (including 'placement tasks') and field notes ⁷⁹
FA	<i>Farm Animals</i> (CARG)
FR	<i>Frog Story</i> (Slobin and Berman 1994)
K1/K2 etc.	Narratives (Nuku Hiva dialect)
Kim	Legend by L. Kimitete (Nuku Hiva dialect)
LET	Letters from native speakers
Lav	Legends collected by H. Lavondès
Mak	Legend of <i>Makai'anui</i> ('Ua Pou dialect)
MT	<i>Men and Tree</i> (CARG)
RD	<i>Route Description</i> (CARG)
TRPB	<i>Topological Relations Picture Book</i> (CARG)

The following utterance represents a transcription example of my data:

- (2.24) *ee~ ma uta o te=na horave e koivi piha,*
 yes PREP inland POSS ART=Dem horse TAM female beef
ti'ohi='ia atu 'i tai. (FA-B/R-1: 006–7)
 look.at=Perf thither LD sea
 ‘Yes~ inland of that horse is a cow, (it) is looking seawards.’

The source of the data is always indicated after the original text or the free translation part. The coding of the data source in (2.24), namely (FA-B/R-1: 006–007), has to be understood in the following way:

- FA-: indication of the type of task or source (FA = Farm Animals)
- B/R-: code of consultants

With respect to the *Farm Animals* data the number of the photo is indicated after the consultants' code, thus in (2.24) photo 1 is described. The final number code in (2.24) refers to the utterance of a session, thus ‘006–007’ refers to utterances six and seven.

All line drawings of the *Topological Relations Picture Book* are reproduced in appendix 2. When discussing a particular picture stimulus such as 'cup on table' I will indicate the number of the line drawing in brackets following the sequence in the *Topological Relations Picture Book*. For instance, 'cup on table (1)' refers to line drawing 1, or 'tablecloth on table (29)' refers to line drawing 29 etc. (see appendix 2).

I collected data from four different age groups:

- 14–25 years (9 consultants)
- 25–40 years (10 consultants)
- 40–55 years (6 consultants)
- 55–70 years (9 consultants)

Chapter 3

Grammatical Sketch

1. Some general remarks on Marquesan grammar

The following section provides the reader with an outline of the linguistic structure of the 'Ua Pou vernacular (=N-MQA), though many of the features discussed are also valid for both Marquesan languages.

Marquesan is an accusative case-marking language. It has a number of grammatical features which are distinct from Indo-European languages. For instance, Marquesan distinguishes between inalienable and alienable possessive constructions; it has an inclusive versus exclusive first person pronoun; there is no class of adjectives and no verb-noun-distinction, information structuring is characterised by clause chaining or complex nominalisations and tense is not obligatorily marked on the lexical head of verbal phrases; Marquesan is characterised by frequent passivisation of transitive verbals and by a high number of noun phrase-ellipses⁸⁰ (in particular of subject noun phrases).

2. Phonology and orthography

The 'Ua Pou vernacular has nine consonants and five vowels which can either be short or long. Like other Polynesian languages, the 'Ua Pou vernacular has no voiced stops. The nine consonant phonemes are distributed as follows in the 'Ua Pou vernacular:

Table 2. Consonant phonemes of the 'Ua Pou vernacular

	bilabial	labio-dental	alveolar	velar	glottal
voiceless stops	p		t	k	?
voiceless fricatives					h
voiced fricative		v			
nasals	m		n		
lateral			r		

The phoneme /h/ has an allophone [s] which alternates with [h] after the high fronted vowel /i/:

- *'i hea* — *'i sea* ‘where’
- *'ihorave* — *isorave* ‘horse’

The high glides [y] and [w] occur when two very differently articulated vowels are in a contiguous environment: e.g. [y] occurs when the high fronted vowel /i/ precedes /u/ (Mutu and Teikitutoua 2002: 28):

- *'i uta* ‘inland’ [?iyu:ta]
- *'io* ‘at, in, on’ [?yo:] (Mutu and Teikitutoua 2002: 28)

[w] occurs when a high back vowel, typically /u/, is followed by a low vowel:

- *haka'ua* ‘again’ [haka?uwa]
- *ikoa* ‘name’ [ikowa] (Mutu and Teikitutoua 2002: 28)

The glides [y] and [w] are not only produced in medial position of a syllable, but also across syllables and word boundaries (Mutu and Teikitutoua 2002: 28).

Although N-MQA does not have the phoneme /f/, it sometimes occurs in Tahitian and French loan words (e.g. *fa'a'apu* ‘agriculture’, *kafe* ‘coffee <Fr. *café*>’). In these cases /f/ is not substituted by /h^{s1}.

56 Grammatical sketch

The affricate /dʒ/ and the fricative /ʒ/ in French and English proper names and lexical words are often substituted by /t/ or /s/ in the 'Ua Pou vernacular:

French/English source	Marquesan realization
John	– <i>Tioni</i>
José	– <i>Sose</i>
Jacques	– <i>Sake</i>
Jeanne	– <i>Sani</i>
jacket	– <i>sake</i> ‘jacket’
bougie	– <i>pusi</i> ‘candle’

The Marquesan glottal stop has two allophones, namely a tense and a lax allophone (Mutu and Teikitutoua 2002: 24). According to Mutu's analysis the tense allophone is heard as a clear glottal stop whereas the lax allophone is not heard as a stop, but it is indicated by the laryngealisation of the vowels (i.e. a creaky quality in the neighbouring vowels⁸²; for details see Mutu and Teikitutoua 2002: 24–27).

A characteristic feature of the 'Ua Pou vernacular is that PEP *r and PCE *k have been retained whereas the other vernaculars of the Marquesan languages have replaced both phonemes by a glottal stop:

'Ua Pou	other Marquesan vernaculars
<i>akore'a</i>	<i>ako'e'a</i> ‘or (conj.)’
<i>koe</i>	<i>'oe</i> ‘2.sg’

The syllable structure is (C)V for short syllables and (C)VV for long syllables. Lexical morphemes have at least two syllables whereas most grammatical morphemes have only one syllable. Any sequences of two vowels are possible. Words which have more than three syllables are mostly morphologically complex or compounds.

Words are typically stressed on the long syllable (in the first syllable) or on the penultimate syllable of the word. Short syllable words are unstressed. Phrase and sentence stress have not yet been systematically studied (Mutu 1990: 41).

There is no standardised orthography for all N-MQA vernaculars. The *Motu Haka* Association whose site is on 'Ua Pou island, has developed an orthography which is taught in 'Ua Pou schools (Teikiehu'upoko and Can-

delot 1987). The *Motu Haka* orthography uses diacritics to represent the glottal stop and long vowels (see also Mutu 1990: 141):

- Long vowels are indicated by a macron over the respective vowel (e.g. *hetū* ‘star’; see below for a comparison of orthography used in this study).
- A glottal stop between vowels of the same category is not indicated (e.g. *haamata* ‘begin’).
- If a glottal stop occurs between two vowels of a different category, the second vowel is marked by an accent (equivalent to the French *accent grave* ‘grave accent’, (e.g. *haè* ‘house’).
- If a glottal stop precedes a long vowel the vowel is marked by a circumflex (e.g. *â* ‘day’).

The orthography used in this study does not conform to the *Motu Haka* orthography because the *Motu Haka* orthography does not reproduce the glottal stop uniformly although it is one phoneme in the 'Ua Pou language. In this study, the glottal stop is uniformly represented by one grapheme, namely by the apostrophe < ' >:

'Ua Pou orthography	orthography in this study
<i>hetū</i> ‘star’	<i>hetu</i> ‘star’
<i>haamata</i> ‘begin’	<i>ha'amata</i> ‘begin’
<i>haè</i> ‘house’	<i>ha'e</i> ‘house’
<i>â</i> ‘day’	'a ‘day’

3. Basic simple clauses and their structure

Every simple clause in Marquesan is made up of one or more phrases. With respect to the internal structure of a phrase, basic simple clauses can be classified into verbal and non-verbal clauses. Verbal clauses express transitive and intransitive actions, processes and states of being. Marquesan has no copula verbs. Non-verbal clauses express localisation in time and space, possession and a relationship of identity. The predicate of a basic verbal clause is formed by a verbal phrase, whereas the predicate of a non-verbal clause is formed by an noun phrase. A verbal phrase does not contain any noun phrases. In a basic verbal clause the lexical head of a verbal phrase is marked for tense, aspect or mood by preverbal particles (see [3.1]). These

particles are called TAM-particles⁸³ in general descriptions of Polynesian languages (see Mosel and Hovdhaugen 1992; Bauer 1997, 1997; Mutu and Teikitutoua 2002; Peltzer 1996; Zewen 1987; Hooper 1996). The predicate of a non-verbal clause is either an unmarked non-specific noun phrase or a noun phrase marked by a preposition (see [3.2]):

1. Basic verbal clauses

- (3.1a) ***U kanea au i te ha'e.*** (E)
TAM build 1.sg DO ART house
'I built the house.'
- (3.1b) ***E he'e au i Hakahau.*** (E)
TAM go 1.sg LD H.
'I am going to Hakahau.'
- (3.1c) ***Mea ua.*** (E)
TAM rain
'(It) is raining.'

2. Basic non-verbal clauses

- (3.2a) ***O Anaho a te='a henua.*** (E-Ta-99)
PRES A. ART=Dem land
'That land is (called) Anaho.'
- (3.2b) ***O te 'enana nei t=o matou taote.***
PRES ART man Dem.prox ART=POSS 1.pl.excl doctor
'Our doctor is this man.' (Zewen 1987: 22)
- (3.2c) ***I tai te upoko.*** (FA-T/M-15)
LD sea ART head
'The head is seaward.'
- (3.2d) ***Ma te po te koika.*** (E-Ti-99)
PREP ART night ART feast.
'The feast will be during the night.'
- (3.2e) ***He 'enana po'ea hua 'enana, mea nui t=o***
ART man handsome ART.ana man STV-P many ART=POSS

ia hua'a.

3.sg family

'That man is a handsome man, he has a big family.' (Lav-E: 003)

- (3.2f) *Na Teiki te peto.* (Zewen 1987: 83)

for T. ART dog

'The dog belongs to Teiki.' (lit. 'the dog is for Teiki')

Depending on the valency of the verbal phrase nucleus, a basic verbal clause can consist of only one verbal phrase (see [3.1c]), but it can also consist of one verbal phrase and one or more noun phrases (see [3.1a+b]). Meteorological verbs do not require an argument (see [3.1c]), whereas verbals which describe transitive and intransitive actions require arguments. Arguments and adjuncts are formed by noun phrases. The arguments which are required by the verbal are not always realised in the surface structure. Marquesan has frequent subject and object ellipses:

- (3.3) *Kave'=ia mai titahi 'enana 'i'a ua kai ua tao ua kai ho'i hua mama ha=kai... ...*
 carry=PASS hither ART man there TAM eat
 TAM roast TAM eat indeed ART.ana csFr-mother CAUS=eat
 'That certain man was carried there, (they) ate (him), (they)
roasted (him), that adoptive mother ate (him)' (K1A,T12: 16)

Marquesan is a left-headed language. The basic constituent order of verbal clauses is *Predicate – Subject – Direct Object*. Oblique objects and adjuncts follow the subject or direct object. Occasionally the verbal phrase is not the first constituent of the verbal clause when the clause is introduced by a sentence modifier (e.g. *o'io'i* 'tomorrow', *i tenei* 'now'). These sentence modifiers are lexicalised expressions which express spatial and temporal relations:

- (3.4) *Na po 'omua, na po kakiu, 'i te Henua*
 ART.pl day past ART.pl day ancient LD ART H.
 'Enana nei 'i 'Ua Pou, e noho nei e tahi
 'E. here LD 'U. P. TAM live Dem NUM one
haka'iki
 chief
 'Once upon a time, in the ancient times, here on the Marquesas, on
 'Ua Pou, one chief was living,' (Mak-002)

Basic non-verbal clauses usually consist of two juxtaposed noun phrases in which the first noun phrase functions as the predicate and the second noun phrase as the subject (see [3.2]). Unlike verbal clauses, non-verbal clauses are not marked for tense, aspect or mood. There are four types of basic non-verbal clauses. The first type can be classified as a so-called equational clause in which the two noun phrases express a relationship of identity (see [3.2a+b]). In this type of non-verbal clause the predicate is marked by the presentative preposition *o*⁸⁴ (see [3.2a+b]). In equational clauses names are assigned to entities, places or persons. The semantic function of these clauses is also called naming (Lyons 1977: 215). In equational clauses, names are marked by *o* and these *o*-marked noun phrases function as the predicate of a non-verbal clause (see [3.2a]). The second type of non-verbal clause typically localises an entity, person, event, activity or state spatially (see [3.2c]), or temporally (see [3.2d]). This second type is called locational clause. The third type of clauses assigns entities to a particular class (see [3.2e]). In these clauses, which are called classifying clauses, the predicate is introduced by the article *he*. Classifying clauses express that the entity denoted by the subject noun phrase belongs to a particular class (Lyons 1977: 201); for instance in (3.2e), the subject noun phrase *hua 'enana* 'that man' belongs to the class of handsome men. Equational clauses, on the other hand, are used to indicate that two referents are identical (X=Y). The fourth type of non-verbal clause expresses a relationship of possession between the two noun phrases (see [3.2f]).

A verbal phrase can be marked by the following TAM-particles⁸⁵:

- (3.5) *ua, u*⁸⁶ 'perfective' (Zewen 1987; Mutu and Teikitutoua 2002),
 'inchoative'
- e* 'non-past', 'habitual', 'imperfective'
(Zewen 1987; Mutu and Teikitutoua 2002)
- i* 'resultative' (Zewen 1987),
 'past' (Mutu and Teikitutoua 2002)
- 'a* 'inchoative' (Zewen 1987; Mutu and Teikitutoua 2002),
 'imperative' (Mutu and Teikitutoua 2002)
- ia* 'optative' (Mutu and Teikitutoua 2002; Zewen 1987),
 'punctuative' (Zewen 1987)
- mei* 'almost' (Zewen 1987)
- oa* 'preventative' ('warning') (Zewen 1987; Mutu and
 Teikitutoua 2002)
- oi* 'postfactive' ('before')⁸⁷ (Zewen 1987; Mutu and

Teìkitutoua 2002)

<i>te...nei</i>	'present' (Mutu and Teìkitutoua 2002: 42)
<i>e...ana</i> ^{ss}	'continuous' (Mutu and Teìkitutoua 2002)
<i>me</i>	'obligation' ⁸⁹
<i>mea</i>	'state'

Neither Zewen (1987) nor Mutu and Teìkitutoua (2002) classify *mea* as a TAM-particle. According to my own analysis, the particle *mea* 'being in a state' can be classified as a TAM-particle. *Mea* occurs in the position of TAM-particles and is never combined with other TAM-particles. It forms verbal phrases in particular together with state and experience verbals and expresses that something or someone is in a certain state (see [3.6]):

- (3.6a) ***Mea*** *meita'i* *oko* *te=na* *mea*, 'a *hano* *koe* 'a
 STV-P good very ART=Dem thing TAM go.get 2.sg TAM
tamata.
 try
 'That thing is very good, go and try (it).' (Lav-U: 023)
- (3.6b) ***Mea*** *pa'a* *te='a* *mako.* (E-Ta-97)
 STV-P ripe ART=POSS mango
 'That mango is ripe.'

When *mea* is used one does not know whether this state has already existed for a long time or will persists to exist for a long time (it only asserts that a certain state exists); *mea* does not indicate a change of state either. If a change of state has occurred, the state verbal is preceded by the inchoative TAM-marker *ua/u* and therefore stands in opposition with *mea*. Compare (3.6a+b) with (3.7a+b):

- (3.7a) ***Ua*** *meita'i* *oko* *te=na* *mea.* (E)
 INCH good very ART=Dem thing
 'That thing is (now) very good (but it didn't used to be very
 good).'
- (3.7b) ***Ua*** *pa'a* *te='a* *mako.* (E)
 INCH ripe ART=Dem mango
 'That mango is now ripe.'

In casual language and in clause chaining constructions TAM-particles can be omitted. (3.8) in which the three verbal phrases (*to'o*, *hano*

hakapeipei and *nunu*) are not marked by TAM-particles, is an example of casual language and a clause chaining construction:

- (3.8) **To'o** *Tahia i te=a vehie a Teiki e **koti-koti***
take T. DO ART=Dem fire.wood POSS T TAM RED-cut
nei e me te tahu atu o ia hano haka=pei-pei
now EMPH and ART light.a.fire DIR POSS 3.sg get CAUS=RED-ready
*t=a 'aua ahi **nunu te vai ve'a-ve'a,...***
ART=POSS 3.dl fire boil ART water RED-hot
‘Tahia takes that fire wood of Teiki which (he) has just cut, and then
(she) lights the fire wanting to prepare their fire (and) boil hot water
...’ (CH-B-009)

Besides the TAM-particles, the verbal phrase can contain pre- and post-nuclear adverbial modifiers (see this chapter, § 6.2.3), modifying lexical words, directional particles (see this chapter, § 6.2.4), demonstratives (see this chapter, § 4.3.3), emphatic particles (see this chapter, § 4.4.2) and the anaphoric particle *ai* (see this chapter, § 4.3.8). Negation is not part of the verbal phrase because it is usually⁹⁰ expressed by verbals (see this chapter, § 6.2.2).

Noun phrases can be marked for number, definiteness and specificity by articles. N-MQA has the following articles:

- (3.9) *te* general (default) article: can mark definite, indefinite and non-specific noun phrases;
he non-specific article, and also with localising function;⁹¹
na plural definite article;⁹²
titahi singular indefinite (but specific⁹³) article: ‘a, a certain’, ‘the other’;
tahipito plural article: ‘the others’;
hua anaphoric article (e.g. *hua vehine* ‘the same woman’);
a personal article before proper names of persons (and personal pronouns);

Not all lexical heads of noun phrases can occur with the whole range of articles (see this chapter, § 4.1.1 for further details).

Noun phrases can also be marked by prepositions. The absence or presence of prepositions indicates the syntactic function of a noun phrase. Subject noun phrases are unmarked noun phrases, whereas direct object noun phrases and oblique noun phrases are marked by the preposition *i*:

- (3.10) *Tenei e ti'ohi tatou i te pohu'e='ia o Tahia ...*
now TAM watch 1.pl.incl DO ART live=Perf POSS T.
‘Now, we are watching the life of Tahia’ (CH-B: 001)
- (3.11) *Ua motu tu'u kahu 'i='ima i te ke'a*
TAM be.cut PPr.1.sg cothes RED-hand/arm OBL ART stone
‘My sleeves were cut by the stone’ (Dordillon 1931: 271)

With the exception of subjects, objects as well as adjuncts are usually marked by prepositions. N-MQA has the following prepositions marking (direct and oblique) objects and adjuncts:

- (3.12) *i, ia* *i* and its allomorph *ia* mark direct objects and oblique; objects (recipient, cause, instrument etc.); the allomorph *ia* is used before proper names of persons and personal pronouns;⁹⁴
e marks agentive noun phrases in passivised clauses;
'i marks location, direction and goal with local nouns, body-part terms, place names and some landmark expressions;
'io marks location, direction and goal with proper names of persons, personal pronouns and common full words;⁹⁵
ma marks path, region and instrument or means;
mei marks source (=ablative);
me marks comitative and instrumental noun phrases;
no marks (inalienable) benefactive and topicalised noun phrases;
na marks (alienable) benefactive and topicalised noun phrases;
o marks presentative and topicalised noun phrases.

Although the prepositions *'i* and *'io* both mark nominals for location, direction and goal, they are differently distributed across lexical classes: whereas *'i* marks nominals denoting mere locations such as the local noun *uta* ‘inland’ or the place name *Hakahau*, *'io* marks words which denote persons and things.⁹⁶ The usage of the preposition *ma* is also complex because it marks path and region in varying degrees of abstractness. The usages of the four locative prepositions *'i*, *'io*, *ma* and *mei* is thoroughly discussed in the chapters five to eight.

64 Grammatical sketch

Genitive attributive noun phrases are marked by the following prepositions which express a distinction between alienable and inalienable possessive relationships:

- (3.13) *o* marks inalienable possessive noun phrases;
a marks alienable possessive noun phrases.

The prepositions *no* and *na* (see above) can also mark genitive attributive noun phrases:

- (3.14) *Te peto na Tuki* (Zewen 1987: 84)
ART dog for T.
‘Tuki’s dog. (lit. ‘the dog for Tuki’)’

The prepositions *o*, *na/no* and all prepositions marking localisation in time and/or space ('*i*, *ma*, *mei* and '*io*) introduce predicative noun phrases of non-verbal clauses as shown in (3.2).

In addition, there is a particle *e* which is used when persons are called by their names or by a noun of address (see this chapter, § 4.1.1). These noun phrases are neither referential nor part of the clause. They only have a vocative function.

Apart from articles and prepositions, a noun phrase can also contain collective nominals, demonstratives, pre- and postnuclear modifiers, modifying lexical words, emphatic particles and directional particles.⁹⁷

Besides basic verbal clauses, Marquesan also has clauses in which the subject noun phrase is fronted and marked by the prepositions *o* and *na* or *no*:

- (3.15a) *O au e he'e atu 'i Tahiti.* (E)
TOP 1.sg TAM go thither LD T.
‘It is me who is going to Tahiti.’

- (3.15b) *O te horave ma mu'i o te tumu 'akau.*⁹⁸
TOP ART horse PREP behind POSS ART trunc wood
‘It is the horse which is behind the tree.’ (FA-T/M-H-17: 22)

- (3.16a) *Na te tau vehine e mama 'i⁹⁹ te kava.*
TOP ART PL woman TAM chew DO ART kava
‘It is the women who chew the kava.’ (Zewen 1987: 85)

- (3.16b) *U noho anaiho Tuohe 'io he ha'e, na te tau hoa e ka'oha pu atu ia ia...*
 TAM stay always T. PREP ART house TOP ART PL
 friend TAM pity only DIR DO 3.sg
 'Tuohe always stayed in the house, it were only the friends who pitied him' (Lav-T/H: 018)

Note that clauses with topicalised subject noun phrases in (3.16) are often called *actor-emphatic* constructions in some grammatical descriptions of Polynesian languages. For a detailed discussion of the actor-emphatic construction of other Polynesian languages I refer the reader to Clark (1976: 119–121), Bauer (1993: 223–229; 1997: 501–514).

4. Word classes

In Marquesan and other Polynesian languages the most fundamental distinctions in the lexicon are between lexical words (=full words), numerals, functional words (=particles such as grammatical morphemes, modifier particles etc.) and proforms (i.e. those words which stand for full words or phrases). Finally there is a small distinct class of interjections which falls into neither of these four categories of word classes. Interjections form a class of their own because they are syntactically isolated words: unlike full words, numerals, proforms and particles, interjections do not form part of a constituent in clauses (Mosel and Hovdhaugen 1992: 163). Marquesan has therefore five categories of word classes:¹⁰⁰

1. *Full words*: Content words in verbal phrases and noun phrases;
2. *Numerals*: Words which express ordinal and cardinal numbers;
3. *Proforms*: Personal pronouns, possessive pronouns, demonstratives, anaphoric pronouns, deictic local nouns and deictic verbals;
4. *Particles*: TAM particles, prepositions, articles, directional particles; pre- and postnuclear modifiers, focus particles, conjunctions, negative particles, interrogative particles;
5. *Interjections*

4.1 Full words

In the Marquesan language, like in many other Polynesian languages (Biggs 1973; Bauer 1997; Mosel and Hovdhaugen 1992; Hooper 1996; Broschart 1991; Vonen 2000), full words such as *vehine* ‘woman’, *hiamoe* ‘sleep’, *tua* ‘back, spine’, cannot be easily classified into one particular word class (such as nouns or verbs) because the same form of a word can appear in several different syntactic environments (see [3.17–19]):

- (3.17) *'A pure tatou i te=nei!*
 TAM pray 1.pl.incl LD ART=Dem.prox (=now)
 ‘Let us pray now!’ (E)
- (3.18) *E he'e koe i te pure?*
 TAM go 2.sg LD ART prayer
 ‘Are you going to the prayer?’ (E)
- (3.19) *E he'e au i te ha'e pure no te haka='oko*
 TAM go 1.sg LD ART house pray for ART CAUS=hear
te tekao a te mihi. (E)
 ART talk POSS ART priest
 ‘I am going to church in order to listen to the priest’s preach.’

This means that most full words cannot be classified into nouns and verbs on the lexical level. It is only their actual usage in a particular syntactic environment which allows to speak of verbs and nouns. It has to be emphasized here that a classification of words in Polynesian languages ‘by the criterion of syntactic function will not lead to word classes comparable to nouns, verbs, and adjectives in European languages’ (Mosel 2004). Thus, the terms ‘noun’ or ‘nominal’ and ‘verb’ or ‘verbal’ denote a syntactic function, but not a word class as such. However, for practical reasons we will speak of verbs or verbals when the full word functions as the lexical head of a verbal phrase and of a noun or nominal when it functions as the lexical head of a noun phrase.

The basic category-establishing elements of noun and verbal phrases are articles, prepositions and TAM-particles. These particles (or grammatical morphemes) define whether a full word is the lexical head of an noun or verbal phrase. Moreover, the possible combinations and restrictions of those particles enables us to form subclasses of the class of full words (see below). With respect to their morphosyntactic behaviour, i.e. their ability to

combine with certain particles, full words can be subclassified on the basis of the following criteria:

1. Whether full words can function as the lexical head of verbal phrases and can be combined with TAM-particles or not.
2. If they take TAM-particles, whether they take the full range of TAM-particles or only *e* ('imperfective, non-past') and/or *ua/u* ('perfective, inchoative').
3. Whether they can take articles or not.
4. If they take articles, whether they take the full range of articles or only the general article *te*.
5. If they do not take articles, whether they can function as arguments or not.

With the exception of the small closed classes of body-part terms (e.g. *a'o* 'face, front') and local nouns (e.g. *tai* 'sea'), and the class of proper names, e.g. *Teiki* (name of a male person), *Anaho¹⁰¹* (place name), all full words can be marked by TAM-particles as well as articles and they can function as the head of verbal phrases and noun phrases and as modifiers in verb and noun phrases. Rather than calling modifying full words adjectives and adverbs, we call them nominals when they have the same meaning as they have as lexical noun phrase heads, and verbals when they have the same meaning as they have as lexical verbal phrase heads (Mosel forthc.). The following two examples should make this clear. In (3.20) the modifying full word *haka* has the meaning of the verbal 'to dance', whereas in (3.21) the same lexeme *haka* has the meaning of a nominal 'the dance':

- (3.20) *Te 'enana haka*
 ART man dance
 'The dancer' (=lit. 'the dancing man')

- (3.21) *Te hakate'e haka*
 ART leader dance
 'The leader (of the) dance' (*the dancing leader)

We can therefore classify the modifying construction in (3.20) a N(oun)-V(erb) construction, and in (3.21) a N(oun)-N(oun) construction (see ch. 3, § 6.1.1.3.2).

For semantic reasons there are full words which are used more often in verbal phrases than in noun phrases (and vice versa). The word *vehine*

‘woman’, for example, is typically used in noun phrases, but it can also occur as the lexical head of a verbal phrase as in (3.22) where it is combined with the inchoative TAM-particle *ua*:

- (3.22) *E 'ori te tau vehine po'upuna, te='a po'upuna*
 TAM dance ART PL woman grandchild ART=Dem grandchild
a matou ua vehine ua vehine-vehine me he
 POSS 1.pl.excl. TAM woman TAM RED-woman like ART
'ori a te manu e taha nei ma he koutu
 dance POSS ART bird TAM walk here PREP ART reef
 ‘The grown-up granddaughters, our granddaughters who have
 turned into women they are dancing like a bird along the reef.’
 (K1B-T5: 19)

In this example the verbal phrase *ua vehine* ‘become a woman’ expresses a change of state or inchoative state, namely that girls have entered the state of being women. Being the lexical head of a verbal phrase *vehine* requires an argument and therefore has the same valence as *hiamoe* ‘sleep’ as shown in (3.23a) and (3.23b):

- (3.23a) *Ua vehine te=nei mo'i.* (E)
 TAM woman ART=Dem girl
 ‘This girl has turned into a woman.’
- (3.23b) *U hiamoe au.* (E)
 TAM sleep 1.sg
 ‘I slept.’

Full words such as *vehine* ‘woman’ and *ha'e* ‘house’ semantically correspond to lexical items in English which are labelled as common nouns. In the present study we will label Marquesan lexical items such as *vehine* and *ha'e* as common full words. All words which share the same morphosyntactic properties as *vehine* and *ha'e* belong to the class of common full words.

When common full words function as the lexical head of a verbal phrase, they are distinguished from intransitive verbals such as *hiamoe* ‘sleep’ in that they cannot be marked by all TAM-particles: common full words can only be introduced by the TAM-particles *e* (‘non-past, habitual’), *ua* (‘perfective, inchoative’) and in some cases by *mea* (‘being in a state’).

All full words which can be combined with TAM-particles can be further classified on the basis of their ability to combine with TAM-particles and the state verbal particle (=STV-P) *mea*:

Table 3. Lexical classification of full words on the basis of TAM-marking

	all TAM-particles	<i>mea</i> (=STV-P)	<i>ua/u</i>	<i>e</i>
common full word: <i>vehine</i> ‘woman’-class	–	(+)	+	+
state verbal full word: <i>kama'i'i</i> ‘be cold’-class	–	+	+	–
non-state verbal full word: <i>kanea</i> ‘build’-class, <i>he'e</i> ‘go’-class, <i>topa</i> ‘fall’-class	+	(–)	+	+

All full words, which can be combined with TAM-particles, can also be classified on the basis of their valency (see this chapter, § 4.1.2). We will call these full words verbal full words.

Non-state verbal full words which typically occur in verbal contexts, can also function as the lexical head of nominalised verbal clauses. In nominalised verbal clauses, which are formally noun phrases, the lexical head does not only have nominal properties, but also retains verbal properties.¹⁰² Nominalised verbal clauses are derived noun phrases. Noun phrases which have a common full word as their lexical head are called underived noun phrases. Derived noun phrases differ from underived noun phrases with respect to the use of articles:

Table 4. Use of articles in derived and underived noun phrases

	article <i>te</i>	all other articles ¹⁰³
Verbal full words in nominalised verbal clauses	+	–
Common full words	+	+

All verbal clauses can be nominalised, thus all verbal full words have the potential to occur as nominals. The usage of the article *te* before a full word makes it a formally¹⁰⁴ nominal.

Marquesan has numerous semantically related homonyms of verbal full words and common full words. For instance:

	Verbal full word	Common full word
1. <i>po'otu</i>	‘be beautiful’	‘beauty’
2. <i>piso</i>	‘to cork a bottle’	‘cork’
3. <i>kafe</i>	‘have breakfast, supper’ ¹⁰⁵	‘coffee’
4. ‘ <i>oko</i>	‘hear’	‘news, gossip’
5. <i>mate</i>	‘ill, die’	‘illness, death’

These lexemes are regarded as homonyms rather than single polysemous lexemes because the pattern of derivation is not regular. For instance, if we use the full words *po'otu* and *mate* as the lexical head of a verbal phrase, we describe the property or state of a person:

- (3.24a) *Mea po'otu te='a vehine.*
 STV-P be.beautiful ART=Dem woman
 ‘That woman is beautiful.’

- (3.24b) *E mate au i 'oto he 'enana tiatohu?*
 TAM ill 1.sg LD inside ART man real,whole
 ‘I am ill inside my whole body?’ (Dordillon 1931: 312)

However, if we use the same full words in a purely nominal context (i.e. article + full word), *te po'otu* ‘the beauty’ denotes the person which bears the property of being beautiful, but *te mate* does not denote a sick person, but an illness. In order to express the notion of sick person, speakers of Marquesan construct it with ‘*enana* ‘man, person’:

- (3.25) *Te 'enana mate*¹⁰⁶
 ART man ill
 ‘The sick man’

4.1.1. Nominals

Although all full words which occur in verbal contexts, can also occur as nominals (see above), there are a number of full words which cannot function as the lexical head of verbal phrases because they do not take TAM-particles. These can be classified on the basis of the following criteria:

1. Whether they can take articles or not.
2. If they take articles, whether they take the full range of articles or only *te* and *he*.
3. If they do not take articles, whether or not they can function as arguments.
4. The range of prepositions they can be combined with.
5. Whether they take possessive attributes or not.

These criteria lead to the following five subclasses of full words which are nominal:

- Body-part terms used as locatives (e.g. *a'o* 'front', *tua* 'back').
- Local nouns (e.g. *uta* 'inland').
- Proper nouns of places (e.g. *Hakahetau* 'valley/village on 'Ua Pou island').¹⁰⁶
- Proper nouns of persons (e.g. *Tahia* 'name of a female person').
- Nouns of address (e.g. *Pahio* 'Grandma').

In the above five subclasses of nominals we can observe a differing degree of *nominality*. By nominality I mean the following. Full words have the highest degree of nominality when they can take the full range of nominal properties, i.e. they can take all articles, all prepositions, number marking, possessive attributes, modifying state verbals, demonstratives, and they have argument status. However, the range of nominal features the nominal classes allow is restricted which distinguishes nominals from each other. The only subclass of full words allowing all nominal features is the class of common full words. Nouns of address, on the other hand, have the lowest degree of nominality. They do not take any of the nominal features mentioned above (no articles, prepositions, attributes etc.) and they never occur in referential, but only in vocative/appellative function. The vocative function is what they have in common with proper names of persons (see also Lyons 1977; Kany 1992). However, proper names of persons are distinct from nouns of address because they can have a referential function and can occur in argument position.

Second on the scale of nominality are body-part terms. They hold an intermediate position between common full words and the purely nominal classes. Body-part terms can be used in three ways, i.e. to denote a) real body-parts, b) object parts, and c) to express a spatial relation between two entities (=locatives). Body-part terms used as locatives can be characterised

as being purely nominal (see below). Body-part terms denoting body-parts of persons and animals share features with common full words. They can take all articles – except the personal article *a* – and they can also function as the lexical head of a verbal phrase when they are modified by other full words:

- (3.26) *E tua hati te kui.*
 TAM back break ART mother
 ‘The mother has a humped back.’ (Dordillon 1931: 406)
- (3.27) *E kopu ru-rui t=o koe.* (E)
 TAM stomach RED-big ART=POSS 2.sg
 ‘You have a big stomach.’

However, body-part terms require modification in order to occur as the lexical head of a verbal phrase, whereas common full words do not. These compounds have the meaning ‘have a so-and-so body-part’. If body-part terms are not modified, they only occur as lexical noun phrase heads or nominals. In Samoan these compounds are called *isu mamafa* compounds¹⁰⁷ (Mosel and Hovdhaugen 1992: 88).

Body-part terms differ from common full words when they are used as locatives: they do not take articles which indicate number and specificity. They are only determined by the articles *te* or *he*:

- (3.28a) *'A'e ia ma te tua o te tumu 'akau e,*
 be.not 3.sg PREP ART back POSS ART trunc wood EMPH
te horave ma ma mu'i o te tumu 'akau.
 ART horse PREP PREP behind POSS ART trunc wood
 ‘It is not at the back of the tree, the horse (it) is behind¹⁰⁸ the
 tree.’ (FA-T/M-H: 17: 021)
- (3.28b) *I he kaokao te mua*
 LD ART flank,side ART front
 ‘The front (region) is at the side’ (FA-T/M-H: 17: 053)

Body-part terms used as locatives and local nouns are often regarded as closed classes (see Bowden 1992) because they are rarely extended by loan words from other languages. In my data, one sometimes finds spatial expressions which are either loan words from French (e.g. *tutoro* < Fr. *tout*

droit ‘straight ahead’) or code-switched forms (e.g. *'i au milieu* ‘locative preposition + ‘in the middle’, *devant* ‘in front’, *kaokao près* ‘close to side’).

As for the classes of proper names, extensions of their classes are basically possible, in particular for proper names of persons (see also Kany 1992). In Marquesan, any common full word can potentially serve as a secondary name or nick name¹⁰⁹ (see ch. 5, § 6.1.1 for more details).

Proper names are often thought not to be part of the lexicon because they do not have a meaning or sense (Lyons 1977; Lerner and Zimmermann 1991; Kany 1992). However, I will regard proper names as being part of the lexicon. Place names¹¹⁰ and proper names of persons form distinct subclasses of the class of full words. However, they have typical nominal properties and no verbal properties which motivates us to classify them as nominals.

Local nouns and place names are also used as locatives. Unlike body-part terms they do not take an article¹¹¹. If place names and local nouns take articles, they are used metonymically and denote the group of people usually occupying the location denoted by the local noun (see [3.29a]) or place name (see [3.29b]):¹¹²

Local noun

(3.29a) <i>I tai</i>	vs.	<i>t=o tai</i>
PREP loc.n.-sea		ART=POSS loc.n.-sea
‘at sea’	vs.	‘the people living near the sea/belonging to the sea-region’

Place name

(3.29b) <i>I Hakama'i'i</i>	vs.	<i>te/to Hakama'i'i</i>
PREP H. (place name)		ART H.
‘at Hakama'i'i’	vs.	‘the people from Hakama'i'i valley’

Unlike place names, local nouns always need to take the preposed possessive preposition *o* which combines with the general article *t-* in order to denote a group of people: e.g. *to tai* ‘the people living by the sea’, *to uta* ‘the people living in the inland area’, *to 'uka* ‘the people living in the upstream-region’ etc.. When place names are used metonymically to denote people of particular places, they may or may not take the preposed possessive preposition *o* as shown in (3.30):

- (3.30) *Tenei ha'a=pei-pei t=o Hakau'i e hiti te toa 'i Hatihe'u ... ua he'e mai ihoa te Hakau'i*
 then CAUS=RED-ready ART=POSS H. TAM ascend ART
warrior LD H. TAM go DIR indeed ART H.
'i Hatihe'u 'io te Taipi.
 LD H. PREP.loc ART tribe.of.Nuku Hiva
 'Then, the Hakau'i people prepared that the warriors went up to
 Hatihe'u...., the Hakau'i people came indeed to Hatihe'u to the
 Taipis.' (Keik-At-97)

Whereas tribal names can take an article (see *te Taipi* in [3.30]), an article is normally not used before proper names of persons:

- (3.31a) *U pe'au atu Teiki ia ia*(CH-B: 008)
 TAM say thither T. DO 3.sg
 'Teiki said to her'

However, a few consultants used the particle *a* before proper names of persons in subject position. When I was modelling an action (e.g. 'open a book') to my consultants, they described it as follows:

- (3.31b) *E pepe'u nei a Gaby i te hamani.*
 TAM open Dem ART.ps ? G. DO ART book
 'Gaby is opening the book.' (E-CM-B: 97)

It is possible that the particle *a* is an article for proper names of persons because the same particle occurs with the case marking preposition *i* before proper names of persons and personal pronouns:¹¹³

- (3.32a) *U pe'au te kui i=a ia ...*(Lav-T/H: 87)
 TAM say ART mother DO=ART.ps? 3.sg
 'The mother said to him'

- (3.32b) *Ua kite i=a Tuohē e mo-moe ana*
 TAM see DO=ART.ps? T. TAM RED=sleep.with CONT
me te vehine a Hekei.(Lav-T/H: 147)
 with ART woman POSS H.
 '(They) saw Tuohē who was making love to Hekei's wife.'

Historically, this particle *a* is the personal article. However, the personal article in subject position seems to be almost obsolete because it is only

used by older speakers and it is not learned by children anymore. I will therefore regard the object-marking preposition *ia* which has historically incorporated the personal article *a* as an allomorph of the object-marking preposition *i*. The preposition *ia* is thus glossed as a direct object (=DO) or oblique object (=OBL) preposition.

Proper names of persons are also distinguished from place names in the use of location-marking prepositions. In order to mark the location of a person or institutionalised person or place (e.g. the doctor, the school, the hospital, the post office) speakers of Marquesan use the preposition '*io*'. Place names (and also local nouns and body-part terms) cannot take the preposition '*io*'. Instead they use the locational-directional preposition '*i*:

- (3.33a) ...ua tau, ua he'e **'io** **Hekei.** (Lav-T/H: 376)
 TAM arrive TAM go PREP.loc H. (=PN of person)
 '... when (Tuohe) arrived he went to Hekei.'
- (3.33b) Ua noho te 'enana mei Hiva 'Oa **'i** **'Ua Pou.... .**
 TAM stay ART man from H.O. PREP 'U.P.(=place name)
 'That man from Hiva 'Oa lived on 'Ua Pou.... .' (Lav-H: 005)

The last subclass of nominals to be mentioned here are the nouns of address. They are not preceded by an article. Like proper names of persons they are sometimes preceded by the vocative particle *e*. Nouns of address differ from proper names of persons in that they do not have argument status. Their primary function is to attract the attention of the addressee. The following nouns of address could often be observed in conversations:

- *pahio*¹¹⁴ ‘grandma’ used when calling someone’s biological grandmother (affectionate);
- *ko'o* ‘young man, my dear friend’ used when calling a male person (affectionate);
- *hoa* ‘friend’ used when calling a friend without to address him or her by using the personal name;
- *mo'i* ‘girl’ used when calling a young female;
- *maha'i* ‘boy’ used when calling a young male;
- *minu* ‘cat’ used when speaking to or calling cats;
- *mea* ‘thing’ generally used when addressing a person (regardless of the person’s sex), in particular when the speaker has forgotten the name of the addressee.

76 Grammatical sketch

All proper names and nouns of address cannot take possessive attributes. The specific morphosyntactic properties of nominals enable us to form distinct subclasses of nominals. The following table summarises the sub-classification of nominals and the classification criteria. We include the class of common full words for the purpose of showing the continuum of nominality:

Table 5. Some nominal features across nominal classes and the class of common full words

	ART	PREP 'i	PREP 'io	PREP ma	argument/ comple- ment status	poss. attrib- utes
1.Common FW ¹¹⁵ and body-part terms (body- parts)	all	+	+	+	+	+
2.Body-part terms (object parts)	<i>te, he,</i> <i>titahi,</i> <i>na</i> ¹¹⁶	—	+	—	+	+
3.Body-part terms (locatives)	<i>te, he</i>	+	—	+	+	+
4.Local nouns	—	+	—	+	+	+
5.Place names	—	+	—	+	+	—
6.PN of persons	(<i>a</i>)	—	+	—	+	—
7.Nouns of ad- dress	—	—	—	—	—	—

We have solved the problem of verb-noun distinction in so far as we have analysed a word as being verbal or nominal with respect to the syntactic context in which it occurs. Moreover, it is also the syntactic level which assigns a meaning to the word. Thus a word like *kiri* means ‘to lock with keys’ in a verbal context, and ‘key’ in a nominal context. In verbal contexts, words denote activities, events or state of affairs, in nominal contexts, full words (except verbal full words) denote concrete and abstract entities. The lexical head of nominalised verbal clauses remains a problem in the syntactic and semantic analysis: it occurs in a nominal context (i.e. as the lexical head of a noun phrase), but it has many (syntactic and semantic) verbal properties (see Cablitz 2000). From a semantic point of view, lexical heads of nominalised verbal clauses denote telic and atelic events. From a syntactic point of view lexical heads of nominalised verbal clauses are

nominal-verbal hybrids which are generated on a syntactic level of derivation (see this chapter, § 6.1.2.2). Marquesan is an example of a language in which a strict classification and distinction into nominal and verbal categories is not possible. We should rather regard the different range of full words as a continuum between the verbal and the nominal.

4.1.2. Verbs

Full words functioning as the lexical head of verbal phrases can be classified on the basis of their valency. Mosel and Hovdhaugen (1992: 100) define valency as “the property which determines the morphosyntactic form of required and optional arguments”. On the basis of required number and form of arguments, one can distinguish between the following major subclasses of full words which can function as the lexical head of a verbal phrase in Marquesan. These full words are called verbals:¹¹⁷

1. transitive verbs
2. ditransitive verbs
3. intransitive verbs
4. neuter verbs
5. other verbs

4.1.2.1. Transitive verbs

Transitive verbs require two arguments of which the referent of the subject noun phrase is the performer or experiencer of an action (=agent), whereas the referent of the direct object noun phrase is somehow affected by the action (=undergoer). The following verbs have a transitive argument structure and can be semantically subclassified on the basis of specific semantic roles:

Table 6. Subclassification of transitive verbals and their semantic roles

Subclassification of transitive verbals	Semantic roles: Subject – Direct Object
1. Creation and construction (<i>kanea</i> ‘build’, <i>pepena</i> ‘create’)	agent – product
2. Perception and emotion (<i>kite</i> ‘see’, <i>peke</i> ‘rage’, <i>ue</i> ‘cry about’)	experiencer – experiencee
3. Transfer (<i>tuku</i> ‘put’)	agent – theme
4. Contact and force (<i>pehi</i> ‘hit’)	agent – undergoer
5. Speaking (<i>pe'au</i> ‘say to’)	agent – addressee
6. Consumption (<i>kai</i> ‘eat’)	consumer – consumee ¹¹⁹

Although there are differing degrees of affectedness of the direct object noun phrase (or the undergoer), all these verbals require two arguments and have the same case-marking frame. We classify all constructions as transitive which have the following morphosyntactic properties: the subject noun phrase is unmarked, i.e. not marked by a preposition, whereas the direct object noun phrase is marked by the preposition *i* or its allomorph *ia*:

- (3.34) *U kanea tahipito ka'ioi i t=o 'atou hei,*
TAM make other bachelor DO ART=POSS 3.pl garland
'The other young men made their garland' (Lav-T/H: 056)

- (3.35) *Tenei e ti'ohi tatou i te pohu'e='ia o Tahia me Teiki....*
now TAM watch 1.pl.incl DO ART live=Perf POSS T.
and T.
'Now, we are watching the life of Tahia and Teiki.' (CH-B-001)

- (3.36) *'A pa'u koe i te ki'i me te pani.*
TAM smear 2.sg DO ART skin with ART coconut.oil
'Smear the skin with coconut oil.' (CM-T-97)

Transfer verbals like N-MQA *tuku* ‘put, give’ and *kave* ‘carry’ also belong to the class of transitive verbals. Although transfer events semantically involve three participants, namely agent, undergoer and recipient,¹²⁰ the transfer verbals only require two arguments when the recipient is first or second person (see [3.37a]). In that case the recipient is expressed by the directional particles *mai* ‘hither’ or *atu* ‘towards addressee’. All other recipients need to be expressed by a complement phrase (see [3.38]). When

the recipient is expressed by a directional particle the direct object noun phrase is often not marked by the preposition *i* (see [3.37b]):

- (3.37a) 'A *tuku mai* 'otou 'i *titahi ki.*
 TAM give hither 2.pl DO ART.indef boo
 'You give me a boo.' (Zewen 1987: 66)
- (3.37b) 'A *pau taua* 'i *tai, a tuku mai t=a koe*
 TAM go 1.dl.incl LD sea TAM give hither ART=POSS 2.sg
hue e Tahia, mea hahao='ia pukava,
 bowl VOC T. in.order.to put.in=Perf mussel
 'Let's go seawards, give me your bowl, Tahia, in order to put in
 mussels' (Lav-U: 015)
- (3.38) 'A *tuku koe i te='a hamani ma 'uka he tapu.*
 TAM put 2.sg DO ART=Dem book PREP top ART table
 'You put that book on the table.' (CM-To-97)

Directional particles are not arguments,¹²¹ but verbal modifiers. They do not have an argument status, i.e. they do not occur as the lexical head of a noun phrase in subject or object position. Directional particles indicate the direction of the transfer movement or the destination of the transfer and therefore become the translational equivalent of constructions in which the recipient is expressed by an argument. However, in some occurrences the recipient is expressed by an argument as well as by a directional particle:

- (3.39) *E tuku atu au 'ia 'oe 'i te=nei hamani*
 TAM put DIR.tow.add 1.sg OBL 2.sg DO ART=Dem book
titahi 'a atu.
 ART.indef day DIR
 'I will give the book to you soon.' (Zewen 1987: 68)

All transitive verbals can be passivised by the passive suffix *-ia*. The undergoer is unmarked whereas the agent can be expressed by an optional noun phrase which is introduced by the preposition *e*:

- (3.40) ... *u kai='ia Ta'einui e te 'Ua Pou.* (Lav-H: 006)
 TAM eat=PASS T. AGS ART 'U. P.
 '... Ta'einui was eaten by the 'Ua Pou (people).'

In passivised verbal clauses not only the agent, but also the affected participant (or undergoer) is often omitted:

- (3.41a) *U kanea=’ia.*
 TAM build=PASS
 ‘It was built.’

- (3.41b) *Ua kite=’ia.*
 TAM see=PASS
 ‘It was seen.’

Omission of arguments and other morphosyntactic features (e.g. omission of prepositions) frequently occur in Marquesan discourse. For instance, the subject noun phrase of transitive verbals and the case-marking preposition *i* of the direct object noun phrase are often omitted. There are a number of utterances like the following in my data:

- (3.42) *A tuku te upoko ’i uta.* (FA-B/R)
 TAM put ART head LD inland
 ‘Put the head inland.’

- (3.43a) *Ua kai te puaka.*
 TAM eat ART pig
 ‘The pig ate.’ (=pig is agent)
 vs.

- (3.43b) *Ua kai te puaka.*
 TAM eat ART pig
 ‘(Someone) ate the pig.’ (=pig is undergoer)

- (3.44) *E koti a'a Teiki te vehie me te toki.*
 TAM cut Dem T. ART fire.wood with ART axe
 ‘Teiki is cutting the fire wood with an axe.’ (CH-B: 005)

A sentence like (3.43) is ambiguous because it is not clear whether the unmarked noun phrase *te puaka* ‘the pig’ is the agent or patient. In most cases, the context disambiguates the semantic roles of the noun phrase. In (3.42) it is clear from the context that the noun phrase *te upoko* ‘the head’ cannot be the subject noun phrase or the agent.

Consultants often comment on sentences like (3.42–44) that the case-marking preposition *i* of the direct object noun phrase has been simply

omitted and that it would be more ‘correct’ to construct the clause with an *i*-marked noun phrase. Another possible interpretation of the missing preposition *i* in direct object noun phrases is that in casual language the argument structure has ergative traits in that the agent in (3.43a) and the patient in (3.43b) are both unmarked noun phrases. The omission of the preposition *i/ia* frequently occurs in imperatives (see [3.42]). We can therefore say that some verbals are used transitively as well as ergatively.

- intransitive: verbal +Subject (=agent)
 \Rightarrow Agent=Subject^[22] (e.g. ‘The pig eats’, see [3.43a])
- transitive: verbal + Subject (=agent)+Direct Object (=undergoer)
 \Rightarrow Agent=Subject (e.g. ‘He eats the pig’)
- ergative: verbal + Subject (=undergoer)
 \Rightarrow Subject=Object (=not agent) (e.g. ‘[Someone] eats the pig’, see [3.43b])

4.1.2.2. *Ditransitive verbs*

Ditransitive verbs require three arguments, namely a subject noun phrase which expresses the performer of the action, a direct object noun phrase expressing the undergoer of the action and a complement phrase. There is only a small class of ditransitive verbals, namely verbals of *caused motion transfer* (e.g. *hahao* ‘put in container’) which require to express the agent, the undergoer and the goal of the undergoer entity. Verbals of caused motion transfer have to be distinguished from transfer verbals (e.g. *tuku* ‘give’, *kave* ‘carry’) because they do not express recipients, but only the goal of the undergoer which is always expressed by a locative complement phrase:

- (3.45a) *E kokomo atu koe i te=na ika 'io he umu.*
 TAM push.in DIR 2.sg DO ART=Dem fish PREP ART oven
 ‘You put the fish into the oven.’(CM-B-97)
- (3.45b) *'A hahao i te=na hamani 'i 'oto o te kaka.*
 TAM put.in DO ART=Dem sheet LD inside POSS ART sack
 ‘Put the sheet of paper into the sack.’ (CM-Mo-8)

- (3.45c) **Kokomo** koe i te kiri 'i 'oto o te katena.
put.in 2.sg DO ART key LD inside POSS ART lock
'You put the key inside the lock.' (CM-Ta-4)

In imperative clauses and casual speech, the subject noun phrase is often omitted (see [3.45b]). In fact, both subject and direct object noun phrases can be omitted, but not the locative complement phrase (see [3.46a] in contrast to [3.46b+c]):

- (3.46a) 'A kokomo 'i 'oto.
TAM put.in LD inside
'Put (it) inside!'
- (3.46b) *'A kokomo koe.
TAM put.in 2.sg
(You put in)
- (3.46c) */?A kokomo te=na hamani.
TAM put.in ART=Dem sheet.paper
(Put in that sheet of paper)

When *kokomo* occurs with a subject and direct object noun phrase, but without a complement phrase the verbal has a reflexive meaning, namely 'put oneself into something':

- (3.47) 'A kokomo koe i te pataro. (Dordillon 1931: 232)
TAM put.on 2.sg DO ART lwFr.trousers
'You put (yourself) trousers on.'

Kokomo in (3.47) has to be distinguished from the other uses of *kokomo* in (3.45–46) because it is used in a transitive (constructional) frame and also has a different lexical meaning.

Ditransitive verbs have the following morphosyntactic properties:

- They can be passivised.
- They can be used in imperative clauses.
- They can take all TAM-particles.
- Subject noun phrase is agent, direct object noun phrase is undergoer (or theme).
- They have to express the goal with a locative complement phrase.

4.1.2.3. Intransitive verbals

Intransitive verbals require one argument. Intransitive verbal clauses only have a subject noun phrase which is not marked by a preposition. Intransitive verbals can be further subclassified into subgroups, namely on the basis of a) semantic roles of the subject noun phrase, b) the range of TAM-particles these intransitive verbals can take:

1. Action verbals in which the subject noun phrase is the agent (e.g. *hiti* ‘ascend, go inland’, *koi* ‘run’, *hiamoe* ‘sleep’).
2. Process verbals in which the subject noun phrase is the undergoer (e.g. *pupuhi* ‘boil, rise’, *huru* ‘roll’, *topa* ‘fall’, *tau* ‘land, arrive’).
3. State verbals which describe the state of the subject noun phrase (e.g. *kama'i'i* ‘cold’, *mo'o* ‘dry’, *rui* ‘big’).

Moreover, when common full words occur as the lexical head of a verbal phrase, they require one argument and therefore they can be classified as intransitive verbals:

4. *Common full words* which describe the identity or a new state of the person or thing referred to (see above).

We have thus four subclasses of intransitive verbals. Action and process verbals can often be classified as dynamic verbals (Mosei 1984: 92). Although action and process verbals have the same argument structure in N-MQA, both subclasses differ semantically: the subject of action verbals is animate and controls the action, whereas the subject of process verbals does not control the action. In the dynamic events described by process verbals, the subject undergoes an uncontrolled process (e.g. the process of apples falling from trees). The subject of process verbals can be both animate and inanimate. State verbals simply describe the state or a property of the subject noun phrase; they cannot express processes (e.g. ‘He is being nice’).

In the following, intransitive verbals are subclassified on the basis of morphosyntactic properties, or more precisely their TAM-marking. Unlike action and process verbals, state verbals have a restricted TAM-marking.¹²³ State verbals cannot be marked by the imperfective particle *e*. Moreover, it is not possible to use the inchoative particle *'a* with state verbals in order to mark the beginning of a change of state:¹²⁴

- (3.48) *'A kanahau te ha'e! (E)
 INCH nice ART house
 (The house is beginning to be in the state of being nice)
- (3.49) *'A mo'o te vea! (E)
 INCH dry ART glass
 (The glass is beginning to be in the state of being dry)

With state verbs, the TAM-marker *ua/u* indicates inchoative aspect, i.e. the beginning of a new state of being:

- (3.50) *Me mai e t=u='u hoa, ko'utau taua,*
 TAM come VOC ART=POSS=1.sg friend thankful 1.dl.incl
u mo'u te henua.
 INCH peaceful ART land
 ‘Come here my dear friend, let’s be thankful to each other, we have now made peace over the land.’ (or: has now entered into the state of being peaceful). (Mak-014)

In the subclass of state verbs the inchoative particle *ua/u* contrasts with the particle *mea*¹²⁵ which expresses quite generally that something or someone is in a certain state:

- (3.51a) *Mea mo'u te henua. (E)*
 STV-P peace ART land
 ‘The land is (in the state of being) peaceful and calm.’
- (3.51b) *E toitoi 'a nei mea mana ihoa te='a*
 TAM real EMPH Dem.prox STV-P power indeed ART=Dem
'enana o Pa'etini.
 man PRES P.
 ‘It is true that that man Pa'etini was really powerful.’ (Mak-011)
- (3.51c) *Mea pukiki t=o 'oe papa'ika. (Zewen 1987: 21)*
 STV-P red ART=POSS 2.sg cheek
 ‘Your cheeks are red.’

The usage of the particle *mea* with state verbs distinguishes them from action and process verbs. Furthermore, state verbs, like process verbs, cannot be used in imperative clauses in which the lexical head of the verbal phrase is often modified by the particle '*a*. In imperative clauses the particle

a is an imperative mood particle (see also Mutu and Teikitutoua 2002: 45).¹²⁶ However, process verbals can be modified by the TAM-particle *'a* when it marks inchoative or inceptive aspect. Clauses which express the onset of an event or process are often introduced by the conjunction *'atahi* ‘then, (at the point) when’:

- (3.52) *'Atahi 'a tihē te 'oko makaka 'io te Hiva 'Oa... .*
 when INCH arrive ART news bad PREP ART H. O.
 ‘When the news reached the people from Hiva 'Oa... .’
 (Lav-H: 006)

- (3.53) *Ua pao, 'atahi 'a topa t=o 'atou vaka.*
 TAM finish then INCH fall ART=POSS 3.pl canoe
 ‘When it was finished, they set their canoe (on sea).’ (lit. ‘... their canoe fell’) (Lav-T/H: 229)

One additional criterion has to be mentioned which distinguishes action and process verbals from state verbals. Action and process verbals can take the perfective suffix *-'ia*¹²⁷ whereas state verbals cannot. Action intransitives with the suffix *-'ia* describe a completed action and are often not further modified by the perfective TAM-particle *ua* which can also indicate that an action has been completed:

- (3.54) *Tihē='ia mai te='a puaka 'i mea 'i Paumea.*
 arrive=Perf hither ART=Dem pig LD thing LD P.
'I te kite='ia o te po'i mei Paumea...
 LD ART see=Perf POSS ART people from P.
 ‘(When) that pig arrived at ehh, at Paumea, (then) the people from Paumea saw (him)’ (lit. ‘... at the seeing of the people from Paumea’). (Mak-076-77)

State intransitives which function as lexical heads in verbal phrases can also function as modifiers of verbal and, in particular, of nominal bases (see [3.55–56]):

- (3.55) *O ia ana titahi **haka** kanahau!*
 PRES 3.sg Dem ART.indef dance beautiful
 ‘That is a beautiful dance.’ (E)

- (3.56) ... *hano* *haka=pei-pei* *t=a* *'aua* *ahi* *nunu*
 get CAUS=ready-RED ART=POSS 3.dl fire cook
 e vai *ve'ave'a*,
 ART water hot
 ‘...(he) is going to prepare their fire, cook hot water...’ (CH-B-8)

With respect to their semantics, state intransitives correspond most closely to a class of words which are labelled as adjectives in English and other Indo-European languages. In Marquesan, they are considered as a class of verbals because they often function as lexical heads of verbal clauses. Moreover, state verbals are the lexical bases for derived causatives (e.g. *kanahau* ‘nice’ ⇒ *hakakanahau* ‘embellish’).

When common full words are used as verbals, there is little formal difference between them and state verbals. Common full words also have a restricted TAM-marking: they only allow the imperfective *e* and inchoative *ua* particles. When imperfective *e* is combined with common full words, it expresses that something or someone is in a certain state (e.g. *e vehine* ‘be a woman’):

- (3.57a) *E hua'a matou nei no 'E'evaihopu.*
 TAM family 1.pl.excl Dem for 'E.
 ‘We here are family for 'E'evaihopu.’ (Lav-E: 030)

- (3.57b) *E po'i hoihoi matou nei, e po'i mohoi*
 TAM people handicapped 1.pl.excl Dem TAM people ugly
 matou nei! (Lav-E: 059)
 1.pl.excl Dem
 ‘We here are handicapped people, we here are ugly people!’

Common full words can also combine with the particle *mea* to express that something or someone is in a certain state:

- (3.58a) *U ti'ohi atu 'E'evaihopu i te=ia tau vehine,*
 TAM look.at DIR E. DO ART=Dem PL woman
 'a'e he mea e hei me t=o ia ma'akau mea
 be.not ART thing TAM right with ART=POSS 3.sg thought STV-P
 vehine na ia. (Lav-E: 020)
 woman for 3.sg

‘E'evaihopu looked at these women, it did not appeal to his thought to have (them) as his wife.’ (lit. ‘... it was not right with his thought to be a wife for him’)

- (3.58b) *'Atika ua topa t=o ia po'ea: "ua kohi ia matou i te po'i hoihoi mea 'enana koute'e no ia.'* (Lav-E: 027)
 but TAM fall ART=POSS 3.sg handsome TAM collect DO 1.pl.incl DO ART people ugly STV-P man travel for 3.sg
 ‘But his beauty fell: “(He) collected us the ugly people to go travelling with him.”’ (lit. ‘... to be a travel man for him’)
- (3.58c) *'A'e ti'ohi i te vehine, noa atu te mata kika, te hakatu o te tau vehine hoihoi, 'a'e ia e paketu, e to'o iho ia mea vehine na ia'.*
 be.not look.at DO ART woman although ART eye wide-open ART appearance POSS ART PL woman ugly be.not 3.sg TAM throw.out TAM take DIR 3.sg STV-P woman for 3.sg
 ‘(He) did not look at the woman, although (she) had wide-opened eyes (and) the appearance of the women (was) ugly, he did not throw (them) out, later on he took her as his wife.’

State verbals do not occur with imperfective *e* to express a state. They can only combine with the verbal particle *mea*. Moreover, common full words, like state verbals, cannot take the perfective suffix *-ia* and they never occur in imperative clauses. Unlike state verbals or any other verbals, common full words can take possessive attributes when functioning as the lexical head of a verbal phrase:

- (3.59) *E tama o Teiki te=na.* (E)
 TAM child POSS T. ART=Dem
 ‘That is a child of Teiki.’

The following table summarises the morphosyntactic properties of intransitive verbals:

Table 7. Morphosyntactic properties of intransitives

Intransitives	Morphosyntactic properties
Action verbals (<i>he'e</i> 'go'-class)	<ul style="list-style-type: none"> – All TAM-markers – Suffixation of perfective <i>-'ia</i>
Process verbals (<i>topa</i> 'fall'-class)	<ul style="list-style-type: none"> – All TAM-markers (except imperative marker <i>'a</i>) – Suffixation of perfective <i>-'ia</i> – No imperatives
State verbals (<i>kama'i i</i> 'cold'-class ¹²⁸)	<ul style="list-style-type: none"> – Restricted TAM-marking: only TAM-marking with inchoative <i>ua</i> and resultative <i>i</i> – State expressed by <i>mea</i> – Change of state expressed by <i>ua</i> – No imperatives – No suffixation of perfective <i>-'ia</i> – Agent or cause expressed by optional <i>i</i>-NP (see below) (lexical bases for derived causatives)
Common FWs (<i>vehine</i> 'woman'-class)	<ul style="list-style-type: none"> – Restricted TAM-marking (only with imperfective <i>e</i> and inchoative <i>ua</i>) – No suffixation of perfective <i>-'ia</i> – No imperatives – Change of state expressed by <i>ua</i> (often subject NP omitted) – Class can take possessive attributes when functioning as lexical head of VPs

4.1.2.4. Neuter verbs

The term *neuter verb* was first introduced by Maunsell (1842), and later it was further developed by Hooper (1984). Neuter verbs are a special class of verbals which allow different kinds of argument structure:

- (3.60a) *Ke'i te umu paotu, hai mai i te vehie*
digged.hole ART oven all transport hither DO ART fire.wood
paotu
all
‘The whole oven was digged out, (they) brought all the fire
wood... .’ (Mak-030)

- (3.60b) *U ke'i au i te 'ua.* (E; also Dordillon 1931: 217)
 TAM dig.out 1.sg DO ART hole
 'I digged out a hole.'

In (3.60a) the unmarked subject noun phrase *te umu paotu* is the undergoer or patient, whereas in (3.60b) the unmarked subject noun phrase is an actor and the undergoer is marked by the preposition *i*. In other words: in (3.60a) the verbal *ke'i* 'be digged out' only requires one argument and is therefore intransitive, whereas in (3.60b) *ke'i* 'dig out' is transitive because it requires two arguments. There is a small class of verbals¹²⁹ like *ke'i* in Marquesan which have both a transitive and intransitive argument structure:

(3.61)	<i>tomi</i>	'cover'
	<i>motu</i>	'cut, break'
	<i>i'o</i>	'pass'
	<i>hupai/hapai</i>	'lift'
	<i>u'ai</i>	'pull, lift'
	<i>hati</i>	'break'
	<i>ko'e'o</i>	'detach'
	<i>ke'i</i>	'dig'
	(<i>hemo</i>)	'catch'

Since Maunsell (1842) these verbals have been called neuter verbals because they are formally neuter with respect to active or passive voice.¹³⁰ Therefore it is no surprise that neuter verbals do not take the passive suffix *-ia*. This is one of the characteristics neuter verbals share with state verbs.

For Maori, Bauer (1997) classifies neuter verbs as intransitives. Apart from the intransitive frame in which Maori neuter verbals occur, the same lexical bases can also occur in a transitive frame, like the Marquesan examples above. However, Bauer (1997: 75) believes that these lexemes are homophones which have two different meanings or senses. The lexeme Mao. *mau* means 'catch' when used in the transitive frame, and 'be caught' when used as the intransitive frame.¹³¹ It is possible to list them, like Bauer does it, as two lexical entries based on two different argument structures, (i.e. transitive or intransitive). However, these lexemes have even synchronically the same semantic basis and therefore it is difficult to argue that they are homophones. I therefore suggest that there is only one lexical entry

which can have different kinds of argument structures in different clause types. Here are some examples from texts:

- (3.62) *Tuku='ia ai 'io he umu, tomi te umu paotu.*
 put=PASS ANA PREP ART oven covered ART oven all
 ‘It was put in the oven, the whole oven was covered.’ (Mak-038)
- (3.63) *Ke'i te umu paotu, hai mai i te vehie paotu.... .*
 digged.hole ART oven all transport hither DO ART fire.wood all
 ‘The whole oven was digged out, (they) brought all the fire wood... .’ (Mak-030)
- (3.64) *Ena Teiki e ke'i ai i te [te] 'eita.*
 exist T. TAM dig ANA DO ART ART grass,weed
 ‘There is Teiki who is digging grass.’ (CH-B: 050)
- (3.65) *Ua he'e 'atou ua motu i te kanina,*
 TAM go 3.pl TAM cut DO ART post
u haka=tu i t=o 'atou ha'e. (Lav-U: 227)
 TAM CAUS=stand DO ART=POSS 3.pl house
 ‘They left and cut the posts and erected their house.’
- (3.66) *'A motu te meika, 'a ta=pa'a 'io he 'ua,*
 TAM cut ART banana TAM CAUS=ripe PREP ART hole
'a taki te ta'o mea poke me te heikai.
 TAM take.out ART taro make poke with ART heikai
 ‘Cut the bananas, make (them) dry in the hole, take out the taro in order to make *poke* and *heikai*.’ (Lav-U: 231)
- (3.67) *Kohi t=a ia 'ona tau memau no t=a*
 collected ART=POSS 3.sg precious PL thing for ART=POSS
ia tama e tike mai 'i vaveka o Anaho.
 3.sg child TAM arrive hither LD middle POSS A.
 ‘The precious things for his child were collected (and he) arrives in the middle of Anaho.’ (K1-T12: 8)
- (3.68) *...ua kohi ia i t=o ia 'enana mea he'e*
 TAM collect 3.sg DO ART=POSS 3.sg man in.order.to go
me ia 'i te koika 'i tahipito ka'avai o te
 with 3.sg LD ART feast LD other valley POSS ART

po'i hoihoi.
 people handicapped
 ‘... he collected his man in order to go to the feast in other
 valleys of handicapped people.’ (Lav-E: 035)

When neuter verbs occur in the intransitive frame, it is possible to express the agent or cause of the action or event by a noun phrase which is marked by the preposition *i* or its allomorph *ia*:

- (3.69) *Ee, e ko'aka ia='u i haka=pohu'e*
 yes, TAM found OBL=1.sg TAM CAUS=live
haka='ua te kiko o te puaka 'io he ivi.
 CAUS=two ART meat POSS ART pig PREP ART bone
 ‘Yes, I can revive again the meat of the pig on the bone.’¹³² (lit. ‘It
 was found by me to revive...’) (Mak-037)
- (3.70) *'A'o'e i hemo te kamo ia='u.*
 be.not TAM catch/caught ART thief OBL=1.sg
 ‘The thief was not caught by me.’ (Dordillon 1931: 160)

The marking of the agent or cause with the preposition *i* is what neuter and state verbs have in common:

- (3.71) *Ua pi te vaka i te ko'ehi.*
 TAM full ART canoe OBL ART coconut.milk
 ‘The canoe is full of coconut milk.’ (lit. ‘... caused by the coconut
 milk’) (Lav-H: 065)
- (3.72) *'U ha'ameta'u te tama 'ia 'oe.*
 TAM be.afraid ART child OBL 2.sg
 ‘The child is afraid of you.’ (lit. ‘you are the cause that the child is
 afraid’) (Zewen 1987: 43)

The following two examples appear to have the same argument structure because the nucleus of the verbal phrase is followed by an unmarked noun phrase and an object noun phrase which is marked by the preposition *i*:

- (3.73) *Ua motu t=u='u kahu 'i-'ima i te ke'a.*
 TAM cut PPr.1.sg clothes RED-hand/arm OBL ART stone
 ‘My sleeves were cut by the stone.’ (Dordillon 1931: 271)

- (3.74) *Ua he'e 'atou ua motu 'atou i te kanina,*
 TAM go 3.pl TAM cut 3.pl. DO ART pillar
u haka=tu i t=o 'atou ha'e. (Lav-U: 227)
 TAM CAUS=stand DO ART=POSS 3.pl house
 ‘They went (and) cut the pillars, (and) built their house.’

The prepositions marking oblique noun phrases and direct object noun phrases are homophones. In order to decide whether the neuter verbal is used in the intransitive or transitive frame, one has to identify the semantic role of the unmarked noun phrase or subject. The context often disambiguates the semantic roles. In (3.73) *motu* ‘cut’ is used in the intransitive frame because the unmarked noun phrase is the undergoer, whereas in (3.74) *motu* is used in the transitive frame because the unmarked noun phrase is the agent.

Verbals like *tomi* ‘cover’, *hupai/hapai* ‘lift’ and *motu* ‘cut’ show an alternating argument structure in imperative clauses. They can have a transitive argument structure:

- (3.75) 'A ***tomi*** *i t=o 'oe nino!* (Dordillon 1931: 398)
 TAM cover DO ART=POSS 2.sg body
 ‘Cover your body!’
- (3.76) 'A ***hapai*** *i te ke'a!* (Dordillon 1931: 151)
 TAM lift DO ART stone
 ‘Lift the stone!’
- (3.77) 'A ***motu*** *i te=na tapa!* (Dordillon 1931: 271)
 TAM cut DO ART=Dem cloth
 ‘Cut that cloth!’

or an intransitive argument structure:

- (3.78) 'A ***motu*** *te aho!* (Dordillon 1931: 271)
 TAM cut ART rope
 ‘Cut the rope!’

It is difficult to determine why the verbals listed in (3.61) (henceforth *tomi* ‘cover’-class) have an alternating argument structure. In (3.79–80) the same event is expressed, but the verbal *tomi* has quite different underlying argument structures:

- (3.79) *E tomi i te puta.* (Dordillon 1931: 398)
 TAM cover DO ART hole
 '(Someone) covers the hole.'

- (3.80) *E tomi te puta.* (Dordillon 1931: 398)
 TAM cover ART hole
 'The hole was covered.'

In both sentences the agent is not mentioned. The intransitive argument structure of neuter verbals clearly shows ergative traits because the agent noun phrase, if expressed, is case-marked by the oblique preposition *i* (see [3.69–70]).

In many intransitive constructions with neuter verbals, the *i-/ia*-marked noun phrase is often closer to the nucleus of the verbal phrase than the noun phrase denoting the undergoer:

- (3.81) *U pe'au Hekei:“ Ua hemo ia koe hua mou*
 TAM say H. TAM catch OBL 2.sg ART.ana PL
maha'i?“
 boy
 'Hekei said: "You caught those boys?"' (Lav-T/H: 225)

- (3.82) *U pe'au te motua:“ u ko'aka ia koe te tuehine?“*
 TAM say ART father TAM find OBL 2.sg ART sister
 'The father said: "Did you find your sister? "'(Lav-U: 199)

In (3.81–82) the constituent order of intransitive verbal clauses (=verbal-subject-oblique noun phrase) deviates from the basic word order because the oblique noun phrase is positioned before the subject noun phrase. One reason for this non-basic word order might be due to the agenthood expressed by the oblique noun phrases in (3.81–82), i.e. that noun phrases expressing agents might have a tendency to be closer to the predicate than noun phrases expressing other participants such as the undergoer. Furthermore, we have to point out that all agents expressed by the oblique noun phrases are persons.

A few verbals such as *mau* 'caught, hold', *ko'aka* 'found', *poha* 'broken', *puovo* 'burnt', *ve'a* 'burnt, cooked', *hika* 'defeated' appear to be related to the *tomi*-class (see [3.61]) because they are neuter in form (i.e. they do not take the passive suffix *-ia*), but are passive in meaning. However, these verbals have no alternating argument structure (between transitive

and intransitive frames), but only occur in the intransitive frame. Furthermore, they differ in that they cannot form imperatives. However, they share many morphosyntactic properties with state verbals (e.g. no passives, unmarked noun phrase as undergoer, expression of agent/cause by an oblique noun phrase etc.). From a semantic point of view, it is difficult to place them in the class of state verbals because they describe the beginning of a new situation or state of being which has an implicit agent or cause. Therefore I classify them as a separate class which I call the *mau* ‘caught’-class:

- (3.83) *Me hua mea Anihoka ua hika Anihoka i 'oto o te='a toua='ia.* (Lav-H: 089)
 like same thing A. TAM defeated A. LD inside POSS
 ART=Dem war=Perf
 ‘The same thing with Anihoka, Anihoka was defeated in the war.’
- (3.84) *Ia mau ia koe, 'umo'i e tuku.* (T/H: 212)
 TAM hold OBL 2.sg PROHIB TAM give
 ‘If you have caught (them), don’t let (them) go!’
- (3.85) *E mau te aatu, hm, na Makaia'anui.* (Mak-094)
 TAM caught ART bonito INTJ TOP M.
 ‘The bonito was caught, hm, Makaia'anui did it.’ (lit. ‘... it was Makaia'anui’)

The classification of verbs into subclasses is based on their valency. Whereas transitive verbs require two arguments, intransitive verbs only require one argument. Neuter verbs are distinguished from transitive and intransitive verbs in that they have an alternating argument structure between one or two required arguments. When neuter verbs are used in the intransitive frame, they resemble ergative verbs of ergative languages (see e.g. Samoan [Mosel and Hovdhaugen 1992]).

The following table summarises the syntactic and morphosyntactic properties of the major verbal classes:

Table 8. Syntactic and morphosyntactic properties of verbals

	tran (tr)	ditran (ditr)	action (itr)	process (itr)	state (itr)	com FW (itr)	neut class	<i>mau-</i> class
Passive	+	+	—	—	—	—	—	—
Imperative	+	+	+	—	—	—	+	—
Ditrans. AStr ¹³³	—	+	—	—	—	—	—	—
Trans. AStr	+	(+)	—	—	—	—	+	—
Intrans. AStr	(+)	(+)	+	+	+	+	+	+
Oblique <i>i-</i> NP (agent/ cause)	—	—	—	(+)	+	—	+	+
Unmarked NP: undergoer (argument)	+	—	—	+	Ø ¹³⁴	Ø	+	+

4.1.2.5. Other verbs

There are a few full words which occur as verbals, but which cannot be classified with respect to the above subclassifications of verbals:

1. Metereological verbals (e.g. *ua* ‘rain’, *metaki* ‘be wind-blowing’)
2. Verbals of appearance and disappearance (e.g. *ko'e* ‘cease’, *pao* ‘finish’, *ka'o* ‘disappear’, *kao* ‘appear’)
3. Existential verbals (*ena* ‘exist’, *eia* ‘be there’)
4. Presentatives and comparatives (e.g. *aia*¹³⁵ ‘be there’ *pe'e-*¹³⁶ ‘like’, *ati'i* ‘like’ [see also section 4.3.6])
5. Verbals of negation (e.g. *'a'o'e* ‘be not’, *'umo'i* ‘must not’, *aua* ‘should not’ [see also section 6.2.2])
6. Verbal pseudo-prepositions¹³⁷ (e.g. *me* ‘be like’, *ka'o* ‘be until’)
7. Quantifying verbals (e.g. *paotu* ‘be all’)

Metereological verbals do not require arguments:

- (3.86) *Ua ua.*
 TAM rain
 '(It) rained.'

Metereological verbs can be preceded by the verbal particle *mea*:

- (3.87) *Mea metaki 'i te=nei 'a.*
 STV-P windy LD ART=Dem day
 '(It) is windy today.'

All other verbals require one argument. However, they frequently occur without arguments and often simply occur as monophasal clauses:

- (3.88) *E he'e au 'i te avaika. – 'Umo'i!*
 TAM go 1.sg LD ART fishing must not
 'I'm going fishing. – Don't!'

Most of the above verbals do not have TAM-marking nor occur with the particle *mea*. Only metereological verbs and verbals of appearance and disappearance can occur with some TAM-particles including *mea*.

4.2. Numerals

Numerals appear to be a small word class of their own. The numeral construction of the particle [*e* +numeral] mostly occurs before and after the lexical head of countable full words. When the construction [*e* + numeral] occurs before countable full words, the lexical head of the noun phrase is not determined by an article:

- (3.89) *U ma'ohi Pehuti e tahi kava, ua vahi e 'ua pikao, me te to'o iho i titahi pikao me te kokomo 'io he haha me te mama iho.*
 TAM mix P. NUM one kava Perf crack NUM two piece and ART take DIR DO ART.indef piece with ART push.in PREP ART mouth and ART chew DIR
 'Pehuti made one kava, (he) cracked two pieces and then (he) took one piece and pushed (it) into the mouth and then began to chew it.' (Lav-H: 083)

In nominalisations of verbal clauses we have the same prenuclear numeral construction as in (3.89):

- (3.90a) *E to'u kanea='ia o te vaka.* (E)
 NUM three construct=Perf POSS ART canoe
 'Three constructions of a canoe.'
- (3.90b) *Ua he'e Teu'u'otetoka 'i tai, e tahi*
 TAM go T. LD sea NUM one
he'e 'io te ha'e o na pakahio. (Lav-U/N: 316)
 go PREP ART house POSS ART old.woman
 'Teu'u'otetoka went seawards, once (he) went to the house of the
 two old women.' (lit. '... one going to the house...')

Numerals often combine with the numeral classifier prefix *toko-/to'o-* which is only used in connection with humans. When combined with this classifier, numerals occur mostly as the lexical head of a verbal phrase (see [3.91a]), a lexical modifier (see [3.91b]) or in prenuclear position of noun phrases similar to the [*e* + numeral] construction (see [3.91c]):

- (3.91a) *Mea nui te 'enana 'i 'uka he poti, to'o=va'u*
 STV-P numerous ART man LD top ART boat NUM.CL=eight
'atou. (Zewen 1987: 88)
 3.pl
 'There are many men on the boat, they are eight.'
- (3.91b) *Tekao no titahi mou 'enana toko='ua, toko=tahi mei*
 talk,story for ART PL man NUM.CL=two NUM.CL=one from
Hiva 'Oa, toko=tahi mei 'Ua Pou. (Lav-H: 003)
 H. 'O. NUM.CL=one from 'U. P.
 '(This is) a story about two men, one is from Hiva 'Oa, (and) one
 is from 'Ua Pou.'
- (3.91c) *Ua hano toko='ua mou maha'i ua humu 'i te*
 TAM get NUM.CL=two PL boy TAM attach LD ART
vaka me te tou'a. (Lav-T/H: 246)
 canoe with ART rope
 'The two boys got (him) and (they) attached (him) onto the canoe
 with a rope.'

The distinction between cardinal and ordinal numerals is a matter of distribution. Numerals are interpreted as cardinals when they are preceded by the numeral particle *e* (see [3.89], [3.90] and [3.94–95]) or combine with the numeral classifier *toko-/to'o*. When they are used in the sense of ordinal numerals they are not preceded by *e* and occur as the lexical head of noun phrases (see [3.92]) or as an attribute (see [3.93]). Both types of constructions require a possessive attribute:

- (3.92) ***Te 'ua o te to'iki.***
 ART two POSS ART child
 ‘The second child.’ (lit. ‘the two of the children’) (E)
- (3.93) ***Te po to'u o te me'ama rare.***
 ART day three POSS ART month July
 ‘The third (day) of July.’ (E)

The different positions of the [*e* + numeral] construction indicates different syntactic functions. In (3.94a) the prenuclear construction [*e* + numeral + countable full word] functions as a predicate in a non-verbal clause:

- (3.94a) ***Ua, um, maka puaka pe'au ho'i e hitu meta***
 TAM INTJ big pig say indeed NUM seven meter
te 'oa e 'ima meta te ti-tike.
 ART length NUM five meter ART RED-high
 ‘Hm, a big pig they said, the length was seven meters and the height was five meters.’ (Mak-055)

Prenuclear constructions can also function as arguments (see [3.89]), complement phrases (see [3.94b]) or adjuncts (see [3.94c]). All these occurrences have in common that they are never marked by prepositions. In (3.89) we can see that the direct object noun phrase *e tahi kava* ‘one kava’ is not marked by the direct object marker *i*. In (3.94b+c) we can see that the temporal phrases are not marked by the prepositions ‘*i*, *ma* or *mei* which are normally used with nominal phrases expressing temporal relations:

- (3.94b) ***Tihe e tahi 'a tapu u ta=puke='ia e***
 Arrive NUM one day taboo TAM CAUS=pile=PASS AGS
'aua te 'eita u koti-koti=a.
 3.dl ART grass TAM RED-cut=PASS

'One Sunday arrived, the grass was piled up by them and (then) cut.' (Lav-U: 212)

- (3.94c) *Ua moe Temokomatahai e tahi po 'i Hoaho,*
 TAM sleep,lie T. NUM one night LD H.
 'Temokomatahai slept one night in Hoaho,' (Lav-U: 246)

In postnuclear position, the construction [*e* + numeral] functions as an attribute of a countable common full word:

- (3.95a) *E po'i kere t=o='u tu'ane e ono.*
 TAM people box ART=POSS=1.sg brother NUM six
 'My six brothers are boxers.'(lit. 'my brothers which are six are boxers') (Zewen 1987: 87)
- (3.95b) *Ua rere te tumu ha'a 'i uta atu,*
 TAM retreat ART trunc pandanus LD inland DIR
u topa te ha'a e tahi.
 TAM fall ART pandanus NUM one
 'The pandanus tree retreated further inland, (and) one pandanus fell.' (Lav-U/N: 062)

The interrogative proform *hia* 'how many' is classified as a numeral because it has the same morphosyntactic distribution as numerals:

- (3.96) *E hia tumu 'akau? – E 'ua.* (E)
 NUM how.many trunc wood NUM two
 'How many trees? – Two.'
- (3.97) *E hora hia te=nei? – E hora e to'u.*
 TAM hour how.many ART=Dem.prox TAM hour NUM three
 'What's the time now? – It's three o'clock.' (E)
- (3.98) *Toko=hia i mate – Toko='ima e tahi*
 NUM.CL=how.many TAM dead NUM.CL=five NUM one
tu='ia.
 blow=Perf
 'How many died? – (There) were five in one blow.' (Dordillon 1931: 397)

The interrogative *hia* is also classified as a proform (see this chapter, § 4.3.7).

4.3. Proforms

Proforms are words which stand for other words belonging to the class of full words or which stand for entire sentence constituents such as verbal phrases and noun phrases (Mosel and Hovdhaugen 1992: 119). Unlike full words, proforms are considered to be a closed class. There are the following major proforms in the Marquesan language:¹³⁸

1. Personal pronouns
2. Possessive pronouns
3. Demonstratives
4. Deictic local nouns
5. Deictic temporal nouns
6. Deictic verbals
7. Interrogative proforms
8. Anaphoric pronoun *ai*

4.3.1. Personal pronouns

The personal pronoun system consisting of eleven personal pronouns is classified into first, second and third person. In addition, personal pronouns distinguish number by having distinct forms for singular, dual and plural. The first person dual and plural further distinguish between inclusive (e.g. *taua* ‘we two, you and me’) and exclusive forms (*maua* ‘we two, but not you, i.e. the speaker and another person, but not the addressee’). Personal pronouns can be segmented into bound morphemes which indicate number and person: *-ua/-'ua*¹³⁹ ‘dual’, *-tou* ‘plural’, *ta-* ‘1.dual/plural inclusive’, *ma-* ‘1.dual/plural exclusive’, *ko-* ‘2.dual/plural’ and *'a-* ‘3.dual/plural’.

The following table provides the reader with an overview of the Marquesan personal pronoun system:

Table 9. Personal pronouns of the 'Ua Pou vernacular

	singular	dual	plural
1.ps	<i>au, -'u</i> ¹⁴⁰		
1.incl		<i>taua</i>	<i>tatou</i>
1.excl		<i>maua</i>	<i>matou</i>
2.ps	<i>koe</i>	<i>ko'ua</i>	<i>kotou</i>
3.ps	<i>ia</i>	<i>'aua</i>	<i>'atou</i>

When personal pronouns occur as the head of an (direct and oblique) object noun phrase, they are preceded by the preposition *ia*, instead of *i*. It has already been mentioned above that *-a* in *ia* is probably a personal article which occurs with proper names of persons and personal pronouns (see above)

4.3.2. Possessive Pronouns

There are only two possessive pronouns in N-MQA which have a pronominal form, namely *tu'u* 'my' and *to* 'your'. The possessive pronoun *tu'u* is especially used in order to express affection towards the thing with which the speaker has a relationship of possession or a person with whom the speaker stands in a personal relationship. An adequate gloss for *tu'u* is 'my dear/good/nice':

- (3.99) *Mave mea~ Pa'etini ia ia: " Mai me mai me mai welcome thing P. DO 3.sg come TAM come TAM come me mai e tu'u hoa" (Mak-014)*
 TAM come VOC PPr.1.sg friend
 'Pa'etini welcomes him: "Come, please come, please come, please come my dear friend ..."'
- (3.100) *Pe'au mai tu'u mama ia='u: " Te=nei e say hither PPr.1.sg mama DO=1.sg ART=Dem VOC tu'u mo'i e tau hua'a no koe." (Conv-DR: F)*
 PPr.1.sg girl TAM PL relatives for 2.sg
 'My dear mother said to me: "This is, my dear girl, your family."

According to Zewen (1987) *to* is not a possessive pronoun because *to* is an elliptical form of *to+personal pronoun*: the personal pronoun can be omitted if it is clear from the context to whom it refers (Zewen 1987: 83).

In my data, occurrences with mere *to* only seem to refer to the second person singular. I therefore believe that *to* is a real possessive pronoun meaning ‘your’:

- (3.101) *I pe'au ai koe 'a i topa to po'ea*
 TAM say ANA 2.sg be.not TAM fall PPr.2.sg handsome
i he'e nei koe me te hoihoi 'i te henua vi'i.
 TAM go now 2.sg with ART monster LD ART country turn
 ‘You said your handsomeness has not vanished (because) you
 went with the monsters to make a tour around the country.’
 (Lav-E: 073)

All other forms expressing possessive relationships are adnominal attributes in pre- and postnuclear position which will be discussed in connection with the structure of noun phrases (see this chapter, § 6.1.2.1).

4.3.3. *Demonstratives*

Marquesan has five demonstratives:

- (3.102)
- | | |
|---------------------------|--|
| <i>nei</i> | ‘refers to something which is near the speaker or deictic centre’, ¹⁴¹ |
| <i>na</i> | ‘refers to something which is close to the addressee’ |
| <i>'ala'a</i> | ‘refers to something which is neither close to speaker nor addressee’ |
| <i>-ia</i> ¹⁴² | ‘refers to a new referent or when the speaker wants to express a certain distance’, ¹⁴³ |
| <i>ana</i> | ‘somewhere over there (=unspecific)’ |

The demonstratives *nei*, *na* and *'ala'a* can occur in both pre- and postnuclear position as free and bound morphemes. When they occur before the lexical head of noun phrases, they are bound because they combine with the general article *te* (see [3.103]):

- (3.103) *U makimaki te='a mou ko'oua*
 TAM want ART=Dem PL old.man
 ‘Those old men wanted to... .’

When they occur after the head of noun phrases, they are postpositioned free morphemes (see [3.104]):

- (3.104) ...*u pe'au 'atou:* “*Mea po'ea te 'enana nei.*”
 TAM say 3.pl STV-P handsome ART man Dem.prox
 ‘... they said: “This man is handsome.”’ (Lav-E: 018)

Demonstratives are postpositioned when the head is determined by the articles *titahi*, *na*, *hua* or *he*, or when the head is inherently specific as in the case of proper name of persons, place names and local nouns:

- (3.105) '*A'e he memau matou mea kai hua~~ hua ika nei.*'
 be.not ART thing 1.pl.excl in.order.to eat ART.ana
 ART.ana fish Dem.prox
 ‘We had no things to eat that ~~ that fish here.’ (K2B-T12: 6)
- (3.106) *Tu'u noho='ia 'i Hatihe'u nei 'a'e au 'oa.*
 PPr.1.sg stay=Perf LD H. Dem.prox be.not 1.sg long
 ‘My precious stay here in Hatihe'u was not for a long time.’
 (K2B-T12: 2)
- (3.107) *Na po 'omua na po kaku i te*
 ART.pl day before ART.pl day ancient LD ART
Henua 'Enana nei, 'i 'Ua Pou (Mak-002)
 H.(land) E.(man) Dem.prox LD U. P.
 ‘Once upon a time, in the ancient times, here on the Marquesas,
 on 'Ua Pou’

The demonstrative *-ia* is a bound morpheme which combines with the general article *te* (see [3.109]). The demonstrative *ana* ‘somewhere over there’ only occurs with local nouns and is always postpositioned to the lexical head (see ch. 6, § 3).

The demonstratives *nei*, *na* and '*a/a'a* are used in the actual speech situation (=demonstratio ad oculos-situation¹⁴⁴) as well as anaphorically (e.g. in narratives). The bound morpheme *-ia* is often used anaphorically, but also has other functions (see below [3.110–112]) Here are examples of anaphoric uses in a legend:

- (3.108) *Ena 'io he mata'ae te no-noho o te=na*
 exist PREP ART cape ART RED-stay POSS ART=Dem

mou maha'i. (Lav-T/H: 210)

PL boy

'The permanent residence of those boys is at the cape.'

- (3.109) *Me hua mea u pohu'e He'ato mei 'oto o te=ia toua='ia.* (Lav-H: 106)
- be.like ART.ana thing Perf survive H. from inside POSS ART=Dem fight=Perf
- 'That was the same thing, He'ato survived from inside of this war.'

Apart from using demonstratives anaphorically or in an actual situation, there are also other uses. *Teia* is sometimes used to introduce new referents (see [3.110]; see also Zewen 1987: 18) or when the speaker intends to be neutral or vague about the things s/he is talking about (see [3.111–112]):

- (3.110) *O=ia te=ia ha'akakai no Makaia'anui.*
- PRES=Dem ART=Dem legend about M.
- 'This is a legend about Makaia'anui.' (Mak-001)
- (3.111) *Eh mea'a t=o='u pakahio pe'au t=o='u pakahio makimaki ia titahi maha'i titahi vahana 'io te=ia hepe.*¹⁴⁵ (K2B,T10: 13)
- INTJ but ART=POSS=1.sg grandmother say ART=POSS=1.sg grandmother want 3.sg ART.indef boy ART.indef husband PREP ART=Dem ship
- 'But my grandmother, my grandmother said that she wanted a boy a husband from *that* ship.'
- (3.112) *E avei oti tatou ma te=ia 'a.*
- TAM meet perhaps 1.pl.incl PREP ART=Dem day
- 'We might meet some day (in the future).' (LET-Ra/01/00)

In nominal contexts the meaning of the demonstratives corresponds to the meanings listed in (3.102). The interpretation of the demonstratives as verbal modifiers is, however, more complex and their meanings are not always predictable. The demonstrative *na* is rarely¹⁴⁶ used in verbal contexts. When the proximal demonstrative *nei* modifies verbs it is used temporally¹⁴⁷ meaning 'now, just, recently, close to the deictic centre of the event or happening'. The deictic centre often coincides with the 'time of utterance':¹⁴⁸

- (3.113) *U ti'ohi nei au e aha e 'oko te=na*
 TAM look.at Dem.prox 1.sg TAM what TAM obey ART=Dem
puke manu a koe
 PL.flock bird POSS 2.sg
 ‘Now I will (definitely) see how those birds of you will obey
 (your orders)... .’ (Mak-018)
- (3.114) *Ua topa tu'u 'i'i i te tau 'a i pao atu*
 TAM fall my force OBL ART arrive be.not TAM finish DIR
nei i te mea 'a'e 'atou i tihe 'i
 Dem.prox OBL ART thing be.not 3.pl TAM arrive LD
te ko'ika,
 ART feast
 ‘My force has decreased due to the arrival, the thing is not yet
 finished, they haven't arrived at the feast yet... .’ (Lav-E: 089)

The deictic centre can also be transposed to a different point in time or time interval in the past:

- (3.115) *Ena me t=o ia hoa e noho nei 'i te*
 exist with ART=POSS 3..sg friend TAM live Dem.prox LD ART
henua Hiva 'Oa.
 land H. O.
 ‘He has a friend who lives (at that moment of the happening of
 the narrative) on the land of Hiva 'Oa.’ (Mak-007)
- (3.116) *'Atahi 'a hemo ai te tuehine i te mate koea*
 when TAM catch ANA ART sister DO ART illness crazy
i te ue i t=o ia tukane i mate
 OBL ART grief OBL ART=POSS 3.sg brother TAM dead
nei o Teatau'apaku. (Lav-E: 122)
 Dem.prox PRES T.
 ‘When the sister became crazy which was caused by the grief
 over her brother's *recent* death, (he was called) Teatau'apaku.’

Although *nei* mostly expresses a temporal relation when modifying a verbal, it also be used spatially meaning ‘here’ (Mutu and Teikitutoua 2002: 68). The use of the demonstratives *nei* and *a'a* as verbal modifiers is more thoroughly discussed in section 6.2.1.

Table 10. Uses of demonstratives

	<i>nei</i>	<i>na</i>	<i>'a, a'a</i>	<i>-ia</i>	<i>ana</i>
Prenuclear with article	<i>te=nei</i> <i>'enana</i>	<i>te=na</i> <i>'enana</i>	<i>te='a</i> <i>'enana</i>	<i>te=ia</i> <i>'enana</i>	—
Postnuclear in NPs	<i>te 'enana</i> <i>nei</i>	<i>te 'enana</i> <i>na</i>	<i>te 'enana</i> <i>a'a</i>	—	<i>'i tai ana</i> ¹⁴⁹
<i>Demonstratio ad oculos</i>	+	+	+	—	+
Anaphoric	+	+	+	+	—
Adverbial	+	—	+	—	(+) ¹⁵⁰
Indefinite or Unspecific	—	—	—	+	+

4.3.4. Deictic local nouns

The 'Ua Pou vernacular'¹⁵¹ has the following deictic local nouns:

(3.117)	<i>ko</i> ¹⁵²	'there, unspecified whether close to one of the speech participants or not'
	<i>'ei'a</i> ¹⁵³	'there (+ pointing gesture)', also used anaphorically
	<i>'inei</i>	'close to speaker'
	<i>'ina</i>	'close to addressee'
	<i>'i'a</i>	'neither close to speaker nor to addressee'

The meaning and usage of *ko* is complex and difficult to determine (see ch. 7, § 3.3). However, in certain contexts it seems to be used as a locative proform denoting a location in a *demonstratio ad oculos*-situation. Whether a location is close or distant to the speaker and/or addressee is not expressed by *ko*. Speakers therefore often modify *ko* with the demonstratives *nei* 'here' and *a'a* 'there'. *Ko* can be preceded by the preposition *i* 'location, direction, goal' or *ma* 'path, region', but not by *mei* 'source'. However, in casual language, when *ko* is modified by demonstratives and other modifiers, the preposition is often omitted:

- (3.118) *I sea te puaka? – Ko a'a.* (E-Mo-99)
 LD where ART pig there Dem.dist
 ‘Where is the pig? – Over there.’

Ko cannot be used anaphorically. *Ei'a*, on the other hand, can be used in a *demonstratio ad oculos*-situation as well as anaphorically. In a *demonstratio ad oculos*-situation *ei'a*, like *ko*, does not specify whether the location of an entity is close or distant to the speaker or addressee. However, *ei'a* is accompanied with pointing gestures which indicate the location or the direction towards the location of an entity. When *ei'a* is used anaphorically it refers to a location previously mentioned in discourse:

- (3.119) *Ua te'e 'atou 'i Ha'ahopu, mei 'ei'a ua hiti
 TAM navigate 3.pl LD H. from there TAM ascend
 'i Henua Ataha.*
 LD H.(land) A.(walk)
 ‘They navigated to Ha'ahopu, from there they went up to Henua Ataha.’ (Zewen 1987: 63)

Note that *'ei'a* can be preceded by the three locative prepositions *'i*, *ma* and *mei*.

Inei, *ina* and *i'a* are classified as deictic local nouns. Zewen (1987: 62) argues that *inei*, *ina* and *i'a* are demonstratives which combine with the locational-directional preposition *'i*. Historically, they have probably derived from the set of demonstratives (see this chapter, § 4.3.3), but synchronically they do not form such a paradigm because they can be preceded by other locative prepositions, namely *ma* and *mei*:

- (3.120) *Mea mamao mei 'inei 'i Tahiti.*
 STV-P distant from loc.n-here LD T.
 ‘It is far away from here to Tahiti.’ (Zewen 1987: 63)
- (3.121) *I sea te kohe? – Ma 'i'a.* (E)
 LD where ART knife PREP loc.n-there
 ‘Where is the knife? – Somewhere over there.’

However, *inei*, *ina* and *i'a* cannot be preceded by the preposition *'i*:

- (3.122) *Ma uta 'i te='a koivi puaka 'i vaveka,*
 PREP inland LD ART=Dem female pig LD middle

i'a te mau i titahi koivi puaka.
 loc.n-there ART hold DO ART.indef female pig
 '(It is) inland of that sow which is in the middle, the location of
 that certain sow is there.' (FA-B/R: 16)

'*Inei*, '*ina* and '*i'a* are not used anaphorically¹⁵⁴. However, their usage is not only restricted to the *demonstratio ad oculos*-situation, but also to locations which are not visible to speaker and addressee. In their usage they are, in a way, comparable to deictic locatives in other languages.¹⁵⁵ The *level of reference* can be quite variable for these deictic local nouns. The deictic local noun '*inei* 'here' can refer to different bounded areas (i.e. a house, an island, a country etc.) which can go beyond the visual perceptual field of speaker and addressee, i.e. beyond a *demonstratio ad oculos*-situation (see Klein 1978; Sichelschmidt 1989). One can therefore use '*inei* in the following ways:

- (3.123) *Inei 'i 'oto o te ha'e.*
 loc.n-here LD inside POSS ART house
 'Here, inside the house.'

Inei 'i 'Ua Pou.
 here LD 'U. P.
 'Here, on 'Ua Pou (island).'

Inei 'i te Henua 'Enana.
 here LD ART H. 'E.
 'Here, on the Marquesas'

Inei 'i te aoma'ama.
 here LD ART earth,world
 'Here, on earth.'

'*Inei*, '*ina* and '*i'a* can also function as (nominal) predicates in locational non-verbal clauses:

- (3.124) *Inei au 'ina koe. (E)*
 Dem.prox-1.ps 1.sg Dem.prox-add 2.sg
 'I am here, you are there.'

4.3.5. Deictic temporal nominals

There are several deictic temporal nominals which have to be interpreted relatively to the time of utterance. These deictic temporal nominals do not form a morphological paradigm (i.e. there are no morphemes which indicate systematically PRESENT, PAST¹⁵⁶ and FUTURE), but they are lexicalised expressions which form syntactically independent sentence constituents. The following expressions correspond to the English temporal adverbials *today*, *yesterday* and *tomorrow*:

- (3.125) *'i te=nei*
LD ART=Dem.prox
'today, now'
ine=nahi
PAST=?
'yesterday'
o'io'i
tomorrow
'tomorrow'

Further, there are the deictic temporal words *epo* 'later the same day' and *kapo*¹⁵⁷ 'earlier the same day' which occur as the lexical head of a verbal phrase (see [3.126]) or noun phrase (see [3.127]). Again the temporal expressions *epo* and *kapo* operate with the deictic centre. 'The same day' here refers to the deictic centre which can coincide with the day of the time of utterance, or which can be transposed to a time interval in the past:

- (3.126) *'I te tihē='ia 'i='a, u pe'au Pa'etini: "Te=nei*
LD ART arrive=Perf LD=Dem.dist TAM say P. ART=Dem
ena taua 'a kai-kai." Me'a **epo** te kaikai e
exist 1.dl.incl INCH RED-eat but later ART meal TAM
popahi ia i t=a ia puke manu"
command 3.sg DO ART=Poss 3.sg PL.flock bird
'When (they) arrived there, Pa'etini said:"Now we are soon going to eat". But the meal was later and he called for his birds... .'"
(Mak-016)
- (3.127) *Na koe i pe'au 'i kapo.*
TOP 2.sg TAM say LD earlier.on
'It is you who said (it) earlier on.' (FA-B/R-5: 27)

Epo and *kapo* can both be modified by the demonstrative *nei* ‘proximal, close to deictic centre’ and *kapo* can additionally be modified by *'oa* ‘long’ in order to indicate that something has happened quite a while ago:

- (3.128) *Ine=hea te tihe o te hepe? – Kapo 'oa.*
 PAST=where ART arrive POSS ART ship earlier.on long
 ‘When did the ship arrive? – Quite a while ago.’ (E)

The interrogative proforms *inehea* ‘when (PAST)’ and *'aea* ‘when (FUTURE)’ can also be considered as deictic temporal words. The segment *ine-* in *inehea* ‘when (PAST)’ and *inenahi* ‘yesterday’ seems to be a non-productive prefix which refers to past events.

4.3.6. Deictic verbs

There are two paradigms of deictic verbs. One paradigm consists of the bound morpheme *pe'e-* ‘do like this/that’ and the three demonstratives *nei*, *na*, and *'a* and the adverbial *ana* expressing continuous or progressive action. The verbal proform *pe'e-* denotes the manner of doing something. The other paradigm consists of *ati'i* ‘like (=similar to)’ which also combines with *nei*, *ana* and *'a*, but not with *na*:

(3.129)	<i>pe'e=nei</i> like=Dem.prox 'like this'	<i>ati'i nei</i> similar Dem.prox '(be) the same as this'
	<i>pe'e=na/pe'e=ana</i> like=Dem.Add 'like that' (close to addressee)	<i>*ati'i na/ ati'i ana</i> similar Dem.add similar Dem '(be) similar like that'
	<i>pe'e='a</i> like=Dem.dist 'like that'	<i>ati'i 'a/a'a</i> like Dem.dist '(be) the same as that'

Note that it is not clear what the difference between *pe'ena* and *pe'eana* is. The *pe'e-* verbal paradigm is used in my space data when the speaker demonstrates how an object should be placed. The verbal proform *pe'e-* is often accompanied by hand or facial gestures.

- (3.130) *Pehea t=a ia kata? – Pe'e=nei.*
 how ART=POSS 3.sg laugh like=Dem.prox
 ‘How does he laugh? – Like this.’ (Zewen 1987: 95)

4.3.7. Interrogative proforms

The following interrogative proforms are used by speakers of N-MQA:

- (3.131)
- | | |
|-----------------------------|--|
| <i>ai</i> | ‘who, what name’ (proper nouns) |
| <i>aha</i> | ‘what, what happening’ (common full words) |
| <i>hea</i> | ‘where’ (local nouns) |
| <i>'ahea</i> | ‘when (FUTURE)’ (deictic temporal nouns) |
| <i>inehea</i> | ‘when (PAST)’ (deictic temporal nouns) |
| <i>pehea</i> | ‘how’ (common full words) |
| <i>hia</i> | ‘how many’ (numerals) |
| <i>umaha</i> ¹⁵⁸ | ‘why’ (common full words) |

From a morphosyntactic point of view, interrogative proforms do not really constitute a homogeneous word class of their own. Each interrogative proform has specific morphosyntactic properties and syntactic distributions within a clause. With respect to these properties, they rather belong to the word classes of which they are the proform. For instance, *ai* ‘who, what name’ behaves morphosyntactically like members of the class of proper nouns, *aha* ‘what’ behaves like a common full word, *hia* ‘how many’ behaves like a numeral etc.. Interrogative proforms occur as lexical heads of noun phrases, verbal phrases or as modifiers of verbal phrases and noun phrases.

The interrogative proform *ai* ‘who, what name’ is used when speakers of Marquesan want to inquire about the proper name of a person or place. *Ai* ‘who, what name’ usually functions as the lexical head of noun phrases. Most occurrences of *ai* are in basic non-verbal clauses which are introduced by the presentative preposition *o*:

- (3.132) *O ai te=na 'enana.*
 PRES who ART=Dem man
 ‘Who is that man?’ (Zewen 1987: 110)

- (3.133) *O ai te='a henua? – O Anaho.* (E-Mo-99)
 PRES who ART=Dem land PRES A.
 ‘What is the name of that land? – It is (called) Anaho.’
- (3.134) *Na ai te='a henua? – Na maua me Teiki.*
 for who ART=Dem land for 1.dl.excl and T.
 ‘To whom does that land belong to? – It belongs to us, (to me) and Teiki.’ (E-Ta-99)
- (3.135) *'U kukumi='ia ia e ai?* (Zewen 1987: 110)
 TAM kill=PASS 3.sg AGS who
 ‘He/she was killed by whom?’
- (3.136) *E he'e koe 'i te avaika me ai?* (E-Ti-99)
 TAM go 2.sg LD ART fishing with who
 ‘With whom are you going fishing?’

Ai can also function as an attribute, especially when the proper names they refer to are multireferential:¹⁵⁹

- (3.137) *Teiki ai? – Teiki Tehonu.*
 T. who T. T.
 ‘Which Teiki? – Teiki Tehonu.

In contrast to *ai* ‘who, what name’, *aha* behaves like a common full word. *Aha* functions as the lexical head of verbal phrases (see [3.138a+b]) and noun phrases (see [3.139]) and can also be used as an attribute (see [3.140]):

- (3.138a) *E aha te=na? – E pate ahi.* (Zewen 1987: 111)
 TAM what ART=Dem TAM box fire
 ‘What is that? – It is a match box.’
- (3.138b) *Ua=aha?*
 TAM=what
 ‘What has happened?’
- (3.139) *O mua te aha? – I mua o te=na mou horave.*
 PRES front ART what LD front POSS ART=Dem DL horse
 ‘In front of what? – In front of those two horses.’ (FA-Hak-5)

- (3.140) *E piha aha?* – *E piha pukiki.*
 TAM cow what TAM cow red
 ‘Which cow? – It is a red cow.’ (E)

Hea and its allophonic variant *sea* mostly occur as the lexical head of noun phrases. *Hea* ‘where’ shares many characteristics with local nouns: *hea* is not determined by an article and it is either preceded by the locative preposition *i* (=LD),¹⁶⁰ *ma* (=path) or *mei* (=source):

- (3.141) *Hu'i te upoko i hea?*
 turn ART head LD where
 ‘Where shall the head be turned to?’ (FA-M/C:6 o.c.: 009)

- (3.142) *Mei hea koe?* – *Mei uta mai nei au.*
 from where 2.sg from inland hither Dem.prox 1.sg
 ‘Where do you come from? – I’m coming from the inland-region.’ (E-Ti-99)

When *hea* is preceded by *ma* the speaker often wants to know by which means of transport a person has moved along a path (see also Zewen 1987):

- (3.143) *Ma hea t=o koe he'e='ia mai?* – *Ma he poti.*
 PREP where ART=POSS 2.sg go=Perf hither PREP ART boat
 ‘How did you get here? – By boat.’ (E)

When *hea* is fronted in a verbal interrogative clause,¹⁶¹ the verbal predicate has to take the anaphoric particle *ai*:¹⁶²

- (3.144a) *I sea vai ai te piha?*
 LD where left ANA ART cow
 ‘Where is left the cow?’ (E)

vs.

- (3.144b) *Vai te piha i hea?*
 leave ART cow LD where
 ‘Leave the cow where?’ (E)

The interrogative proform *hia* ‘how many’ has the same morphosyntactic distribution as numerals (see this chapter, § 4.2).

The interrogative proforms *ahea* ‘when (FUTURE)’, *inehea* ‘when (PAST)’, *pehea* ‘how’, *umaha* ‘why’ only occur in sentence initial position

and they seem to function as lexical verbal phrase heads which are not modified by TAM-particles:

- (3.145) ***Inehea*** *t=o* '*otou timata=’ia* *i* *te* *peni* *i*
 when ART=POSS 2.pl begin=Perf DO ART paint OBL
 t=o '*otou ha'e?* (Zewen 1987: 112)
 ART=POSS 2.pl house
 'When did you begin painting your house?' (lit. 'when your
 beginning of the painting of the house')
- (3.146) ***Ahea*** *a* *hiti* *’oe* *i* *Mu'ake* *i* *te* *kohe*
 when TAM ascend 2.sg LD M. LD ART bamboo
 ko-koti? (Zewen 1987: 112)
 RED-cut
 'When are you going up to Mu'ake to cut bamboo?'
- (3.147) ***A*** *hano* *te* *maimai!* – ***Umaha?*** (E)
 TAM get ART tabak why
 'Get the tobacco! – Why?'

4.3.8. Anaphoric pronoun *ai*

Marquesan has one anaphoric pronoun. This anaphoric pronoun *ai* only occurs in verbal contexts and is part of the verbal phrase. It always follows the lexical head and the verbal's modifiers:

TAM — Nucleus — (modifier)/(DIR) — anaphoric particle <i>ai</i> — Subject

- (3.148) ***Atahi*** *a* ***oko*** ***nui*** ***ai*** *te* *’i’i*
 then TAM strengthen very ANA ART force
 'When the forces were very strong' (Lav-H: 012)
- (3.149) ***Atahi*** *a* ***pe’au*** ***atu*** ***ai*** *Anihoka* *ia* *He’ato:*
 then TAM say DIR ANA A. DO H.
 'Then Anihoka said to He'ato:' (Lav-H: 040)

The usage of *ai* is complex. According to Mutu and Teikitutoua (2002: 100—107) and Zewen (1987: 121) it can stand for locative, causal, temporal noun phrases and clauses (see Mutu and Teikitutoua 2002 for details). The usage of the anaphoric particle can be observed in certain syntactic

contexts, e.g. when an adjunct¹⁶³ is fronted (see above [3.144]). *Ai* often occurs in temporal ‘*atahi* ‘when/then’-constructions (see [3.150]):

- (3.150) *Ia hemo na me'ama, 'atahi 'a tihē ai te 'oko 'io te haka'iki ...* (Lav-H: 016)
 TAM caught ART.pl moon then TAM arrive ANA ART
 news PREP ART chief
 ‘After a few months, then the news reached the chief.’ (lit. ‘when a few moons were caught...’)

In complex clauses in which constituents are modified for instance by relative clauses *ai* (in the relative clause) refers back to the adverbial phrase as in the case of the locative phrase ‘*i te tahatai* ‘to the beach’ in (3.151). The antecedent of *ai* is the constituent which is modified by the relative clause:

- (3.151) *Ua pao, u pe'au Hekei i t=o ia tau 'enana: "A pau tatou 'i te tahatai e momoe ai."*
 TAM finish TAM say H. DO ART=POSS 3.sg PL
 man TAM go 1.pl.incl LD ART beach TAM
 RED-lie ANA
 ‘When it was finished, Hekei said to his people:“Let’s go to the beach and sleep there.”’ (Lav-T/H: 126)

4.4. Particles

Particles mainly have grammatical functions within sentence constituents (i.e. noun and verbal phrases). They occur before or after the lexical head of noun and verbal phrases. Particles differ from full words and proforms in that they normally do not occur as lexical heads of noun or verbal phrases. They do not occur on their own and are considered to be part of noun and verbal phrases. Marquesan has the following particles:

1. TAM-particles (see this chapter, § 6.2.1).
2. Prepositions (see this chapter, § 6.1.1.2).
3. Articles (see this chapter, § 6.1.1.1).
4. Directional particles (see this chapter, § 6.2.4 and ch. 6, § 2).

5. Pre- and postnuclear modifiers.
6. Negative particles (see this chapter, § 6.2.2).
7. Conjunctions.
8. Emphatic particles.
9. Interrogative particles.

In this subsection only conjunctions, emphatic particles and interrogative particles are discussed. The use of pre- and postnuclear modifiers is briefly mentioned below, but more thoroughly discussed in the respective subsections about the morphosyntactic structure of verb and noun phrases (see this chapter, § 6.1.1.3.2 and 6.2.3). The other particles (e.g. TAM-particles, prepositions etc.) are also discussed in the subsections describing the structure of the noun and verbal phrase (see this chapter, § 6).

Pre- and postnuclear modifiers are particles which modify the lexical head (=nucleus) of verbal phrases and noun phrases. Most modifiers are postnuclear modifiers (e.g. *ho'i* ‘certainly’, *ihoa* ‘indeed’, *oti* ‘perhaps’, *toitoi* ‘real, genuine’, *pu* ‘only’, *haka'ua* ‘again’ etc.). The list is not exhaustive, but it is open for loans from other languages such as Tah. *pa'i* ‘certainly’ and Fr. *près*¹⁶⁴ ‘close’. Modifiers are distinct from other particles such as TAM-particles, articles and most prepositions because they have a lexical meaning. Some particles also occur as the lexical head of a verbal phrase, in particular *ho'i* ‘indeed’, *ihoa* ‘really’, *oti* ‘perhaps’ and *toitoi* ‘real, genuine’ (see [3.152]):

(3.152)	<i>Ma</i>	<i>hope</i>	<i>ihorave</i>	<i>mea</i>	<i>hana</i>	<i>maeka</i>	<i>atu.</i>
	PREP	behind	horse	STV-P	work	easy	DIR
	E	<i>ho'i</i>,	<i>mea'a</i>....	(FA-T/M-H: 17)			
	TAM	really	but				
	'Behind is a horse, that's even easier. – (That) is true, but'						

Some modifiers are therefore multifunctional because they function as particles as well as lexical heads of verbal phrases. However, when they function as verbals they never take arguments or adjuncts and their ability to combine with TAM-particles is restricted to the imperfective particle *e*.

4.4.1. *Conjunctions*

Conjunctions are particles which link constituents (i.e. noun and verbal phrases) and clauses. According to Mosel and Hovdhaugen (1992: 151)

there are three types of conjunctions: coordinating, subordinating and conditional conjunctions.

Coordinating conjunctions link constituents and phrases which are semantically and syntactically of equal rank (Mosel and Hovdhaugen 1992: 151). Marquesan has the following coordinating conjunctions:

- (3.153) *me* ‘and’
ako'e'a ‘or’
mea'a ‘but’
'atika ‘but, nevertheless’
- (3.154) *E aha 'a, 'a'e ia i hoihoi, mea'a ua topa*
well be.not 3.sg TAM monstrous but TAM fall
t=o ia 'oko: (Lav-E: 051)
ART=POSS 3.sg news
‘Well, he is not yet monstrous, but his news were spread:’

Coordination can also be expressed by juxtaposition:

- (3.155a) *Ua he'e Uhikaua'iki 'i Havaiki, ua noho me*
TAM go U. LD H. TAM live with
t=a ia vehine. (Lav-U: 002)
ART=POSS 3.sg wife
‘Uhikaua'iki went to Havaiki (**and**) lived with his wife.’
- (3.155b) *Ua he'e tahipito ka'ioi, u kanea i t=o 'atou*
TAM go other bachelor TAM make DO ART=POSS 3.pl
hei. (Lav-T/H: 019)
garland
‘The other bachelors left (*and*) made their garland.’

Subordinating conjunctions link a subordinate clause to a superordinate clause. We find the following subordinate conjunctions and lexicalised phrases in the function of a conjunction in Marquesan:

- (3.156) *no/na te mea* ‘because’
'atahi ‘then, when’
mea ‘in order to’
mai'a ‘although’
te ‘which, that’
to/ta ‘which belong(s)’

- (3.157) *Ua pao, 'atahi 'a topa t=o 'atou vaka.*
 TAM finished then TAM fall ART=POSS 3.pl canoe
 '(When it) was finished, then their canoe was (put in the sea).'
 (lit. '... their canoe fell') (Lav-T/H: 229)
- (3.158) *'Atahi 'a tihe te 'oko makaka 'io te Hiva 'Oa u kai='ia Ta'einui e te 'Ua Pou.*
 when TAM arrive ART news malicious PREP ART H. 'O.
 TAM eat=PASS T. AGS ART 'U. P.
 'When the bad news arrived at the Hiva 'Oa people, Ta'einui was eaten by the 'Ua Pou people.' (Lav-H: 006)
- (3.159) *'Atahi 'a va'e ai hua maha'i, u pe'au ia ia: "..."* (Lav-T/H: 219)
 when TAM like ANA ART.ana boy TAM say
 DO 3.sg
 'When that boy started to like it, (he) said to him: "..."'
- (3.160) *...'a hua veve 'io t=o ia ha'e 'io te vehine, no te mea u ha'a-ha'a oko te='a mou ko'oua ia Tuohē e moe a'a me te vehine a Hekei.* (Lav-T/H: 159)
 ART Dem PL old.man DO T. TAM sleep Dem with ART wife POSS H.
 '... (he) quickly returned to his house to his wife, because those two old men were furious about Tuohē who was sleeping with Hekei's wife.'

Coordination (see [3.155]) and subordination (see [3.161]) are often expressed by juxtaposition:

- (3.161) *Ua tau te vaka o Hekei, ua ta-ta'a te to'iki: "O Hekei e me te ika, ..."*
 TAM arrive ART canoe POSS H. TAM RED-call ART children
 TOP H. EMPH with ART fish
 'When the canoe of Hekei arrived, the children were shouting: "It is Hekei who has fish,... ."' (Lav-T/H: 011)

Conditional conjunctions introduce a conditional clause (see Mosel and Hovdhaugen 1992: 653). A conditional clause is a dependent clause which expresses under which condition the state of affairs expressed by the main clause holds true. We have the following conditional conjunctions in Marquesan:

- (3.162) *'anoa* ‘if (IRREALIS)’
mehemea ‘if (REALIS)’

- (3.163) *U pe'au hua tau kuki a te tau ka'ioi: "Aa pehea,*
TAM say ART PL cook POSS ART PL bachelor INTJ how
'anoa 'a'e tatou i kohumu 'a'e tihe te
if(irr.) be.not 1.pl.incl TAM whisper be.not arrive ART
nunu'u kai. " (Lav-U/N: 229)
acclamation food

‘The cooks of the bachelors said: “How then, if we would not have whispered, the food acclamations would not have arrived.”’

- (3.164) *Ia tupu i te tama te vehine a 'E'evaihopu, u*
TAM grow DO ART child ART wife POSS E. TAM
pe'au te motua me te kui ia E'evaihopu: " Ia
say ART father and ART mother DO E. TAM
hanau to tama, mehemea e mo'i, e paha,
be.born PPr.2.sg child if(realis) TAM girl TAM name
koe o 'Oumatipakihi'iteahiahi o to kui te=ia. "
2.sg PRES O. PRES your mother ART=Dem
‘When a child began to grow (inside) 'E'evaihopu’s wife, the parents said to 'E'evaihopu: “When your child is born, (and) if it is a girl, you give (her) the name 'Oumatipakihi'iteahiahi, that is your mother’s (name).”’ (Lav-E: 080)

Apart from using conjunctions, the TAM-particle *ia* – expressing a REALIS – often marks a clause as conditional:

- (3.165) *Ia hanau e tama'oa, 'a paha koe o*
TAM be.born TAM boy TAM give.name 2.sg PRES
Teatau'apaku, o to motua te=ia. (Lav-E: 081)
T. PRES your father ART=Dem
‘If a boy is born, you will give the name Teatau'apaku, this is of your father.’ (lit. ‘if born is a boy...’)

There are words and locutions in Marquesan which seem to function like conjunctions on a semantic level, but which do not link constituents and clauses on a syntactic level. Crystal (1997: 81) calls them conjunctives which function as connectives on a (semantic) discourse level. They often occur at the beginning of a clause (such as Eng. *however*, *well*, *moreover* etc.). In Marquesan we find the following conjunctives:

- (3.166) *e aha 'a* 'well, then'
 mea'a 'well'
 'atika 'well, but'

In my data there are a lot of examples of code-switched French conjunctives¹⁶⁵ which my consultants use instead of the Marquesan ones.

4.4.2. *Emphatic and interrogative particles*

Emphatic particles can occur as free and bound morphemes. As bound morphemes they are attached to the word which is focused. When they occur as free morphemes they are always positioned at the very right periphery of a constituent or clause depending on what the speaker intends to emphasize (a word, the whole clause etc.). In N-MQA there are three unbound and one bound emphatic particles:

- (3.167) *-i/-a* 'EMPHASIS' (e.g. with demonstratives: '*inei'i* 'here', '*ina'i* 'there', '*i'a'a* 'there', *o ia'a* 'that's it')
 e 'EMPHASIS'
 'a 'EMPHASIS'
 eeeeee 'EMPHASIS ON DURATION OF AN ACTION'

It is not clear yet in which way *e* and *'a*¹⁶⁶ differ. Here are a few examples in which emphatic particles occur:

- (3.168) *Te iko a o te='a 'enana 'Akau'i, he'e mai ia mei Hiva 'Oa mai 'io t=o ia vaka eeeee.*
 ART name POSS ART=Dem man A. go hither 3.sg from H. O. hither PREP.loc ART=POSS 3.sg canoe EMPH.dur
 'The name of that man is 'Akau'i, he came from Hiva 'Oa (all the way) on his canoe.' (Mak-013)

- (3.169) *Te aha? – Te ko'oka ho'i e.*
 ART what ART trough certainly EMPH
 ‘The what? – It is certainly the trough.’ (FA-T/M-H: 13)
- (3.170) *...ha'i mai i te vehie paotu me te='a tau*
 transport hither DO ART fire.wood all and ART=Dem PL
ivi 'a'e he mea te kiko e.
 bone be.not ART thing ART meat EMPH
 ‘...(they) brought all the fire wood and the bones which had no more meat.’ (Mak-030)
- (3.171) *O ia 'a t=a koe kaki e.*
 PRES 3.sg EMPH ART=POSS 2.sg desire EMPH
 ‘That's what your want!’ (FA-T/M-H: 13)
- (3.172a) *Ka'oha 'a*
 pity/love EMPH
 ‘How nice of you/ Let's have pity with him/her.’
- (3.172b) *Ok 'a.*
 ok EMPH
 ‘Ok!’
- (3.173) *U pe'au au ta=pi'i te koivi puaka 'i te*
 TAM say 1.sg CAUS=stick ART female pig LD ART
tumu 'akau 'ae 'inei 'a. (FA-B/R:8: 56)
 trunc wood ANA here EMPH
 ‘I told to stick/put the pig at the tree (in contiguous relation), there it is!’

There is one interrogative particle, namely *aea*, which occurs at the end of a clause. It is mostly used when the speaker seeks confirmation of what he or she has said:

- (3.174) *A'e he mea titahi koivi puaka, aea?*
 be.not ART thing ART.indef female pig PART
 ‘There is no other pig, is there?’ (FA-B/R-10: 24)

4.5. Interjections

Interjections are, as already mentioned in section 4, a syntactically isolated class of words. There is some individual variation in the use of interjections. They have a purely semantic function (Crystal 1997: 200) expressing emotions such as surprise, disgust, anger, joy, astonishment etc.. Here are some of the interjections most frequently used in Marquesan:

(3.175)	<i>ee</i>	‘yes’ (affirmation)
	<i>auee</i>	‘alas’ (astonishment, (negative) surprise, sympathy)
	<i>eii</i>	‘hey’ (attract addressee’s attention)
	<i>oo</i>	‘astonishment, disgust, disappointment’
	<i>aa</i>	‘astonishment, comprehension’
	<i>aua</i>	‘oh dear’

In my corpus, speakers also frequently use French interjections such as *hein* or *ben*.

5. Morphological processes

As in many other Polynesian languages (see Mosel and Hovdhaugen 1992; Bauer 1997; Hooper 1996; Du Feu 1996; Peltzer 1996), there are three major morphological processes in Marquesan:

1. Affixation,
2. Reduplication and
3. Word compounding.

5.1. Affixation

Marquesan has a number of prefixes and only a few suffixes which are added to a word or stem. There are productive and non-productive prefixes in N-MQA. The most productive prefix is the causative prefix *haka-* or *ha'a-*.¹⁶⁷

The causative prefix *haka-* or *ha'a-* is mostly added to full words, but it can also be prefixed to numerals and words which often function as adver-

bial modifiers. In some words the prefix *haka-* does not have a causative meaning. The most wide-spread use of the prefix *haka-* is with intransitives, in particular with state intransitives in order to derive causative agentive verbals.¹⁶⁸ Note that the lists given below are not exhaustive:

1. Derived causative agentive verbals by prefixation of *haka-* to the stem of state and process verbs:

- a) State verbal ('x is in the state of y') \Rightarrow transitive action verbal ('make x be in the state of y'):

(3.176)

<i>mo'o</i> 'dry'	\Rightarrow	<i>hakamo'o</i> 'wipe (dry)'
<i>kanahau</i> 'nice'	\Rightarrow	<i>hakakanahau</i> 'embellish'
<i>koakoa</i> 'happy'	\Rightarrow	<i>hakakoakoa</i> 'amuse, entertain'

- b) Process verbal ('x is in the process of y') \Rightarrow transitive action verbal ('make x be in the process of y'):

(3.177)

<i>topa</i> 'fall'	\Rightarrow	<i>hakatopa</i> 'make s.th. fall'
<i>u'a</i> 'burn'	\Rightarrow	<i>hakau'a</i> 'light a fire'

2. Derived similitative verbals¹⁶⁹ by prefixation of *haka-* to the stem of common full words:

(3.178)

<i>'enana</i> 'man', ¹⁷⁰	\Rightarrow	<i>haka'enana</i> 'do it the Marquesan way'
<i>hoa</i> 'friend'	\Rightarrow	<i>hakahoa</i> 'become friends'
<i>puaka</i> 'pig'	\Rightarrow	<i>hakapuaka</i> 'behave like a pig, imitate a pig'

3. Derived causative verbals by prefixation of *haka-* to the stem of transitive verbs:

- (3.179) *kite* 'see' \Rightarrow ***hakakite*** 'show'
tutuki 'meet' \Rightarrow ***hakatutuki*** 'unite, reconcile'

4. Derived frequentative numerals by prefixation of *haka-* to a cardinal numeral

- (3.180) ‘ua ‘two’ ⇒ ***haka’ua*** ‘make twice, again’

There are also other causative prefixes, namely *ta-* and *ti-*, which are not very productive:

- | | |
|----------------------------|---|
| (3.181) <i>pona</i> ‘knot’ | ⇒ <i>tipona</i> ‘tie together’ |
| <i>puta</i> ‘hole’ | ⇒ <i>tiputa</i> ‘pierce, make a hole’ |
| <i>puke</i> ‘pile’ | ⇒ <i>tapuke</i> ‘heap up, pile up’ |
| <i>papa</i> ‘wall, rock’ | ⇒ <i>tapapa</i> ‘arrange, group, dispose’ |
| <i>mau</i> ‘fixed’ | ⇒ <i>tamau</i> ‘attach, hang’ |
| <i>pa’ā</i> ‘mature, ripe’ | ⇒ <i>tapa’ā</i> ‘ripen s.th.’ |
| <i>pi’i</i> ‘sticky’ | ⇒ <i>tapi’i</i> ‘stick’ |

Most words which are prefixed by *ta-* are not prefixed by *haka-*. However, there are exceptions: *mau* ‘fixed’ and *pi’i* ‘sticky’ can take both prefixes. Look at (3.182):

- (3.182) *tamau* ‘attach, hang’ – ***hakamau*** ‘stabilise’
tapi’i ‘stick s.th. on s.th.’ – ***hakapipi’i*** ‘stick/join together’

Some speakers of Marquesan say that the difference between *tamau/hakamau* and *tapi’i/hakapipi’i* is one between S-MQA and N-MQA. However, I could observe that lexical pairs like *tamau/hakamau* are used by one and the same speaker. According to those consultants the choice for *tamau* or *hakamau* might be dependent on the shape and property of the undergoer object (or theme). For example, a speaker of Marquesan would use *tapi’i* for the action of sticking a stamp on a letter. In order to describe the action of joining two Lego pieces, speakers of Marquesan tend to use *hakapipi’i*.

Furthermore, the prefix *ta-* often expresses a resultative action which was caused by someone or something (directly or indirectly). These derived words are intransitive:

- (3.183) *mo’o* ‘dry’ ⇒ *tamo’o* ‘dried’
noho ‘sit, stay’ ⇒ *tanoho* ‘sit down, stay calm’
puaha ‘unfold, open’ ⇒ *tapuaha* ‘clear, clarified, location without clouds’¹⁷¹

The prefix *ha-* is also unproductive. It only occurs in a few words and has a causative and sometimes even a resultative meaning:

- | | | |
|-----------------------------|---|---|
| (3.184) <i>kai</i> ‘eat’ | ⇒ | <i>hakai</i> ‘feed (lit. ‘make eat’)’ |
| <i>inu</i> ‘drink’ | ⇒ | <i>hainu</i> ‘give s.th. to drink’ |
| <i>mua</i> ‘front, precede’ | ⇒ | <i>hamua</i> ‘first-born’ |
| <i>iti</i> ‘small’ | ⇒ | <i>haiti</i> ‘crowed, crammed, narrow’ |

Ka- is another prefix which seems to encode causative and resultative meaning:

- | | | |
|----------------------------------|---|--|
| (3.185) <i>tahi</i> ‘one’ | ⇒ | <i>katahi</i> ‘unite, do sth. together’ |
| <i>vi'i</i> ‘slip, turn oneself’ | ⇒ | <i>kavi'i</i> ‘turn s.th.’ |
| <i>motu</i> ‘cut’ | ⇒ | <i>kamotu</i> ‘cut into pieces’ |

With local landmark terms such as *uta* ‘shore, inland’ and *tai* ‘sea’, *ka-* adds a directional sense of movement (see also ch. 5, § 6.3.1):

- | | | |
|--|---|--|
| (3.186) <i>uta</i> ‘inland’ | ⇒ | <i>kauta</i> ‘inlandward, push inland’ |
| <i>ko</i> ‘left or right side of valley’ | ⇒ | <i>kako</i> ‘(move) towards left or right side of valley’ |

Perhaps *ka-* in (3.186) originates from the transfer verbal *kave* ‘carry, take to a location’ (see also *kamai* (<*kave mai*) ‘bring’). The prefix *ka-* however does not seem to be very productive in Marquesan. *Ka-* encodes movement in a certain direction (e.g. *kauta* ‘push (further) inland’) and sometimes a resultative meaning caused by some preceding movement (e.g. *katahi* ‘unite’, *ka'afaro* ‘make straight’).

There are a few other prefixes in Marquesan with different semantic functions. These prefixes are not productive:

- (3.187) Intensifier *kai-*

Full word	Prefix <i>kai-</i> + full word
<i>tuto</i> ‘think, reflect’	⇒ <i>kaituto</i> ‘meditate, think intensely, being completely wrapped up in thought’
<i>tekao</i> ‘talk’	⇒ <i>kaitekao</i> ‘gossip’

<i>tahi</i> ‘one’	⇒	<i>kaitahi</i> ‘being well united’
<i>kino</i> ‘bad, nasty’	⇒	<i>kaikino</i> ‘egoist, mean’

The prefix *kai-* functioning as an intensifier is probably cognate with *kai* ‘eat’ because eating is conceptualised as an intensive movement and action (see below).

(3.188) Numeral classifier for humans¹⁷² *toko-/to'o-*

<i>hia</i> ‘how many’	⇒	<i>tokohia 'enana</i> ‘how many people’
<i>e ha</i> ‘four’	⇒	<i>tokoha matou</i> ‘we are four’

(3.189) Durative/continuous aspect *ana-*

<i>anunu</i> (N-MQA)/ <i>anatu</i> (S-MQA)	‘always’
<i>anaiho</i>	‘only’
<i>ana'e</i>	‘then, at that time’

The meaning of *ana-* is sometimes difficult to capture.¹⁷³ It seems to me that a temporal and/or aspectual meaning is inherent in all occurrences. *Anunu*, *anaiho* etc. cannot co-occur with directionals¹⁷⁴ (Mutu and Teīkitutoua 2002: 61).

(3.190) Future '*a-*

'ahea ‘when’

(3.191) Past *ine-*

inehea ‘when’

inenahi ‘yesterday’

The following suffixes could be isolated in N-MQA:

(3.192) *-'ia*

-a

-ka

These suffixes probably all go back to PPN *-Cia and *-Canga (see Clark 1976; 1981). The suffixes -a and -ka are unproductive nominalising suffixes which are used to derive common full words from verbal full words:

- | | | |
|---------------------------|---|------------------------------------|
| (3.193) <i>noho</i> ‘sit’ | ⇒ | <i>nohoka</i> ‘chair’ |
| <i>toe</i> ‘remain’ | ⇒ | <i>toeka</i> ‘rest’ ¹⁷⁵ |
| <i>moe</i> ‘lie’ | ⇒ | <i>moeka</i> ‘bed’ ¹⁷⁵ |
| <i>moemoe</i> ‘dream’ | ⇒ | <i>moemoea</i> ‘(the) dream’ |
| <i>kaikai</i> ‘food’ | ⇒ | <i>kaikaia</i> ‘cannibal’ |

Unlike the suffixes -a and -ka, the suffix -ia (<PPN *-Canga; see Chung 1973; Clark 1981) does not derive lexical nominalisations (see this chapter, § 6.1.2.2) nor does it necessarily function as a nominalising suffix. Although N-MQA -ia¹⁷⁶ often occurs in nominalisations, its primary function is not to nominalise verbs or verbal clauses, but to mark an aspectual distinction between perfective vs. imperfective aspect¹⁷⁷ (see Cablitz 2000 for examples). However, the marking of perfective aspect by using the suffix -ia can also often be observed in verbal clauses (see [3.196–98]). Apart from marking an aspectual distinction in nominalised verbal clauses and verbal clauses, this suffix also passivises transitive verbals:¹⁷⁸

1. Passivisation transitive verbals

- (3.194) *Te keo hu'i='ia atu 'i tai.* (FA-B/R:10: 017)
 ART bottom turn=PASS DIR LD sea
 ‘The bottom, (it) is turned seawards.’

- (3.195) *Pepe'u='ia e Teiki e, ti'ohi='ia e Teiki:*
 open=PASS AGS T. EMPH look.at=PASS AGS T.
 “*Aa 'a'e au e kai te='a kai-kai mea*
 INTJ be.not 1.sg TAM eat ART=Dem RED-eat STV-P
hauhau!”
 bad
 ‘It was opened by Teiki, it was looked at by Teiki: “Ah, I am not going to eat that food, it’s bad!”’ (CH-B-056)

2. Indication of a completed action (in particular with intransitive verbals):

- (3.196) *Ua tihe te hepe? – Tihe=’ia.* (E)
 TAM arrive ART ship arrive=Perf
 ‘Did the ship arrive? – It arrived.’
- (3.197) *‘A’e kanahau koi te=nei manini koi=’ia tatai=’ia e Teiki me te hupe ma mu’i o Tahia.*
 be.not nice run ART=Dem sweet run=Perf chase=PASS AGS T. with ART spade PREP behind POSS T.
 ‘It was not nice, this sweet one ran, she ran, (Tahia) was chased by Teiki with a spade (by chasing) behind Tahia.’ (CHF-B: 057)
- (3.198) *Ua hei ihoa te hora ’a hupai te umu, uai te umu, uai=’ia hua umu.*
 TAM right indeed ART hour INCH dig.out ART oven lift.up ART oven lift.up=Perf same oven
 ‘When the time was right to dig out the oven, to lift up the oven, that oven was lifted up.’ (Mak-041)

In (3.197) the suffixation of *-’ia* to the action intransitive *koi* ‘run’ clearly has a perfective reading. The suffix of *-’ia* in *tatai’ia* ‘be chased’ is most likely to be the passive suffix because the whole sentence structure clearly shows a passive construction as indicated by the marking of the agent by the agentive preposition *e*.

5.2. Reduplication

Reduplication is a morphological process in which part of a stem (or root) or the whole stem is repeated. The former is called partial reduplication and the latter full reduplication. Marquesan has both types of reduplication. In partial reduplication the penultimate syllable is reduplicated. In full reduplication two consecutive syllables of a stem are repeated. In many Polynesian languages a stem has no more than two syllables. If a word has more than two syllables, the third syllable is historically an affix¹⁷⁹ and only the original stem is reduplicated as illustrated in (3.201). The following examples illustrate partial and full reduplication:

a) Partial reduplication:

- (3.199) *kata* ‘laugh’ – *kakata* ‘laugh (pl.)’

<i>hua</i> ‘return’	–	<i>huhua</i> ‘return (pl.)’
<i>vete</i> ‘pull apart’	–	<i>vevete</i> ‘pull apart (pl.)’

b) Full reduplication:

(3.200)	<i>'epo</i> ‘dirty’	–	<i>'epo'epo</i> ‘very dirty’
	<i>kai</i> ‘eat’	–	<i>kaikai</i> ‘eating, food’

(3.201)	<i>komino</i> ‘fold’	–	<i>kominomino</i> ‘fold repeatedly’
---------	----------------------	---	-------------------------------------

In Marquesan reduplication is a productive morphological device to derive new meanings. When the lexical heads of verbal phrases are reduplicated, it indicates plurality with either the subject or object noun phrase referring to more than one referent:

1. Partial reduplication when the subject noun phrase has more than one referent:

(3.202)	<i>noho</i> ‘live (together), stay’	–	<i>nonoho</i> ‘(we/you/they) live (pl.)’
	<i>moe</i> ‘lie’	–	<i>momoe</i> ‘lie together, sleep together’
	<i>he'e</i> ‘go’	–	<i>hehe'e</i> ‘go (pl.)’
	<i>mate</i> ‘die, dead’	–	<i>mamate</i> ‘die, dead (pl.)’
	<i>hika</i> ‘glide, fall over’	–	<i>hihika</i> ‘glide, fall over (pl.)’

These forms are in particular used by older speakers of Marquesan. Although partially reduplicated forms are often used when the subject noun phrase refers to more than one person or thing, its usage is by no means obligatory. Look at the following two examples from a legend:

(3.203)	<i>U he-he'e tahipito ka'ioi 'i te vai kau-kau...</i>	.
	TAM RED-go other(PL) young.man LD ART water RED-swim	
	‘The other young men went to have a wash...’ (Lav-T/H: 020)	

(3.204)	<i>Ua he'e haka='ua te tau ka'ioi 'i te kaka'a kohi.</i>	(Lav-T/H: 076)
	TAM go CAUS=two ART PL young.male LD ART pleasant.smell collect	

‘The young men went again to collect nice smelling flowers.’

2. Full reduplication of transitive verbals¹⁸⁰ when the object noun phrase has more than one referent:

- (3.205) *taki* ‘take off, detach’ – *takitaki* ‘detach (pl.)’
kokomo ‘put in tight fit’ – *komokomo* ‘put in tight fit (pl.)’
tapi’i ‘stick on s.th.’ – *tapi’ipi’i* ‘stick (pl.)’
tui ‘sow’ – *tuitui* ‘sow (pl.)’

- (3.206a) *E tui-tui ana koe i te puku-puku.*
 TAM RED-sow CONT 2.sg DO ART RED-bead
 ‘You are sowing the plastic beads.’ (CM-Ti-98)

vs.

- (3.206b) *E tui ana koe i te hei.*
 TAM sow CONT 2.sg DO ART garland
 ‘You are sowing the garland.’ (CM-Ti-98)

3. Some transitive verbals have fully and partially reduplicated forms depending on which noun phrase (i.e. subject or object) has plural reference:

- (3.207)

4. Full words denoting objects are fully or partially reduplicated to express plurality:

- (3.208)

- | | | |
|----------------------------------|---|--|
| <i>'ima</i> ‘hand, five’ | — | <i>'i'ima</i> ‘hands’ |
| <i>vae</i> ‘leg, foot’ | — | <i>vaevae</i> ‘legs, feet’ |
| <i>puku</i> ‘unripe fruit, bead’ | — | <i>pukupuku</i> ‘beads’ (see [3.206a]) |
| <i>ahi</i> ‘fire’ | — | <i>ahiahi</i> ‘afternoon, early evening
(<lit. ‘many fires’) ¹⁸¹ |

It has to be mentioned here that full words functioning as the head of noun phrases do not have to be marked obligatorily for plurality (Zewen 1987: 11).¹⁸²

5. Full or partial reduplication can mark the intensity of an action or a state:

- (3.209) *hiti* ‘go up’ – *hitihihi* ‘very steep’
 ta ‘hit’ – *tata* ‘hit hard’
 'epo ‘dirt, dirty’ – *'epo'epo* ‘very dirty’
 hini ‘hum, buzz’ – *hihini* ‘almost inaudible’
 kau ‘swim’ – *kaukau* (itr.) ‘wash’
 kaiu ‘small’ – *kakaiu* ‘tiny’

6. Full reduplication marks the iterativity of an action

- (3.210) *koti* ‘cut’ – *kotikoti* ‘cut into small pieces’
 motu ‘cut, break’ – *motumotu* ‘cut into pieces’

7. Full reduplication can mark the duration of an action:

- (3.211) *kata* ‘laugh’ – *katakata*¹⁸³ ‘smile’
 tekaō ‘talk’ – *tekatekaō* ‘chat, gossip, prattle’
 pehi ‘hit’ – *pehipehi* ‘hit sth. over a long time’

8. Full reduplication can mark the diminutive:

- (3.212) *manu* ‘bird’ – *manumanu* ‘little fly’
 tapa ‘cloth’ – *tapatapa* ‘fringes of a cloth’

There are a number of words which look like reduplicated stems, but they do not have a base word: e.g. *koekoe* ‘intestines’, *hauhau* ‘bad’, *maki-maki* ‘want, desire’.

5.3. Compounding

Compounds are words which consist of two or more lexical roots or stems. The meaning of a compound is often lexicalised because it is not directly derivable from the meanings of its lexical bases (see also Mosel and Hovdaugen [1992: 240] and Hooper [1996: 5]):

- (3.213)
- | |
|--|
| <i>aoma'ama</i> ‘world, surface’ < <i>ao</i> ‘cloud’ + <i>ma'ama</i> ‘light, clarity’
<i>tuahaka</i> ‘organiser of a feast’ < <i>tua</i> ‘back’ + <i>haka</i> ‘dance’
<i>haka'iki</i> ‘chief’ < <i>haka-</i> ‘make’ + <i>'iki</i> ‘small’ ¹⁸⁴ |
|--|

pa'oto 'room' < *pa* 'enclose' + *'oto* 'inside'
papua 'garden, enclosure' < *pa* 'enclose' + *pua* 'flower, plant'
tahatai 'beach' < *taha* 'walk (across)' + *tai* 'sea'

The distinction between compounding and affixation is sometimes blurred or not clear-cut. Some word combinations with *kai* 'eat' seem to be compounds (*kaiape* 'beggar' < *kai* 'eat' + *ape* 'ask') whereas other occurrences with *kai* are affixations to a stem (e.g. *kaituto* 'think intensely, meditate'). However, according to my consultants *kai* in *kaituto* is cognate with *kai* 'eat' because *kaituto* means 'eating your thoughts', thus 'think intensely'. Compounding is a very productive morphological process.

6. Morphosyntax

This section presents a more detailed description of the most characteristic particles of noun and verbal phrases, namely articles, prepositions and TAM-particles. Moreover, other nominal and verbal properties are briefly discussed such as nominal attributes (genitive attributes, relative clauses, nominal modifiers, collective nominals (expressing plurality) and modifying full words) and verbal modifiers, directional particles and negation with the purpose of demonstrating the verbal and nominal properties of Marquesan verb and noun phrases. In addition, there are some specific nominal and verbal constructions (nominalised verbal clauses, possessive constructions, verb serialisation and noun incorporation) which are briefly described as well.

6.1. The noun phrase

The nucleus or lexical head of a noun phrase can be a full word, a numeral, an interrogative proform, a deictic local noun, a demonstrative or the articles *titahi* 'the other' and *tahipito* 'the others'. Full words – except local nouns, proper names of persons, place names and nouns of address – are determined by an article. In addition to that, they can be modified by a demonstrative, a genitive attribute and/or a relative clause. Moreover, the nucleus can be modified by pre- and postnuclear words. The simplest structure of a noun phrase is as follows:

- (3.214a) *te 'enana*
 ART man
 'the man' (subject noun phrase)

- (3.214b) *i te 'enana*
 PREP ART man
 'the man' (direct or oblique object noun phrase)

Nominalised verbal clauses, which are formally classified as noun phrases, have the most complex structure of noun phrases. In (3.215) the words in bold are *one* noun phrase or nominalised verbal clause of which *ha'apei* 'prepare' is the lexical head. All other noun phrases (*a te po'i* 'of the people', *i te tau himene*¹⁸⁵ 'the songs' etc.) are syntactically dependent or required by the lexical head of the nominalised verbal clause, and not by the predicate *mea 'oa* '(in the state of being) long' of the clause. Note that object noun phrases retain the same case-marking preposition in nominalised verbal clauses as in the corresponding verbal clause, thus direct and oblique objects are case-marked by the preposition *i* or its allomorph *ia* (see this chapter, § 6.1.2.2 for more details):

- (3.215) *Mea 'oa te ha'a=pei='ia a te po'i i*
 STV-P long ART CAUS=ready=Perf POSS ART people LD
te=ia 'a i te=ia 'a, i te tau himene me
 ART=Dem day LD ART=Dem day DO ART PL song and
te tau haka hou a te 'enana mei te
 ART PL dance new POSS ART man from ART
Henua Enana
 H. E.
 'The people's preparation of songs and dances every day by the
 people from the Marquesas was long.'

The structure of noun phrases with common full words as their lexical head is the following:

(PREP) – ART – (modifier) – **Nucleus** – (modifier) – (Syntactic attribute)¹⁸⁶

Postnuclear modifiers include state verbs and other modifiers such as *ho'i* 'indeed', *toitoi* 'really' and *haka'ua* 'again', demonstratives and nominal modifiers (NN-constructions).

6.1.1. Morphosyntactic properties of noun phrases

6.1.1.1. Articles

Common full words are the only subclass of full words which can take all articles. All other nominals and full words vary with respect to the range of articles they can take (see this chapter, § 4.1.1). The set of articles is listed in (3.9) (see this chapter, § 3).

1. *te* ‘general (default) article’:

The article *te* co-occurs with all nuclei of noun phrases which can take determiners. *Te* is a general article which mark definite as well as indefinite noun phrases alike. In other words: a common full word determined by *te* can refer to things which have been already mentioned before in discourse:

- (3.216) *E aha 'a ua tau te vaka...*.
 however TAM land ART canoe
 ‘However, the canoe landed...’ (Mak-015)

Te can also refer to things which have not been mentioned before in discourse:

- (3.217) *'A hano te 'ehi!*
 TAM get ART coconut
 ‘Go and get a coconut!’ (E)

The article *te* seems to be semantically neutral and is used when all other articles are less appropriate:

- (3.218) *E 'oko te tau manu paotu ia popahi ia 'a hano te vai, ua hano te manu, 'a hano t=a ia ika ua hano te manu.*
 TAM obey ART PL bird all TAM command 3.sg TAM get ART water TAM get ART bird TAM get ART=POSS 3.sg fish TAM get ART bird
 ‘All the birds obeyed him. When he commands them to fetch water and his fish, the birds fetch (the things).’ (Mak-005)

In (3.218) it is evident that noun phrases taking *te* do not always refer to a single referent: the second and third *te manu*-noun phrase clearly refer to

several birds and not only to one bird. *Te* is also used with mass nouns (see *vai* ‘water’ in [3.218]) or as a generic article, i.e. an article which refers to the entire class denoted by the noun:

- (3.219) 'A *hai* *mai* *me* *te* *vehie.* (Mak-028)
 TAM transport hither with ART fire.wood
 'Bring (it) here with fire wood.'

Nominalised verbal clauses only allow the article *te* which seems to function as a kind of nominaliser:

- (3.220) *Te* *hana a te=nei mou 'enana e avaika.*
 ART work POSS ART=Dem PL man TAM fishing
U kanea i t=o 'aua vaka mea he'e='ia
 TAM make DO ART=POSS 3.dl canoe in.order.to go=Perf
'i te upeka haka=topa.
 LD ART net CAUS=fall
 'The work of the two men is fishing. (They) made their canoe in order to go to the net-throwing.' (Lav-T/H: 002-003)

The general article *te* combines with prenuclear demonstratives (see this chapter, § 4.3.3) and possessive pronouns (see this chapter, § 6.1.2.1).

2. Article *he*:

According to Mutu and Teikitutoua (2002: 76) and Zewen (1987: 62) *he* is used as an indefinite article denoting non-specificity as well as indefiniteness. In my data *he* does not occur in contexts and constructions which express indefiniteness. As for indefiniteness a new referent is often introduced by *titahi* ‘a certain’, *e tahi* ‘one’ and, to some extent, by *teia* (see this chapter, § 4.3.3). The following examples are introductory sentences of legends. Note however that *titahi*, *teia* and the numeral construction *e tahi* mark indefinite noun phrases which refer to specific persons or things:

- (3.221) *Eia titahi tekao no titahi toa mei*
 be.this ART.indef talk about ART.indef warrior from
Hoho'i... .
 H.
 'This is a story about a warrior from Hoho'i' (Lav-Kk: 001)

- (3.222) *E te kao no titahi 'enana mei Hakama'i'i... .*
 TAM talk about ART.indef man from H.
 '(This) is a story about a man from Hakama'i'i' (Lav-E: 001)

- (3.223) *... na po kakiu 'i te Henua 'Enana nei,*
 ART.pl day ancient LD ART H. (land) E. (man) Dem.prox
'i 'Ua Pou, e noho nei e tahi haka'iki.
 LD 'U. P. TAM live Dem.prox Num one chief
 '... in the ancient days, here on the Marquesas, on 'Ua Pou,
 there was living at that moment a chief' (Mak-002)

My analysis of *he* shows that lexical heads of noun phrases which are determined by *he* do not express indefiniteness, but non-specificity. However, there are also a number of other occurrences of *he* for which the gloss 'non-specific' is not appropriate as demonstrated in (3.224):

- (3.224) *'Atahi 'a hiti ai He'ato me t=o ia*
 then TAM ascend ANA H. with ART=POSS 3.sg
mata'eina'a toa ma 'uka he vaka nui.
 village warrior PREP loc.n.top ART canoe big
 'Then He'ato and his warriors ascended on the big canoe.' (lit. '...
 on topside of the big canoe') (Lav-H: 027)

Clearly, in this context *he vaka nui* 'big canoe' is specific and definite. *He* often occurs in locative constructions with the local nouns or in prepositional phrases with '*io* and *ma* (see below). In noun phrases without prepositional marking *he* clearly has some kind of localisation function. These occurrences of *he* have to be clearly distinguished from the non-specific uses of *he*. *He* therefore represents two different articles which can be regarded as homonyms marking very different kinds of noun phrases. In the following, the uses of the two *hes* are described separately: *he1* describes the non-specific uses of *he*, whereas *he2* describes the locative uses of *he*.

a) *he1* 'non-specificity':

The non-specific article *he* is used in negative existential clauses and comparative clauses with *me* 'be like':

- (3.225) *To'o koe te puaka 'a'e he titi.* (FA-R/T:30oc: 1)
 take 2.sg ART pig be.not ART breast
 'You take the pig which has no breasts.'

- (3.226) ... *na* *'i-'ima* *u* *maho'a* *me* *he* *pekeheu.*
 ART.dl RED-arm,hand TAM unite,level like ART wing
 '... the two arms became levelled like wings (of a bird).' (Kim-4)

Moreover, *he* introduces the predicate of classifying non-verbal clauses (see this chapter, § 3):

- (3.227) *He* *'enana* *po'ea* *hua* *'enana*, *mea* *nui*
 ART man handsome ART.ana man STV-P many
 t=o *ia* *hua'a.* (Lav-E: 003)
 ART=POSS 3.sg family
 'That man is a handsome man, he has a big family.'

In these non-verbal clauses (see [3.227]), the predicate and the subject noun phrase do not express a relationship of identity, but the predicate assigns a property to the subject (see this chapter, § 3). In the clauses (3.225–227) all *he1*-marked noun phrases are non-referential.

The function and usage of *he1* is complex. It does not really contrast with all the other articles which can occur in subject and object position (*te*, *titahi*, *hua* and *na*): in affirmative declarative clauses *he1* does not precede common full words which function as the lexical head of subject and object noun phrases. There are only two positions in which only *he1*, but no other article can occur, i.e.

1. with the subject of negative existential clauses, and
2. in the comparative construction with *me*.

In both positions the noun phrase marked by *he1* is non-referential.

Although *he1* does not stand in opposition with all the other articles, there is however one usage in which *he1* and *te* contrast each other, namely with respect to the marking of non-specific noun phrases. In affirmative clauses, *te* marks non-specific NPs (see [3.228]), whereas in negative existential clauses *he* marks non-specific noun phrases (see above):

- (3.228) *'A* *hano* *te* *'ehi.*
 TAM get ART coconut
 'Get a coconut!' (lit. 'get any coconut')

With respect to non-specificity in affirmative and negative existential clauses, we can therefore say that *he* and *te* are in complementary distribution.

b) *he₂* ‘localisation’:

In locative constructions with local nouns and the preposition ‘*io* and *ma*, *he* seems to have a different function. In these constructions, *he* introduces the attribute phrase of the local noun (see also [3.224]) and the complement of the prepositions ‘*io* and *ma* (see [3.230–231]), respectively:

- (3.229) *Ena te popo ma 'a'o he isea.*
 exist ART bowl PREP loc.n.ground ART Fr.lw.chair
 ‘There is a ball under the chair.’ (TRPB-Va-16)

‘*Uka* ‘up’ and ‘*a'o* ‘down’ are the only two local nouns which are attested with a *he*-attributive phrase in my data. Other local nouns such as *tai* ‘sea’ or *mua* ‘front’ are not constructed with a *he*-attribute in my data. Attributive noun phrases with these local nouns are mostly introduced by the possessive preposition *o* (see ch. 5, § 4 for details).

When *he* is used in locative constructions with the prepositions *ma* and ‘*io*, *ma* is used when one indicates the way or route which one takes in order to get to a place, and ‘*io* is used to indicate the location of something:

- (3.230) *Ma hea koe? – Ma he tai/ va'anui.* (E)
 PREP where 2.sg PREP ART sea road
 ‘How did you get here? – (I came) **over** the sea/ **via** the road.’
- (3.231) *I hea Teiki? – Io he one.* (E)
 LD where T. PREP ART beach
 ‘Where is Teiki? – On the beach.’

In the ‘*io*-locative construction, *he* can contrast with the general article *te*. According to my consultants the usage of *he* expresses the most typical spatial relation between the localised object and the reference object. For instance, when the complement of a ‘*io* + *he*-construction refers to a container object, the construction means ‘inside’. In a ‘*io* + *te*-construction, on the other hand, it does not mean ‘inside’, but simply ‘located in the region of the object’ which could be ‘next to’, ‘on top of’ etc., but not ‘inside’ of the container object:

- (3.232) *'io he umu* vs. *'io te umu (E)*
 PREP ART oven PREP ART oven
 'inside the oven' vs. 'next/close to the oven'

Here are two examples taken from legends:

- (3.233a) *Ua noho Tuohē anaiho 'io he ha'e na te tau hoa e ka'oha pu atu ia ia... .*
 TAM stay T. only PREP.loc ART house TOP ART
tau hoa e ka'oha pu atu ia ia... .
 PL friend TAM pity only DIR DO 3.sg
 'Tuohē only stayed *in* the house, it is his friends who pitied
 him....' (Lav-T/H: 018)
- vs.
- (3.233b) *Eia te tumu 'ehi 'io te ha'e, e tumu 'ehi 'oa... .*
 be.there ART trunc coconut PREP.loc ART house TAM trunc
'ehi 'oa... .
 coconut long
 'There is a coconut tree at/near the house, (it) is a long coconut
 tree... .' (Lav-H: 092)

The following examples show that *he*-phrases have a basic localisation function without being marked by a locative preposition. These *he*-phrases express again the most basic or typical spatial relation:

- (3.234) *'A hua he ha'e!*
 TAM return ART house
 'Go home!' (lit. 'return to house')
- (3.235) *Humu='ia he pusi.* (Ti-TRPB-4)
 attach=Perf ART candle
 'It is attached *at/around* the candle.'
- (3.236) *Ua hua hua tau kaipeka nei, hua tau eteni nei pe'au: "Oo t=o matou tau'a t=o matou pohu'e nui ua mate hua mihi he 'ua."* (K2B:T 8: 13)
 TAM return same PL wild Dem.prox ART.ana PL pagan
 Dem say INJ ART=POSS 1.pl.excl priest ART=POSS 1.pl.excl
 life big TAM dead same priest ART hole
 'These savages, these pagans came back (and) said: "Oh, our
 priest, our rescuer, this missionary *in* the hole is dead."'

Note that unmarked *he*-phrases rarely occur in the data. Speakers could also construct the *he*-phrases in (3.235–236) with the prepositions '*io*' (e.g. *humu'ia 'io he pusi* ‘attached to the candle’) or ‘*i*’ (see in particular ch. 5, § 4). The expression *hua he ha'e* ‘go home’ is a lexicalised expression.

3. *na* ‘definite plural/dual article’:

The article *na* expresses that a noun phrase refers to definite plural entities. In most cases *na*-marked noun phrases only have two referents which is indicated by the linguistic context. See, for instance, the usage of the dual personal pronoun ‘*aua* of the third person in (3.238b):

- (3.238a) ... *u titoi me au na pakahio a taua.*
 TAM make.love with 1.sg ART.dl/pl grandmother POSS 1.dl.incl
 ‘... I made love with the (two) grandmothers of ours.’
 (Lav-U: 035)

(3.238b) *Ena te ha'e o na ko'oua 'i 'a'o.*
 exist ART house POSS ART.dl/pl old.man LD down
 Ua kite 'aua i hua vehine po'otu.
 TAM see 3.dl DO same woman beautiful
 ‘There is the house of the old men. They (=the two) saw that
 beautiful woman.’ (Lav-T/H: 037–038)

The article *na* is only used by older speakers of Marquesan.

4. *titahi* ‘a certain’ (indefinite singular article), the other:

It has already been shown that *titahi* is used as an article which introduces new referents in discourse (see [3.221] and [3.222]). The referent is specific, but not known to the addressee:

- (3.239) *U pe'au titahi 'enana:" 'Enana po'ea 'E'evaihopu... .*
 TAM say ART.indef man man handsome 'E.
 'A man said: "E'evaihopu is a handsome man:....'" (Lav-E: 039)

(3.240) *Pe'au atu ai titahi 'enana ia ia 'i hua 'a... .*
 say DIR ANA ART.indef man DO 3.sg LD ART.ana day
 'A man said to him on that day:....' (Lav-E: 070)

(3.241) *Titahi 'a u kite atu He'ato i na mata'eina'a*
 ART.indef day TAM see DIR H. DO ART.pl village.people

o Anihoka... . (Lav-H: 108)

POSS A.

'One day He'ato saw the village people of Anihoka'

In other usages *titahi* is used to express 'the other':

- (3.242) *Ena me t=o ia toa mea hana i hua*
 exist with ART=POSS 3.sg warrior in.order.to do,work DO ART.ana
hana, ati'i titahi toua, ena me t=o ia toa.
 work be.similar the.other war exist with ART=POSS 3.sg warrior
 'There were his warriors in order to fight, the other war was the
 same, he had warriors.' (Lav-H: 025)

In the meaning of 'the other', *titahi* can function as the lexical head of a noun phrase. In this usage it means 'the other one', especially when there is a choice between two entities:

- (3.243) *Te=nei piha? – 'a'o'e titahi.*
 ART=Dem cow be.not the.other.one
 'This cow? – No, the other one.'
- (3.244) *U pe'au titahi: “e mama'u na='u e.”*
 TAM say the.other.one TAM desire for=1.sg EMPH
 'The other one said: "I desire (it) for myself.'" (Lav-E: 019)

5. *Tahipito* 'the others' (indefinite plural article):

According to the occurrences of *tahipito* it seems to function like an article. Like *titahi*, *tahipito* expresses indefiniteness. *Tahipito* 'the others' contrasts with *titahi* in that the lexical head of a noun phrase preceded by *tahipito* refers to plural entities:

- (2.245) *Tenei ua he'e tahipito ka'ioi 'i t=a 'atou*
 now TAM go the.others young.man LD ART=POSS 3.pl
kaka'a 'umihi.
 pleasant.smell search
 'Now, the other young men went to search for pleasant smelling
 (flowers).' (Lav-T/H: 017)
- (2.246) ... *ua kohi ia i t=o ia 'enana mea he'e*
 TAM collect 3.sg DO ART=POSS 3.sg man in.order.to go

me ia 'i te koika 'i **tahipito** ka'avai o
 with 3.sg LD ART feast LD the.others valley POSS
 te po'i hoihoi.
 ART people monstrous
 '... he collected his men in order to go to the other valleys of
 monstrous people.' (Lav-E: 035)

Like *titahi* 'the other', *tahipito* can be the nucleus of a noun phrase:

- (3.247) Na **tahipito** e tuku atu *t=o ia kaka'a.*
 TOP the.others TAM give DIR ART=POSS 3.sg pleasant.smell
 'It is the others which hive him pleasant smelling flowers.'
 (Lav-T/H: 055)
- (3.248) 'A'e he'e Tuohē, na **tahipito** e tuku atu
 be.not go T. TOP the.others TAM give DIR
t=o ia kaka'a.
 ART=POSS 3.sg pleasant.smell
 'Tuohē did not go, it is the others which gave him pleasant smelling flowers.' (Lav-T/H: 077)

The form *tahipito* is a contracted form of the article *titahi* and *pito* 'piece':

- (3.249) 'A ta'ai kotou e u'u ko'oua 'i tu'u vaka
 TAM build,cut 2.pl TAM enter 2.dl LD my canoe
 mea he'e='ia no='u 'i te vi'i 'i **titahi pito**
 in.order.to go=Perf for=1.sg LD ART turn LD ART piece
 henua ke, 'i te ko'ika ti'ohi. (Lav-E: 009)
 country different LD ART feast look.at
 'You make your canoe and you two enter (inside) my canoe to go
 with me to other different countries and look at the feasts.'

Occurrences of *pito* as demonstrated in (3.249) are rare.

6. *hua* 'the same' (anaphoric article):

Hua is used anaphorically, i.e. the noun phrase marked by *hua* refers to entities which have already been introduced in discourse:

- (3.250) Ua 'oko na ko'oua 'i te vao...
 TAM hear ART.dl/pl old man LD ART bush

u pe'au hua mou ko'oua:... . (Lav-U/N: 005–006)
 TAM say ART.anा PL old.man
 'The two old men in the bush heard ... *these* two old men said:.. .'

- (3.251) ... 'a mo-moe taua ... 'i te=nei po me
 TAM RED-sleep 1.dl.incl LD ART=Dem.prox night with
t=o taua mata'eina'a.... E aha 'a mo-moe anaiho
 ART=POSS 1.dl.incl village.people well RED-sleep only
'atou 'i **hua** po.
 3.pl LD ART.anा night
 '... we both are sleeping this night with our village people ... well,
 they only slept that night (together).' (Lav-H: 042–043)

The article *hua* is probably cognate with the full word *hua* 'return'.

7. *a* 'personal article':

The usage of this article has already been discussed above (see this chapter, § 4.1.1).

6.1.1.2. *Prepositions*

Noun phrases can be preceded by prepositions which mark the relation between noun phrases and the predicate, and the relation between an attribute and the lexical head of a noun phrase. Objects, adjuncts and genitive attributes are marked by prepositions whereas subjects are not. We will not call those noun phrases marked by prepositions prepositional phrases because prepositions in Marquesan are regarded as case-markers (see also Mutu and Teikitutoua 2002). We will talk of noun phrases when the phrases are nominal, regardless of whether they are marked by a preposition or not. However, some prepositions do not only mark grammatical relations, but also contribute a meaning to the lexical head of the noun phrase they precede. For instance, the prepositions *'i* and *ma* are locative prepositions which typically occur in locative constructions with local nouns, but which contribute a different meaning to the local nouns. For instance, when the local noun *uta* 'inland' is preceded by *'i* it refers to a different region than when *uta* 'inland' is preceded by the preposition *ma*. In the following two examples the locative constructions with *uta* are complement phrases:

- (3.252a) *Ena te ha'e pure 'i uta.* (E)
 exist ART house prayer LD inland
 'The church is inland.' (=at the inland-region).
- (3.252b) *Ena te popo ma uta o te putei.* (E)
 exist ART ball PREP inland POSS ART bottle
 'The ball is inland of the bottle.'

Whereas '*i uta* 'inland' in (3.252a) refers to a region on a large-scale, i.e. within a village or valley, *ma uta* 'inland of object y' refers to a region on a small-scale, i.e. on a table or in a house. The meaning contribution of the prepositions '*i*' and '*ma*' will be discussed in detail in ch. 5.

Note that case-marked noun phrases also function as predicates in non-verbal clauses (see this chapter, § 3).

1. *i* (direct and oblique object marker):

The preposition *i* marks direct objects with active transitive verbals (see [3.253]) as well as oblique objects with transitive and intransitive verbals. Oblique objects marked by *i* can have the following semantic roles: recipient (see [3.254]) or the thing or person which has *caused* an action directly or indirectly (see [3.255–256]). Look at the following examples:

- (3.253) *I popahi ai Pa'etini i t=a ia tau manu....*
 TAM command ANA P. DO ART=POSS 3.sg PL bird
 'Pa'etini commanded his birds... .' (Mak-019)
- (3.254) *Na='u e haka=kite atu ia koe i te kiko toitoi.*
 for=1.sg TAM CAUS=see DIR OBL 2.sg DO ART meat real
 'I will show you real meat.' (Mak-047)
- (3.255) *E 'enana ko'oua Hekei, ua tea t=o iaihu i te he'e='ia i te ika hi.* (Lav-T/H: 116)
 TAM man old.man H. TAM white ART=POSS 3.sg nose
i te he'e='ia i te ika hi. (Lav-T/H: 116)
 OBL ART go=Perf LD ART fish catch
 'Hekei is an old man, his nose is white from going fishing.'
 (lit. '... caused by the going to the fish catching.')
- (3.256) ... *pi t=o ia hu'uhu'u i te aatu.*
 full ART=POSS 3.sg bristle OBL ART bonito
 '.... his bristles were full with bonito.' (Mak-084)

The preposition *i* is also used to mark object noun phrases of comparison:

- (3.257) *Mea kauo'o atu t=o ia ha'e 'i te ha'e pure.*
 STV-P big further ART=POSS 3.sg house OBL ART house prayer
 'His house is bigger than the church.' (Zewen 1987: 90)

2. *ia* (direct and oblique object marker):

The preposition *ia* is an allomorph of *i*. *Ia* marks the same grammatical relations, namely direct and oblique objects, but it is differently distributed:

- (3.258) *Ua to'o anaiho ia ia, ua ta, u kukumi, ua kai ia Kanatete.*
 TAM take just DO 3.sg TAM hit TAM kill TAM eat
ia DO K.
 '(They) just took him, (they) hit (him), (they) killed (him), (they) ate Kanatete.' (Lav-H: 015)

- (3.259a) *Ua to'o Mohovaha i te ke'a me te he'e atu io te hoaka.*
 TAM take M. DO ART stone while ART go DIR
 PREP ART bowl
 'Mohovaha took the stone when (he) went to the bowl.'
 (lit. '...while the going towards the bowl') (Lav-H: 054)

- (3.259b) *E aha 'a, u kai anaiho He'ato me na mata'eina'a i te kai a te haka'iki,*
 well TAM eat just H. and ART village.people
i DO ART food POSS ART chief
 'Well, He'ato and hs village people just ate the food of the
 chief,' (Lav-H: 069)

Ia stands in complementary distribution to *i*: whereas *i* marks noun phrases in which the lexical head contains a common full word (see [3.259a+b]), *ia* occurs before proper names of persons and personal pronouns (see [2.358]). The particle *-a* in *ia* seems to be the personal article *a* (see this chapter, § 4.1.1) which is almost obsolete in contemporary Marquesan. The *-a* in *ia* is therefore a historical relic of the personal article.

3. *e* (agentive marker):¹⁸⁷

The preposition *e* marks agentive noun phrases in passivised clauses:

- (3.260) *Pepe'u='ia e Teiki ee ti'ohi='ia e Teiki aa*
 open=PASS AGS T. INTJ look.at=PASS AGS T. INTJ
'a'e au e kai te='a kai-kai mea hauhau.
 be.not 1.sg TAM eat ART=Dem RED-eat STV-P bad
 'It was opened by Teiki , it was looked at by Teiki, ah, I am not
 going to eat that food, it's bad.' (CH-B: 056)

4. *i*¹⁸⁸ (locational-directional marker):

The most common use of the preposition *i* is the marking of a location (see [3.261]), a goal or direction (see [3.262]):

- (3.261)*i Hakamo'ui t=o ia noho.* (Mak-003)
 LD H. ART=POSS 3.sg live,stay
 '.... his living (place) was in Hakamo'ui.'
- (3.262) *U pe'au na ko'oua: " A kai-kai, ia makona, ua*
 TAM say ART old.man TAM RED-eat TAM finish.eating TAM
he'e tatou 'i tai."
 go 1.pl.incl LD loc.n.-sea
 'The two old men said: "Let's eat, when we have finished eating,
 we go the sea-region.'" (Lav-T/H: 106)

The preposition *i* only occurs with full words which denote locations and regions such as local nouns, body-part terms, place names and some landmark expressions (e.g. *motu* 'island', *moana* 'ocean'). Moreover, *i* is also used with full words which denote events (e.g. *koika* 'feast', *pure* 'prayers').

5. *ma* (path marker):

The preposition *ma* mostly occurs in locative constructions (see ch. 5). These locative noun phrases have local nouns, body-part terms, place names or common full words as their lexical head which express different semantic roles such as path, location and instrument ('means of transport', cf. Mutu and Teikitutoua 2002) with path being the most important one. Depending on various linguistic factors (e.g. semantics of the lexical head, type of linguistic construction and semantic interaction with other parts of speech of a construction), *ma* can denote a concrete path or passage of something or someone (see [3.263–264]) or express meanings related to the notion of path (e.g. 'movement', 'unspecific location', 'spatial extension'). The usage of *ma* in locative noun phrases is complex and will be discussed

in more detail in chapter 5 (in particular ch. 5, § 5 and the following subsections). However, the basic meaning of *ma* is path. All other meanings are derived or related to the notion of path. *Ma* is also found in constructions with a more figurative sense which are not part of the referential domain space (see [3.265]).¹⁸⁹

- (3.263) *E he'e au 'i Ha'akuti ma Hakahetau.*
 TAM go 1.sg LD H. PREP H.
 'I go to Ha'akuti via Hakahetau.' (E)
- (3.264) *U haka=koi ia i te pere'o'o ma te va'anui hou.*
 TAM CAUS=run 3.sg DO ART car PREP ART road new
 'He drives the car on the new road.' (E)
- (3.265) *Teka-tekaō taua ma he 'eo 'enana!*
 RED-talk 1.dl.incl PREP ART language man
 'Let's talk in Marquesan!' (E)

6. *mei* (source marker):

The preposition *mei* is used to mark the source or origin of a person, a thing or an action. *Mei* can precede the prepositions *ma* (=path) and *'io* (see [3.267] and [3.268]):

- (3.266) *Tekao no titahi haka'iki o He'ato mei Hakata'o.*
 story about ART.indef chief PRES H. from H.
 '(This) is a story about a chief, called He'ato, from Hakata'o.'
 (Lav-H: 002)
- (3.267) *Mei ma uta mai nei au.* (E-Ti-99)
 from PREP inland hither now 1.sg
 'I've just come from the inland-region.'
- (3.268) *U tapa-tapa, u pe'au hua mou maha'i mei 'io*
 TAM RED-tap TAM say ART PL/DL boy from PREP
he vaka:... . (Lav-T/H: 252)
 ART canoe
 '(They) tapped, and those two boys said from inside the canoe:...'

7. *me* (comitative and instrumental marker):

The preposition *me* is a comitative and instrumental preposition which is glossed as 'with'. It is used to express accompaniment (of persons and also

circumstances (see [3.269]) or the instrument by which something is done (see [3.270]). It is often difficult to decide whether *me* is the preposition ‘with’ or the coordinating conjunction *me* ‘and’ (see [3.271]):

- (3.269) *'Atahi 'a haka=tata atu te Hiva 'Oa me Kanatete ...*
 then TAM CAUS=close DIR ART H. 'O. with K.
 'Then the Hiva 'Oa people approached with Kanatete... .'
 (Lav-H: 007)
- (3.270) *Pataki koe i te ihia me te kohe.* (CM-To)
 break.nut 2.sg DO ART chestnut with ART knife
 'You break the chestnut with a knife.'
- (3.271) *E he'e maua me Teiki 'i te avaika.* (E)
 TAM go 1.dl.excl with/and T. LD ART fishing
 'We (I with/and Teiki) are going fishing.'

Me is also used spatially in order to express inclusion:

- (3.272) *'A'o'e ma mu'i, me koe ana ma mu'i o te tapu.*
 be not PREP behind with 2.sg Dem PREP behind POSS ART table
 'That is not behind, where you are, behind the table.'
 (FA-T/M-H: 17)

The *me*-noun phrase in (3.272) is an elliptical construction: according to my consultants, the *me*-noun phrase should be constructed with the full words *hope* ‘part’ and *keke* ‘side’ which would function as lexical heads as e.g. in ‘*i te keke me koe* ‘at the side where you are (lit. ‘...with you’). This is e.g. shown in (3.273) where the *me*-noun phrase functions as an attribute to the lexical head *hope* ‘part’:¹⁹⁰

- (3.273) *Eh 'ina tihē='ia o te='a ko'oka 'a he'e atu ai 'i hope me tai 'i'a te koivi te='a piha e inu a'a i te vai.* (FA-T/M-H-9)
 INTJ a.little arrive=Perf POSS ART=Dem trough TAM go DIR ANA LD part with sea there ART female ART=Dem cow TAM drink DEM DO ART water
 'Almost at the end of the trough which is inclined towards the sea-side (lit. ‘at side with sea’), there is the female, that cow which is drinking water.'

8. ***'io*** (locational-directional marker):

The preposition '*io*'¹⁹¹ marks location, goal or direction. '*Io*' is typically used with proper names of persons, personal pronouns, common full words and some landmark expressions:

- (3.274) *Ia hei t=o ia 'ehua mea he'e='ia 'io te paepae patu='ia tiki.. .*
 TAM right ART=POSS 3.sg year in.order.to go=Perf PREP
 ART paepae write,draw=PASS? tiki.. .
 'When he had the right age in order to go to the paepae (where they were) tattooed' (Lav-E: 003)

'*Io*' is not an allomorph of '*i*' because '*io*' can only be used for spatial localisation. '*I*', on the other hand, can also be used to mark temporal relations. The usage of '*io*' is complex and will be discussed in more detail in chapter 5, section 6.5 and chapter 7, section 3.5.

9. ***o* and *a*** (genitive markers):

The prepositions *o* and *a* are possessive prepositions which mark the relationship between possessor and possessee. The possessor is always marked by the prepositions *o* or *a* and syntactically functions as an attribute to the lexical head (dependent marking). The difference between the possessive prepositions *o* and *a* is semantically motivated in that both prepositions describe a different relation between possessor and possessee.

In studies of Polynesian languages, the *o*-possessive construction is often labelled as inalienable or 'subordinate', and the *a*-possessive construction as alienable or 'dominant' (Mosel and Hovdhaugen 1992; Mosel 1992; Bauer 1997; Du Feu 1996; Zewen 1987; Clark 1981).

The preposition *a* describes a relationship which is controlled or initiated by the possessor:

- (3.275) *Ia 'oko atu hua tau hoihoi nei i te tekao ka'i'e [Possessee NP] a te motua me te kui [Possessor NP]*
 TAM hear DIR ART.an.a PL monster Dem.prox DO ART talk
 snooty POSS.al ART father and ART mother
o 'E'evaihopu.
 POSS.inal 'E.
 'When these monstrous looking people heard the snooty/proud talking of 'E'evaihopu's father and mother... .' (Lav-E: 049)

- (3.276) ... *ua pao i te kai* [Possessee NP]
 TAM be.finished DO ART eat
a te 'Ua Pou [Possessor NP].
 POSS.al ART 'U. P.
 '... the 'Ua Pou (people) finished eating.' (lit. '(it) is finished the
 eating of the 'Ua Pou') (Lav-H: 012)

The preposition *o* describes a relationship in which the possessor has no control over the possessee because the relationship is naturally and socially given (see Mosel and Hovdhaugen 1992: 283). Uncontrolled relationships by nature are e.g. body-parts in relation to their body or inherent parts of an object (e.g. the wheel of a car; the roof of a house) which are classical part-whole-relationships. Other uncontrolled natural relations are feelings, attitudes, opinions, physical characteristics and illnesses. Possessive relationships which are socially uncontrolled are cultural and social origin and rank (family and tribal ties, names) and entities such as furniture, vehicles, animals and clothes (see Zewen 1987: 78–79):

- (3.277) ... *'atahi 'a tuku atu te hua'a o Kanatete i*
 then TAM give DIR ART family POSS K. DO
te 'ima o te haka'iki(Lav-H: 020)
 ART hand POSS ART chief
 '... then the *family* of Kanatete gave permission¹⁹² of the chief.'

Some possessor referents can be combined with both possessive prepositions depending on what kind of possessive relationship the speaker intends to express. In a legend about the supernatural powers of a chief, it is described how the chief has control over birds by using his supernatural powers. Thus, the preposition *a* is used:

- (3.278) *U ti'ohi nei au e aha e 'oko te=na*
 TAM look now 1.sg TAM what TAM obey,hear ART=Dem
puke manu a koe, te=na 'eo o koe.....
 pile bird POSS 2.sg ART=Dem language POSS 2.sg
 'I am now going to have a look how these birds of yours (=over
 which you have control) obey that language of yours.... .' (Mak-
 018)

Controlling relationships are also expressed with kinship terms. The relationship of a woman towards her children is always expressed by the

preposition *a* whereas a child does not have control over the parents, thus the preposition *o*:

- (3.279) ... *na te tama a te haka'iki te=nei vai.*
 for ART child POSS.al ART chief ART=Dem water
 ‘... this water is for the chief’s child.’ (Lav-T/H: 305)

- (3.280) *U pe'au te kui o Hekei i t=o ia*
 TAM say ART mother POSS.inal H. DO ART=POSS 3.sg
 hukona:.... (Lav-T/H: 130)
 relations.by.marriage
 ‘The mother of Hekei said to her brothers and sisters-in-law:....’

The relationship between husband and wife is equally marked with the preposition *a*:

- (3.281) *Mea oko te mea a koe i tuku 'io he*
 STV-P strong ART thing POSS 2.sg TAM give PREP ART
 vehine a te haka'iki.
 woman POSS ART chief
 ‘The thing of you is strong which (you) gave to the woman of the chief.’ (Lav-T/H: 364)

- (3.282) *Ua 'oko t=a ia vahana mei uta i te*
 TAM hear ART=POSS 3.sg husband from inland DO ART
 hi-hini 'eo 'i tai.
 RED-buzz voice LD sea
 ‘Her husband heard from the inland-region an almost inaudible voice at the seaward region.’ (Lav-T/H: 346)

The following two examples also clearly illustrate the difference between the prepositions *o* and *a*:

- (3.283a) *te ha'e o Teiki*
 ART house POSS.inal T.
 ‘Teiki’s house’ (i.e. the house he lives in, but which he has not necessarily built)

- (3.283b) *te ha'e a Teiki*
 ART house POSS.al T.
 ‘Teiki’s house’ (i.e. the house he has built or has control)

In locative noun phrases, possessive attributes are always marked by *o* (for more details, see ch. 5, § 4).

10. *no* and *na*:

The prepositions *no* and *na* are used to mark several different kinds of noun phrases. One of their more frequent uses is as a beneficiary preposition which can be glossed as ‘for’ (see [3.284] and [3.285]).

- (3.284) *Ua tuku 'aua i te ikoā hou no Tuohē o*
 TAM give 3.dl DO ART name new for T. PRES
Vae'eaiatiu. (Lav-T/H: 371)
 V.
 ‘They gave a new name for Tuohē, it is Vae'aiatiu.’

- (3.285) *'A kave atu na koe t=a taua vehine.*
 TAM carry DIR for 2.sg ART=POSS 1.dl.incl woman
 ‘Our woman is for you.’ (Lav-T/H: 379)

No and *na* are also often used when subject noun phrases are topicalised (see [3.286] and [3.287]):

- (3.286) *Na matou te haka=topa i t=o ia po'ea.*
 TOP 1.pl.excl ART CAUS=fall DO ART=POSS 3.sg beauty
 ‘It is us who made (him) loose his beauty.’ (Lav-E: 028)

- (3.287) *Na='u e haka=kite atu ia koe i te kiko toitoi.*
 TOP=1.sg TAM CAUS=see DIR OBL 2.sg DO ART meat
 real
 ‘It is me who will show you real meat.’ (Mak-047)

Note that these topicalised *no/na*-constructions are also called actor emphatic constructions¹⁹³ in the literature on Polynesian languages (see Clark 1976; Bauer 1997).

Moreover, *no/na* are also used to mark an adverbial phrase (see [3.288]):

- (3.288) ... *e he'e ai ia no te ha'atutuki me*
 TAM go ANA 3.sg in.order.to ART unite,reconcile with
t=o ia tau pa'io'io i te taha=tai o Taiohae.
 ART=POSS 3.sg PL family.saint LD ART walk=sea POSS T.

‘... he went there in order to be reunited with his (family) spirits on the beach of Taiohae.’ (Kim-2)

The difference between *no* and *na* is closely related to the difference between the possessive prepositions *o* and *a*.¹⁹⁴ The prepositions *no* and *na* also mark possessive attributes:

- (3.289) ... *e tuehine no='u te vehine a Ta'einui,*
 TAM sister POSS=1.sg ART woman POSS T.
 u hanau tama.
 TAM give.birth child
 ‘.... which is a sister of me, the wife of Ta'einui, (which) gave birth to a child.’ (Lav-H: 010)

11. *o* (presentative and topicaliser):

The preposition *o* is often used to introduce names and new referents (thus the term *presentative*).¹⁹⁵ *O* is used in equational clauses in which it marks non-verbal predicates in clause-initial position (see this chapter, § 3):

- (3.290) *O ai t=o ia iko? - 'A'e koe i 'oko?*
 PRES who ART=POSS 3.sg name be.not 2.sg TAM hear
 O Pihoi t=o ia iko. (Lav-E: 099–100)
 PRES P. ART=POSS 3.sg name
 ‘What’s his name? – Didn’t you hear it? His name is Pihoi.’
- (3.291) *O maua t=a 'oe tama.*
 PRES 1.dl.excl ART=POSS 2.sg child
 ‘It is us two who are your children.’ (Zewen 1987: 23)
- (3.292) *Mea ke Taihau'ani, o ia 'a te po'ea.*
 STV-P different T. PRES Dem EMPH ART handsome.man
 ‘Taihau'ani is different, that is the handsome man.’ (Lav-E: 109)

The preposition *o* often occurs before proper names of persons functioning as appositions:

- (3.293) *Ua 'oko au 'i te iko o t=o motua*
 TAM hear 1.sg LD ART name POSS ART=POSS father
 o Teatau'apaku.
 PRES T.
 ‘I heard the name of your father, it is Teatau'apaku.’ (Lav-E: 115)

- (3.294) *U paha iho te motua i hua tama*
 TAM insult DIR.after ART father DO ART.ana child
o Teatau'apaku. (Lav-E: 117)
 PRES T.
 'The father later insulted the same child, Teatau'apaku.'

Moreover, the preposition *o* marks topicalised subject noun phrases:

- (3.295) *...o te kui e mo'i na Pihoi.*
 TOP ART mother TAM girl for P.
 '... it is the mother who is the girl of Pihoi.' (Lav-E: 102)
- (3.296) *...o te mea a koe i tuku mai e kai au.*
 TOP ART thing POSS 2.sg TAM put DIR TAM eat 1.sg
 '... it is your thing which was given to me and which I was
 eating.' (Lav-H: 071)

Note that *o*-topicalisations are actor emphatic constructions (see Clark 1976 and above).

12. *e* (vocative marker):

The preposition *e* is a vocative preposition which only occurs before proper names of persons, nouns of address and noun phrases having a common full words as its lexical head (see [3.298–299]). These noun phrases do not have argument status, but a mere vocative function. Vocative *e* is often used when calling the addressee by name. Its semantic function seems to be an emphatic one:

- (3.297) *E Titi pe'au koe pe'e=nei pe'e=nei*
 VOC T. say 2.sg like=Dem.prox like=Dem.prox
 'Hey Titi, you said like this like this... .' (FA-T/M-H: 17: 116)
- (3.298) *Ee, 'eo mana t=o koe mea pe'au i to*
 yes voice powerful ART=POSS 2.sg STV-P say DO your
hua'a: "A ta'ai kotou i tu'u vaka,
 family TAM build 2.pl DO PPr.1.sg canoe
e tu'u hua'a? "
 VOC PPr.1.sg family
 'Yes, you have a powerful voice (because you) say to your
 family: "You build my canoe, my dear family? "' (Lav-E: 005)

- (3.299) *Ua mave hua ko'oua: " 'A mai, e te po'otu,*
 TAM welcome ART old.man TAM come VOC ART beauty
 'a mai.' (Lav-T/H: 095)
 TAM come
 'That old man welcomed (the girl): "Come, hey beauty, come."

However, the vocative preposition *e* is optional and can be left away when calling a person by name:

- (3.300) *Non, Titi, pe'au='ia e koe ia='u... .*
 csFr.no T. say=PASS AGS 2.sg DO=1.sg
 'Non, Titi, I was told by you... .' (FA-T/M-H-17: 076)

Table 11. Syntactic and semantic functions of prepositions

Form	Syntactic function	Semantic function
<i>i/ia</i>	direct object, adjunct	undergoer, cause, instrument, experiencee, agent, comparison
<i>e</i>	adjunct	agent
<i>i</i>	adjunct, complement phrase	spatial and temporal localisation
<i>ma</i>	adjunct, complement phrase	spatial and temporal localisation
<i>mei</i>	adjunct	spatial and temporal localisation
<i>'io</i>	adjunct, complement phrase	spatial localisation
<i>o</i> and <i>a</i>	attribute	possession
<i>no</i> and <i>na</i>	(topicalised) argument, adjunct, attribute	agent, benefactor, possession
<i>o</i>	(topicalised) argument, attribute, marking of non-verbal predicate	agent, naming
<i>e</i>	—	vocative (=address)

6.1.1.3. Attributes

Attributes modify lexical heads of noun phrases. Attributes are optional and they can take pre- and postnuclear positions within a phrase. When attributes co-occur within a noun phrase they have different positions with respect to the nucleus, i.e. some attributes are closer to the nucleus than others. The order of occurrences appears to be fixed although there might be flexibility in the order of occurrence (Mutu and Teikitutoua 2002: 57). In

the following I will give a brief overview of the types of nominal attributes and the order in which they occur within a noun phrase. The following kinds of attributes are prenuclear:

- Collective nominals which mark plurality (e.g. *tau* ‘general plural’, *puke* ‘pile’)
- Modifiers (e.g. *ana* ‘almost’, *ina* ‘a little’)
- Full words, in particular the state verbals *maka* ‘big’ and *kaiu* ‘small’.

The following kinds of attributes are postnuclear:

- Adnominal modifiers
- Relative clauses
- Locative noun phrases
- Emphatic particles (see this chapter, § 4.4.2)
- Directional particles (only with local nouns and body-part terms; see ch. 6, § 2.2.2)¹⁹⁶
- Negative particle *ko’e* ‘without’ (see this chapter, § 6.2.2).

Full words and full word constructions (verbal [e.g. state verbals] and nominal attributes).

The following attributes occur in pre- and postnuclear position:

- Demonstratives (see this chapter, § 4.3.3).
- Possessive attributes (see this chapter, § 6.1.2.1).

6.1.1.3.1. Prenuclear modifiers

1. Collective nominals:

There are a number of collective nominals which precede the nominal head of a noun phrase. These collective nominals never occur on their own and therefore cannot be considered as full words. They mark the lexical head of a noun phrase for plurality; however, the marking of plurality is not obligatory in Marquesan.

These collective nominals all have distinctive semantic features. *Tau* is the most neutral collective nominal which can precede any common full

word. *Mou/mau* ‘two or more’ only occurs with words which denote animate beings and mostly refers to two entities. *Puke* ‘pile, group’ can occur with any word which denotes countable objects. *Kahui* also means ‘pile’, and co-occurs mostly with words which denote products of crops (Dordillon 1931: 200).¹⁹⁷ *Ma'a* ‘bunch, terrain’ often co-occurs with names of plants, trees and flower plants,¹⁹⁸ i.e. it denotes the assemblage of several trees or plants and is thus used to refer to a forest, meadow or a hedge (of plants).

a) ***tau*** ‘general plural’

- (3.301) *Kave'ia atu t=o ia tau paka-paka vehie*
 carry=PASS DIR ART=POSS 3.sg PL.gen RED-piece fire.wood
me te tau ka'u-ka'u
 and ART PL.gen RED-remnants
 ‘Her little pieces of fire wood and the leafage were carried (to the fire place).’ (CH-B: 012)

b) ***mou/mau*** ‘two or more animate beings’

- (3.302) *Te hana a te=nei mou 'enana e avaika.*
 ART work POSS ART=Dem PL/DL man TAM fishing
U kanea i t=o 'aua vaka.... .
 TAM build DO ART=POSS 3.dl canoe
 ‘The work of these two men is fishing. (They) built their canoe....’ (Lav-T/H: 002–3)

c) ***puke*** ‘pile’

- (3.303) *Mea'a epo te kai-kai e popahi ia i t=a ia*
 but later ART RED-eat TAM command 3.sg DO ART=POSS 3.sg
puke manu:.... . (Mak-017)
 PL.pile bird
 ‘But the meal is later, (first) he commands his birds:.... .’

d) ***kahui*** ‘pile of crop x’

- (3.304) *...ua tuhi te 'ima oko 'io he kahui 'ehi.*
 TAM point ART hand strong PREP ART PL.pile coconut
 ‘... the right hand pointed to the pile of coconuts.’ (Lav-H: 099)

e) **ma'a** 'bunch, terrain'

- (3.305) *E he'e Teiki 'io t=a ia fa'a'apu ko atu ai 'io te ma'a 'eita.*
 TAM go T. PREP ART=POSS 3.sg agriculture there thither
 ANA PREP ART PL.terrain grass
 'Teiki went to his plantation which is over there on the terrain of grass.' (CH-B: 017)

2. Prenuclear modifiers and full words:

There are three adnominal modifiers which precede the lexical head of noun phrases:¹⁹⁹

ana 'almost'
'ina 'a little'
'ona 'dear, precious, a little (DIMINUTIVE)'

- (3.306) *'A pau taua 'i tai, 'a tuku mai t=a koe hue, e Tahia, mea hahao='ia pukava, t=a koe 'ona mea, 'ina'i taitai ia kai.* (Lav-U: 015)
 TAM go 1.dl.incl LD sea TAM put DIR ART=POSS 2.sg bucket VOC T. thing put.in.loose.fit=Perf? mussels ART=POSS 2.sg precious thing meat salty TAM eat
 'Let's go seaward, give me your bucket, Tahia, (the) thing to put in mussels, your precious thing, salty meat when eaten.'

- (3.307) *E he'e mai ia me hano te haika kohi me hakai t=a ia 'ona tama.* (K1A,T12: 3)
 TAM go hither 3.sg and get ART remedy collect and feed ART=POSS 3.sg dear child
 'He came and wanted to collect remedy and feed his *dear* child.'

When *ana* and *'ina* precede local nouns and body-part terms, the preposition of the locative noun phrase is often omitted:

- (3.308) *'Ina kaokao te='a piha 'i te mea='ia?*
 a.little bp.-side ART=Dem cow LD ART make=Perf
 'That cow is *a little* at the side at the positioning.'
 (FA-T/M-H: 13)

Position of prenuclear modifiers:

(PREP) – ART – Prenuclear Modifier – (*mou/tau* etc.) – **Nucleus**

- (3.309) *U ue Hina u ma'akau Hina ua mate*
 TAM cry H. TAM think H. TAM dead
t=u='u 'ona mou ko'oua. (Lav-U: 223)
 PPr.1.sg dear PL **Nucleus.old.man**
 'Hina cried and thought, my dear two grandfathers are dead.'

The state verbs *kaiu* 'small' and *maka* 'big' often occur, unlike other state verbs, in prenuclear position:

- (3.310) *maka* 'big'
kaiu 'little, small'

- (3.311a) *Ua, um, maka puaka pe'au ho'i e hitu meta*
 TAM INTJ big pig say indeed NUM seven meter
te 'oa. (Mak-055)
 ART length
 'Hum, big pig, (one) says indeed the length is seven meters.'

- (3.311b) ... *ma hope 'io te to'o atu i titahi kaiu*
 PREP behind PREP ART take DIR DO ART.indef small
hue pa'apa'a~. (CH-B-23)
 pot iron
 '... after that, after the taking of that certain small iron pot~.'

However, *kaiu* and *maka* are not comparable with the other prenuclear modifiers '*ona*', *ana* and '*ina*' because *kaiu* and *maka* directly precede the noun they modify. Moreover, they are preceded by the collective nominals and therefore form a close semantic unit with the nucleus of a noun phrase:

- (3.312) ...*te tau ka-kaiu pakapaka 'akau mea tao*
 ART PL RED-small remnants wood in.order.to light
t=a 'aua ahi. (CH-B: 010)
 ART=POSS 3.dl fire
 '... the very small pieces of wood in order to light their fire.'

- (3.313) *te='a tau kaiu maha'i*
 ART=Dem PL little boy
 'those little boys' (E)

Position of prenuclear *maka* 'big' and *kaiu* 'little':

(PREP) – ART – (<i>mou/tau</i> etc.) – <i>maka/kaiu</i> – Nucleus

6.1.1.3.2. Postnuclear attributes and modifiers

1. Adnominal modifiers:

There are only a few postnuclear modifiers which seem to modify the lexical head of noun phrases, namely *haka'ua* 'again', *ho'i* 'indeed' and *toitoi* 'real, genuine'. These modifiers typically modify the lexical head of verbal phrases. In relation to other nominal modifiers (e.g. common full words, state verbals, demonstratives), they have the following position within a noun phrase:

Position of adnominal modifiers:

(PREP) – ART – Nucleus – (Nominal)/(Demonstrative) – <i>Adnominal Modifier</i>

Ho'i 'indeed' and *toitoi*²⁰⁰ 'real, genuine' can also function like full words because they occur as the lexical head of verbal phrases.

The function of *haka'ua* as a modifier in noun phrases is only attested in negative existential clauses (see [3.314]). The semantic function of *ho'i* and *toitoi* is primarily an emphatic one (see [3.315–316]):

- (3.314) *A'e he kaikaia haka'ua 'i Vevau.*
 be.not ART Nucleus.cannibal again LD V.
 'There are no more cannibals in Vevau.' (Lav-T/H: 308)

- (3.315) *Hua atu te pihoi ia ia: "O ai ho'i*
 answer DIR ART handicapped DO 3.sg PRES who indeed
 'a te ikoa o ta koe mo'i i
 EMPH ART name POSS ART=POSS 2.sg girl TAM
 me'e='ia ai e matou? "
 insult=PASS ANA AGS 1.pl.excl

'The handicapped answered him: "What is indeed the name of your girl who was insulted by us?"' (Lav-E: 093)

- (3.316) *Me kite atu He'ato toitoi t=a te haka'iki.*
 then see thither Nucleus.H. really ART=POSS ART chief
 'Then He'ato indeed saw that it was the doing of the chief.
 (Lav-H: 078)

Note that *ho'i* 'indeed' in (3.315) modifies the lexical head of a noun phrase which functions as predicate in a non-verbal clause.

2. Relative clauses:

The most frequent type of relative clause is a verbal clause which is juxtaposed to the noun phrase it modifies:

- (3.317) *E to'u he'e='ia ati'i ananu Tuohē 'a'e he ika e hemo.*
 Num three go=Perf like always T. be.not ART fish
 TAM caught
 'Three times they went (and) Tuohē had **no fish** which was caught.' (Lav-T/H: 012)
- (3.318) *Ena te vehine po'otu e he'e ana.*
 exist ART woman beautiful TAM go CONT
 'There is a beautiful woman who is walking along.'
 (Lav-T/H: 066)

Relative clauses do not always directly follow the head they modify, i.e. other attributes can occur between the nominal head and the relative clause. Possessive attributes are often to the nucleus than relative clauses are which often take the last position within the noun phrase:

- (3.319) *A ti'ohi koe i te kai a t=o vehine e tuku nei ia au, e ivi me te koekoe.*
 TAM look.at 2.sg DO ART eat POSS ART=POSS wife
 TAM give now DO 1.sg TAM bone and ART intestines
 'You look at *the food* of your wife who gave (it) to me, *which are bones and intestines*.' (Lav-U: 197)

(3.319) is an interesting example because the possessive attribute is itself modified by a relative clause (*e tuku nei ia au* ‘who gave it to me’).

Position of a relative clause within a noun phrase:

Nucleus – (Nominal/Verbal) – (Demonstrative)/(Possessive NP) – *Relative clause*

Relative clauses are mostly verbal clauses. However, there are a few examples in which the relative clause seems to be nominalised. In these cases, the TAM-particle is replaced by the general article *te*:

- (3.320) *O ia t=a 'aua kaikai te o'aka='ia.*
 PRES 3.sg ART=POSS 3.dl food ART find=Perf
 ‘That is their food which (they) had found.’
 (lit. ‘... the having found’)

3. Locative noun phrases:

Locative noun phrases such as *i tai* ‘seawards’, *i uta* ‘inland’, *i mua* ‘in front’ etc. can modify a noun phrase nucleus:

- (3.321) *'A pata te 'ama 'i uta!* (E-Ti-99)
 TAM press ART light LD inland
 ‘Press the *inland* switch!’

4. Full words and full word constructions:

The lexical head of a noun phrase can be modified by a common full word as well as a verbal²⁰¹ or by a combination of verbals and/or common full words. However, many of the postnuclear verbal and nominal²⁰² constructions are not always attributive and have been lexicalised so that their meanings are not predictable from their constituents. We find the following constructions in Marquesan.

a) Postnuclear verbals and verbal constructions:

The lexical head of a noun phrase can be modified by full words which often function as the lexical head of a verbal phrase. Thus, these adnominal modifiers belong to the subclasses of verbals.²⁰³ The most frequent modification is by state verbals:

- (3.322) *U pe'au te mo'i po'otu i t=o ia kui...*
 TAM say ART girl beautiful DO ART=POSS 3.sg mother
 'The beautiful girl said to her mother:... .' (Lav-T/H: 030)

State verbals often 'add' information whereas other modifying verbals do not simply add information, but they form a semantic unit with the modified nucleus because these constructions are lexicalised. Look at the difference between (3.323a) and (3.323b):

- | | | |
|----------------------------------|-----|-----------------------------|
| (3.323a) <i>te koika kanahau</i> | vs. | (3.323b) <i>te 'epo kau</i> |
| ART feast nice | | ART dirt swim |
| 'the nice feast' | | 'the mud' |

In (3.323a) the noun phrase *te koika kanahau* would still be a feast even if the word *kanahau* would be omitted. In (3.323b) the noun phrase *te 'epo kau* would not denote 'mud' if the word *kau* would be left away. Thus, (3.323a) is a modified noun phrase in which *kanahau* functions as attribute, whereas (3.323b) is a compound.

In Marquesan we find the following full word constructions which contain a verbal:

1) Nominal – Verbal (N–V):²⁰⁴

- (3.324) *'epo kau – vahi hauhau – niuniu tau'eva*
 dirt swim place bad rope hang
 'mud' – 'dangerous place' – 'clothes line'

ha'e hoko
 house exchange
 'shop'

2) Nominal – Nominal – Verbal (N–N–V):

- (3.325) *[pakahio]²⁰⁵ 'eo moha*
 old.woman voice creaky
 'Old woman with a creaky voice'

[mata] ka'u hiamoe
 eye remnants sleep
 'sleep' (in the eyes)

[*vahi puhā*] *tivitivi*
 place box stinking
 'stinking box'

3) Nominal – Verbal – Nominal (N–V–N):

- (3.326) [*ika206 *nunu kerehi/ vai*
 fish cook fat/ water
 'fried/cooked fish'*

[*vehine*] *nunu kaikai*
 woman cook food
 'cooking woman'

[*'enana*] *hoe vaka*
 man row canoe
 'rower, oarsman'

4) Nominal – Verbal (+PASSIVE) – (Nominal):

- (3.327) [*mea*] *hahao='ia pukava*
 thing put.in.loose.fit=PASS mussel
 'container for mussels'

[*tapa*] *tomi='ia tapu*
 cloth cover=PASS table
 'table cloth'

[*vahi*] *tau'eva='ia kahu*
 place hang=PASS clothes
 'wardrobe'

5) Nominal – *mea*-construction (= mea – V[+ - 'ia – N/locative NP]):

- (3.328a) 'A *haka=pei-pei te [kai] mea*
 TAM CAUS=RED-ready ART eat in.order.to
haka=u'u='ia ha'e.
 CAUS=enter=PASS house
 'Prepare the inaugurating food.' (lit. 'the food in order to
 inaugurate the house') (Lav-U: 230)

- (3.328b) *Ia pao, u pe'au titahi ko'oua:* “A hano koe
 TAM finish TAM say ART old.man TAM go 2.sg
 ‘a tahu i te [umu] **mea tao puaka.** ”
 TAM light DO ART oven in.order.to grill pig
 ‘When (it) was finished, an old man said: “You go (and) light the
 oven for pig-grilling.”’ (lit. ‘..the oven in order to grill the pig’)
 (Lav-T/H: 099)
- (3.329) *Ma hea 'oa te pik'i i 'uka o te mouka*
 PREP where then ART climb LD top POSS ART high.mountain
nei, menia pu, 'a'e he [vahi] mea pik'i='ia.
 Dem.prox slippery only be.not ART place in.order.to climb=Perf
 ‘Where is then the way to climb on top of this mountain, it is
 slippery everywhere, there is no place to climb up.’ (Lav-U: 158)
- (3.330) *U ma'akau Te'akimauui o ia nei*
 TAM think T. PRES 3.sg Dem.prox
te [va'anui] mea pik'i='ia i 'uka.
 ART road in.order.to climb=Perf LD top/up
 ‘Te'akimauui thought, that was the way to climb up.’
 (Lav-U: 161)

It is not clear whether the *mea*-phrases in (3.329) and (3.330) are complement phrases or attributes because complement phrases are often introduced by *mea* ‘in order to, that’ as shown in (3.331a+b):

- (3.331a) ... *o ai te 'enana mea kai i te='a*
 PRES who ART man that eat DO ART=Dem
ko'ehi o te puaka? (Lav-H: 056)
 coconut.milk POSS ART pig
 ‘...who is the person that is eating the coconut milk of the pig?’
- (3.331b) *U kanea i t=o 'aua vaka mea he'e='ia*
 TAM make DO ART=POSS 3.dl canoe in.order.to go=Perf
i te upeka haka=topa. (Lav-T/H: 003)
 LD ART fish.net CAUS=fall
 ‘(They) made their canoe in order to go to do fish-net throwing.’

There seems to be a noticeable difference between the *mea*-phrases in (3.328) and the *mea*-complement phrases in (3.331). In (3.328a+b) *ha'e* and *puaka* lack the morphosyntactic properties which are characteristic of a

noun phrase (e.g. no articles and prepositions). The *mea*-complement phrases in (3.331), on the other hand, do not lack any morphosyntactic properties.

b) Postnuclear nominals

The nominal attributes found in my data consist of a simple nominal added to the nucleus. The nominal attribute directly follows the nucleus. These constructions are called NN-constructions (see Mosel and Hovdhaugen 1992: 305). Most of these constructions are compound-like constructions.

One can distinguish between two kinds of NN-constructions which are classified on the basis of their nuclei. In the first type of construction the nucleus is modified by the following nominal:

(3.332)	<i>pakahio kaikaia</i>	–	<i>hue popoi</i>	–	<i>papua puaka</i>	–	<i>ha'e pure</i>
	old.woman cannibal		pot popoi		enclosurepig		house prayer
	‘old cannibal	–	‘popoi	–	‘pigpen’	–	‘church’
	woman’		pot’				
	<i>ha'e mate</i>	–	<i>hana hamani</i>	–	<i>hana fa'a'apu</i>		
	house illness		work book		work agriculture		
	‘hospital’	–	‘school work’	–	‘farming’		
	<i>pupu pokolahu</i>	–	<i>'akau mi'o</i>	–	<i>'akau pu'ahi</i>		
	group young.girls		wood pink.wood		wood sandal		
	‘(dance) group	–	‘pink wood’	–	‘sandal wood’		
	of young girls’						

In the second kind of NN-construction, the nucleus signifies the type of object (or class) to which the following noun belongs:

(3.333)	<i>tumu hamani</i>	–	<i>tumu pure</i>	–	<i>tumu mako</i>
	root,base book		root,base prayer		root,base mango
	‘teacher’	–	‘churchman’	–	‘mango tree’
	<i>toa piha</i>	–	<i>toa moa</i>		
	male cattle		male poultry		
	‘bull’	–	‘cock’		

koivi	piha	–	koivi	puaka
female	cattle		female	pig
‘cow’		–	‘sow’	

The nuclei (*tumu* ‘root, base, foundation’, *toa* ‘male’ and *koivi* ‘female’) of the NN-constructions in (3.333) rarely occur on their own.

The two types of NN-constructions mentioned above are the most frequent nominal attributes. However, there are also more complex nominal attributes such as *Nominal – Nominal – Verbal*-constructions:

- (3.334) *pupu popo ke'ahi*
 group(N) ball(N) kick(V)
 ‘football group’

6.1.2. Some basic construction types of noun phrases

6.1.2.1. Possessive constructions

In Marquesan, possession is constructed in several different ways. The relationship between possessor and possessee is expressed by the semantically distinct possessive prepositions *o* and *a* in which the possessor is marked by the preposition (see this chapter, § 6.1.1.2). One of the most common ways to express possession is by possessive attributes; another way of expressing possession is by using possessive constructions as arguments (see below (3.348–351)).

There are basically two positions in which possessive attributes can occur, namely in postnuclear as well as prenuclear position.

Postnuclear possessive attributes which are introduced by *o* and *a* and are directly followed by a personal pronoun, a proper name of person, a place name or a noun phrase which expresses the possessor:

- (3.335) *U pe'au Anihoka 'io he koekoe o ia: "Pohu'e
 TAM say A. PREP ART interior POSS 3.sg save
 'otou! "* (Lav-H: 068)
 2.pl
 ‘Anihoka said to himself: “Save yourselves!”’

- (3.336) ... *me te hua atu o Tahia 'io he ha'e....*
 with ART return thither POSS T. PREP ART house
 ‘... with the returning of Tahia to the house... .’ (CH-B: 027)
- (3.337) *U heke te hinako 'i te puta ha'e*
 TAM descend ART pandanus.flower LD ART hole house
 o hua mou vehine. (Lav-U/N: 040)
 POSS ART.anा DL/PL woman
 ‘The pandanus flower went down to the door of those two
 women.’

Prenuclear possessive attributes are formed by *o* and *a* and a personal pronoun or a proper name of person. Prenuclear possessive attributes combine with the general article *t-* (<*te*):

- (3.338) *I t=o ia tihe='ia 'i Hakamo'ui... .*
 LD ART=POSS 3.sg arrive=Perf LD H.
 ‘At his arrival in Hakamo'ui... .’ (Mak-14)
- (3.339) *t=a koe ha'e*
 ART=POSS.al 2.sg house
 ‘your house, i.e. the house you have built’
- (3.340) *E hei tui t=a Mafeau hana.* (E)
 TAM garland sow ART=POSS.al M. work
 ‘Mafeau’s work is garland sowing.’
- (3.341) *Mei hea pa'i t=o Viri Kerere henua?*
 from where IwTah.indeed ART=POSS V. K. land
 ‘Where does Viri Kerere’s land come from?’ (Conv-DR)

The pronominal construction (see [3.338–339]) is the most frequent prenuclear possessive construction.

Possessive noun phrases cannot occur as arguments or adjuncts. They are noun phrases which are syntactically dependent on the lexical head of another noun phrase expressing the possessee. The possessor is expressed in the possessive noun phrase. Other nominal attributes such as demonstratives and collective nominals can occur between the nucleus and the possessive attribute. In prenuclear position, possessive attributes directly follow the article and precede other prenuclear modifiers (see [3.307] above) and collective nominals.

Prenuclear possessive attributes (with personal pronouns):

(PREP) – ART(t-)=POSS (*o/a*) – PPS – (Modifier) – (*tau/mou*) – **Nucleus**

- (3.342) ...*ma mu'i o He'ato me t=o ia tau toa*....
 PREP behind POSS H. with ART=POSS 3.sg PL warrior
 '... He'ato was behind with his warriors.... .' (Lav-H: 028)

When the possessive attribute in postnuclear position contains a personal pronoun demonstratives often occur after the possessive attribute.

Demonstratives with postnuclear possessive attribute (containing personal pronouns):

(PREP) – ART – (*tau/mou*) – **Nucleus** – POSS (*a/o*) – PPS – (Dem)

- (3.343) *U pe'au titahi 'enana:* “ *'Enana po'ea 'E'evaihopu:*
 TAM say ART.indef man man handsome 'E.
te tau vehine o matou nei....” (Lav-E: 034)
 ART PL woman POSS 1.pl.excl. Dem.prox
 ‘A man said:“E'evaihopu is a handsome man: these women of
 ours.... .”

The nominal constituent (or head noun) in a possessive noun phrase share many morphosyntactic properties with other noun phrases because it can take articles, nominal modifiers and it can itself be modified by possessive attributes.

Postnuclear possessive noun phrases:

(PREP) – ART – (*tau/mou*) – **Nucleus** – (full word) – (Dem) – *Possessive NP*

- (3.344a) *U pe'au te mata kika i 'oto t=o ia*
 TAM say ART eye wide-eyed LD inside ART=POSS 3.sg
koekoe i te 'oko='ia i te tekao a te
 intestines OBL ART hear=Perf DO ART talk POSS ART
hua'a o 'E'evaihopu, . . .
 family POSS 'E.
 ‘The wide-eyed said to himself when he heard the talk of 'E'evaihopu's family.... .' (Lav-E: 026)

- (3.344b) *Ma mu'i toitoi o te='a ko nihinihi*
 PREP behind really,right POSS ART=Dem side pointed
o te='a papua.
 POSS ART=Dem fence
 'Right behind that post of that fence.' (FA-T/M-H: 14: 049a)

After verbs of negation and the *e + numeral*-construction (see [3.346–347]), possessive attributes do not combine with the general article *t-* (> *te*):

V.neg/Interrog.Pron/Num – POSS (*a/o*) – PPS – Nucleus

- (3.345) *'A'o'e 'a='u tama.* (Zewen 1987: 82)
 be.not POSS.al=1.sg child
 'I do not have children.'

- (3.346) *E hia o koe ehua?* (E)
 TAM how.many POSS.inal 2.sg year
 'How old are you?'

- (3.347) *...te papua e ha e ha*
 ART enclosure NUM four NUM four
e ha o ia keke pa='ia. (FA-T/M-H: 15)
 NUM four POSS.inal 3.sg side close=Perf
 '... the enclosure has four, four, has four sides, closed.'

The possessive prepositions *o/a* + personal pronoun or proper name of person combined with the general article *t-* (<*te*) often function as subjects of verbal clauses. Thus, we often find forms such as *to koe* 'yours', *ta'u* 'my, mine' etc. functioning as subject noun phrases. These noun phrases express that a person or group of persons possesses something or is the initiator or actor of something. *Ta koe* can be glossed and paraphrased as 'you have/do...', *ta'u* as 'I have/do...' etc.:

- (3.348) *T=o matou papa e kori, mata-mata kori*
 ART=POSS 1.pl.excl. papa TAM ant RED-face ant
t=o ia.
 ART=POSS 3.sg
 'Our father is ant, he has the family sign of ants.' (Conv-DR: 3)

In these constructions the lexical head is explicitly agentive when it is marked by the alienable preposition *a*:

- (3.349) *Mea ke ana'u t=a 'E'evaihopu, e ha'i*
 STV-P different always ART=POSS 'E. TAM transport
ia i te tau po'i... . (Lav-E: 044)
 3.sg DO ART PL people
 'The doing of 'E'evaihopu is very different, he transports the
 people... .' (lit. 'It is very different that of 'E'evaihopu....')
- (3.350) *E iko a hauhau t=a koto u i pe'au mai*
 TAM name bad ART=POSS 2.pl TAM say hither
no t=o='u mo'i.... .
 for ART=POSS=1.sg girl
 'You gave a bad name for my girl... .' (lit. 'you have a bad name
 which you told me for my girl')
- (3.351) *'A'e 'atou i huke i te umu²⁰⁷ no koe, e*
 be.not 3.pl TAM revenge DO ART oven for 2.sg TAM
teka o meita'i t=a 'atou i teka o no koe e
 talk good ART=POSS 3.pl TAM talk about 2.sg TAM
teka o kaipipi'o t=a koe. (Lav-E: 079)
 talk speak.badly.about ART=POSS 2.sg
 'They did not take revenge for you, they had to say good things
 about you, you speak badly.' (lit. '... you have bad talk')

If common full words occur as the lexical head in these constructions, they are preceded by an article, or an article plus demonstrative:

- (3.352) *Ua hei t=a te hoihoi teka o... .*
 TAM correct ART=POSS ART monstrous talk
 'That talk of the monstrous people is right... .' (Lav-E: 074)
- (3.353) *Ua kite hua ko'oua e hana hauhau*
 TAM know ART.ana old.man TAM work bad
t=a te=nei vehine,.... . (Lav-U: 148)
 ART=POSS ART=Dem woman
 'That old man knows that that of this woman is bad work.... .'
- (3.354) *E po'otu mei hea t=o te=na vehine?*
 TAM beauty from where ART=POSS ART=Dem woman
 'Where is the beauty of that woman from?' (lit. '(be) the beauty
 from where that of that woman') (Lav-E: 049)

It is interesting to note that these possessive constructions occur in verbal clauses in which the lexical head of the verbal phrase is a common full word. Moreover, these verbal clauses look like the *isu mamafa*-constructions (see this chapter, § 4.1.1). Compare (3.355) with (3.350'):

- (3.355) *E kōpu hauhau t=o koe.*
 TAM stomach bad ART=POSS 2.sg
 ‘You have a bad stomach.’ (E)

- (3.350') *E ikoā hauhau t=a kotou... .*
 TAM name bad ART=POSS 2.pl
 ‘You have a bad name... .’

- (3.356)
isu mamafa-construction

[TAM – **body-part.FW–Mod.FW**] – [ART(*t*)=POSS (*a/o*) – PPS/PN.ps]

- (3.357)
 possessive constructions functioning as arguments

[TAM – **NucleusFW–Mod.FW**] – [ART(*t*)=POSS (*a/o*) – PPS/PN.ps/ART+FW]

6.1.2.2. Nominalisation

In Marquesan, there are two types of nominalisation: lexical and syntactic nominalisation. Lexical nominalisation creates common full words which are derived from other full words via derivational devices such as suffixation. In Marquesan, like in many other Polynesian languages (see Clark 1981), lexical nominalisations are often derived from action verbs as exemplified in (3.358):

- (3.358) *noho* ‘sit’ ⇒ *nohoka* ‘chair’
moe ‘lie’ ⇒ *moeka* ‘bed’

All lexical nominalisations are part of the lexicon. Marquesan has only a few lexical nominalisations. The other type of nominalisation, i.e. syntactic nominalisation, frequently occurs, in particular in narratives or written texts. Syntactic nominalisations are not part of the lexicon. In syntactic nominalisation, the entire verbal clause is nominalised. These nominalisa-

tions are therefore called nominalised verbal clauses. Nominalised verbal clauses are an interesting feature of Marquesan grammar because they show some characteristic features of noun phrases as well as verbal clauses, i.e. they have nominal and verbal properties alike (Cablitz 2000). Any verbal clause can be nominalised without morphological changes of the lexical head by simply replacing the TAM-marker by the general article *te*. Compare (3.359a) and (3.359b):

- (3.359a) *E popahi ia i t=a ia puke manu:*
 TAM command 3.sg DO ART=POSS 3.sg pile bird
 ‘He commanded his birds:... .’ (Mak-017)
- (3.359b) *Me te popahi o Pa'etini i t=o ia tau po'i... .*
 and ART command POSS P. DO ART=POSS 3.sg PL
po'i... . (Mak-026)
 people
 ‘And Pa'etini’s commanding of his people... .’

Subjects are expressed as genitive attributes and therefore assimilate to noun phrase syntax. The genitive attribute mostly occurs in postnuclear position, but when subjects are pronominalised, they can occur in pre- and postnuclear position:

1. Subject in postnuclear position:

- (3.360) *Mea 'oa te ha'a=peipei='ia a te po'i 'i*
 STV-P long ART CAUS=prepare=Perf POSS ART people LD
te=ia 'a 'i te=ia 'a i te tau himene
 ART=Dem day LD ART=Dem day DO ART PL song
me te tau haka.
 and ART PL dance
 ‘The people’s preparation of songs and dances each day was long.’ (Kim-2)

2. Subject in prenuclear position:

- (3.361) *I t=o ia tihe='ia 'i Hakamo'ui... .*
 LD ART=POSS 3.sg arrive=Perf LD H.
 ‘At his arrival/arriving in Hakamo’ui... .’ (Mak-14)

The subjects which are expressed as possessive attributes, are marked by inalienable preposition *o* or alienable *a*. The semantic distinction between *o* and *a* is partly maintained in nominalised verbal clauses. Subjects of transitive verbals often have an agentive role in the action expressed by the verbal and therefore are often marked by *a* in the nominalised verbal clause:

- (3.362) ... *e he'e au u tihē mai nei 'a te*
 TAM go 1.sg TAM arrive hither now EMPH ART
vava'o²⁰⁸ a te hei.
 call POSS.al ART garland
 ‘... I am leaving because the garland’s calling has reached me now.’ (Lav-T/H: 032)

Subjects of intransitive verbal clauses are expressed by an *o*-phrase, although subjects of corresponding intransitive verbal clauses can sometimes express an agentive role (like *he'e* ‘go’, *rere* ‘escape, flee’):

- (3.363) *Ua ko'e te peke o hua vehine... .*
 TAM cease ART be.angry POSS ART woman
 ‘The being angry of the woman was over’ (Lav-U: 126)

- (3.364) *'A tuku te rere o te 'enana ma he ma'a*
 TAM give ART escape POSS ART man PREP ART terrain
'eita.
 bush
 ‘The man escaped through the bush.’ (Mak-079)

The choice between the possessive prepositions *o* or *a* in the possessive (subject) noun phrase is dependent on the semantics and verbal subclass of the lexical head of the nominalised verbal clause. If the lexical head of a verbal clause belongs to the class of transitive verbals and if the subject of transitive verbal clauses has an agentive role, the subject in nominalised verbal clause is introduced by the alienable preposition *a* (see [3.360]). All other verbal classes demand the inalienable preposition *o*. Here are some examples:

1. Experience verbals:

- (3.365) ... *te kite='ia o te 'enana i te='a puaka,*
 ART see=Perf POSS ART man,people DO ART=Dem pig

‘...when the people saw the pig.... .’ (lit. ‘... the seeing of the people...’) (Mak-100)

2. Action intransitives:

- (3.366) *'A tuku te rere o te 'enana ma he
INCH give ART flee,escape POSS ART man PREP ART
ma'a 'eita.... .
PL.terrain grass*
‘The people escaped via the bush.... .’ (Mak-079)

3. State intransitives:

- (3.367) *U tutu i t=o ia 'i'i no te
TAM shake,give DO ART=POSS 3.sg force for ART
meita'i o te koika.
good POSS ART feast*
‘He gave all his force in order to make a good feast.’ (Kim-2)

4. Neuter verbs:

- (3.368) ... *te mau='ia o te aatu 'i 'uka o te='a
ART hold=Perf POSS ART bonito LD top POSS ART=Dem
hu'uhu'u
bristle*
‘... the bonito was hanging on these bristles.... .’ (lit. ‘the holding of the bonito on ...’) (Mak-093)

Nominalised verbal clauses also manifest verbal properties which distinguish nominalised verbal clauses from noun phrases. In Marquesan object noun phrases retain verbal phrase syntax in that object noun phrases of nominalised verbal clauses exhibit the same case-marking preposition as in verbal clauses (see the case-marking of the direct object in [3.360] and [3.365]).

According to some researchers (Chung 1973; Clark 1981) Polynesian languages have a nominalising suffix which goes back to PPN **-Canga/-Caŋa*. According to Clark the use of the suffix PPN **-Canga/-Caŋa* in nominalised verbal clauses is determined by its larger syntactic context (1981: 67).

In N-MQA, however, this suffix -‘ia often occurs in nominalisations, but its primary function is not to nominalise verbal clauses, but to mark an aspectual distinction between perfective and imperfective aspect:²⁰⁹

- (3.369) *U ko'ana 'atou i te pokoki a te po'i o
TAM find 3.pl DO ART capture POSS ART people POSS
Taipi me te kai='ia atu.
T. and ART eat=Perf DIR.temp*
'The people of Taipi were able to capture them and later ate them up.' (Kim-16)

- (3.370) *O ia 'a te ha'akakai a Makaia'anui, te maka
PRES 3.sg EMPH ART legend POSS M. ART big
puaka mei Hiva 'Oa. 'i Hakamo'ui te tao='ia ia
pig from H. 'O. LD H. ART grill=Perf DO
ia, te kai='ia ia ia
3.sg ART eat=Perf DO 3.sg*
'That was the legend of Makaia'anui, the massive pig from Hiva 'Oa. He was grilled and eaten in Hakamo'ui.' (lit. 'in Hakamo'ui the grilling of him, the eating of him') (Mak-123–124)

Nominalised verbal clauses which lack the suffix -‘ia often have an habitual or imperfective reading as in (3.371):

- (3.371) *Ua kave mai na 'enana 'i te vaka, 'i 'ei'a
TAM carry hither ART.pl man LD ART canoe LD there
te ha'a=moe 'a i te nino (Kim-20)
ART CAUS=lie EMPH DO ART body*
'The two men carried (him) to the canoe; there was *the laying out* of the body... .'

6.2. The verbal phrase

The nucleus of a verbal phrase is most typically formed by a full word which belongs to one of verbal subclasses (see this chapter, § 4.1.2). It can also be formed by a common full word, a numeral, the directional particles *mai* ‘hither, come’ and *ihō* ‘downwards, descend’, interrogative proforms and verbal and nominal compounds. The nucleus of a verbal phrase is often, but not exclusively marked by TAM-particles. In my data there are a number of occurrences in which the lexical head of a verbal phrase is not

marked by a TAM-particle. For speakers of Marquesan the omission of a TAM-particle is not ungrammatical, in particular when the temporal context has been established before by the speaker (e.g. by sentential modifiers *inenahi* ‘yesterday’ or the like). Look at the following two successive utterance in a legend in which the first verbal phrase is marked by a TAM-particle, but the following three verbal phrases are not. Note that the last three verbal phrases are under scope of the first marked verbal phrase:

- (3.372) *I he'e mai ai te='a 'enana 'i titahi 'a mei*
 TAM go DIR ANA ART=Dem man LD ART day from
Hiva 'Oa ma 'uka o titahi vaka. He'e mai 'io
 H. 'O. PREP top POSS ART canoe go hither PREP
Pa'etini 'i Hakamo'ui hano mai ia ti'ohi, e
 P. LD H. get hither 3.sg look.at TAM
toitoi 'a nei... . (Mak-010–011)
 true EMPH now
 ‘One day that man came from Hiva 'Oa on his canoe. (He) came to Pa'etini in Hakamou'i, in order to have a look if it was true that... .’

The nucleus of a verbal phrase can also be modified by adverbial modifiers, directional particles, focus particles, the negative particle *ko'e* and by other modifying verbs and nominals. The anaphoric particle *ai* follows the verbal and its semantic modifiers (e.g. for adverbial modifiers see [3.373]) and for directional particles see [3.374]):

TAM – Nucleus – (Modifier)/(DIR) – Anaphoric Particle <i>ai</i> – Subject

- (3.373) *'Atahi 'a oko nui ai te 'i'i... .*
 then TAM strengthen very ANA ART force
 ‘When the forces were very strong’ (Lav-H: 012)
- (3.374) *'Atahi 'a pe'au atu ai Anihoka ia He'ato:... .*
 then TAM say DIR ANA A. DO H.
 ‘Then Anihoka said to He'ato:... .’ (Lav-H: 040)

6.2.1. Tense–aspect–mood particles

Tense-aspect-mood particles (henceforth: TAM-particles) convey basic information about the temporal relations of an event or they modify the nucleus of a verbal phrase with respect to the certainty, definiteness, vagueness or possibility of an event or action.

In Marquesan there is no obligatory marking of absolute tense.²¹⁰ The basic temporal structure of Marquesan discourse is one of relative tense. In other words: N-MQA tense-aspect particles often relate events or actions to each other, but not necessarily to the time of utterance. The most crucial parameter in the temporal structure of Marquesan discourse is the anchoring of the deictic centre which can, but need not be explicitly mentioned. If the speaker plays an important part in the discourse he or she relates the event to the time of utterance. The deictic centre can also be transposed to some other reference point (or time interval) which is established by the linguistic context (see below).

A neat labelling of TAM-particles into tense, aspect or mood is difficult because there are many ‘mixed’ forms: a particle can be e.g. a tense as well as an aspect marker at the same time, i.e. the categories tense, aspect and mood cannot be clearly separated from each other. As we will see below, the particle *e* is often used as a relative tense marker: for instance, if the deictic centre is at the time of utterance *e*-marked verbals refer to present and future events and a suitable gloss would be ‘non-past’ (see also Mutu and Teikitutoua 2002). However, *e* also marks events as being habitual or inherently imperfective (Mutu and Teikitutoua 2002; Zewen 1987).

The difficulty of applying traditionally defined categories of tense and aspect (see Comrie 1985) is reflected in grammars of Marquesan. Zewen (1987: 32) argues that Marquesan has no tense markers at all. Mutu and Teikitutoua (2002: 41–42), on the other hand, classifies the particle *i* as referring solely to past events. The problem probably lies in the definition of the categories tense and aspect. It is better to regard tense and aspect markers quite generally as particles which mark *temporal relations* between states and events and a point of reference (=deictic centre) which is either the time of utterance or a point in time given by the linguistic context. The interpretation of the particles very much depends on the perspective the speaker takes, i.e. where he or she anchors the deictic centre²¹¹ on the time scale.

In the following I will exemplify the mechanism of temporal reference with the TAM-particles *e* and *ua/u*. In (3.375) the deictic centre is anchored

at the time of utterance and the TAM-particle *e* refers to a future event or to an event which is close to the time of utterance:

- (3.375) *E he'e au 'i Hakahetau.* (E)
 TAM go 1.sg LD H.
 'I am (now) going to Hakahetau.'

Likewise, the TAM-particle *ua* often refers to events which are completed in the past with respect to the time of utterance:

- (3.376) *Ua he'e au 'i Hakahau.* (E)
 TAM go 1.sg LD H.
 'I went to Hakahau.'

In the examples (3.375) and (3.376) the TAM-particles *e* and *ua/u* seem to be absolute tense markers because they relate to past and future events with respect to the time of utterance. However, the two TAM-particles only relate to the time of utterance because the deictic centre is anchored at the time of utterance, and not because *e* and *ua/u* are inherently absolute tense markers as such.

E and *ua/u* are often used in contexts in which *e* does not refer to present and future events (see below [3.379]), and *ua/u* does not refer necessarily to past events. The primary function of the particle *ua/u* is to mark an event or action as completed or as an event or action to be completed in the future. Therefore *ua/u* is an aspectual marker which falls into the traditionally defined category of 'perfective'.

- (3.377) *U pe'au te mo'i i te motua me te kui:*
 TAM say ART girl DO ART father and ART mother
 "O'io'i ua he'e au, e vava'o nei te hei ia
 tomorrow TAM go 1.sg TAM call DEM ART garland DO
 au."
 1.sg
 'The girl to (her) parents: "Tomorrow I will have left when the garland is calling me.'" (Lav-T/H: 063)

In (3.377) *o'io'i* 'tomorrow' clearly indicates that the perfective marking of the verbal *he'e* 'go' has future reference. Moreover, the use of the perfective marker *ua/u* for future events also implies a modal reading. One can only use the perfective marker *ua/u* if the event or action is definitely com-

pleted or will be completed. As for past events, the particle *ua/u* functions as an aspectual marker, as for future events, *ua/u* implies modality.

In what follows I will give two lengthy examples from the beginning of two different narratives which anchor their deictic centre quite differently. In (3.378) the time of utterance is the deictic centre; in (3.379), however, the deictic centre is shifted to a time interval in the past by using the sentence modifiers *na po 'omua*, *na po kakiu* ‘once upon a time, at ancient days’:

- (3.378) *Ua noho Uhikaua'iki me t=a ia vehine o*
 TAM live.together U. with ART=POSS 3.sg wife PRES
Tahiatotohu'ani. Mea 'oa ua tupu t=a 'aua tama,
 T. STV-P long TAM grow ART=POSS 3.dl child
u hanau, e mou mo'i o Hinamaho'aho'a me
 TAM give.birth TAM PL/DL girl PRES H. and
te Makomatahai teina no Hinamaho'aho'a. Ua
 ART M. younger.born for H. TAM
he'e Uhikaua'iki 'i Havaiki, ua noho me
 go U. LD H. TAM live with
t=a ia vehine. (Lav-U: 001-003)
 ART=POSS 3.sg wife

‘Uhikaua'iki was living together with his wife Tahiatotohu'ani. It took a long time before they conceived a child. Two girls were born, Hinamaho'aho'a and Makomatahai which was the younger sister of Hinamaho'aho'a. Uhikaua'iki went to Havaiki (and) lived with his wife (there).’

- (3.379) *Na po 'omua na po kakiu 'i te Henua*
 ART.pl day before ART.pl day ancient LD ART H.
'Enana nei, 'i 'Ua Pou, e noho nei, e tahi
 E. Dem LD 'U. P. TAM live Dem NUM one
haka'iki t=o ia ikoia o Pa'etini. 'I Hakamou'i
 chief ART=POSS 3.sg name PRES P. LD H
t=o ia noho. Te='a haka'iki mea mana.
 ART=POSS 3.sg stay ART=Dem chief STV-P power
E 'oko te tau manu paotu ia popahi ia:
 TAM obey ART PL bird all TAM command 3.sg
"A hano te vai! " Ua hano te manu... .
 TAM get ART water TAM get ART bird
- ‘Once upon a time, in the ancient times one chief was living at that time here on the Marquesas, at 'Ua Pou, his name was Pa'etini. His residence was in Hakamou'i. That chief, (he) was

powerful. All the birds were obeying him when he was giving orders: “Get water!” The birds got water... .’ (Mak-002–005)

In (3.378) there is no deictic centre explicitly introduced in discourse and the deictic centre is anchored by *default* at the time of utterance, i.e. at the ‘here’ and ‘now’ of the narrator. From the narrator’s point of view, the events in the narrative are in the past and therefore completed, thus the marking with the perfective marker *ua/u* in almost all verbal phrases.²¹²

However, this is different in (3.379) in which the deictic centre has been shifted to a time interval in the past by using a sentential modifier (*na po ‘omua* ‘in the ancient times’). In this narrative the narrator need not indicate that the events are completed and situated in the past because the narrator has already indicated where the narrative has to be localised on the time axis. However, if there would not have been a temporal sentential modifier, the deictic centre would be anchored by default at the time of utterance and the *e*-marked verbal phrase *e noho nei* would refer to a present or future event (‘is now living’; see [3.375]). However, due to the anchoring of the deictic centre at a time interval in the past, we cannot get the temporal reading of ‘non-past’ for the particle *e* anymore. So the temporal reading ‘non-past’ is blocked by a temporal sentential modifier which transposes the deictic centre to some point on the time axis other than the time of utterance. Now the situation is viewed from *within* this time interval centred around the transposed deictic centre²¹³ and we get a perspective on the narrative which is traditionally called imperfective aspect. Although we only seem to get the ‘non-past’ reading when the deictic centre is anchored at the time of utterance, one could say that *e* marks quite generally a temporal relation which expresses that an event is ‘simultaneous’ (Ger. *gleichzeitig*) or ‘posterior’ (Ger. *nachzeitig*) to the time of the deictic centre. Another crucial parameter in the interpretation of the TAM-particles is the perspective the narrator takes in a narrative. He can change constantly between his own perspective at the time of utterance and the perspective of the narrative.²¹⁴ The context in which the TAM-particles are used, can indicate which perspective the narrator has taken. Compare the subsequent utterances of the same narrative. In (3.380) the verbal *tihe* ‘arrive’ is marked by *e* because the situation is viewed from within the narrative:

- (3.380) *Te iko a o te=’a ’enana ’Akau’i, he’e mai ia
ART name POSS ART=Dem man ‘A. go hither 3.sg
mei Hiva ’Oa mai ’io t=o ia vaka
from H. ‘O. DIR PREP ART=POSS 3.sg canoe*

eeeeeee²¹⁵ e tihe 'i Hakamo'ui.
 EMPH TAM arrive LD H.

'The name of that man is 'Akau'i, he came from Hiva 'Oa on his canoe, (and) arrived in Hakamo'ui.' (Mak-013)

In subsequent utterances, the narrator marks the verbals with *ua* because he views the situation from outside, i.e. his own perspective (anchored at the time of utterance):

- (3.381) *E aha 'a, ua tau te vaka, ua hiti Pa'etini 'io te~ paepae... .* (Mak-015)
 well TAM PL ART canoe TAM go.up P. PREP ART
paepae
 paepae
 'Well, the canoe arrived, Pa'etini went up to the paepae.'

Shortly after that, the situation is viewed again from within the narrative and the verbal is marked by imperfective *e*:

- (3.382) *Mea'a epo te kaikai e popahi ia i t=a ia puke manu... .* (Mak-017)
 but later ART food TAM command 3.sg DO ART=POSS
 3.sg pile bird
 'But the meal was later, (first) he was commanding his birds... .'

Although perspective-taking of the narrator and anchoring of the deictic centre are closely related to each other, they are, however, independent parameters in the temporal reference system of Marquesan. If the narrator views the events from within the narrative, we often get an imperfective reading (see above). However, if it is viewed it from the 'here' and 'now' of the narrator, it is solely viewed from within the narrator's own perspective. The different readings of *e* are triggered by the anchoring of the deictic centre. We can conclude for the particle *e* that it is a particle which marks temporal relations *relatively* to the deictic centre. This is also the case for other TAM-particles. In what follows, I will briefly illustrate how the TAM-particles occur in discourse.

In general, one can say that not all verbal classes can occur with all TAM-particles. State verbals and common full words have very restricted uses of TAM-particles. For instance, state verbals neither occur with the particles '*a*, *e*'; common full word only combine with *e* and sometimes *ua/u* and *mea* 'state'. There is a low frequency of the particles *oi, oa, me* and

mei. The class of state verbs has the verbal particle *mea* ‘state’ which rarely occurs with other verbal classes.²¹⁶ The co-occurrence of a TAM-particle with a verb is dependent on the lexical meaning of the verb. The fact that the use of TAM-particles is restricted to certain lexical classes (e.g. state verbs, common full words, neuter verbals) might speak for an aspectual system.

1) *ua/u* ‘perfective’,²¹⁷ ‘inchoative’:

It was mentioned above that the particle *ua/u* indicates the accomplishment of an action or event (see examples above). Moreover, it marks inchoative aspect of certain events, processes or states of being as having begun or as having been entered into (=change of state; see Bauer 1997: 88). The usage of *ua/u* is restricted to certain syntactic constructions (Mutu and Teikitutoua 2002: 43). It occurs in basic verbal clauses, but it is not used after verbals of negation, in actor emphatic constructions and in relative clauses which express that an event or action is completed. Moreover, *ua/u* does not co-occur with the anaphoric particle *ai*. In these constructions the particle *i* occurs to mark the accomplishment (see [3.384b–387]) or non-accomplishment (see [3.383b]) of an event, process or state (see also Zewen 1987; Mutu and Teikitutoua 2002):

a) verbals of negation (see [3.383b]):

- (3.383a) *E aha 'a, ua kite He'ato i te ma'akau o
well see,know H. DO ART thought POSS
Ta'einui.*
T.
'Well, He'ato knew Ta'einui's thoughts.' (Lav-H: 029)

- (3.383b) ... *'a'e i kite Teiki e aha te='a kaikai.*
be.not TAM see T. TAM what ART=Dem food
'... Teiki did not see what that food was.' (lit. 'it is not that Teiki
has seen that food'). (CH-B: 54)

b) actor emphatic construction (see [3.384b]):

- (3.384a) *'Ua hana te Etua 'i te mea paotu.*
TAM work ART God DO ART thing all
'God created all thing.' (Zewen 1987: 85)

- (3.384b) *Na te Etua i hana 'i te mea paotu.*
 TOP ART God TAM work DO ART thing all
 'It is God who created all things.' (Zewen 1987: 85)

c) relative clause:

- (3.385a) **Ua au kotou i te tapa ua tuku='ia mai mei Nuku Hiva.* (E)
 TAM like 2.pl DO ART cloth TAM put=PASS hither
 from N. H.
 (You liked that cloth which was given to me from Nuku Hiva.)

- (3.385b) *Ua au 'otou 'i te tapa i tuku='ia mai mei Fatu Iva.* (Zewen 1987: 110)
 TAM like 2.pl DO ART tapa TAM give=PASS hither from
 F. I.
 'You liked the tapa which was given to me from Fatu Iva.'

d) anaphoric particle *ai*:

- (3.386a) **U popahi ai Teiki i t=a ia tama.*
 TAM command ANA T. DO ART=POSS 3.sg child
 (Teiki commanded his child.) (E)

- (3.386b) *I popahi ai Pa'etini i t=a ia tau manu.*
 TAM command ANA P. DO ART=POSS 3.SG PL
 bird
 'Pa'etini then gave orders to his birds.' (Mak-019)

- (3.387) *U motu-motu te tou'a, i hi-hika ai hua tau to'iki 'i uta 'io he ke'a.* (Lav-T/H: 253)
 TAM RED-cut ART rope TAM RED-fall ANA ART.ana PL
 child LD inland PREP ART stone
 'The rope cut and those children fell inland on the stone.'

With action verbs (action intransitives, transitives, transfer verbs, derived causatives, neuter verbs etc.) the particle *ua/u* refers to completed events in the past. When *ua/u* occurs with state verbs and common full words the particle indicates a change of state and therefore marks inchoative aspect:

- (3.388) *Ua mate Kanatete u kai='ia e te Hiva 'Oa.*
 INCH dead K. TAM eat=PASS AGS ART H. 'O.
 'Kanatete is dead, (he) was eaten by the Hiva 'Oa (people).'
 (Lav-H: 030)

2) *i* ‘past’ (Mutu and Teìkitutoua 2002), ‘resultative’ (Zewen 1987):

According to Mutu and Teìkitutoua the particle *i* indicates that an action or event took place in the past with respect to the time of utterance, and *i* can therefore be considered as an absolute tense marker (2002: 41). Like Zewen (1987), Mutu and Teìkitutoua observes that *i* “marks a situation which occurred in the past but continues into the present” (2002: 41). Unlike Mutu and Teìkitutoua (2002), Zewen (1987: 34) analyses *i* only as an aspectual marker which indicates that an action or event persists in its resulted state up to the time of utterance, thus his labelling as ‘resultative’. According to Zewen (1987: 34) *i* can contrast with the perfective particle *ua/u* as shown in the following two examples:

- (3.389a) *'U pohore au 'io he tai.*
 TAM scratch 1.sg PREP ART sea
 'I got scratched in the sea.' (Zewen 1987: 34)

- (3.389b) *I pohore au 'io he tai.*
 TAM scratch 1.sg PREP ART sea
 'I stayed scratched from the sea.' (Zewen 1987: 34)

The difference between (3.389a+b) is a subtle one: in (3.389a) the emphasis is on the event of being scratched; in (3.389b) the emphasis is on the persisting state of being scratched. The two different readings are due to the combination of the verbal particle and the lexical meaning of the verbal *pohore* ‘scratch’.

According to my own analysis, the TAM-particle *i* quite generally marks a temporal relation which is *anterior* to the time of the deictic centre. The deictic centre can be – similar to that of the TAM-particle *e* – anchored at the time of utterance, i.e. the ‘here’ and ‘now’ of the speaker, but it can also be transposed to a time interval in the past. The particle *i* has to be interpreted in relation to that deictic centre. It often contrasts with the particles *e* and *ua/u* which is shown in the following examples of (3.390). In these examples, *i* clearly marks the action or event expressed by the verbals as something which is anterior to the action or event expressed by the verbals which are marked by *e* or *ua/u*:

- (3.390a) *U pe'au te vehine po'otu: " 'A'e au e hakaea
 Perf say ART woman beautiful be.not 1.sg TAM stop
 'io ko'ua, e he'e au 'io Tuohe na te hei
 PREP 2.dl TAM go 1.sg PREP T. TOP ART garland
 i vava'o mai.*" (Lav-T/H: 068)

TAM call hither
 'The beautiful woman said: "I am not going to stop at your place;
 I am going to Tuohe, it is (his) garland which has called me. "'

- (3.390b) *I heke ai te kaka'a 'i te puta ha'e o
 TAM descend ANA ART gecko LD ART hole house POSS
 hua mou pakahio, e konini.*
 ART PL old.woman TAM sing.melodically
 'Having arrived at the door of those two old women, the gecko
 began to sing melodically.' (Lav-U/N: 026)

- (3.390c) *E ue te mea i ko'aka me te ma'ivi'ivi.*
 TAM cry ART thing TAM find and ART be.terrified
 '(She) cried about the thing which (she) had found and was
 terrified.' (lit. '...and the being terrified.') (Lav-U/N: 199)

- (3.390d) *Ia tihe atu hua po'i 'i te koika, u ti'ohi
 TAM arrive DIR ART people LD ART feast TAM look.at
 'E'evaihopu i hua tau 'enana hoihoi i he'e me
 E. DO ART PL man handicapped TAM go with
 ia 'i te koika 'i hua mou po 'omua.* (Lav-E: 062)
 3.sg LD ART feast LD ART PL day in.former.times
 'When those people arrived at the feast, 'E'evaihopu looked at the
 handicapped men who had gone with him to feasts long before
 that time.'

- (3.390e) *Ua 'i'o te ha'e o te po'i ma tai, mei hua
 TAM pass ART house POSS ART people PREP sea from ART
 kaha i tomi='ia 'io he 'epo te
 supernatural.powers TAM cover=PASS PREP ART dirt,earth ART
 'i'o i te vai take.* (Lav-T/H: 300)
 pass,slide OBL ART water flow
 'The house of the people slid to the sea-region, from the point
 where the supernatural things had been covered with earth, (that's
 where the house) slid away caused by the flowing water.'

All these examples clearly show that *i* is a relative and not an absolute tense marker. *I* simply marks a temporal relation of anteriority.

The occurrence of *i* contrasts with *ua/u*, occurring in syntactic constructions in which *ua/u* cannot occur (see above): in actor emphatic constructions (see [3.384b]), in relative clauses referring to anterior events (see [3.385b]), in clauses with the anaphoric particle *ai* referring to past events (see [3.386b–387]), and in clauses where the accomplishment of an action or event is negated (see [3.383b]).

The occurrence of *i* in negated clauses indicates that Zewen's gloss as a 'resultative' is justified.

3) *e* ‘non-past’,²¹⁸ ‘habitual’, ‘imperfective’:

The particle *e* marks habitual states and events or it marks temporal relations which are ‘simultaneous’ (Ger. *gleichzeitig*) or ‘posterior’ (Ger. *nachzeitig*) to the time of the deictic centre (see above). In following Mutu and Teikitutoua (2002: 46–48) it is therefore most adequately glossed as ‘imperfective’.

Apart from occurring with most verbal classes – except the class of state verbals – the particle *e* also combines with common full words. When marked by *e*, common full words function as predicates in equational (see [3.391–392]) or relative clauses (see [3.393]) which make a general statement about something or someone:

- (3.391) *E a'akakai te=nei no Tuohe te po'ea...*
 TAM legend ART=Dem about T. ART handsome
 ‘This is a legend about Tuohe, the handsome man... .’
 (Lav-T/H: 001)

- (3.392) ... *e ikoia mo'i t=o koe.* (Lav-T/H: 013)
 TAM name girl ART=POSS 2.sg
 ‘... you have a girl’s name.’

- (3.393) ... *'a'e mau te ika e hana hauhau...*.
 be.not hold ART fish TAM work bad
 ‘... the fish did not catch which is (a) bad (work).’
 (Lav-T/H: 137)

When common full words are marked by the TAM-particle *e* and function as predicate, they can take possessive attributes:

- (3.594) *E motua o Tahia te=nei.*
 TAM father POSS T. ART=Dem.prox
 'This is the father of Tahia.' (E)

The particle *e* also occurs with other verbals when one wants to make a general statement about someone or something:

- (3.395) *E hoa 'a'e koe e hei no he tai... .*
 VOC friend be.not 2.sg TAM right for ART sea
 'Hey (my) friend, you are not right for the sea....'
 (Lav-T/H: 013)

Many occurrences with *e* have a habitual reading:

- (3.396) *Ia he'e i te upeka haka=topa, o Hekei te 'enana ika nui e hemo , ia tau Tuohē 'a'e a ia ika...U ho-hoe haka'ua. Me hua mea, 'a'e he ika a Tuohē e 'o'aka, mea ke Hekei,... .*
 TAM go LD ART fishing.net CAUS=fall TOP H. ART man fish many TAM catch TAM arrive T. be.not POSS 3.sg fish TAM RED-row again like ART.ana thing be.not ART fish POSS T. TAM find STV-P different H.
 'When they went net-fishing, Hekei is the man who catches plenty of fish, when Tuohē arrives he has no fish.... They rowed (out to the sea) again. It was the same thing, Tuohē was the one who had no fish, Hekei was different... .' (Lav-H/T: 007–010)

- (3.397) *E kai koe i te ika te'e? (E)*
 TAM eat 2.sg DO ART fish raw
 'Do you (normally) eat raw fish?'

However, most occurrences with *e* have an imperfective reading:

- (3.398) *'A pau taua ma 'uka ake a'a o te mata'ae e noho ai. (Lav-H/T: 133)*
 TAM go 1.dl.incl PREP top DIR.up Dem.dist POSS ART cape,headland TAM stay ANA
 'Let's go to the very top of the headland and stay there.'

- (3.399) *Ua va'a Tuohē, ua he'e 'io he ~ o te ha'e*
 TAM wake.up T. TAM go PREP ART POSS ART house

i vaho e moe ai. (Lav-T/H: 034–035)
LD outside TAM lie ANA
‘Tuohe woke up (and) went to the house outside to sleep.’

Every event or action which is anterior to the time span of the deictic centre, cannot be expressed by the particle *e* and therefore stands in opposition with *i*. However, it is felicitous to use *e* when an event or action takes place at the time span of the deictic centre (i.e. simultaneous to the deictic centre) or when the event or action described is posterior to the time span of the deictic centre. (3.379–380) and (3.382) clearly demonstrate that events and actions are often internally related to each other and that the Marquesan temporal structure of texts is often one of relative tense.

According to Mutu and Teikitutoua (2002: 47) and Zewen (1987: 35), the particle *e* and the postpositioned demonstratives *nei/ana/a'a* form a verbal unit which marks continuous and progressive aspect. Many examples clearly show a progressive reading:

- (3.400) *U pe'au te hoa i te hoa: “E manih'i: 'a te 'eo e ta'a a'a 'i tai.”*
TAM say ART other DO ART other TAM foreigner Dem ART voice TAM call Dem.dist LD sea
‘The one said to the other: “That is a foreigner, there the voice which is calling by the seaward region.”’ (Lav-U: 014)
- (3.401) *U pe'au te hoa: “Eia hua matua e moe nei, ua 'eka te hiamoe.”* (Lav-U: 052)
TAM say ART other exist ART.ana lover TAM lie,sleep Dem.prox TAM delightful ART sleep
‘The other said: “There is that lover who is sleeping (at the moment); his sleep is delightful.”’

Although these sentences clearly express progressive and continuous aspect, there is no supportive evidence that *e...nei/ana/a'a* really form one TAM-particle unit as described in Mutu and Teikitutoua (2002) and Zewen (1987). The demonstratives *nei*, *ana* and *a'a* also co-occur with other TAM-particles such as *ua/u* and *i*:

- (3.402a) *U ti'ohi nei au e aha e 'oko te=na puke manu a koe*
TAM look.at Dem.prox 1.sg TAM what TAM obey ART=Dem pile bird POSS 2.sg

'Now I will (definitely) see how those birds of you will obey (your orders)....' (Mak-018)

- (3.402b) 'A'e ia e haka'ika ia matou **i** ha'i='ia **nei**
 be.not 3.sg TAM shame OBL 1.pl.excl TAM transport=PASS Dem
 e ia 'io he henua ke.
 AGS 3.sg PREP ART country,land different
 'He is not ashamed of us who were brought to a different land by him.' (Lav-E: 031)

Nei, *ana* and *a'a* are modifiers of verbal full words. They rather appear to specify a temporal relationship to the deictic centre which can be described as close to the time span of deictic centre. The progressive aspect in (3.400–401) is expressed by the imperfective particle *e* because an incomplete action or event implies that something is on-going.

The difference between these postnuclear adverbial modifiers *nei*, *ana* and *a'a* is only subtle and difficult to determine. According to Zewen (1987: 35) the postnuclear adverbials correlate with the three grammatical persons (*nei* =1.ps, *ana* = 2.ps and *a'a* =3.ps). Zewen's observation does not match (3.403). On the basis of my data another assumption is more likely: the postnuclear demonstrative expresses spatial distance to the speaker or narrator. It is a stylistic device and the speaker's or narrator's choice for *nei*, *ana* or *a'a* is determined by the perspective he or she takes. If the speaker or narrator takes the perspective of one of the protagonists and he or she wants to express closeness to the action or event, the adverbial *nei* 'here, now' is used. If the narrator or speaker wants to express distance²¹⁹ to the action or event, he or she uses distal *a'a* '(over) there' (see [3.404]):

- (3.403) *Titahi 'a u kite atu He'ato i na mata'eina'a*
 ART. day TAM see DIR H. DO ART.pl village.people
o Anihoka e he'e nei 'i tai me te ui
 POSS A. TAM go Dem.prox LD sea and ART ask
atu i te haka'iki: "E aha te mea 'a
 thither DO ART chief TAM what ART thing Dem
o mata'eina'a e he'e nei 'i tai."
 PRES village.people TAM go Dem.prox LD sea
 'One day, He'ato saw the village people of Anihoka who were going seawards and (he) asked the chief: "What is happening there. The village people are going seawards? "' (Lav-H: 108)

- (3.404a) *U pe'au te mo'i: "Ena e moe a'a 'io he pa'oto, 'io he kahu patoko."* (Lav-U/N: 187)
 TAM say ART girl exist TAM lie Dem.dist PREP ART room PREP ART clothes support
 'The girl said: "(He) is sleeping in the room on the clothes.'"
- (3.404b) *Hua atu Kanatete ia 'atou: "E tivava te=na 'oko u kai='ia Ta'einui, ena e noho a'a 'i 'Ua Pou, e tuehine no='u te vehine a Ta'einui, u hanau tama."* (Lav-H: 010)
 return DIR K. DO 3.pl TAM lie ART=Dem news eat=PASS T. exist TAM live,stay Dem.dist LD 'U. P. sister for=1.sg ART wife POSS T. bear,birth child
 'Kanatete responded to them: "Those news are a lie that Ta'einui was eaten; (he) is living there on 'Ua Pou;²²⁰ the wife of Ta'einui is my sister, (she) gave birth to a child (lit. "...gave child-birth').'"

In some occurrences the particle *e* with the postpositioned demonstratives *nei/ana/a'a* indicates that an action or event is taking place at the same time as another event (see also Zewen 1987: 35):

- (3.405) *U ha'aha'a oko te='a mou ko'oua ia Tuohē e moe a'a me te vehine a Hekei.*
 TAM be.angry very ART=Dem PL/DL old.man DO T. sleep Dem with ART woman POSS H.
 'The two old men were very angry with Tuohē when he was sleeping with Hekei's wife.' (Lav-T/H: 159)
- (3.406) *E hiti nei au, u koakoa au 'i te va'anui hou.*
 TAM go.up Dem.prox 1.sg TAM content 1.sg OBL ART road new
 'When I was going up/inland, I was content with the new road.'
 (lit. '... I was content because of the new road' (Zewen 1987: 35)

Furthermore, (3.405) and (3.406) are again good examples that the particle *e* cannot not mean 'non-past' with respect to the time of utterance, but that *e* is a relative tense marker which gets its temporal reading from the context, i.e. through the anchoring of the deictic centre.

- 4) '*a*' 'inchoative' (Zewen 1987; Mutu and Teikitutoua 2002), 'imperative' (Mutu and Teikitutoua 2002):

According to Zewen (1987: 36) the particle '*a*' marks inchoative aspect which indicates the beginning of an action or event. In my data, the particle '*a*' is often used when e.g. an object is transferred from one place to another, especially when the source of the action is mentioned. It emphasizes the onset of the action or event. This is also attested in my data. Look at (3.407–408):

- (3.407) *'A taki koe i te ha'ina mei 'oto.* (CM-B-97)
 TAM take.out 2.sg DO ART object from inside
 'You take the things out from inside.'

- (3.408) *'A to'o mei 'uka 'a tuku 'i 'a'o.* (CM-To-97)²¹
 TAM take from top TAM put LD floor
 '(You) take (it) from the top (of the table) and put it on the floor.'

In casual speech the particle '*a*' is often omitted with action verbals. Other verbals which can express a certain state such as *tu* 'stand, be erected' and *pa* 'closed', however, need to be marked by '*a*' if the action of 'getting up', 'closing' or 'opening' is described:

- (3.409) *'A tu te upoko 'i 'uka.* (CM-To-97)
 TAM stand ART head LD up
 'The head is lifted up.' (lit. 'the head is being stand up')

- (3.410) *'A pa te tiha.* (CM-To-97)
 TAM close ART lid
 'The lid is being closed.'

This distinguishes, for instance *tu* 'stand, be erected' from *ma'o* 'get up':

- (3.411) *Ma'o anamai Vivahana, u ha'a=tata atu me te vaka 'ehi,*
 get.up suddenly V. TAM CAUS=close DIR with ART canoe coconut
 'Vivahana suddenly got up, (when) he approached with his his canoe (filled with) coconut.' (Lav-H: 063)

Note that state verbs cannot be marked by '*a* expressing inchoative aspect or imperative mood:

- (3.412) *'A *kanahau* *te* *ha'e*.
 TAM nice ART house
 (the house begins to be in the state of being nice/beautiful)

In clauses with state verbs, inchoative aspect can be expressed by marking the verbs with the inchoative *ua/u*:

- (3.413) *U kama'i'i* 'i *tenei*.
 TAM cold LD now
 'It has turned cold now.' (E)
- (3.414) *Ua rui* *te='a* *maha'i*.
 TAM big ART=Dem boy
 'That boy is grown-up (now).' (E)

A few state verbs cannot be marked by inchoative *ua/u* to express a change of state. This holds for *kanahau* 'nice' and state verbs which describe permanent character traits of a person such as *kaikino* 'selfish', *po'otu* 'beautiful' etc..

According to Mutu and Teikitutoua (2002: 48) '*a* is a mood particle whose main function is to mark verbs in imperative clauses. This holds in particular for all verbs of action, i.e. intransitive action verbs and all subclasses of transitive and ditransitive verbs:

- (3.415) 'A *hano* *mai* *te* *maimai!*
 TAM get hither ART tabac
 'Go and get the tobacco!'
- (3.416) 'A *pure* *tatou!*
 TAM pray 1.pl.incl
 'Let's pray!' (E)
- (3.417) *U pe'au* *te* *vehine*: "A *he'e!*" *Ua he'e te*
 TAM say ART wife TAM go,leave TAM go,leave ART
vahana.
 husband
 'The wife said:"Go!" The husband left.' (Lav-U: 010–011)

- (3.418) *Ua pao, u pe'au Hekei i t=o ia tau*
 TAM be.finished TAM said H. DO ART=POSS 3.sg PL
'enana: "A pau tatou 'i te tahatai e mo-moe
 man TAM go 1.pl.incl LD ART beach TAM RED-sleep
ai."
 ANA
 '(When it) was finished, Hekei said to his men: "Let's go to the beach where (we will) sleep.'" (Lav-T/H: 126)

Although the particle *'a* is typically used in imperative clauses and can therefore be regarded as a mood particle, many of the particle's uses are inchoative, so for instance in the '*atahi*-construction. '*Atahi* can be best glossed as 'then, (at the point) when':

- (3.419) *Ua noho te 'enana mei 'Ua Pou 'i Hiva 'Oa.*
 TAM stay ART man from 'U. P. LD H. 'O.
'Atahi 'a tihē te 'oko makaka 'io te Hiva 'Oa
 then TAM arrive ART news bad PREP ART H. 'O.
u kai='ia Ta'einui e te 'Ua Pou.
 TAM eat=PASS T. AGS ART 'U. P.
 'That man from 'Ua Pou stayed on Hiva 'Oa. That was the moment when the bad news arrived at the people from Hiva 'Oa. Ta'einui was eaten by the 'Ua Pou people.' (Lav-H: 005–006)
- (3.420) *Ia ma'uteiao ua iho 'i 'a'o 'io t=a ia*
 TAM dawn TAM descend LD down PREP ART=POSS 3.sg
vehine, 'atahi 'a hiamoe.
 wife then TAM sleep
 'When it was dawn, (he) went down to his wife and then fell asleep.' (Lav-U: 008)

However, the use of the particle *'a* in imperative clauses still has an inchoative reading: to command somebody to do something is connected with the wish or intention that a certain action is about to happen in the sense of 'get going'.

5) *ia* 'optative', 'punctual' (Zewen 1987), 'desiderative' (Mutu and Teikitutoua 2002):

The particle *ia* is used as a mood and as an aspectual marker (Zewen 1987: 36). As a mood marker it expresses a desire, wish or necessity:

- (3.421) *Ia hana koe paotu te 'a.*
 TAM work 2.sg all ART day
 'You have to/must work every day!'

Necessity is often expressed by *ifo* which is a loan expression from French *il faut* 'one has to...'. *Ifo* is used as a matrix verbal:

- (3.422) *Ifo e hana paotu te 'a.*
 must TAM work all ART day
 'One has to work every day.'
- (3.423) *Ifo koe e pe'au mai ia='u e papua pa='ia.*
 must 2.sg TAM say hither DO=1.sg TAM enclosure close=PASS
 'You have to tell me that the fence is closed.' (FA-T/M-H: 13)

Ifo is in the progress of taking over the function of *ia* in order to express necessity or need. Older speakers use *ifo* as well as the particle *ia* to express necessity. *Ifo* (< *il faut*) is even used by monolingual speakers of Marquesan and thus it cannot be regarded as a code-switched form. Younger speakers only express necessity by using *ifo*.

The particle *ia* is more frequently used as an aspectual marker in order to indicate that an event is *punctual*. A punctual event is an event which is momentary, not extended over a longer period of time:

- (3.424) *Ia ava, ua hua 'io t=o ia motua, ua ihi i t=a ia manu, ia pao, ua tao.*
 TAM enough TAM return PREP ART=POSS 3.sg father TAM pluck DO ART=POSS 3.sg bird TAM be.finished TAM roast
 'When (he) had enough, he returned to his father (and) plucked his bird; when (he) finished, (he) roasted (it).' (Lav-U: 115)
- (3.425) ...*ia pao 'a he'e pukana 'io he 'eita.*
 TAM be.finished TAM go hide PREP ART bush
 '... when (you) have finished, go and hide in the bush.'
 (Lav-U: 069)
- (3.426) *Ia he'e 'E'evaihopu 'i te vi'i, ua to'o i t=o ia po'i mea koute'e me ia.*
 TAM go 'E. LD ART tour TAM take DO ART=POSS 3.sg people in.order.to travel.on.sea with 3.sg

‘When 'E'evaihopu set off on his tour, (he) took his people in order to travel with him.’ (Lav-E: 015)

- (3.427) **Ia** *hei* *t=o* *ia* *'ehua mea* *he'e='ia* *'io* *te*
 TAM right ART=POSS 3.sg year in.order.to go=Perf PREP ART
paepae patu='ia *tiki*²²² **ia** *pao* *'E'evaihopu i* *te*
 paepae draw=Perf tiki TAM be.finished 'E. OBL ART
patu'ia *me* *te* *tiki*, *u* *pe'au* *i* *te* *motua me*
 draw=Perf with ART tiki TAM say DO ART father with
te *kui:....*.
 ART mother
 ‘When (he) had the right age in order to be tattooed on the
*paepae*²²³ and when 'E'evaihopu was finished to be tattooed, (he)
 said to the father and mother:....’ (Lav-E: 004)

The particle *ia* is also used in hypothetical clauses which express the possibility that an action or event is going to happen:

- (3.428) **Ia** *heke* *koe* *'i* *tai, e* *heke* *au.* (E)
 TAM descend 2.sg LD sea TAM descend 1.sg
 ‘If you go down to the sea, I will go down (too).’
- (3.429) **Ia** *'oumati* *e* *he'e* *taua* *'i* *te* *avaika.* (E)
 TAM sunshine TAM go 1.dl.incl. LD ART fishing
 ‘If the sun is shining, we (two) are going fishing.’

6) *mei* ‘almost’ (Zewen 1987):

According to Zewen (1987: 37) *mei* is a mood particle which expresses that an action or event almost happened:

- (3.430) **Mei** *pao* *tu'u* *motua i* *te* *kai*
 TAM finish ART=PPr.1.sg father DO ART eat
 ‘My dear father’s food was almost finished’ (Lav-U: 194)
- (3.431) **Mei** *mate* *nui* *au* *i* *te* *koina='ia* *i* *t=o*
 TAM dead very 1.sg DO ART celebrate=Perf OBL ART=POSS
koe *u'e.*
 2.sg dear.one
 ‘I almost died from the celebration because of your dear/loved one.’ (Lav-T/H: 353)

Mutu and Teikitutoua (2002) do not list *mei* as a TAM-particle. However, there are numerous occurrences of *mei* in my data with the meaning described by Zewen (1987). *Mei* might be cognate with *mei* '(come) from'.

7) *me* ‘insistence’:

The particle *me* is neither listed by Zewen (1987) nor by Mutu and Teikitutoua (2002). One often hears the utterance *me mai* which is used to ask or invite someone to enter a home. It appears that *me* is some kind of weak polite imperative which expresses insistence:

- (3.432) *Mave mea~ Pa'etini ia ia: "Mai me mai me mai*
 welcome thing P. DO 3.sg come TAM come TAM come
me mai e tu'u hoa...." (Mak-014)
 TAM come VOC my friend
 ‘Pa'etini welcomed him: “Come, please come, please come, please
 come my dear friend....”

It is questionable whether *me* really is a TAM-particle because it only occurs with *mai* ‘come’.

8) *'oa* ‘preventative’ (‘lest’):

The particle *'oa* and its allomorph *ea* (see Mutu and Teikitutoua [2002: 50–51]) for details) have a caveat meaning:

- (3.433a) *Tenei, te'a mou ko'oua, 'a'e oatea ua rere*
 now ART PL old.man be.not dawn TAM disappear
'oa kite='ia e te=na mou vehine.
 lest see=PASS AGS ART=Dem PL woman
 ‘Now, when it was not even dawn those old men disappeared in
 order not to be seen by those women.’ (Lav-U/N: 010)
- (3.433b) *U pe'au i t=a ia vehine: " Ua pao te*
 TAM say DO ART=POSS 3.sg woman TAM finish ART
ha'e, 'a pau 'a hi-hiti 'oa hanau
 house TAM go TAM RED-ascend lest give.birth
te=na tama 'inei."
 ART=Dem child here
 ‘(He) said to his wife: “When the house is finished, let’s go inland, lest that child will be born here.”’ (Lav-U/N: 110)

- (3.433c) *U pe'au te kui ia ia: "E ti'ohi meita'i ia koe, TAM say ART mother DO 3.sg TAM look.at good DO 2.sg e tu'u mo'i, tu'u mo'i, 'oa mate koe me to VOC my girl my girl lest dead 2.sg like your mou hoa 'i te he'e atu nei."*
 PL friend LD ART go thither Dem.prox
 'The mother said to him: "Have a good look, my dear girl, my dear girl, lest you will die like your two friends which have now gone.'" (Lav-T/H: 087)

'*Oa* occurs rarely in my data.

9) *oi* caveat postfactitive ('before'):

The particle *oi* also has a caveat meaning. With respect to '*oa/ea* it is postfactitive, i.e. that somebody gives a warning before something happens (Mutu and Teikitutoua 2002: 50):

- (3.434) *'A mau oi topa.* (Mutu and Teikitutoua 2002: 50)
 TAM hold lest fall
 'Hold (it) lest it falls.'

Oi does not occur in my data.

10) *te...nei* 'present' (Mutu and Teikitutoua 2002):

According to Mutu and Teikitutoua *te...nei* is an absolute tense marker which is exclusively used in the 'Ua Pou vernacular. It indicates that an "event or action is going to happen in the immediate present" (Mutu and Teikitutoua 2002: 42):

- (3.435a) *O au te he'e nei 'i te ika hi.*
 TOP 1.sg ART go Dem.prox LD ART fish pull
 'I am going fishing now.' (Mutu and Teikitutoua 2002: 42)

It is not clear whether *nei* in *te...nei* is really part of the TAM-particle-system. *Nei* 'close to the deictic centre' again appears to be a postnuclear modifier which expresses a temporal relationship close to the time of utterance. Moreover, there are examples in my data in which *ana* is used instead of *nei*:

- (3.435b) *Te vivini ana au i t=o koe ha'o.*
 ART understand CONT 1.sg DO ART=POSS 2.sg anger
 'I can understand your anger.' (Let-PT-7.01)

We can again argue that the particles *nei* and *ana* seem to be postnuclear modifiers and they do not constitute part of a TAM-particle as proposed by Mutu. *Te* as a TAM-particle rarely occurs in my data. It is therefore difficult to state the temporal relation expressed by *te*. It is however possible that *te* refers to the immediate present or time of utterance as suggested by Mutu and Teikitutoua (2002), and therefore is an absolute tense marker.

11) *mea* 'existence of a state':

In section 3 we have already classified *mea* as an aspectual particle expressing that something or someone is in a certain state. *Mea* marks state, experience and consumption (e.g. *kai* 'eat' and *inu* 'drink') verbals (see [3.436]) and also occurs with common full words when they function as lexical verbal phrase heads (see [3.437]):

- (3.436a) *U pe'au 'i 'oto o t=o ia koekoe:*
 TAM say LD inside POSS ART=POSS 3.sg interior
 "Mea po'ea te matua, o Tuohē!" (Lav-T/H: 196)
 STV-P handsome ART guy PRES T.
 '(She) said to himself: "The guy, called Tuohē, is handsome!"'
- (3.436b) *Ua kite hua mou pakahio, u pe'au: "E=ia*
 TAM know ART PL old.woman TAM say TAM=Dem
hua 'enana 'i 'oto, mea ha'a-ha'a e!"
 ART man LD inside STV-P RED-angry,hateful EMPH
 'The two old women knew (and) said: "That man inside (the house), (he) is very angry.'" (Lav-U: 033)
- (3.436c) *U pe'au Anihoka 'io he koekoe: "O ai te*
 TAM say A. PREP ART intestines PRES who ART
'enana mea kai i te='a ko'ehi o te
 man STV-P eat DO ART=DEM coconut.milk POSS ART
puaka?"
 pig
 'Anihoka said to himself: "Who is the man who is in state of eating that coconut milk of the pig?''' (Lav-H: 056)

- (3.437) *U ti'ohi atu 'E'evaihopu i te=ia tau vehine, 'a'e he mea e hei me t=o ia ma'akau mea vehine na ia.*
 TAM look.at DIR E. DO ART=DEM ART woman be.not ART thing TAM right with ART=POSS 3.sg thought STV-P woman for 3.sg
 ‘E’evaihopu looked at these women it is not right that he thinks that (they) are his women.’ (lit. ‘there is no thing (that) is right with his thought (that they) are women for him’) (Lav-E: 020)

It was already mentioned in section 3 (this chapter) that *mea* and inchoative *ua/u* stand in opposition. How *mea* is used in contrast to other TAM-particles is also described in section 3 and 4.1.2.3.

6.2.2. Negation

Apart from the particle *ko'e* ‘without’, negation is expressed by verbals which function as matrix verbals. In N-MQA we find the following verbals of negation:

- (3.438) *'a'o'e* ‘be/exist not’
'a'e/a ‘be/exist not’ (short form of *'a'o'e*, often in casual language)
ko'e nui ‘never’
'umo'i ‘don't! (PROHIBITION)’
aua ‘shouldn't! (RECOMMENDED PROHIBITION)’
etue ‘stop doing x’

When declarative clauses are negated, the subject of the affirmative declarative clause is moved to the subject position of the verbal of negation. The declarative clause is transformed into a complement clause whose head is the subject of the matrix verbal of negation:

<i>Affirmative declarative clause</i>	\Rightarrow	<i>Negated declarative clause</i>
TAM – V – Subj – (O) – (OBL)	\Rightarrow	V.neg – Subj – Compl.Clause – [TAM – V – (O) – (OBL)]

Most declarative clauses are negated by the verbals *'a'o'e* or *'a'e* ‘be not, exist not’.

Negated declarative clause:

- (3.439) *'A'o'e 'aua i kite ena me te 'enana ma 'oto.*
 be.not 2.dl TAM know exist with ART man PREP inside.
 'They do not know that there is a man inside.' (Lav-U: 049)

Affirmative declarative clause:

- (3.440) *Ua kite 'aua ena me te 'enana ma 'oto.*
 TAM know 2.dl exist with ART man PREP inside
 'They know that there is a man inside.' (E)

'Umo'i, *aua* and *etue* are verbals which are often used in imperative phrases (see [3.441] and [3.445]). These verbals express a direct exhortation or prohibition towards the addressee. However, they can also express prohibition without addressing the addressee directly (see [3.442–444]). Verbals of negation are not modified by TAM-particles:

- (3.441) *U pe'au hua mou ko'oua: " 'A 'umo'i e ti'ohi te mata 'i te kaokao, 'a pau 'i tai."*
 TAM say ART.ana PL/DL old.man INTJ PROHIB TAM look.at ART eye LD ART side TAM go LD sea
 'These old men said: "Well, **don't** turn your eyes to the side, let's go seawards!"' (Lav-T/H: 113)
- (3.442) *U makimaki te='a mou ko'oua 'umo'i Hekei e moe haka'ua 'i te taha tai me t=o ia po'i,... .*
 TAM want ART=Dem PL old man PROHIB H. TAM lie again LD ART walk sea with ART=POSS 3.sg people
 'Those two old men didn't want Hekei to lie again on the beach with his people... .' (Lav-T/H: 159)
- (3.443) *Ua hei t=a te hoihoi tekao: "Auā he koika hoihoi, e tihe te hoihō 'i te koika me te po'i mohoi."*
 TAM right ART=POSS ART handicapped talk PROHIB ART feast monstrous TAM arrive ART monstrous LD ART feast with ART people leper
 'The handicapped's talk is right: "There shouldn't be a feast for the handicapped, the handicapped arrive with the lepers at the feast.'" (Lav-E: 074)

- (3.444) *Ua teka te paha=’ia ia ’Oumatipakihī’iteahiahi.*
 TAM wrong ART insult=Nom DO O.
Aua i paha=’ia o Tahia’atepihoi... .
 PROHIB TAM insult=PASS PRES T.
 ‘The insulting of ’Oumatipakihī’iteahiahi was wrong. Tahia’atepihoi should not have been insulted.’ (Lav-E: 084–085)
- (3.445) *U pe’au te vehine: “Etue ’a pe’au a’e koe noio, noio,”*
 TAM say ART woman stop TAM say insist 2.sg INTJ INTJ
 ‘The woman said: “Stop saying noio noio,... .”’ (Lav-U/N: 157)

Apart from using *etue* ‘stop’ as a matrix verbal in imperative clauses of prohibition, *etue* can also be used as a transitive verbal:

- (3.446) *Ua tihe Toto mei te hana, u pe’au te vehine:*
 TAM arrive T. from ART work TAM say ART woman
 “*O’io’i hakaea, etue i te hana.*”
 tomorrow stop stop DO ART work
 ‘Toto came from work, the wife said: “Stop tomorrow, stop the work.”’ (Lav-U/N: 324)

Marquesan has one negative particle, namely *ko’e* ‘without’ which follows the word it negates. *Ko’e* is a negative particle which typically negates common full words, regardless of whether they occur as the lexical head of a noun or verbal phrase:

- (3.447a) *E ’enana ka’oha ko’e ’oe.* (Zewen 1987: 53)
 TAM man pity lack 2.sg
 ‘You are a man without mercy/pity.’
- (3.447b) *E aisu ko’e* (E)
 TAM shoe lack
 ‘to be barefooted’
- (3.447c) *E kahu ko’e te=’a ’enana.* (E)
 TAM clothes lack ART=Dem man
 ‘That man is naked.’

The negative particle *ko'e* rarely occurs with verbals. In verbal clauses, negation is rather expressed by a verbal of negation (see [3.449]). However, in nominalisation the lexical head of a nominalised verbal clause is negated by *ko'e* (see [3.448]):

- (3.448) ... *me te vivini ko'e o ia....* (Kim:24)
 and ART understand Neg POSS 3.sg
 '... and without his understanding...'

vs.

- (3.449) '*A'e ia i vivini t=a='u makimaki.* (E)
 be.not 3.sg TAM understand ART=POSS=1.sg desire
 'He has not understood what I want.'

Ocassionally *ko'e* 'lack, disappear' occurs as the lexical head of a verbal phrase meaning 'lack, cease':

- (3.450) *Ua ko'e te kaikai.* (E)
 TAM cease ART food
 'The food has ceased.'

6.2.3. Verbal modifiers

Verbal modifiers or adverbials occur after the lexical head of verbal phrases in pre- and postnuclear position. Most of these verbal modifiers have a modal meaning: e.g. *ho'i* 'certainly', *ihoa* 'indeed', *oti* 'perhaps', *toitoi* 'real, genuine', *pu* 'only', *haka'ua* 'again', *anaiho* 'only' (see also Mutu and Teikitutoua 2002: 57–64). According to Mutu and Teikitutoua *aate* 'carefully' and *tee* 'not (negation)' also function as prenuclear modifiers in verbal phrases (2002: 54). These prenuclear modifiers do not occur in my data.

- (3.451) *Ee, ua hei, ua ana hei.* (FA-B/R:10: 044)
 yes TAM correct TAM almost correct
 'Yes, it's correct, it's **almost** correct.'

- (3.452) '*Enana Hiva 'Oa ho'i au.* (Lav-H: 019)
 Nucleus.man H. 'O. indeed,real 1.sg
 'I am indeed a Hiva 'Oa man.'

- (3.453) *U pe'au Pa'etini:* “ *'A'e hauhau te=ia, u pa'opa'o oti te manu.*” (Mak-024)
 TAM say P. be.not bad ART=Dem TAM
tired perhaps ART bird
 ‘Pa'etini said: “That doesn't matter, maybe the birds are tired.””
- (3.454) *Tuku='ia mai t=o ia ihu 'i 'Ua Pou nei,*
 put=PASS hither ART=POSS 3.sg nose LD 'U. P. Dem.prox
u 'oko haka'ua ia te 'eo mei 'Ua Pou.
 TAM hear again 3.sg ART voice from 'U. P.
 ‘His nose was put towards 'Ua Pou, he heard again the voice
 from 'Ua Pou.’ (Mak-064)
- (3.455) *E huke ihoa au i te umu o tu'u 'enana.*
 TAM revenge indeed 1.sg DO ART oven POSS my man
 ‘I am indeed going to *revenge* my man.’ (Lav-H: 022)

Some of these verbal modifiers (*ho'i* ‘certainly’, *toitoi* ‘genuine, perfect’ and *ihoa* ‘indeed’) can function as the lexical head of verbal phrases (see this chapter, § 4.4). When *ho'i* and *ihoa* function as lexical verbal phrase heads they do not require complements, and they can only be marked by the TAM-particle *e*. *Toitoi* ‘genuine, perfect’, however, can take arguments:

- (3.456) *Toitoi te=ia toa no te=ia toua, toitoi titahi*
 genuine ART=Dem warrior for ART=Dem war genuine ART
toua no titahi toua. (Lav-H: 024)
 warrior for ART war
 ‘A certain warrior was perfect for a certain war, another warrior
 was perfect for another war.’

6.2.4. Directional particles

Marquesan has the following four directional particles:

- (3.457) *mai* ‘hither, towards speaker or deictic centre’
atu ‘towards addressee or specified goal location’
aho ‘down(wards)’
a'e/ake ‘up(wards)’

Note that the glosses only represent the spatial uses of directional particles. The spatial uses of directional particles in Polynesian languages are thought to be the primary uses (see Hooper 2001). Directional particles typically modify the lexical head of verbal phrases and nominalised verbal clauses:

- (3.458) *E he'e mai ia me hano te haika kohi me*
 TAM go hither 3.sg and get ART remedy collect and

hakai t=a ia 'ona tama. (K1A,T12: 3)
 feed ART=POSS 3.sg dear child

'He came and got the remedy and fed (it) to his dear child.'

- (3.459) *U pei-pe'i He'ato me t=o ia mata'eina'a toa*
 TAM RED-ready H. with ART=POSS 3.sg village warrior

no te hiti atu 'i te toua umu huke 'i
 for ART go.up DIR LD ART war oven revenge LD

Hiva 'Oa.

H. 'O.

'He'ato and his village warriors were ready to go up to make a war of revenge at Hiva 'Oa.' (Lav-H: 036)

However, they can also modify local nouns (see ch. 6, § 2.2.2). The directional particles *mai* and *ihō* do not only function as modifiers, but they can also occur as lexical heads of verbal phrases, *mai* used in the meaning of 'come' and *ihō* in the meaning of 'descend'. Directional particles have a wide range of uses (spatially, temporally, aspectually, as evidentials etc.) which will be discussed in detail in chapter 6, § 2–2.1.2.

6.2.5. Verb serialisation

Verb serialisations are constructions in which one verbal is directly followed by another verbal. In Marquesan, in one verbal phrase all modifying particles (pre- and postnuclear modifiers, demonstratives, directional particles, the anaphoric particle *ai*) and the suffix *-ia* either precede or follow the verb serialisation construction. In these constructions, the second verbal cannot be modified by TAM-particles.

According to Mosel and Hovdhaugen (1992: 397) there are three types of verb serialisation constructions in Samoan which can also be identified for Marquesan:

1. Modification:

The head of a verbal phrase is modified by another full word which typically functions as the lexical head of a verbal phrase. There are only a few occurrences of this type in my data:

- (3.460) *Me kite atu He'ato toitoi e tivava ia He'ato*
 and know DIR H. really TAM lie DO H.
e tekao pao t=a Anihoka me te mata'eina'a.
 TAM talk finish ART=POSS A. and ART village.people
 ‘And from that moment onwards He'ato knew that they lied to
 He'ato, all the talking of Anihoka and his village.’ (Lav-H: 078)
- (3.461) *Mea~ kave ve'a-ve'a i te vai, nunu~nunu hu'u*²²⁴
 STV-P make.result RED-warm DO ART water cook cook salt
'omua.
 first
 ‘Make the water hot, cook~ cook salt (it) first.’ (CH-B: 013)

2. Complementation:

There are two verbals in N-MQA, namely *kave* ‘make result in (new state)’ and *hano* ‘go and do s.th.’ which are combined with verbal complement clauses instead of nominal arguments. These verbal complement clauses follow the verbals *kave* and *hano* directly without being modified by TAM-particles:²²⁵

- (3.462) ... *me te taha mai='ia 'io ia me te po'o toki*
 with ART walk hither=Nom PREP 3.sg with ART piece axe
e hano koti-koti te vehie mea nui t=a
 TAM go RED-cut ART fire.wood STV-P many ART=POSS
'aua kaikai.
 3.dl food
 ‘... and (he) was walking to her with an axe in order to cut the fire
 wood into pieces. They have a lot of food.’ (CH-B: 004)
- (3.463) *Ia oko nui te koea o te tuehine*
 TAM strong very ART crazy POSS ART sister
ua hano haka=mate ia ia 'io he tai.
 TAM go CAUS=dead DO 3.sg PREP ART sea
 ‘When the craziness of the sister would become too strong, (they)
 wanted to kill her at sea.’ (Lav-E: 123)

- (3.464) *U pe'au e hano tio'a ia ia 'io he 'oto tai.*
 TAM say TAM go throw DO 3.sg PREP ART inside sea
 '(He) said (he) wants to throw him into the waves (of the sea).'
 (Lav-U/N: 289)
- (3.465) *U popoki ho'i te tau kaipeka pe'au=ia tau eteni ua kave kukumi tio'a i 'oto o te 'ua.*
 TAM capture really ART PL wild say =PASS PL pagan
 'The savages, (who were called) pagans captured (him), beat him up (and thought to have killed him)²²⁶ and threw him into the hole.' (K2B: T8: 10)

In these constructions the first verbal can be modified by a postnuclear modifier. In (3.466) the first verbal, *hano*, is modified by the postnuclear (temporal) modifier *ananu* 'always'. The verbal complement clause is juxtaposed to the first verbal. This complement clause again lacks a TAM-particle, but it has its own argument (*i te kaikai*) and adjunct (*na ta ia manu*). These verbal complement clauses formed by verb serialisation are embedded dependent clauses (Mosel and Hovdhaugen 1992: 398):

- (3.466) *Paotu te 'a e hano ananu 'umihi Tehei'opua'iki i te kaikai na t=a ia manu.*
 all ART day TAM go always search T.
 DO ART food for ART=POSS 3.sg bird
 'Every day Tehei'opua'iki always went to search food for his bird.' (Lav-U/N: 136)

In verbal serialisation constructions the verbs *kave* and *hano* express some kind of volitional modality. However, there is a difference in the degree of volitionality. Whereas *kave* expresses that an action is not only volitional, but also resultative, i.e. that a certain result or change of state is desired by the actor or agent, *hano* expresses mere volitionality. The following example shows the difference between *kave* and *hano*. The example is drawn from a story in which a village chief and his people are trying to eliminate a missionary:

- (3.467) *Ia taki te pere i 'apai i~ ha'e pure e pe'au Ko'oamua e hano popoki i*
 TAM ring ART bell LD there LD house prayer
 TAM say K. TAM want.do capture DO

te=’a mihi e kave kukumi.
 ART=Dem priest TAM want.result hit,kill
 ‘When the bell rang over there in the church, Ko'oamua ordered to capture that missionary in order to kill him.’ (K2B: T8: 9)

Verb serialisation constructions with *kave* and *hano* are quite productive in N-MQA. *Kave* and *hano* also occur without verbal complement clauses and can take arguments. In those occurrences *kave* means ‘carry’ and *hano* ‘go and get, fetch’:

- (3.468) *O'io'i e hano au i te manu 'i uta 'io*
 Tomorrow TAM get 1.sg DO ART bird LD inland PREP
he mouka. (Lav-U: 152)
 ART high.inland
 ‘Tomorrow, I will get a bird inland, in the mountains.’
- (3.469) *'A kave i te kaikai a to vehine.*
 TAM carry DO ART food POSS your wife
 ‘Take away the food of your wife.’ (Lav-U: 254)
- (3.470) *'A ko-koti te meika 'a kave na t=o*
 TAM RED-cut ART banana TAM carry for ART=POSS
koe motua.
 2.sg father
 ‘Cut the bananas (and) carry (them) to your father.’ (Lav-U: 184)

3. Clause chaining:

In the clause chaining type of verb serialisation constructions a second verbal clause is juxtaposed to the first verbal clause without marking the second verbal clause by TAM-particles. The second verbal clause is a non-embedded clause: it is not a constituent of the first verbal clause. Nevertheless it is a dependent clause because it is under the scope of the TAM-marking of the first verbal clause:

- (3.471) *Ee, e to'o haka'ua Tahia koti-koti i hua po'o*
 INTJ TAM take again T. RED-cut DO ART.ana piece
haraoa ia pao tuku to o te kaka, vahi~
 bread TAM finish put in POSS ART sack cover
[vahi] paotu~me te kave atu 'io Teiki. (CH-B: 048)
 cover all and ART carry DIR PREP T.

'Eh, Tahia takes (it) again, cuts that piece of bread, when finished put (it) inside the sack, covers, [covers] alland carries it to Teiki.'

- (3.472) *U to'o haka'ua Ko'oamua i t=a ia ta'a, to'o*
 TAM take again K. DO ART=POSS 3.sg spear take
i t=a ia tau 'eten, hano popoki hua nei.
 DO ART=POSS 3.sg. PL pagan get capture same here
 'Ko'oamua took his spear again, took his warriors, wanted to capture this same one.' (K2B: 8: 19)

Clause chaining and nominalisation of verbal clauses are a common way of expressing complex events in Marquesan.

6.2.6. *Noun incorporation*

Noun incorporation is a process by which an argument or a complement phrase becomes incorporated into the verbal complex. The incorporated argument or complement phrase is part of the verbal complex. Incorporated arguments and complement phrases do not have the same morphosyntactic features as their corresponding phrases (e.g. article and case-marking preposition). Whereas modifiers generally follow the nucleus, incorporated arguments and complement phrases precede the nucleus:

- (3.473a) *E kohi koe i te pukava*
 TAM collect 2.sg DO ART mussel
 'You collect mussels'
- (3.473b) *e pukava kohi koe.*
 TAM mussel collect 2.sg
 'You do mussel-collecting.' (lit. 'you mussel-collect')
- (3.474) *Te hana a te=na tama e manu ve'o... .*
 ART work POSS ART=Dem child TAM bird pierce
 'the work of that child is bird-piercing' (Lav-U: 113)

Compare a verbal clause with a locative complement phrase in (3.475a) with an incorporated complement phrase in (3.475b):

- (3.475a) *E he'e koe e kaukau 'i te tai.*
 TAM go 2.sg TAM swim LD ART sea
 'You are going swimming *in the sea*.'

- (3.475b) *E he'e koe 'i te tai kaukau.*
 TAM go 2.sg LD ART sea swim
 'You are going *sea*-swimming.'

Most incorporated arguments and complement phrases occur as nominalised verbal clauses. These nominalised verbal clauses occur as arguments or complement phrases of verbal phrases whose lexical heads consist of *hano* 'get, fetch' or *he'e* 'go':

- (3.476) *Ua hano 'i te pukava kohi na t=a 'aua po'upuna.* (Lav-U: 027)
 TAM get.go LD ART mussel collect for ART=POSS 3.dl
 grandchild
 '(They) went mussel-collecting for their grandchildren.'

- (3.477) *Ia he'e 'i te upeka haka=topa, o Hekei te 'enana ika nui e hemo...* (Lav-T/H: 007)
 TAM go LD ART fishing-net CAUS=fall PRES H.
 ART man fish many TAM catch
 'When they went fishing-net throwing, it is Hekei who is the man with plenty of fish... .'

Chapter 4

Theoretical background of language and space research

1. Defining space

The study of space has a long and rich tradition in various scientific disciplines such as mathematics, philosophy, physics, psychology, anthropology – to name only a few – which reaches back into Antiquity (see Gosztonyi 1976).²²⁷ As varied as the scientific disciplines are which study the phenomenon space, as varied are also the definitions of space. The *space* of a mathematician or physician is something quite different from that of a philosopher or a psychologist, almost needless to say. In this study I study the phenomenon space from the point of view of a psychologist and linguist who investigate how we linguistically refer to the perceptual space, i.e. to the space we visually perceive around us.

One of the questions one might ask is if we can define some kind of elementary or *basic space* of the perceptual space which can serve as a basis for the analysis of spatial language (Klein 1994: 167). Most researchers of spatial language²²⁸ define this basic space on the basis of natural or objective properties of space such as gravity and three-dimensionality.

2. Objective properties of space

According to Klein (1994: 178) basic space is characterised by three properties:

1. The basic space consists of locations which can be defined as a *set* of single dots or points. This implies that space is a *continuum*.
2. These locations can *completely* or *partially* include or contain each other (=topological structure).

3. These locations are structured in *three dimensions* (=dimensional structure).

This basic space has therefore two fundamental structures, namely a *dimensional* and a *topological* structure (Wunderlich 1982; Klein 1990, 1991, 1994). Klein (1994: 178) ascribes this basic space a universal status because it arises from the nature of human perception and cognition. These two structures are somehow encoded in probably all languages, though characterised by great variation between each other. This variation is principally based on our subjective experience and categorisation of the world (see below).

We know from our own life experience that objects are three-dimensional; this is something which we learn as children by touching objects (Wunderlich 1982). The three dimensions do not coincide. The three-dimensional structure is characterised as having two horizontal and one vertical dimension. With respect to a human body, the length corresponds to the *vertical* dimension, the width to the *horizontal* dimension and the depth is the second horizontal dimension which is called *transversal* dimension (see Klein 1991, 1994).

The most prominent of all three dimensions is the vertical dimension because we experience it through the force of gravity (Ehrich 1985: 15; Friederici 1989: 19; Lang 1990: 64). The vertical dimension or axis also plays a crucial role in the structuring of our environment: DOWN is delimited by the soil or ground, whereas UP is unlimited. The axis of the human body corresponds to the vertical axis: DOWN is where our feet are, and UP is where our head and eyes are. The same UP/DOWN asymmetry holds for fauna and flora (e.g. plants grow upwards).

In the literature it is also discussed whether metrical structure is an objective property of space or not (Wunderlich 1982; Klein 1994; Levinson 1992). Most researchers agree that there is no unified metrical structure and that estimates of distance are subjective culture-specific estimates.

Some researchers claim that space is *egocentrically organised*²²⁹ (Wunderlich 1982; Miller and Johnson-Laird 1976): “Die Organisation des Raumes erfolgt primär deiktisch: Raumkonstruktion und Raumorientierung gehen von ‘Ego’ als dem Bezugspunkt aus; Richtungen, Entfernung, lokale Bereiche werden von ‘Ego’s’ Position aus bestimmt.” [The organisation of space is primarily deictic: reconstruction of space and orientation in space originate from ‘ego’ being the (basic) reference point; directions, distances, and locations are determined by the position of the ego.]

(Wunderlich 1982: 4). We will see below that not all spatial systems are egocentrically organised (see this chapter, § 9.2.3). However, ego does play a crucial role in the way we organise, express and understand spatial relations (see this chapter, § 5) and determines most of the linguistic variation so far found across languages (Klein 1990; 1994). Regardless of the system used, the language user's role is always that of an egocentric perceiver and bearer of knowledge which is crucial for any act of spatial reference.

3. The interrelation between space, spatial language and spatial conceptualisation

One of the basic assumptions of cognitive science is that knowledge about the external world is stored in our brains and mentally represented in basic mental units which are called "concepts", "conceptions", "conceptualisations" or "cognitive representations" (Schwarz 1992: 84). The function of concepts is, according to Schwarz (1992: 84), as follows:

Mittels konzeptueller Struktureinheiten organisieren Menschen die riesige Menge an Informationen derart, daß ein effizientes Handeln und Verstehen möglich ist. Der Mensch muß, um sich in der Umgebung, die er als Welt erlebt, orientieren zu können, die äußerer Reize so verarbeiten, daß die diffuse Reizmenge in einzelne invariante Objekte eingeteilt wird und diese wiederum in Klassen äquivalenter Teilmengen zusammengefaßt werden. [By means of conceptual structure units humans organise the huge amount of information in such a way that efficient acting and comprehension is possible. In order to orientate oneself in an environment, experienced as a particular world, a human being has to process external impulses in such a way that he or she differentiates the diffusive complex of impulses into single invariant objects and these objects, on the other hand, can be integrated into classes of equivalent sets.]

Different concepts allow us to identify an object to belong to a particular class or category as well as distinguish one class of objects from another. In cognitive science it is not disputed whether concepts (or mental representations) exist or not, but it is debated in which *form* they exist.²³⁰ According to Pederson and Nuyts (1997: 1) "there is no consensus on how one should understand or further specify basic notions such as 'representation' and 'knowledge' beyond 'that which is necessarily in our heads (in whatever form) to produce behaviour'."

It is also a matter of debate how concepts are acquired and how they relate to our language faculty. Some scientists take the position that basic concepts are innate,²³¹ whereas others assume that concepts gradually emerge from the experience with a particular environment: the emergence of conceptual structures is therefore basically driven by a learning process. It is for instance debated whether a concept of CONTAINMENT is innate or whether it emerges from our experience with container objects. The position often taken in cognitive science is that the ability to conceptualise is innate, but experience with an environment is necessary for the emergence of specific concepts (Schwarz 1992: 85).

Although there is more or less consensus on how the different structural levels of language (i.e. phonological, morphological, syntactic and semantic) are organised, there is again little consensus on how linguistic structure or knowledge relates to cognitive representations (Schwarz 1992: 85). The universalist position in cognitive science claims that cognitive and linguistic representations exist independently from each other, and that the different representational systems (i.e. cognitive and linguistic) are somehow linked to each other which allows the translation from one system to the other (Fodor 1975; Jackendoff 1983). The position taken by representatives of the linguistic relativity hypothesis is that conceptualisation is not innate, but rather emerges through the use of particular linguistic expressions in specific situations²³² (Gumperz and Levinson 1996; Levinson 1996, 1997; Lucy 1992; see also ch. 1, § 2). According to Levinson (1997) conceptual and semantic (i.e. linguistic) representations are not essentially different representational systems. These researchers believe that our *experience* with a specific world or environment plays a crucial role in the way we express ourselves through language.

As for the investigation of spatial language we therefore want to know how language relates to our spatial knowledge and conceptualisations. Spatial knowledge comprises our knowledge about a certain local environment (e.g. a city, a village), about objects as well as the various spatial relations they can hold to each other (Lang 1990; Vater 1991). The environment we perceive around us has certain properties, such as natural²³³ and man-made²³⁴ landmarks. In order to be able to orientate oneself sensibly in an environment, we have to learn how landmarks are related to each other. Spatial knowledge about a particular environment is called a *cognitive map* (Downs and Stea 1982: 24). Although we need specific knowledge of the local environment we live in, we also have to be able to adapt to new environments, and to be able to orientate ourselves in new environments we

have to assume that we structure space according to some principles or cognitive processes. Thus our brain has to decide which of the numerous spatial information we receive through our perceptual organs is important and which is not. We therefore have to assume some kind of mental structure of space by selecting particular spatial features. These selected spatial features form part of our spatial conceptualisations and non-linguistic knowledge about space. Due to the fundamentally different spatial systems we find across languages and the great cross-linguistic variation of how humans categorise objects, object parts and spatial relations between objects (Wunderlich 1985, 1986; Choi and Bowerman 1991; Bowerman 1996) one might ask how much language influences the emergence of non-linguistic spatial conceptualisations and therefore our spatial cognition. There is empirical evidence from cross-linguistic studies of first language acquisition showing that children are sensitive to language-specific lexicalisation patterns from the on-set of the first language acquisition process (see Choi and Bowerman 1991; Bowerman 1996).

However, it is still a matter of debate how much linguistic variation really affects our (spatial) cognition. Representatives of the linguistic relativity hypothesis believe that linguistic variation is based on experience and that the different ways of referring to space (or using spatial language) has a profound influence on our spatial understanding of the world and therefore our spatial cognition (Levinson 1996; Bowerman 1996; Lucy 1992 among others). Other researchers such as Peterson et al. (1996: 571) believe that experience might influence the way we refer to space, but that it does not fundamentally alter our spatial conceptions and our perceptual and cognitive processes, and thus spatial cognition is basically independent of language:

(I)It is important not to overemphasize the differences between speakers of different languages: it is clear that spatial cognition is not necessarily constrained by the language that one knows. ... Cultures may influence how we choose to refer to spatial attributes, and even which spatial attributes we choose to refer to, but there is little support for the view that they, or the languages they use, fundamentally alter our spatial understanding of the world. (Peterson et al. 1996: 571)

The relationship between language and conceptualisation remains to be speculative and both positions in language and space research do not really give evidence for either of their claims. Although Levinson (1996, 1997) has shown that non-linguistic recognition and problem-solving tasks correlate with the way we linguistically refer to spatial configurations, his re-

search does not give counterevidence of the position taken by Peterson et al., namely that spatial cognition is not constrained by the way we refer to spatial configurations. Levinson's results (1996, 1997) can also be interpreted in the way that the preferred use of a frame of spatial reference in linguistic spatial tasks is based on certain *automatisms* which channel the way we solve spatial non-linguistic tasks.²³⁶ This strong correlation between the linguistic encoding of spatial relationships and the way we solve spatial problems without involving language does not give evidence that there are not other spatial conceptualisations available to the language user which are not linguistically encoded. For instance, if a particular language does not linguistically encode the concept of containment, it does not mean that speakers of this language do not have a concept of CONTAINMENT. At the present stage many claims made about human conceptualisation are still vague. However, we have to explain why we find cross-linguistic variation at all if we assume that spatial concepts are universal or even innate. Moreover, further research has to be undertaken to find out how persistent these fine-grained linguistic categorisation differences are in non-linguistic judgement tasks. It is also possible to interpret cross-linguistic variation as being a matter of conventionalisation, although experience with a certain environment and cultural needs might influence the way the language user subjectively categorises the world. One question, which is also of interest in this debate, is whether or not different linguistic categorisations do influence the way we visually perceive space.

Klein (1994: 164) takes an intermediate position in the debate saying that our spatial conceptualisations are not independent of language, although they are not a product of language alone. Conceptions underlie language, but they are, at the same time, also created by the language user (Klein 1994: 164). Naturally one might now ask what are the factors which determine our creation and emergence of spatial expressions and their underlying conceptions? According to Klein (1990, 1994) spatial language and their underlying conceptions emerge from objective (see this chapter, § 2) and subjective properties of space respectively. Subjective properties (see this chapter, § 5) play a more crucial role than objective properties and they, in fact, explain most of the variation of the semantic structuring of space we can find across languages. Before continuing with the discussion on subjective properties in spatial language, I will summarise some of the basic assumptions of spatial reference and localisation.

4. Spatial reference

4.1. Defining spatial reference

In the linguistic literature, the term *reference* is defined as the relation between a linguistic expression and an entity (object, person, time interval, location, state) of the external or an imagined (=possible) world (Crystal 1997: 326; Bussmann 1990: 632). For Lyons (1977: 197) the notion of reference has to be clearly distinguished from the intralinguistic notion of ‘sense’ which concerns the meaning relations between lexemes and sentential units (i.e. sentences, utterances) within a particular language system.

The relationship between a linguistic expression and the entity referred to (=referent) is only indirect. Reference to an entity in the external or in a possible world is effected via the sense (or meaning)²³⁷ of a linguistic expression and not by the linguistic expression as such. Lyons emphasizes that a linguistic expression can only refer to *one* specific referent in *one* specific (linguistic or situational) context, whereas the meaning of a linguistic expression is inherent in the linguistic expression as such and can relate to all existing and possibly existing entities in the external or in a possible world.²³⁸ For example, the lexeme ‘car’ has a meaning as such, denoting all existing and possibly existing “road vehicles that usually have four wheels and are powered by an engine” (Collins Cobuild 1987: 204). The lexeme ‘car’ only has reference in a concrete utterance as in ‘Yesterday I bought a car’ which refers exactly to the car which was bought on the day before the day of the time of utterance by the person who can be identified with the speaker.

We can speak of *spatial* reference when the language user uses a linguistic expression to refer to the location of an object or a person, to the spatial relationship between two objects, or between the language user and an object. Klein (1990: 10) describes the purpose of spatial reference as follows:

Eine Raumreferenz dient dazu, einen bestimmten Ort (oder auch mehrere solcher Orte) zu spezifizieren, d.h. aus der Menge aller in Frage kommenden Orte – dem Referenzbereich – einen (oder auch eine Menge) so weitgehend zu beschreiben, daß der Hörer verstehen kann, worauf sich der Sprecher beziehen will. [Spatial reference has the purpose of specifying a particular location (or several of such locations), i.e. to describe a location (or set of locations) from the whole set of locations – the referential domain

– in such a way that the addressee can understand what the speaker is referring to.]

Spatial reference does not differ greatly from object or person reference in that an entity also has to be selected from the respective referential domain.²³⁹ However, a crucial difference between spatial reference and person reference is that the spatial referential domain has a much more complex structure than the domain of person and object reference. According to Klein (1990: 11) *relationality* is the most salient characteristic of spatial reference because a location is thus described in that the speaker relates it to another location which is known to the addressee in a given situation.

Locations, which are the basic elements in the spatial referential domain, are characterised by the particular relations they hold to each other (Klein 1990: 11). The language user characterises these relations by using linguistic expressions such as Engl. *in front of/in back of* and *on top of/under* etc. The spatial expressions form some kind of systematic *structure*²⁴⁰ that can vary from language to language.

Spatial reference also has certain properties in common with person and object reference (henceforth: object reference, see Klein 1990: 7). The identification of an object or person is often accomplished by identifying the location of the object or person at a certain point in time:

(4.1) *Do you see the woman who is standing in front of the bakery?*

(4.2) *Die Becher stehen dort, wo früher die Gläser standen.*

‘The mugs are standing where the glasses were standing at an earlier point in time.’

In (4.1) the woman is identified by relating her *spatially* to another entity,²⁴¹ namely to the ‘front’-region of the bakery. The same woman could have been identified by referring to the type of clothes she is wearing (*Do you see the woman with the yellow jumper?*) or some other salient feature of hers. Although it might just be the speaker’s intention to identify a particular person, the speaker has entered the realm of spatial reference.

Sentence (4.2) is of a different nature than (4.1), though both sentences try to identify the location of an entity (in [4.1] the woman’s location, in [4.2] the mugs’ location). In (4.2) temporal and spatial reference coincide. The location of the mugs is identified by the location which was previously occupied by the glasses. In other words: the mugs and glasses occupy the same location, but at different points in time. Thus, a location of an entity is

identified by relating two time points of the same location to each other (see Klein 1991: 83 and 1991: 110).

As we have seen above spatial reference can not be strictly separated from temporal and object reference. In this study, attention is drawn a) to spatial reference, i.e. how the location of one entity is related to the location of another entity (in most cases objects, persons or landmarks), and b) to how the referential domain of space is conceptualised and rendered in the Marquesan language by the means of linguistic expressions (words, phrases) and constructions. However, the examples from my data occasionally show that temporal and object reference cannot be clearly separated from spatial reference. In fact, *referring to space* often means for the language user to make use of temporal and object reference as well.

4.2. Some basic assumptions about spatial localisation

Localisation is the identification of the location of an entity. The entity to be localised is called the *theme* and the entity against which the theme is localised is called the *relatum* (Klein 1990, 1991, 1994; v. Stutterheim 1990; Nüse 1999).²⁴² The entity, which the speaker selects as relatum, is often thought to be a familiar or salient object known to the addressee.²⁴³ The relationship between theme and relatum is based on *asymmetry*. According to Miller and Johnson-Laird (1976) and Talmy (1983) relatum and theme differ in size, mobility and stability, i.e. the relatum is normally larger, less mobile and occupies a location for a longer period of time than the theme does. In other words: entities functioning as relatum are more likely to have properties that facilitate search and localisation of the theme (Landau and Jackendoff 1993: 225). Themes do not need a geometric specification and are usually conceived as *point-like* (Talmy 1983; Landau and Jackendoff 1993). Landau and Jackendoff (1993: 228) conclude that most geometrical distinctions between theme and relatum are disregarded in spatial reference: a relatum “can be schematised as a point, a container, or a surface, as a unit with axial structure, or as a single versus aggregate entity. No more detail is necessary.” Similarly for themes, object parts are simply irrelevant (Landau and Jackendoff 1993: 229). Although this description might follow our intuitions of how we conceive relata and themes, this can neither be generalised for all descriptions of spatial configurations nor for all languages. Levinson (1994), for instance, challenges the claim of the notion of point-like themes by arguing that in the Mayan language Tzeltal

shape and geometry of the theme (or in his terminology ‘figure’) plays a crucial role in spatial reference.²⁴⁴

It is often debated in the literature whether spatial expressions relate objects (Wunderlich 1982; Miller and Johnson-Laird 1976) or locations (Klein 1991; Bierwisch 1988). Following Klein (1991) an object as such has to be distinguished from the location it occupies at a certain point in time, say at t_1 . The location an object occupies at a certain point in time is called the *eigenort*²⁴⁵ of an object. According to Klein, a spatial relation is not a relation between two objects,²⁴⁶ but a relation between the locations or, more precisely, between the *eigenörter* of these objects (Klein 1991: 83). Moreover, it is important to define a spatial relation between the locations of two entities as being temporary, i.e. to be true only at a certain point in time: entities, which are involved in a spatial relation, can occupy different locations at different points in time. For instance, a book can be at one point in time, say at t_1 , ‘on a table’ and at another point in time, at t_2 , ‘on a shelf’ etc..

According to Miller and Johnson-Laird (1976: 59) persons and objects are thought to have a characteristic region or *neighbourhood region*²⁴⁷ around their *eigenort* in which they can interact with (characteristic) *regions* of other objects. The concept of region is necessary because only regions can overlap (and therefore interact), and not objects.

These neighbourhood regions are rather vague (i.e. their extension can vary) and they cannot be perceived as such. Regions are therefore better to be described as *concepts* rather than *percepts* (see Miller and Johnson-Laird 1976: 59). When relating the *eigenörter* of two objects to each other, these neighbourhood regions become relevant: “two things whose regions overlap can be seen in spatial relation to each other” (Miller and Johnson-Laird 1976: 59). However, the relatum’s neighbourhood regions are more relevant in spatial reference because those are the regions which are identified by means of spatial expressions. This act of referring to locations is called *region assignment* (see Klein 1991: 84; Herweg 1989: 100; Nüse 1999: iv). Klein (1991: 83–84) describes the mechanism of region assignment with the German spatial preposition *auf* ‘on, on top of’ as follows:

(man) ordnet ... zunächst dem Ort des Relatums (und damit gleich dem Relatum selbst) einen bestimmten Raum, sagen wir den “AUF-Raum”, zu. In einem zweiten Schritt wird dann der Ort des Themas auf diesen “AUF-Raum” bezogen, etwa in der Weise, daß man sagt, L(Thema) sei im AUF-Raum des Relatums enthalten. [In a first step the location of the relatum (and therefore the relatum itself) is assigned a particular space, let’s

say the “ON-space”. In a second step the location of the theme is related to this “ON-space” in such a way that one says that L(theme) is included in the ON-space of the relatum.]

The *meaning* of a spatial expression such as the German preposition *auf* “is assumed to specify a region of a relatum in which the theme is localised” (Nüse 1999: 6) and it is this “particular region which distinguishes one topological preposition from the others” (Nüse 1999: iv). Thus, the semantic function of spatial expressions is the assignment of a region to the relatum. Throughout this study I will call these regions *object regions*. Object regions are distinct from other types of location such as *places* or *landmarks* (see this chapter, § 10).

According to Nüse (1999: 7) the assignment of an object region varies with respect to the *object nature* of theme and relatum, i.e. with particular *classes* of relata and themes as illustrated for English in (4.3) and (4.4):

- (4.3a) ***The writing is on the signpost.***
- (4.3b) ***The blackbird is on the signpost.***
- (4.4a) ***There is a crack in the bowl.***
- (4.4b) ***There is an apple in the bowl.***

The themes in (4.3) and (4.4) respectively are located in different object regions of the relatum, although both spatial regions are assigned by the same preposition (see in particular Klein 1991; Nüse 1999). The different region assignment is often explained by the polysemy of these spatial prepositions (Klein 1991; Schwarze 1989).

Nüse, however, postulates one invariant meaning for all uses of a spatial preposition and defines the spatial regions of a relatum in terms of *everyday concepts* (see ch. 5, § 3).

The relation between the location of the theme and the location of the relatum is a relation of *inclusion* (Miller and Johnson-Laird 1976; Herweg 1989; v. Stutterheim 1990; Klein 1991; Nüse 1999), i.e. the theme is included in the object region of the relatum assigned by the spatial expression.

Apart from objects and persons also other entities such as events and states can also be localised (v. Stutterheim 1990; Klein 1990; Bierwisch 1988; for a different view see Wunderlich and Herweg 1991). In other

words: spatial expressions such as prepositions do not only have the function to specify the locations of objects, but they also express the location of states and events:

(4.6) *There is a bad smell under the table.*

(4.7) *The children are playing under the table.*

The fact that events and states can be localised causes some problems concerning the semantic analysis of topological prepositions (see v. Stutterheim 1990: 103–104). Problems for instance arise when one tries to analyse the localisation of events because the relation between theme and relatum is not necessarily an inclusion relation.²⁴⁸ In fact, the inclusion relation between theme and relatum can often be reversed (v. Stutterheim 1990: 103–104):

(4.8) *It was snowing on top of the roof.*²⁴⁹

In (4.8) it is not the theme which is included in the relatum, but it is the relatum which is included in the theme: the event of snowing (=the theme) includes the relatum (=the roof) because the event of snowing is spatially more extended than the relatum (v. Stutterheim 1990: 104). In contrast to events, states cannot always be localised. It would be odd to utter a sentence like

(4.9) *?John is married in London.*

if one only wants to refer to the state of being married (in contrast to the event of ‘getting married’ as in *John got married in London*). A person’s state of being married is independent of any location, i.e. it is *ubiquitous* (Klein 1990: 19). Although a state of a person is independent of that person’s location, a location can have or be in a certain state (e.g. *The inside of the house is dirty*).

There are also other problems in dealing with the semantic analysis of localisation as e.g. the role of temporality, negation and quantification²⁵⁰ and the topic-focus-structure of utterances (for further analyses, see v. Stutterheim 1990; Klein 1990).

Although region assignment has the purpose of localising or identifying the *eigenort* of the theme, a linguistic expression such as *on the bed* does

not really specify the precise location (or *eigenort*) of the theme. A particular object region is assumed to have a whole set of possible locations because it is possible to localise more than one object in a particular object region of a relatum (Klein 1991: 84). For instance, in

- (4.10) *The cup is on the table.*

the ‘on’-region of the table contains a whole set of possible ‘on’-locations. The location of the cup, i.e. the theme, is only one location out of the whole set of possible ‘on’-locations of the table. The ‘on’-region of the table therefore does not specify the precise location of the theme, but it only indicates the *search domain* in which the theme is included. According to Klein (1991: 85) locative phrases as in (4.10) are predicates which can be semantically treated as properties.

A predicate such as (*be*) *on the table* assigns a spatial property to the theme or, more precisely, to the location or *eigenort* of the theme. Spatial properties are only properties of locations, and not of objects or entities. This emphasizes again the importance of the notion of *eigenort* for any semantic description of spatial localisation.

In order to localise an object it is not sufficient to say that an object merely occupies a location (by a simple location-marking device meaning ‘be at location of x’), but the object’s location has to be marked as a *location of a particular kind* such as ‘being at the *on-*, *under-*, *behind-* location etc. of x’ (Klein 1991: 85). A location of a particular kind is not necessarily expressed by prepositions as in German or English, but can also be expressed by verbs such as *enter* or *insert* which lexicalise spatial concepts like CONTAINMENT and PATH.

In the present study I am less concerned with the above mentioned problems of localisation as discussed in v. Stutterheim (1990) and Klein (1990). I will be dealing with the localisation of objects in relation to other objects (see [4.10]), to persons and to places and landmarks (e.g. *The Eiffel tower is in Paris* or *John has put the chairs in the garden*). The notion of places and landmarks and their corresponding linguistic expressions occupy a special position in the conceptual and the preferred spatial referential system of Marquesan. Places and landmarks differ from object regions, and landmark expressions differ from place names in that they can specify object regions’ (see this chapter, § 10.1 and 10.2).

4.3. Three basic requirements of spatial reference

Verbal communication about space is only successfully accomplished if speakers of the same language share (more or less) the same meanings and compositional rules of spatial expressions, if they have the same or an adequately similar conceptual structure of the referential domain, and if they know how to combine this linguistic knowledge with sufficient contextual information (Klein 1990, 1991, 1994). According to Klein these are the three basic requirements of spatial reference which is somehow present in any verbal communication about space and which can interact in different ways with each other (Klein 1994: 165). I will briefly describe how these three basic requirements interact.

If we look at the following two examples, it will become evident that an object region cannot be assigned by the lexical meaning of a spatial expression alone, but we also have to take the conceptual structure of the referential domain into account (see also Klein 1991: 78–80):

- (4.11) *Eine Katze sitzt unter dem Tisch.*
 ‘A cat is sitting under the table’

- (4.12) *Kreta liegt unter Griechenland.*
 ‘Kreta is below Greece.’

In order to express a spatial relation in (4.11) and (4.12) we use the same spatial expression, namely *unter* ‘under, below’, but the conceptual structure of the relata and the themes are quite different. In (4.11) we can assume a three-dimensional space which is occupied by three-dimensional objects. The usage of *unter* is based on the vertical UP/DOWN-axis, meaning ‘below the table surface’. In (4.12), however, we are dealing with quite a different localisation: we have to interpret *unter* with reference to a map that has a two-dimensional structure. In other words, map spaces are *reduced* to two dimensions, which can be regarded as an abstraction of the dimensional structure (Klein 1991: 79–80). In general, the frequent uses of *unter* ‘under, below’ and *über* ‘above’ when referring to geographical places can be explained by the fact that geographical knowledge is linked to maps which are often exposed in the vertical dimension by hanging on walls etc. and thus having a salient vertical axis. Klein (1991) concludes that:

1. The meaning of spatial expressions cannot be described independently of the underlying conceptual structure of the referential domain.
2. The conceptual structure of the referential domain can vary to a great extent, but the language user obviously does not have any difficulties in ‘switching’ from one conceptual structure to another.

The conceptual structure of the referential domain is important for the analysis of reduced and more abstract spaces (e.g. maps or mathematical spaces)²⁵¹ when we talk about (geographic) places (e.g. *Nijmegen is situated in the Netherlands*) or when we localise states (see [4.6]). The meaning and compositional rules of spatial expressions will be more thoroughly discussed in the empirical part of chapter 5.

Apart from these two requirements,²⁵² the language user also needs to combine the linguistic knowledge of spatial expressions with contextual information in order to understand a reference correctly. According to Klein (1990, 1991) there are two types of context-dependency, namely *situationally bound* and *global* context-dependency.

I. Situationally bound context-dependency:

Deictic expressions such *here* and *there* require a systematic completion from the context or speech situation, namely the *origo* (Bühler 1934: 126).²⁵³ According to Bühler the *origo*, most typically represented by the speaker, is the “zero-point of the subjective orientation”. Bühler’s *origo*-model basically explains how deictic expressions like *here*, *now* and *I* can be interpreted by combining the lexical meaning of deictic expression (e.g. *here* ‘close to speaker’) with the *origo*, the zero-point of the speech situation. Where the *origo* is precisely located has to be inferred from the respective speech situation. Any speech participant has his or her own *origo* and the speech participants have to coordinate these *origines* in a sensible way which can prove to be problematic at times (see in particular Klein 1978: 22–23; Sichelschmidt 1989: 340–341). The most elementary speech situation is the so-called *demonstratio ad oculos*-situation, which can be defined as the shared perceptual space of the speech participants. This speech situation is the most important speech situation with respect to my Marquesan space data (see methodology, ch. 2, § 3.2–3.2.2.4).

The interpretation of spatial deictic expressions can become very complex because the *origo* can be transposed in several ways. There are altogether five different ways of *origo*-transposition (see also Klein 1990: 21–22):

1. Canonical face-to-face-encounter:

The *origo* can be transposed to the addressee, i.e. the addressee's position is crucial for the interpretation of deictic expressions. The transposition of the *origo* to the addressee can cause a lot of confusion and miscommunication in a canonical face-to-face-encounter of speaker and addressee when using expressions like Engl. *left* or *right* because the anchoring of the *origo* is not marked on the linguistic expression as such. The addressee does not know if he has to interpret *left* or *right* from the speaker's or his own perspective (see in particular Sichelschmidt 1989).

2. Canonical position:

The canonical position and body orientation (=the upright position) of the speaker can be transposed to objects which have inherent features or properties. For instance, one can refer to the 'left'-side of a car which coincides with the driver's left side. The driver need not be inside the car in order to make such a reference. Nevertheless, the 'left'-side of a car is based on the normal or typical position and gaze of direction of the driver who is the *origo*. This kind of *origo*-transposition is called 'frozen *origo*'(Klein 1990: 21; see also Miller and Johnson-Laird 1976; Grabowski 1998). This kind pf *origo*-transposition will be discussed again with respect to object properties and the assignment of names to object parts (see this chapter, § 6).

3. Transposition of *actual body orientation*:

The actual body orientation and gaze of direction of the speaker (or addressee) can be transposed to objects. This can be observed in particular when objects do not have an inherent orientation as e.g. a ball or a tree. For instance, if a speaker of English wants to localise a box, which is positioned between the speaker and a tree at which the speaker is looking, the speaker would most probably say that *the box is in front of the tree*. If the speaker would change his or her own position, the description of the spatial configuration *box-tree* would change. This kind of spatial reference is more thoroughly discussed in section 9.2.2 when discussing the so-called relative frame of spatial reference. The crucial point in this kind of *origo*-transposition is that it is dependent on the actual perspective of the speaker (or addressee) which can change when the speaker is moving around or turning away. This kind of *origo*-transposition therefore has to be distinguished from the 'frozen *origo*'.

4. Pointing gestures:

The *origo* can be transposed by pointing gestures. For instance, the speaker can point to a location or object and refer to that location with *here*.

The *origo* is thus transposed to that location and *here* means ‘close to that location or object’. In these cases the difference between the lexical meaning of *here* and *there* is often blurred. However, a transposed *here* is probably closer to the speaker than a transposed *there*; *here* and *there* (with pointing gestures) also often function as expressions contrasting two different locations without expressing a distance opposition (see Bühler 1934; Klein 1978, 1990; Ehrich 1982, 1983 among others).

5. *Deixis am Phantasma* ‘deixis in a fictitious world’

The last type of *origo*-transposition to be mentioned here is the so-called *Deixis am Phantasma* (Bühler 1934). Instead of referring to a real *origo* in the *demonstratio ad oculos*-situation, one can also choose a fictitious *origo* in an imagined world. This is for instance the case in narratives. The narrator has to make the *origo*-transposition linguistically explicit, i.e. he or she has to contextually embed the transposed *origo* by some linguistic means (Klein 1990: 22).

There are also other types of *origo*-transpositions such as pointing to locations on maps. This is called *analogue deixis* in which a second *origo* is introduced and two different types of spaces are related to each other, namely the real three-dimensional space and the two-dimensional space of a map (see Bühler 1934; Klein 1978, 1990).

II. Global context-dependency:

It has been often discussed in the literature²⁵⁴ that, for instance, one spatial preposition can have a wide range of uses as depicted in the following examples of German *in* ‘in, inside’ (see Herweg 1989: 102–103):

- (4.13) *Das Hemd ist im Schrank.*
‘The shirt is in the cupboard.’
- (4.14) *Ein Holzwurm ist im Schrank.*
‘A wood worm is in the cupboard.’
- (4.15) *Die Glühbirne steckt in der Fassung.*
‘The bulb is in the socket.’
- (4.16) *Der Stuhl steht in der Ecke.*
‘The chair is in the corner.’

The preposition *in* in (4.13–16) obviously expresses quite different spatial relations between theme and relatum although these relations are ex-

pressed by the same preposition. Most researchers assume that *in* in (4.13–16) has one invariant or basic meaning and that we derive the interpretation of such sentences in that we add our *encyclopaedic knowledge* (or world knowledge) to derive the meaning of a lexical item or linguistic construction. The assignment of a particular object region is therefore not only driven by the lexical meaning of a spatial expression as such, but also by what we know about cupboards, shirts, wood worms, sockets, bulbs, chairs, corners etc. and how these objects can interact with each other (see Nüse 1999). This is what has been labelled as global context-dependency. Bierwisch's "two-level semantic model" is based on this interaction between the abstract invariant meaning of a lexical item and encyclopaedic knowledge (see Bierwisch 1988 for details).

Adding encyclopaedic knowledge to the lexical meaning of a word is based on pragmatic principles (Levinson 1983). Thus, the meaning derivation of utterances like (4.13–16) is therefore determined by semantic as well as pragmatic factors. Note, however, that the distinction between lexical meaning and pragmatic interpretation is not always clear-cut for some researchers and that the difference is one of degree rather than type (see Schultze-Berndt 2000: 31).²⁵⁵

4.4. Static and dynamic localisation

In the examples discussed so far, we have mainly dealt with static localisation. The localisation is called static because the locations (or *eigenörter*) of theme and relatum are stable at a certain point in time. However, objects can change their location, i.e. at different points in time they can occupy distinct locations. So at t_1 a cup can be on the table, and at t_2 the same cup can be in the sink. The localisation of the cup at t_1 and at t_2 are both static localisations. The change of location of the cup must have taken place via a trajectory from one location to another. The localisation of the theme on the trajectory is called dynamic localisation:

(4.17) *John put the cup (**from the table**) into the sink.*

There are different linguistic devices to express dynamic localisations such as (loco)motion²⁵⁶ verbs, prepositions and particles. These different parts of speech express different aspects of a dynamic localisation. According to Vater (1991: 87) "geben Verben in erster Linie die Art der

Bewegung oder der durch Bewegung erzielten Lokalisierung an, Präpositionalphrasen den Ort, an dem etwas im Ergebnis einer Bewegung lokalisiert wird” [verbs indicate in the first place the manner of locomotion or the localisation which was brought about through locomotion, prepositional phrases indicate the location of which the result of a movement is localised].

Languages have different lexicalisation patterns to express change of location and motion of the theme (Talmy 1985), i.e. spatial information about a described motion event appear in different parts of speech. Compare the Spanish example (4.18) with the English example (4.19) in which the same motion event is described:

- (4.18) *La botella entro a la cueva (flotando).*
 ART bottle move in PREP ART cave float.GERUND
 ‘The bottle moved into the cave floatingly.’

- (4.19) *The bottle floated into the cave.*

In (4.18) the verb conflates motion with path (*entrar* ‘move in’), whereas in (4.19) motion is conflated with manner (*float*) in the verb. The path information surfaces independently of the verb in a so-called satellite (i.e. an adposition, an affix, a particle etc.). The former lexicalisation pattern (i.e. verb conflation of motion and path) is characteristic e.g. for Romance, Semitic and Polynesian languages. The latter lexicalisation pattern is found in English, German and Dutch and also in isolating languages such as Chinese (Talmy 1985: 75).

Any motion event²⁵⁷ has four components, namely the moving object which is localised (=theme), the entity against which the theme is localised (=relatum), motion and path (Talmy 1985: 61).

It is a matter of debate in the recent literature whether or not all motion events which express a change of location of the theme really require a concept of path (see Wunderlich 1982; Bierwisch 1988; Kaufmann 1989; Klein 1991; Wunderlich and Herweg 1991).

It is a matter of debate in the recent literature whether or not all motion events which express a change of location of the theme really require a concept of path (see Wunderlich 1982; Bierwisch 1988; Kaufmann 1989; Klein 1991; Wunderlich and Herweg 1991).

Most researchers argue that the path concept is required for the analysis of the abstract predicate MOVE including causative positionals (Wunderlich and Herweg [1991: 775]; see also Kaufmann 1989; Talmy 1985; Bier-

wisch 1988). According to Klein (1991) motion verbs such as causative positionals²⁵⁸ (e.g. Ger. *stellen* ‘put’ and *legen* ‘lay, put’) do not require a path functor because they can be analysed in the same way as two-state-verbs such as Ger. *umfallen* ‘fall down’. Therefore dynamic localisation can be reanalysed as static localisation:

Wenn man sagt “Der Turm fiel um”, so besagt dies, daß es ein Intervall in der Vergangenheit gibt, in dessen erstem Teil der Turm steht und in dessen zweitem Teil er nicht mehr steht. Ich bezeichne den ersten dieser beiden Zustände als AUSGANGSZUSTAND und den zweiten als ZIELZUSTAND. Bei räumlichen Eigenschaften ist das nicht anders. Ein Verb wie “stellen” ist mit zwei Zuständen vereinbar, in denen der Eigenort des Objekts verschieden ist. Die beiden Zustände sind in diesem Falle also Orte des Objekts, die ich dementsprechend als AUSGANGSORT und als ZIELORT bezeichne. (Klein 1991: 88) [A sentence like “the tower fell over” only expresses that there is an interval in the past in which the tower is standing in the first part of the interval, and that it is no longer standing in the second part of the interval. I designate the first part of these two states as INITIAL STATE and the second part as END STATE. This (characterisation) is not any different with respect to spatial properties. A verb like “put” has two states in which the *eigenort* of the object is different. The two states are in this case locations of objects, which I will call accordingly as SOURCE LOCATION and GOAL LOCATION.]

Although our world knowledge tells us that e.g. the book in (4.20)

- (4.20) *Susi stellte das Buch ins Regal.*
 ‘Susi put the book on(to) the shelf.’

must have moved along a path in order to get to its goal, Klein argues that this path is not explicitly marked in the linguistic expressions. Causative positionals only make explicit that the theme is at one point in time at a source location and at another point in time at a goal location (Klein 1991: 89), but not at an intermediate location between source and goal which can be described as a path. Constructions with causative positionals are often called directional constructions (Wunderlich and Herweg 1991; Bierwisch 1988) because these predicates require the indication of the goal (see [4.20] *ins Regal* ‘onto the shelf’). Note that Klein’s analysis is only aimed at causative positionals, but not at motion verbs such as *descend* or *ascend* for which a concept of path is required in the semantic analysis.

However, in languages like German and English the concept of path is not only required for the analysis of (most) dynamic configurations and motion events, but also for a number of path-related pre- and postpositions used in static configurations. This holds in particular for Ger. *über* ‘through’, *via* ‘via’, *entlang* ‘along’, *um* ‘around’, *längs* ‘along’ and *durch* ‘through’ (see Wunderlich 1986; Bierwisch 1988; Schwarze 1989, 1992; Klein 1991; Wunderlich and Herweg 1991). The usage of these path-related pre- and postpositions in dynamic configurations is rather due to the nature of the relatum, i.e. the relatum is a path or route or has a path-like shape. In dynamic configurations the theme can be a point-like object:

- (4.21) ***Hansi torkelte den Waldsaum entlang.*** (Klein 1991: 90)
 ‘*Hansi* staggered along the forest edge.’

Path-related adpositions can only be used in static configurations if the theme has path-like shape; thus the usage is due to the nature of the theme:

- (4.22) ***Die Schlange lag um den Tisch.*** (Klein 1991: 84)
 ‘The serpent lay around the table.’

The theme can also consist of several point-like entities, which form a path-like shape along or around the relatum:

- (4.23) ***Die Kinder saßen um den Tisch.*** (Klein 1991: 84)
 ‘The children were sitting around the table.’

The expression of path in dynamic as well as static configurations is of particular importance for the description of locative constructions in Marquesan (see ch. 5). In Marquesan (concrete) path or route (see [4.21]), spatial extension of the theme (see [4.22]), plurality (see [4.23]), but also movement, unspecific location, surface and object region are expressed by the same particle. Thus, the concept of path is implicit in either the relatum or the theme and is therefore required for the analysis and description of Marquesan locative constructions. This relates to one of the (universal) claims which Talmy (1983) made with respect to path: the location of spatially extended objects are described like point-like objects moving along a path. This is what can be observed in Marquesan.

I will now turn to definitions of path in the literature with respect to dynamic as well as static localisation.

4.4.1. Concepts of Path

Path is often defined as a projection of time into space. Like the concept of time path is unidimensional and linear (Wunderlich 1982: 7). In dynamic configurations movement is not conceived as taking place at one particular point in time, but during a time interval, and thus path has to be defined with respect to time intervals (see also Wunderlich and Herweg [1991: 759]; Bierwisch [1988: 14]):

Ein Weg ist eine stetige Abbildung aus der Zeit in den Raum. ... Wir denken uns t_0 als Anfangszeit und t_1 als Endzeit eines Weges; so lässt sich jeder Weg als Abbildung des Intervalls $(0,1)$ in den Raum normiert denken. Ein Weg lässt sich zunächst als Weg des Schwerpunktes eines Objektes vorstellen..., d.h. die Wegfunktion liefert für ein Objekt $a \in A$ und eine Sequenz von Zeitpunkten (t_0, \dots, t_1) aus T eine Sequenz von Raumpunkten (l_0, \dots, l_1) aus D Nun lässt sich an einem einzigen Zeitpunkt Bewegung gar nicht feststellen noch definieren; wir benötigen Zeitintervalle. T sei ein Zeitintervall, in dem eine Bewegung erfolgt. [A path is a constant projection from time into space. ... We imagine t_0 as the beginning point and t_1 as the end point of a path; (by using these norms/definitions) any path can be thought of as a projection of the interval $(0, 1)$ into space. A path can be pictured as the path of the focus of an object, i.e. the path function provides for an object $a \in A$ and a sequence of time points (t_0, \dots, t_1) of T a sequence of locations (l_0, \dots, l_1) of D It is impossible to determine nor define locomotion at one specific time point; we need time intervals. T is therefore a time interval in which a locomotion takes place.] (Wunderlich 1982: 7)

In dynamic configurations paths are therefore defined as having a temporal parameter with an orientation and a continuous movement (= Ger. *Durchlaufgeschwindigkeit*, see Wunderlich and Herweg 1991: 759). The orientation can refer to the direction of movement or towards a certain goal. In (4.21–23) the orientation is not expressed in the path-related adpositions, but in the goal noun phrase and/or the motion verbal (e.g. *The ball is rolling into the box*).

As for static configurations, illustrated in (4.22–23), there is neither continuous movement nor orientation involved in the localisation. Path therefore has to be defined without a temporal parameter. A path concept without a temporal parameter can be regarded as a sequence of structured regions (see Bierwisch 1988).

Similarly, perception verbals are also best analysed by a path concept without a temporal parameter (e.g. *Hans blickt in den Garten* ‘Hans is look-

ing into the garden'; see Schepping 1989). However, as for perception verbals the path concept must include the notion of orientation because the act of perceiving is directed towards a goal. This path concept is also called a "vector" (see O'Keefe 1996) or a "prospect path" (Talmy 1996: 218).

We therefore have to distinguish three kinds of path concepts. The first and second path concepts have a sequence of structured regions in common (see Bierwisch 1988):

1. Path concept including a temporal parameter with orientation and continuous movement (=dynamic localisation):
⇒ path concept 1
2. Path concept without a temporal parameter, orientation and a continuous movement (=static localisation with spatially extended themes):
⇒ path concept 2
3. Path concept without a temporal parameter and a continuous movement, but with orientation (=static localisation with perception verbals):
⇒ path concept 3

All three path concepts are more or less relevant for the discussion of Marquesan locative constructions.

5. Subjectivity in spatial reference

Lyons (1982) was one of the first researchers to point out the role of subjectivity in spatial reference. This idea was later further developed and elaborated by Klein (1990, 1994). According to Klein (1994: 181) the way space is expressed in language has a *universal* as well as a *culture-specific* component. The universal components are based on the so-called objective properties of space (see this chapter, § 2) whereas the culture-specific components are based on subjective formation and restructuring of the basic space, i.e. its objective properties. The basic space is restructured either by *amplification*²⁵⁹ or *reduction* of its basic topological and dimensional structure (Klein 1994: 178). As for the explanation of the notions of amplification, reduction and subjectivity we have to refer back to the previously discussed requirements of spatial reference (see this chapter, § 4.3), namely

the structure of the referential domain, the meaning of spatial expressions and context-dependency.

Reduction of basic space, for instance, occurs when referring to maps. In this case we reduce the basic three-dimensional structure to a two-dimensional space in which the vertical dimension has been dropped or just does not exist (Klein 1994: 179–180). Despite the reduction of the vertical dimension speakers of German can still use *über* ‘above’ and *unter* ‘below’ when talking about this two-dimensional map space (see above). According to Klein all languages probably have some kind of reduction of the basic three-dimensional structure²⁶⁰ and therefore a transition to simpler structured spaces. A reduction of dimensions is also influenced by (visual-) perceptual factors and therefore has an element of subjectivity (see below).

Subjectivity is most evident in situationally bound context-dependency. The notion of *origo* is clearly subjective because it is dependent on or relative to the speaker or language user. The complex and different ways of *origo*-transposition (see this chapter, § 4.3) such as the frozen *origo* (e.g. *the left side of a car*) or the transposition of the actual body orientation and gaze or direction of the speaker onto other objects as in so-called relative systems (e.g. *the ball is in front of the tree*, see this chapter, § 9.2.2) all bring subjective aspects into spatial reference which are part of the meaning of spatial expressions as well as their underlying conceptualisation. The frozen *origo* will be further discussed below in connection with the assignment of object properties of object parts (see this chapter, § 6).

The characteristic region or neighbourhood regions of an object or person is also variable and varies on how the language users makes a subjective judgement about its size and extension.²⁶¹ The boundaries of a proximal region expressed by Engl. *here* and *this* can also be influenced by subjective aspects such as emotions (Bühler 1934; Klein 1978; Fillmore 1982; Ehrich 1982 among others). When the speaker refers to a man standing close to him by saying *that man*, it is often regarded as having a pejorative connotation. In using the distal form *that*, as opposed to the proximal form *this*, the speaker draws a clear boundary by indicating that the man is not part of the speaker’s personal space. However, the boundary is not based on a quasi-metrical or spatial distance, but one based on emotional subjectivity (Ehrich 1985).

A more complex case of subjectivity is the question of the role of *visual perception* in spatial reference. Klein (1990: 39) follows up the question of whether we refer to what we (subjectively) see of an object, i.e. its visual

representation, or whether we refer to the cognitive-abstract representation of an object (i.e. the object as a whole).

The visual (subjective) representation of a spatial configuration often plays a crucial role in the meaning derivation of other spatial expressions. This also explains their polysemy. For instance, Engl. *behind* is often attributed the meaning of ‘hidden’ (see Johnston 1988; Tanz 1980): something that is ‘behind’ an object is not visible and therefore hidden. Klein further exemplifies the role of visual perception in spatial reference by discussing the different uses of German *in* ‘in, inside’ in *Zähne im Mund* ‘teeth in the mouth’ vs. *Zigarette im Mund* ‘cigarette in the mouth’. The usage of *in* in *Zigarette im Mund* ‘cigarette in mouth’ is possible because we visually perceive a mouth as two lips with an opening in the middle, but not its oral cavity. Thus, anything that is inside this opening – such as the filter of a cigarette – is therefore ‘inside the mouth’. From a cognitive-abstract point of view, however, a mouth consists of two lips, an opening and an oral cavity. If the speaker is guided by the cognitive-abstract representation *im Mund* ‘in the mouth’, the theme (=cigarette) is more likely to be ‘within the outer confines of the oral cavity’ which is, however, not the case in the example *Zigarette im Mund* ‘cigarette in mouth’. He concludes that in the case of *Zigarette im Mund* the visual, and not the cognitive-abstract representation is crucial for the usage of German *in* ‘in, inside’.²⁶²

Visual perception also plays a role in the usage of German *über* ‘above’ and *unter* ‘below’ in two-dimensional spaces (e.g. maps or pictures). If maps and picture are laid down on a horizontal plane, the upper part of maps and pictures can be referred to by using Ger. *über* or Engl. *above* because we perceive the upper part as being higher than the bottom part.

This is also how ‘up’/‘down’-expressions can be used in Tzeltal and Belhare (see Brown and Levinson 1993: 19; Bickel 1997: 49) and also Marquesan (see ch. 7, § 3.4).

‘X above y’ on a horizontal plane means that ‘x is further away from the speaker than y’. Likewise ‘x below y’ means that ‘x is closer to the speaker than y’. Expressing ‘x above y’ for a configuration on the horizontal plane is still perceived by the language user as ‘x being higher than y’, i.e. as if the vertical axis has been flipped down onto the horizontal plane.

Thus, some usages of ‘up’/‘down’-expressions are therefore not only based on the objective property of gravity and its vertical dimension or axis, but also on how the language user subjectively perceives spatial relations.

When looking at dimensional expressions such as *left/right* and *in front of/at the back of* we would intuitively say that *left* is characterised as being opposed to *right*, likewise *in front of* and *at the back of*. In other words: the expressions *left* and *right* and *in front of* and *in back of* are based on opposing directions of an axis. This is what they have in common with the vertical UP/DOWN-axis. However, unlike the vertical axis which is based on the objective property of gravity, experienced by the language user in his everyday interactions, the other two horizontal axes do not have a comparable objective property which would give the language user a way to define the opposing directions of the horizontal and transversal dimensions (Klein 1994: 169). Thus the language user has to search for a model of opposing axes, which is in many cases the *asymmetrical human body* (Klein 1994: 169). Note that there are also other models available such as the animal body and landmark models (Heine 1989; Svorou 1986, 1994; Bowden 1992; see also below). The human and animal model and the landmark model are ways of restructuring the basic space. All models, i.e. human, animal and landmark models alike, are based on subjectivity (Klein 1990, 1994). I will discuss this in subsection 6 with respect to the assignment of names for object parts and inherent properties of objects.

According to Levinson (1996: 135) due to the lack of objective properties on the horizontal planes “three main frames of reference emerge ... as solutions to the problem of description of horizontal spatial oppositions”. In section 6 I will discuss one such solution which is linked to the so-called intrinsic frame of spatial reference (see this chapter, § 9.2.1).

Klein’s notion of subjectivity is a way of explaining *why* we have linguistic variation. However, this notion does not reveal to what degree different ways of referring to space affect spatial cognition, i.e. it does not explain the relationship between spatial expressions and spatial conceptualisation. I have already illustrated above that spatial reference is a complex interplay not only between linguistic expressions and spatial concepts, but it also involves other extra-linguistic factors such as situationally bound and global context-dependency (see this chapter, § 4.3). Moreover, the precise nature of concept is anything but clear. However, it is not relevant for this empirical study of spatial reference in Marquesan. For a discussion of the notion of concept the reader is referred to (Friederici 1989; Schwarz 1992; Bloom et al. 1996; Nüse 1999 among others).

6. Assignment of names to object parts and inherent properties of objects

This subsection is not only relevant for the discussion on how the language user can linguistically restructure three-dimensional basic space, but it will also depict the fundamental differences which are found in so-called intrinsic systems (see this chapter, § 9.2.1).

Objects are often classified as being either featured or unfeatured objects (Miller and Johnson-Laird 1976; Hill 1982; Ehrich 1985; Wunderlich 1982 among others). Featured objects have inherent or intrinsic features such as object parts (e.g. ‘*handle* on a cup’, ‘*legs* of a table’, ‘*lid* of a saucepan’) and distinct surfaces such as the UPPER, UNDER or SIDE surface of a table, a car etc. (see Klein 1990; Nüse 1999). Unfeatured objects neither have object parts nor distinct surfaces and are characterised as being symmetrical (e.g. a ball, a cube). Note that the featuredness or non-featuredness of objects can play a crucial role in the choice of a certain spatial frame of reference (see ch. 7, § 3.1 for details).

Most names for object parts and intrinsic features of objects derive from body-part terms. There are principally two models for the lexical sources of body-parts, namely the human and animal model. The human model is by far the preferred model across languages (Heine 1989; Bowden 1992; Svorou 1994); the animal model is found in African and Mesoamerican²⁶³ languages in particular and exclusively in those cultures which have close contact with animals on a daily basis (Bowden 1992: 10).

Landmark models are also used in languages for the expression of object parts and intrinsic features,²⁶⁴ but their lexical sources are less commonly used than those of the human or animal model. Landmark terms serving as lexical sources for object parts and intrinsic object features are not discussed here (see Bowden 1992; Svorou 1986, 1994 for details).

Note that I will also be discussing the usage of landmark terms in Marquesan.²⁶⁵ However, the usage of Marquesan landmark terms is quite different from those types of landmark terms described in Heine (1989) and Svorou (1994) because Marquesan landmark terms do not develop into names for object parts. There are two ways of making use of human and animal models, namely by applying

1. The asymmetrical body axes (i.e. vertical, horizontal and transversal axes).
2. A *full body analogy* (see Klein 1994: 180–181).²⁶⁶

6.1. The asymmetrical body axes

The names of inherent features of objects are often based on the asymmetrical axes of the human body (Hill 1982: 13). The asymmetrical axes of the human body are defined by Klein (1994: 169–170) as follows:

Vorn ist, wo man hinsieht, hinten ist, wo man nicht hinsieht, links ist, wo bei den meisten Menschen die schwache Hand ist (oder wo bei den meisten Menschen das Herz liegt), rechts ist die entgegengesetzte Seite (oder: die Seite, wo bei den meisten Menschen die Leber ist). [The front is where one sees, the back is where one does not see, left is where most people have their weaker hand (or where most people have their heart), right is the opposite side (or: the side where most people have their liver).]

Klein further comments (1994: 172):

Die Körpersymmetrien sind es, die dem dreidimensionalen Anschauungsraum soviel an Struktur aufprägen, daß dimensionale Ausdrücke wie ‐rechts‐, ‐links‐, ‐vorn‐, ‐hinten‐ und ganz analog ‐oben‐, ‐unten‐ sinnvoll verwendet werden können. [It is the asymmetrical body axes which give the three-dimensional space an adequate structure in order to use dimensional expressions such as ‐right‐, ‐left‐, ‐front‐ and ‐back‐, and in a similar fashion ‐up‐ and ‐down‐ in a meaningful way.]

The terms of the asymmetrical body axes (e.g. FRONT/BACK) are often assigned to the axes of objects. Objects, however, can be distinguished by the number of asymmetrical or intrinsic axes they have, which also reflects their degree of featuredness (Hill 1982): the more asymmetrical axes an object has, the more names can be assigned to these inherent object properties. According to Hill there is a hierarchy with respect to asymmetrical axes in featured objects: ‐we view more entities as possessing up/down orientation than front/back or left/right and more entities as possessing front/back orientation than left/right‐ (1982: 14).

Thus, there are more objects with an asymmetrical vertical axis than with an asymmetrical transversal or horizontal axis. For instance, a bottle or a tree has an asymmetrical vertical axis, but the transversal and the horizontal axes are not asymmetrical. Telephones have an asymmetrical vertical and transversal axes, but no asymmetrical horizontal axis. Cars and trucks, however, can be defined as having all three asymmetrical axes (Hill 1982: 15). The *left* and *right* sides of a car or truck can only be assigned because these objects have a so-called canonical observer, i.e. a driver who takes up a typical position in a vehicle. It is this frozen *origo* (see this chapter, § 4.3)

which assigns to the vehicle its intrinsic orientation (Klein 1994: 181). However, objects like sofas, chairs and clothes such as pullovers and trousers are also often assigned *left* and *right* sides although their horizontal axis is not asymmetrical (see Wunderlich 1982: 15). With respect to these objects the frozen *origo* or canonical observer comes into play again because these objects are used by humans through physical interaction (e.g. sitting on a chair etc.). Objects such as cupboards and houses are used in different ways by humans, and therefore their intrinsic orientation is assigned in different ways. According to Klein (1994: 174) the assignment of FRONT to a cupboard or television is based on a so-called canonical face-to-face encounter: the front side of a cupboard or television is typically the side which is facing the language user and it is as if language user and object are having a face-to-face encounter. Other researchers would argue that the front of a cupboard or television is assigned due to its functional properties (e.g. the front is the side which is *used* etc.; see Ehrich 1985; Miller and Johnson-Laird 1976).

The notion of asymmetry seems to be crucial with respect to the assignment of names to inherent object features. However, according to some researchers other factors also play a role such as the use of canonical concepts and functional properties.

6.2. Full body analogy

In some Mesoamerican languages a *detailed body anatomy* of humans as well as animals is often assigned to objects (de León 1992; Goldap 1992; Levinson 1992, 1994). Apart from using more familiar body-part terms like ‘forehead’, ‘back’ and ‘flank’ in the assignment of names to object parts, Tzotzil²⁶⁷ additionally uses body-part terms like ‘nose’, ‘mouth/lips’, ‘buttock’, ‘leg’ and ‘ear’ (de León 1992: 578). In Tzotzil these body-part terms “are attributed as a *structured anatomy* with all its oppositions when the object has a canonical position and inherent orientation defined by the existence of a main vertical or horizontal axis. In this case the human and animal model is used to attribute parts to inanimate objects” (de León 1992: 679). For instance, a table has a ‘head’ (=tabletop), ‘legs’, ‘lips’ (=edges) and ‘ears’ (=corners).²⁶⁸ In Tzotzil the assignment of body-part terms to objects parts is, however, restricted to the canonical position of objects, and the choice of a specific body-part term is also conditioned by the *orientation of the main axis*. If the main axis is extended on the horizontal plane,

in analogy to the main orientational axis of animals, then the body-part terms ‘nose’ and ‘buttock’ are used to denote the ‘front’- and ‘back’-part of an object such as a car or a truck (e.g. ‘at the nose of the car’ = ‘at the car’s front’). For objects whose main axis is vertical (e.g. a cupboard, a shelf) – in accordance with the upright position of humans – the term ‘back’ is preferred to ‘buttock’ for the denotation of the ‘back’-side (de León 1992: 679). These body-part terms do not only denote object parts, but they have also developed into locatives, thus ‘nose’ or ‘buttock’ can be used to denote the ‘front’- or ‘back’-region of an object functioning as relatum. In Tzeltal, a closely related neighbour of Tzotzil, a similar set of body-part terms can also be used for the localisation of an object, providing that the theme is *in contact with* the relatum or object part of the relatum. This is not required for the usage of Tzotzil body-part terms (Levinson 1992: 18).

The difference between contiguity and non-contiguity between theme and relatum also demarcates a crucial step in the grammaticalisation process of body-part terms to locatives (see Heine 1989; Bowden 1992; Svorou 1994). This will be further discussed when dealing with body-part terms in Marquesan (see ch. 5, § 6.2).

By analogically mapping the human or animal body onto an object, the language user does not restructure the whole basic space, but only the relatum (Klein 1994: 181). Although the assignment of a full body analogy is the most extreme case of restructuring, Klein (1994: 181) evaluates it as follows:

Es wäre aber verfehlt, dies für etwas grundsätzlich anderes zu halten als das, was wir in den uns vertrauten Sprachen auch vorfinden. Eines ist der gewöhnliche Anschauungsraum und seine Struktur, ein anderes die Struktur des Raumes, mit dessen Hilfe wir Objekte und Ereignisse lokalisieren. *Letzterer ist immer eine subjektive Überformung des ersten* – auch wenn die einzelnen Sprachen und Kulturen sich hier unterschiedlicher Möglichkeiten bedienen oder diese Möglichkeiten in unterschiedlicher Gewichtung nutzen [emphasis mine]. [It would be a wrong to assume that this is principally something quite different than those (analogies) we find in well-studied languages. On the one hand, we have the ordinary perceptual space and its structure; on the other hand, we have the structure of space by means of which we localise objects and events. The latter is always a subjective restructuring of the former – regardless of the fact that specific languages and cultures make use of different possibilities or put a different emphasis on how to use them.

According to Klein the assignment of names to inherent properties of objects is based on and influenced by the language user's subjectivity. Cross-cultural and cross-linguistic variation is therefore based on one principle, namely how the language user *subjectively* structures his or her space. Within a particular speech community these subjective views are negotiated and become conventionalised.

7. Functional properties

According to some researchers functional concepts such as CONTAINMENT and SUPPORT are constitutive for the meaning of spatial expressions (in particular Vandeloise 1986; Garrod and Sanford 1989). For instance, the basic meaning of the German prepositions *in* 'in, inside' and *auf* 'on, on top of' are based on the functions of relata: *in* 'in, inside' is used with container objects, *auf* with supporting surfaces. Functional concepts alone, however, do not capture all uses and meanings of *in* and *auf* (see Nüse 1999:20). Furthermore, they are often not the primary meaning of spatial expressions (see Klein 1990:36).²⁶⁹

The notions of CONTAINMENT and SUPPORT are often identified as topological properties, along with INCLUSION, EXCLUSION, VICINITY and CONTACT. The notion of SUPPORT will be crucial in the discussion of 'up'/‘down’-expressions in Marquesan (see ch. 5, § 6.3.3.6). One basically has to distinguish between SUPPORT BY HANGING²⁷⁰ (e.g. *picture on wall*) vs. SUPPORT BY HORIZONTAL SURFACE (e.g. *book on table*). SUPPORT is a notion that interacts with the force of gravity and therefore means something like ‘preventing from falling on the floor or ground’. SUPPORT BY HANGING here means that an entity (e.g. a picture [=theme]) is in the state of hanging which is caused by another entity [e.g. a nail on a wall]). This entity is the actual support because it prevents the other entity (i.e. the theme) from falling onto the floor

8. Topological properties

The topological structure of the universal basic space (see this chapter, § 2) has been defined as locations which completely or partially include each other. *Complete* and *partial inclusion* is not only given when the relatum is a container object. For instance, the characteristic region of the theme can

be partially included by the characteristic region of the relatum when the theme is in contact with the outer surface of the relatum or when the theme is in the neighbourhood or vicinity of the relatum without being in contact with the latter. One therefore often defines INCLUSION, EXCLUSION, VICINITY/PROXIMITY and CONTACT as objective topological notions (Piaget and Inhelder 1971; Wunderlich 1982; Herweg 1989; Klein 1990, 1991; Nüse 1999; among others).

According to Klein (1990, 1991, 1994) these objective topological notions are subjectively restructured by the language user and therefore can vary from language to language (e.g. the concept of PROXIMITY). Spatial expressions are called topological if they encode one of the above mentioned topological notions as in the case of the German prepositions *in* ‘in’ (=INCLUSION), *an* ‘at, on’ (=CONTACT), *auf* ‘on’ (=CONTACT) and *bei* ‘at, next to’ (=VICINITY). Other typical topological expressions are for instance deictic expressions such *here* and *there* which express ‘proximity’ vs. ‘non-proximity’. Numerous studies have shown that spatial deictic terms can vary a great deal across languages: spatial deictic terms can encode the notion of ‘proximity’ and ‘non-proximity’ along with other notions such as visibility, height and environmental parameters as well as the relation to speech participants (see Weissenborn and Klein 1982: 3–10; Denny 1985: 111; Hyslop 1993: 27).

Topological expressions also encode functional notions such as CONTAINMENT and SUPPORT (see this chapter, § 7) and, according to Levinson (1996), they can have a complex relation to frames of reference as well as intrinsic features of objects which he illustrates for the English prepositions/prepositional phrases *on top of* and *under*. These topological expressions

... involve the vertical absolute dimension and often intrinsic features, or axial properties, of landmark objects. Thus proper analysis of the “topological” notions involves partitioning their features between noncoordinate spatial information and features of information distributed between the frames of reference.... Thus English *under* as in “the dust under the rug” compounds intrinsic (under surface, bottom) and absolute (vertical) information, and so forth. (Levinson 1996: 161)

A contact relation between theme and relatum is often described by expressions which encode somehow one of the topological notions (see stimuli of the *Topological Relations Picture Book*, appendix 2). Note that some researchers define topological expressions as being based on intrinsic features of objects (see Brown and Levinson 2000: 176). According to Brown and

Levinson (2000) the intrinsic frame of reference is basically topological. Brown and Levinson's labelling of intrinsic systems as topological might be based on two assumptions. First, so-called topological prepositions such as Eng. *in* or *on* and intrinsic systems both have in common that they rely on inherent features of objects: e.g. *in* is most typically used when the object is a container and has an 'inside'-region; likewise, *back* is used when the object has a 'backside' part. Secondly, their assumption is probably based on the observation that speakers of Tzeltal only use the names of objects parts, i.e. the intrinsic system, when the theme is in *contact* with the relatum, and hence their labelling of the intrinsic system as being topological (also Levinson 1992). It is however questionable if contact really is a crucial feature of topology. In languages which use absolute systems one could say that 'a crumb is on your northern cheek'. Although the crumb is in contact with the cheek we would hardly define the relation as being topological. Contact can be observed in basic topological relations such as complete and partial inclusion, but it does not necessarily mean that contact is a topological notion.

9. Psycholinguistic models of spatial reference

In this subsection I will discuss the psycholinguistic models of spatial reference, which underlie the usage of spatial expressions such as Engl. *in front of*, *in back of*, *left* and *right* and cardinal and landmark terms such as *east*, *west*, *north* and *south* or *upstream*, *downstream*, *seaward* and *inland* etc. as they are used in Marquesan.

Expressions such as *left* and *right* linguistically restructure the basic dimensional space, and are therefore often called dimensional expressions (Vater 1991; Wunderlich and Herweg 1991; Klein 1994). The psycholinguistic models I will present here basically explain how the language user defines where for instance *left* or *right* is, as Klein (1994: 170) comments: "Es genügt nicht, von drei orthogonalen Dimensionen zu reden, es muß irgendwie definiert sein, wo im Raum oben und unten ist, wo rechts und links, wo vorn und hinten." [It is not sufficient to talk about three orthogonal dimensions; somehow it has to be defined where up and down, right and left and front and back are in space.]

One of the first attempts to develop a psycholinguistic model of spatial reference was undertaken by Hermann (1990). Hermann developed a so-called *6H-model* which explains the usage of the German prepositional

expressions *vor* ‘front’, *hinter* ‘back’, *rechts* ‘right’ and *links* ‘left’. Hermann’s model excludes expressions of the vertical dimension such as *oben* ‘up’ and *unten* ‘down’ as well as the variability of different spaces, i.e. three-dimensional vs. two-dimensional spaces (Klein 1994: 170). His model is based on a very basic spatial configuration of speaker, addressee, theme and relatum in a *demonstratio ad oculos*-situation (Hermann 1990: 5–6). While Hermann’s model is applicable to all languages which use ‘front’-/‘back’- and ‘left’-/‘right’-expressions in a similar way as German,²⁷¹ it cannot generally be applied to languages which make use of quite different dimensional expressions based on local landmarks, such as MOUNTAIN and SEA, or cardinal directions such as EAST and WEST (Klein 1994: 172).

In psycholinguistic theory the production and comprehension of spatial expressions requires a mental co-ordination between visual perception and language. According to Carlson-Radvansky and Irwin (1993: 224) “perceptual cues about spatial relationships in the environment and words that describe those spatial relationships must be mapped onto some mental representation of space in order for communication to occur... . This interaction between perception and language requires the adoption of a frame of reference with respect to which spatial positions can be defined”.

Out of an immense cross-linguistic data base of spatial descriptions in non-Indoeuropean languages, collected by using a set of interactive verbal tasks (see ch. 2, § 3.2.2.1), the *Cognitive Anthropology Research Group* could identify three linguistic frames of spatial reference or spatial systems which are basically in line with previous findings in the psycholinguistic literature (Carlson-Radvansky and Irwin 1993: 224):

1. *Intrinsic systems* in which inherent or intrinsic features of the relatum (see this chapter, § 6) are used in order to assign an object region (e.g. *The ball is in front of the chair* [=‘at the chair’s front side’]).
2. *Relative systems* in which the position and orientation of the language user determines the assignment or projection of an object region to the relatum. For instance, an utterance like *the ball is left of the tree* is based on the viewpoint of the speaker (or addressee) alone.
3. *Absolute systems* in which some salient feature of the environment such as a prominent local landmark (e.g. a slope, a river, the sea) or a terrain-independent landmark (e.g. movement of the sun, prevailing

winds, fixed stars) are used to assign or project an object region to the relatum (e.g. *The ball is seaward/west of the tree*).

Although all three spatial systems can occur in one language, a language usually has a predominant use of spatial frame of reference (Baayen and Danziger 1993; Levinson 1996). Most languages, however, only employ one or two of these frames of spatial reference. Speakers of German, for instance, basically²⁷³ use the relative as well as the intrinsic frame of spatial reference, with a clear preference for the relative frame of reference when they refer to small-scale²⁷⁴ spatial arrays (Ehrich 1985; Ullmer-Ehrich 1979; Ehrich and Koster 1983). However, Senft (2001) has found that the preferred frame of reference in Kilivila, a Western Oceanic language, is strongly dependent on functional aspects, i.e. whether speakers intend to refer to a particular location or orientation of an object.²⁷⁵

Recent systematic research in various unrelated non-Indoeuropean languages has brought to light that there are a number languages which show a strong preference for absolute systems and therefore rarely employ expressions such as ‘front’/‘back’ and ‘left’/‘right’ on a micro-level, i.e. a tabletop space (Haviland 1979; Brown and Levinson 1993; de León 1994; Levinson 1996; Bickel 1997; Senft 1997; Pederson et al. 1997 among others).

Speakers of Marquesan who also preferably employ an absolute system for spatial description, use, however, all three spatial frames of reference (i.e. intrinsic, relative and absolute), so a detailed discussion of spatial frames of reference is essential for a thorough understanding of spatial reference in Marquesan. However, before turning to these spatial frames of reference in detail (see this chapter, § 9.2–9.2.3), I will discuss the parameters and (basic) conceptual structure which underlie these spatial systems by drawing on Hermann (1990).

9.1. Two-point versus three-point localisation

According to Hermann (1990), any spatial configuration involves three parameters, namely theme, relatum and *origo*.²⁷⁶ The *origo* is the zero-point of a two-dimensional coordinate system (=transversal and horizontal axes) with abscissa and ordinate. Hermann’s notion of coordinate system therefore refers to spatial relations on the horizontal planes only.

When producing utterances, it is the speaker who decides where to anchor the *origo*, and therefore the coordinate system. The speaker can

choose him- or herself, the addressee, a third person or an object²⁷⁷ as anchoring point of the *origo* and therefore of its coordinate system (Hermann 1990: 18). When the *origo* coincides with the relatum, we have a *two-point-localisation* as in the following English examples.

1. Two-point-localisations:

- (4.24a) *The ball is in front of me.* [*origo*=relatum=speaker].
- (4.24b) *The ball is in front of you.* [*origo*=relatum=addressee].
- (4.24c) *The ball is in front of Peter.* [*origo*=relatum=third person]
- (4.24d) *The ball is in front of the chair.* [*origo*=relatum=object].

In all four examples the ‘front’-region is assigned by an inherent feature of the relata, i.e. the speaker’s, addressee’s, Peter’s and the chair’s front side. The prepositional expression *in front of* is therefore used within the intrinsic frame of reference. In Bühler’s (1934) and Klein’s (1990) terminology the examples (4.24b–d) are *origo*-transpositions (see this chapter, § 4.3 and 6). Note that the *origo*-transposition onto an object is frozen (see frozen *origo* in section 4.3) and its usage is conventionalised, i.e. the naming of an intrinsic object side (e.g. the chair’s front side) is determined by convention alone and has to be acquired by children.

In Hermann’s so-called *three-point-localisations* the *origo* does not coincide with the relatum, i.e. all three parameters (theme, relatum and *origo*) are distinct in the localisation. Again the *origo* can be the speaker, addressee or a third person or entity²⁷⁸ as illustrated in (4.25).

2. Three-point-localisation:

- (4.25a) *From my point of view*[*origo*=speaker] *the chair*[theme] *is right of the table*[relatum].
- (4.25b) *From your point of view*[*origo*=add] *the chair*[theme] *is behind the table*[relatum].
- (4.25c) *From Peter’s point of view*[*origo*=3.ps] *the chair*[theme] *is left of the table*[relatum].

- (4.25d) *From the station*[*origo=entity*] *the church*[*theme*] *is in front of the park*[*relatum*].

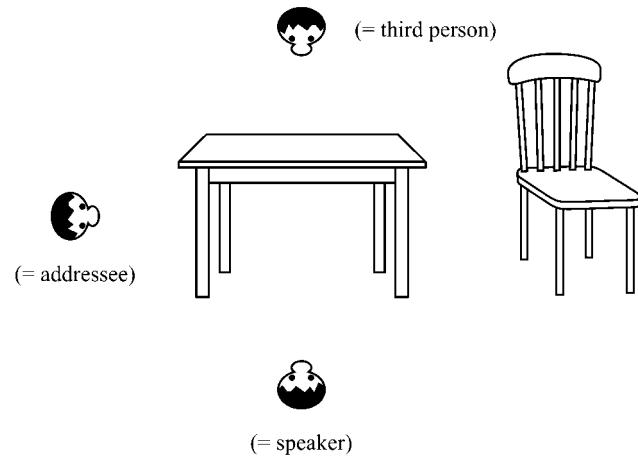


Figure 2. Three-point-localisation from the point of view of the speaker, addressee and a third person²⁷⁹

Depending on the position of the *origo* with respect to the theme and the relatum, the spatial description of the configuration changes. In (4.25a) the chair is from the speaker's point of view *behind*, in (4.25b) the same chair is from the addressee's point of view *in front of* the table etc.. These systems are called relative systems because the description of the spatial configuration is relative to the position and orientation of the language user. In relative systems we are also dealing with an *origo-transposition* namely that of transposing the actual *origo* and coordinate system of the language user (i.e. the speaker, addressee or third person) onto the relatum. Languages differ in how they transpose the actual *origo* of the language user to the relatum (see this chapter, § 9.2.2).

Note that the *origo* is normally not explicitly mentioned (e.g. 'from my/your/Peter's point of view') as illustrated in (4.25) and therefore an utterance like *Park behind the VW* as depicted in figure 3 can be ambigu-

ous because the addressee does not know whether the speaker uses *behind* in the intrinsic or relative frame of spatial reference:



Figure 3. Referential ambiguity of ‘behind’ (from: Vater 1991: 59, reprint with the kind permission of Heinz Vater)

Hermann’s distinction between two-point- and three-point-localisations avoids the discussion of the traditionally defined terms ‘deictic’ vs. ‘intrinsic’ perspective in the literature (Miller and Johnson-Laird 1976; Ehrich 1985; Levelt 1986). Levelt (1986), for instance, defines a deictic perspective as being *speaker-centered* and all other perspectives are intrinsic including those spatial relations in which the *origo* is centered on the addressee. Consequently an utterance like (4.24a) would be called a deictic perspective whereas (4.24b) represents an intrinsic perspective. Hermann (1990: 119–123) and Levinson (1996: 135–137) discuss in detail why these terms are problematic for psycholinguistic models of spatial reference.

Like Hermann (1990), Levinson (1996) makes a similar distinction between intrinsic and relative systems by defining them as *binary* (=intrinsic) versus *ternary* (=relative) spatial relations (Levinson: 136–137). Hermann’s model is well applicable to languages, which predominantly use intrinsic and relative systems. However, with respect to absolute systems Hermann’s model²⁸⁰ becomes problematic because one of his three parameters, namely that of the *origo* and its underlying coordinate system is of a different nature than that in relative systems and therefore has to be re-defined. However, we basically can define an utterance like *The chair is west of the table* as a three-point-localisation. The three parameters involved in the localisation are theme, relatum and fixed landmark (see this chapter, § 9.2.3 for details).

Levinson (1996: 145) classifies absolute systems as having binary and not ternary structure. However, a spatial description within the absolute frame of reference is a three-point-localisation because, much like relative

systems, the reference also involves a secondary reference point when assigning an object region to the relatum of a given spatial configuration. In absolute systems the secondary reference point is the landmark.

9.2. Spatial frames of reference

9.2.1. *Intrinsic frame of reference*

In intrinsic systems the projection of an object region is based on assigned inherent features of objects. The variation of feature-assignment across languages was already discussed in detail in sections 6.1 and 6.2. The usage of body-part terms as locatives, i.e. as those expressions which assign or project a spatial region from an object is characterised by certain stages of which adjacency between theme and relatum, or, more precisely, between the theme and the designated object part of the relatum seems to be the first major step in the grammaticalisation of body-part terms to be used as locatives (Heine 1989; Bowden 1992; Svorou 1994; Levinson 1996). This is for instance the case in Tzeltal (Levinson 1992, 1994). A further step in the process of grammaticalisation is defined by non-adjacency between theme and relatum, as in the case of Tzotzil (de León 1992). According to Heine (1989) and Heine, Claudi, and Hünnemeyer (1991) non-adjacency between theme and relatum is the basic categorical change from OBJECT to SPACE. Localising an adjacent theme at the relatum's 'face' basically refers to the relatum's object part and not an object region or location. Reference to an object part still belongs to the category OBJECT and not SPACE. The question which arises in this context is whether the localisation of a theme, which *has to be* adjacent to the object part of the relatum, is in fact a projected object region of the relatum as proposed by Levinson for Tzeltal (1996: 141). In other words: do body-part terms in the Tzeltal expressions *ta sti* 'at the mouth of x' and *ta schkin* 'at the ear/corner of x' (Levinson 1992: 18), which are frequently used to localise objects, denote locations (= "where"-category) rather than object parts (= "what"-category)? There might be considerable cross-linguistic variation and one has to argue from within the language system by examining which particular morphosyntactic features a body-part term has when used in adjacent spatial configurations between theme and relatum and how these morphosyntactic features are comparable to other locatives (see e.g. de León 1992).

Locatives used in the intrinsic frame of reference have the potential to be used as locatives in the relative frame of reference (Levinson 1996: 143). For instance, a body-part term ‘face’ can develop to be used in the relative frame of reference as demonstrated in (4.26):

- (4.26a) *The ball is at the face of the car.* (=intrinsic)
- (4.26b) *The ball is at the ‘face’ of the tree.* (=relative)
(i.e. ‘in front of the tree from the viewpoint a language user’)

This, however, is a further step in the grammaticalisation process which cannot be observed for all languages using body-part terms in the intrinsic frame of reference (see de León 1992).

In languages in which a full body analogy is used (see this chapter, § 6.2) it is however the question which body-part terms are to be used in a non-adjacent relation between theme and relatum. Thus, can we say ‘the ball is at the *ear* (=edge) of the car’ without the ball being in contact with the car’s edge? And if so, it is very hard to imagine, at least from the point of view of a speaker of German or English, that these body-part terms are likely candidates to be used in relative systems.

Languages such as Tzeltal and Tzotzil which use a full body analogy and project object regions on the basis of designated object parts do not have a system of oppositions such as languages like German and English which designate object parts on the basis of asymmetrical body axes (Levinson 1996: 141). In German and English, for instance, “the *front* ... may be used to anchor a ready-made system of oppositions *front/back*, *sides*, and so forth” (Levinson 1996: 141). As for Tzeltal “finding *front* does not predict the locus of *back*” (Levinson 1996: 141). Levinson concludes that coordinates which radiate out from the *origo*, i.e. the volumetric centre of the relatum, may or may not come in “fixed armatures”, i.e. they may be polar, as in the case of German and English, or they may not be polar, as in the case of Tzeltal (1996: 142).²⁸¹

According to Miller and Johnson-Laird (1976), languages which employ relative and intrinsic systems have a clear preference for the intrinsic system when the relatum in the spatial configuration is featured. This claim has been challenged by Ehrich (1985), Ullmer-Ehrich (1979) and Ehrich and Koster (1983) who showed that speakers of German have a clear preference for the relative system when describing complex spatial configurations including unfeatured and featured relata alike. Those studies have

analysed living room descriptions which are descriptions of complex spatial configurations containing featured as well as unfeatured objects. These studies suggest that the preference of the relative systems is due to the task: the subjects had to describe spatial scenes which were not known to the addressee and in order to present the spatial information in a *unified way*, i.e. not switching between the intrinsic and relative frame of reference, most speaker chose a deictic perspective, i.e. described the spatial configurations with respect to their own viewpoint by employing the relative frame of reference.

When speakers employ an intrinsic frame of reference only two parameters are involved in the reference, namely theme and relatum. According to Hermann's terminology we are dealing with a two-point-localisation. However, if relata are unfeatured, the language user has to involve a secondary reference point in relation to which the theme is localised²⁸² because the inherent features (or rather the lack of features) of the relatum are not sufficiently conclusive to assign an object region to the relatum. In the following two subsections I will explain how this secondary reference point is involved in the reference.

9.2.2. *Relative frame of reference*

In relative systems²⁸³ the assignment of a region to the relatum is dependent on the position and orientation of the language user who functions as secondary reference point (Ehrich 1985). When the language user changes his or her position the description of the spatial configuration changes too. Imagine that a ball (=theme) is between the speaker and a bowl (=relatum) and that the speaker would gaze into the direction of the ball and the bowl: a speaker of English would localise the ball as being *in front of the bowl*. If the speaker would walk around the array so that the speaker's gaze of direction and body has rotated a 180° degrees, i.e. the speaker views the configuration from the opposite side, the ball would now be localised as being *behind the bowl*. Thus the usage of *in front of* and *behind* are dependent on the *viewpoint* of the speaker or language user (Levinson 1996: 142). Note that in relative systems the description of a spatial configuration can also be dependent on the addressee or a third person (Hermann 1990). Thus the usage of relative systems are basically language user-dependent.

The language user's actual *origo* and its coordinates are transposed to or mapped onto the relatum. There are different ways of transposing the *origo*

with its coordinates onto the relatum (C.Hill 1982; Ehrich 1985; Klein 1994; Levinson 1996). That languages map coordinates differently onto the relatum was first observed by Hill (1982) by examining the uses of 'front'/'back'-expressions in Hausa, an African language. Instead of saying *the ball is in front of the bowl* as described above for English, a speaker of Hausa would refer to the same configuration by saying that *the ball is behind the bowl* (see Hill 1982: 20). As for speakers of (standard) English, the theme has to be positioned at the near side of the relatum in order to use the locative phrase *in front of*. In Hausa, however, the theme has to be on the far side of the relatum in order to use *gaba da* 'in front of' as illustrated in figure 4:

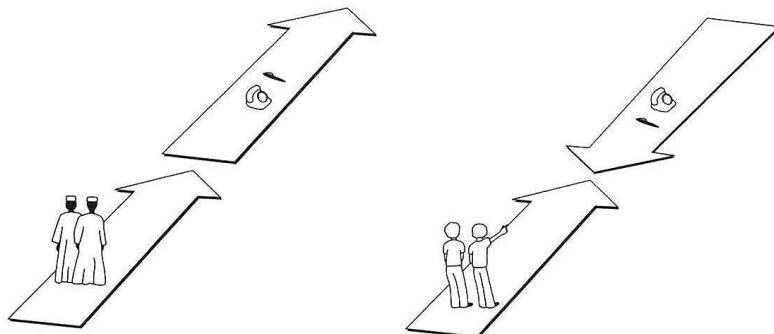


Figure 4. Hausa *gaba da* 'in front of' and English *in front of* (Hill 1982: 26–27, reprint with kind permission of John Benjamins Publishing Company, Amsterdam/Philadelphia.)

The difference between English and Hausa is due to how speakers map their FRONT/BACK-axis onto the relatum. Speakers of English map the FRONT/BACK-axis onto the relatum by mentally rotating it a 180° degrees. Thus the relatum's 'front/back'-region is at the side which faces the language user, i.e. at the near side. The 'back'-region is at the opposite side, i.e. at its far side. This mapping mechanism is called facing strategy (Hill 1982; Ehrich 1985; Klein 1994).

In Hausa, the FRONT/BACK-axis is also mapped onto the relatum, but it is not rotated as in English, so that the orientation of the FRONT/BACK-axis of the language user is retained. The language user defines the relatum's orientation with respect to his own actual orientation. Thus, an object

which is at the near side of the relatum is at the ‘back’ and an object which is at the far side of the relatum is in ‘front’. This strategy is called aligning strategy²⁸⁴ (Hill 1982; Klein 1994).

In dynamic configurations the aligning strategy is always preferred, even when the moving language user refers to static configurations: for instance, when the language user is riding a vehicle, speakers are likely to describe the object on the far side of another object as being ‘in front’ (Hill 1982: 23). However, speakers of (standard) English only switch from facing to aligning strategy when the configuration is dynamic. As for speakers of Hausa, perceptual factors such as occlusion also play a role in the choice of strategy. When the theme is occluded by the relatum, a speaker of Hausa switches from the aligning to the facing strategy (Hill 1982: 22). This might be generally true for languages that use ‘front’ and ‘back’ in the way speakers of Hausa do. I will refer to this usage occasionally as Hausa ‘front’ and Hausa ‘back’.

Hill emphasizes that in Hausa and English the difference between facing and aligning strategy only holds for the FRONT/BACK-axis. As for ‘left’/‘right’-expressions speakers of English and Hausa always use the aligning strategy. Thus, in English the FRONT/BACK-axis is rotated, but not the LEFT/RIGHT-axis. There are however languages such as Tamil which make a complete rotation of the transversal as well as the horizontal axes (Levinson 1996: 143). For instance, a Tamil sentence glossed ‘the cat is on the *left* side of the tree’ would refer to a configuration which would be expressed in English as ‘the cat is *right* of the tree’ (Levinson 1996: 143).²⁸⁵ Hill (1982: 24) has observed a complete rotation of the transversal as well as horizontal axes in Hausa-English bilingual speakers. Hill observes that bilingual Hausa-English speakers

...sometimes construct a facing field in interpreting locative phrases involving ‘left’ and ‘right’ ... speakers of non-standard dialects may overgeneralize and extend the use of this field to phrases involving ‘left’ and ‘right’. It may well be that such a facing field will, at some future point, come to have, even for speakers of standard English, a greater functional role in interpreting phrases involving ‘left’ and ‘right’ (such as role appears to have gradually evolved for ‘front’ and ‘back’ in Indo-European languages). (Hill 1982: 24)

According to Levinson (1996: 143) relative systems are an extension of the intrinsic frame of reference and “languages that do indeed have a relative system... also tend to have an intrinsic system sharing at least some of the same terms”. However, not all languages that have an intrinsic system also

have a relative system. According to Levinson the primacy can be regarded as a typological implication with respect to linguistic frames of spatial reference (1996: 143). This also explains the potential ambiguity between the relative and intrinsic frames of spatial reference which is often cited in the literature (Miller and Johnson-Laird 1976; Wunderlich 1982; Ehrich 1985; Vater 1991 among others). Levinson further concludes that “this may suggest that the intrinsic system is rather fundamental in human linguistic spatial description” (1996: 143–144).

Relative systems are not universally used throughout the languages of the world as assumed by some researchers (see Clark 1973; Miller and Johnson-Laird 1976). Levinson estimates that expressions such as *left* and *right* and *front* and *back* are missing from a number of languages (1996: 134).²⁸⁶ Instead, speakers of those languages often use an absolute system in small-scale reference, i.e. in a confined micro-level or table-top space (e.g. a table, within a house).

9.2.3. Absolute frame of reference

In absolute systems a region is assigned to the relatum in a given spatial configuration with respect to a fixed landmark. Like the language user in relative systems, the fixed landmark serves as a secondary reference point. However, relative and absolute systems are fundamentally different reference systems as described by Brown and Levinson (1993: 47):

To see the difference clearly, think of all of us on a revolving stage. As the stage goes round, our use of a relative system of description for the entities on the stage does not change, but all the descriptions would be constantly changing if we use an absolute system. For example, imagine that, on our revolving stage, there is a table set for a tea party – I am sitting facing the Queen at the ‘head’ of the table, with my friend Mad Hatter at my left, and Alice opposite him. When the table swings around, nothing changes on the English description; Alice is still opposite the Mad Hatter, and so at my right, the Queen still in front of me, and so on. But every spatial discrimination changes in the Guugu Yimidhirr²⁸⁷ description, for the Queen is no longer to the North, and the Mad Hatter to the West of me.

The difficulties of using an absolute system, in particular on a revolving stage, is that the language user has to *constantly keep track of the fixed landmarks* in relation to himself and the objects to which he wants to refer in a given spatial configuration (Levinson 1996: 145).

However, in absolute systems the position of the speaker, addressee or third person does not play a role as such. If speakers of a language use, for instance, cardinal direction terms such as *north*, *south*, *east* and *west* in order to express a spatial relation between theme and relatum on a table-top space, as illustrated in figure 5, the position of the speaker (= S) is irrelevant for the spatial description. If the language user would start moving around the configuration, for instance 90° degrees (see S₂ and S₃), the description of the spatial configuration bowl–bottle stays invariably the same. Thus, the reference is irrespective of the speaker's position and orientation:

- (4.27) *The fork is east of the glass.* (S₁ = S₂ = S₃)

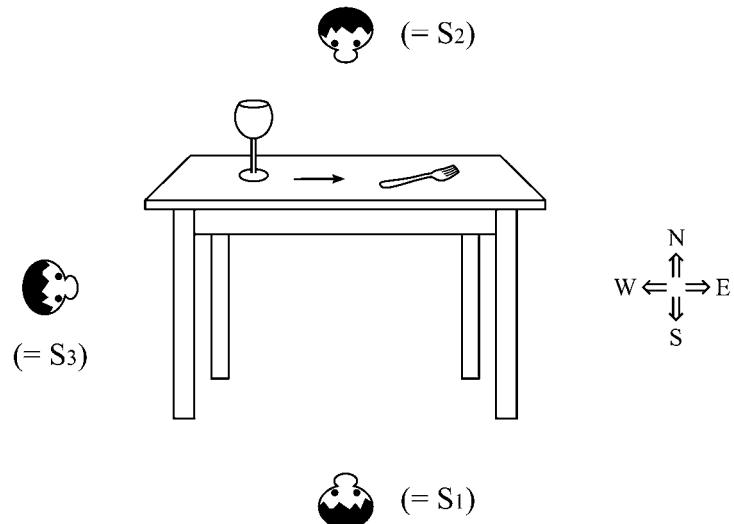


Figure 5. Using cardinal direction terms on a table-top space

In absolute systems the zero-point of the coordinate system is always centered on the relatum and the coordinates are fixed by the landmarks or cardinal directions (Levinson 1996: 145). If we define the zero-point of the coordinate system as *origo* or rather “origin”,²⁸⁸ as proposed by Levinson (1996), then the origin can always be identified with the relatum. Crucial in absolute systems is not the origin, but the fixation of the coordinates by landmarks or cardinal directions. Note that the language user can also function as the relatum in absolute systems, thus one can say *the fork is east of me/you*. In this case the zero-point is centered on the speaker or addressee.

Some researchers call this usage deictic (see Brown and Levinson 1993; Levinson 1996; Bickel 1997).

The role of the language user is difficult to define in absolute systems. Although the language user does not determine the localisation as in relative systems, he or she has to keep track of the fixed landmarks in relation to him- or herself *at all times and in all places*. The language user's role is that of a *perceiver* and *bearer* of knowledge. Using such a system means for the language user that he or she has to constantly make use of his or her cognitive map of the local environment: the speakers "require a cognitive overhead, namely the constant background calculation of cardinal directions, together with a system of dead reckoning that will specify for any arbitrary point P which direction P is from ego's current locus (so that ego may refer to the location of P)" (Levinson 1996: 146).

When speakers are deprived of their local environment and live in a new environment in which the landmarks upon which their absolute system is based are not available anymore,²⁸⁹ then absolute systems are fallible (Levinson 1992: 15).

Even in their own environment speakers need some kind of perceptual cues of the environment in order to use an absolute system (Levinson 1992: 15). These perceptual cues can be the landmarks themselves or they can also be the walls inside a house. In other words: when using an absolute system inside a house in which one might not be able to perceive the landmarks, the language user has to know which wall relates to which landmark.

In unfamiliar surroundings (e.g. an unfamiliar house) the language user has to be capable of positioning his or her own body in the unfamiliar surrounding in relation to the landmarks as well as relate the new environment (e.g. the walls of the unfamiliar house) to the landmarks upon which an absolute system is based.

Although absolute systems are often characterised as being non-egocentric²⁹⁰ systems in which the language user's position is irrelevant for the reference, the importance of the language user's role, however, becomes apparent when studying the acquisition of such an absolute system because children have to learn to keep track of their own current position in relation to the fixed local landmarks at all times (day and night) and in all places, i.e. in familiar and unfamiliar surroundings and this seems to be a difficult task for the children acquiring such an absolute system (Cablitz 2002, and see ch. 7, § 3.1.3).

There are different types of absolute systems (see Baayen and Danziger 1994) which is partly due to the type of fixed landmark or fixed bearing, and partly due to the degree of conventionalisation and abstraction. The most crucial distinction is between so-called *cardinal direction* systems and *local landmark-based* systems. A system of cardinal directions can be used beyond the boundaries of a local environment because the direction constantly remains the same. Cardinal direction systems therefore most likely evolve from recurring geophysical phenomena such as prevailing winds, the movement of the sun, fixed stars etc..²⁹¹ These phenomena are terrain-independent landmarks because they are not part of a local environment in which a certain speech community dwells (Pederson and Roelofs 1994: 71). Nevertheless they can be experienced through the perceptual organs.

Not all geophysical phenomena are terrain-independent landmarks. Recurring geophysical phenomena such as river streams and sea currents are not terrain-independent, but *local* landmarks because they are part of the local environment.

A local landmark-based system is based on topographical landmarks of a local environment such as mountains, rivers, lakes, trails and the sea. These systems do not maintain a constantly fixed direction once outside their local territory. In Balinese, for instance, one fixed absolute axis is determined by the central mountain and the sea. This SEA/MOUNTAIN-axis constantly changes when one circumnavigates the island (Levinson 1996: 146; Wassmann and Dasen 1998; Adelaar 1997):

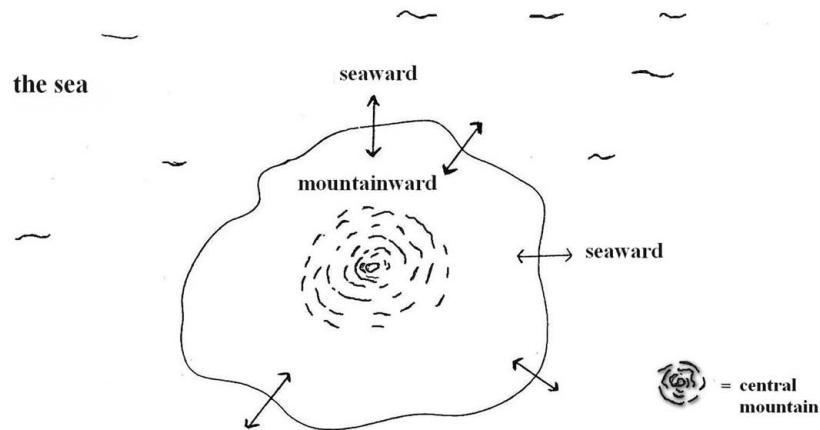


Figure 6. Non-cardinal SEA/MOUNTAIN-system

Thus ‘seawards’ and ‘mountainwards’ are (objectively) different directions in different villages around the island. A cardinal direction term, on the other hand, would always refer to the same direction regardless of whether one is in village A or village B, i.e. it can indicate an overall direction on a wider scale.²⁹² It has to be emphasized here that local landmark systems express nevertheless fixed directions *within* a particular local environment, i.e. ‘seawards’ and ‘mountainwards’ refer to fixed directions within *one particular environment* and therefore function in small-scale reference like cardinal direction systems.

According to Levinson (1996: 146), one crucial question with respect to absolute systems is how the coordinate system is construed. Some absolute systems are polar systems, i.e. based on opposing axes such as our cardinal systems of *north/south/east/west*. It is possible that in this system *north* (e.g. the *Northern star*) “is the designated anchor and *east, south, west*, found by clockwise rotation from *north*” (Levinson 1996: 146).²⁹³ In other systems, there is one main axis and a secondary axis²⁹⁴ that is lexically not differentiated on both ends of its coordinate, as in the case of Tzeltal and Belhare (Brown and Levinson 1993; Bickel 1997). The directional terms of this undifferentiated axis are often glossed as ‘traverse side’, ‘sideways’ or ‘across’. A lexically weakly specified axis is (often) due to the fact that there are no salient landmarks. In some languages these directions are often specified by place names of the neighbouring villages or principal towns as for instance in Tzotzil (see de León 1994).

There are also languages that employ mixed systems: e.g. one axis is based cardinal directions, and the other axis on local landmarks (Levinson 1996: 146). This is for instance the case in Balinese (Wassmann and Dasen 1998) and Longgu (Hill 1997) and a consequence of this is that the coordinates do not remain orthogonal when circumnavigating the island (Levinson 1996: 146).

Cardinal systems and local landmark-based systems are regarded as *truly directional* systems (see this chapter, § 12 for details and definitions). Apart from those two types of systems there are also *ad hoc* landmark systems in which a natural local landmark or some salient domestic landmark within a particular local environment (e.g. the church, a shop, the post office, TV satellite) is taken as reference point. In *ad hoc* landmark systems the usage of natural landmarks such ‘mountain’, ‘beach’ or ‘lake’ is not conventionalised, i.e. they are not used as systematically as truly directional systems (see this chapter, § 12). *Ad hoc* landmark systems which make use of natural salient landmarks are however likely candidates to develop into truly directional systems. Speakers of Kilivila for instance employ such an *ad hoc* landmark system (see Senft 2001).

10. Different types of location

10.1. Object regions and places

The literature on spatial reference and spatial conceptualisation often does not distinguish between *places* as in (4.28) and (4.29):

(4.28) *The Eiffel tower is in Paris.*

(4.29) *John has put the chairs in the garden.*

and an assigned *object region* as in (4.30) and (4.31):

(4.30) *The cup is on the table.*

(4.31) *A ball is lying in front of the tree.*

Both types of locations are often equally described to be locations, places or regions.²⁹⁵

In this study the term location is the general term for places and regions. Places, however, shall be distinguished from regions or, rather object regions. The reason to distinguish between places and object regions as distinct conceptual representations is partly motivated by the study of the spatial referential systems in Marquesan in which such a distinction is crucial and fundamentally contributes to a better understanding of what absolute systems are. Moreover, this distinction is also motivated by findings of cognitive²⁹⁶ and environmental²⁹⁷ psychology. Lynch (1960) was the first to show that places²⁹⁸ are fundamental elements in people's conceptualisation of an environment, i.e. their cognitive maps. In other words: places structure our spatial knowledge of an environment and cognitive maps are mental representations of how places are related to each other. Thus, places are locations which are an integral part of an environment or geographical space (e.g. the city of Hamburg is an integral part of Germany). In language, places are often designated by place names (e.g. *Nijmegen*) or landmark expressions (e.g. *sea*).

Spatial objects regions such as the 'on'-region of a table, or the 'in'-region of a bowl are quite a different type of location than places. They are defined with respect to objects and they are often assigned on the basis of our encyclopaedic knowledge of objects (see Nüse 1999; Klein 1990, 1991; Bierwisch 1988). Object regions that are assigned on the basis of inherent object properties are *inherently relational*. The assignment of an object region is however not exclusively determined by our object knowledge as illustrated above for relative and absolute systems.

Unlike object regions, places are not defined with respect to other entities. The notion of place, as it is used here, is defined as a specific and unique territory or *geographical place* which is *fixed* in physical space. Places can be bounded territories such as countries and towns, but they need not have clear boundaries as in the case of landmarks (e.g. *mountains*, *valleys*, *the bush*, *the coast*, *the sky*). Places are therefore absolute locations in the sense that they do not have to be defined with respect to another location or entity. The knowledge of where a place is precisely located is, however, stored in cognitive maps which are mental representations of how places (e.g. landmarks) are related to each other (see above).

One of the differences between places and object regions is that they represent locations of different sizes.²⁹⁹ As a consequence of this, the size of the search domain also differs. The localisation of an object or person in a place is more vague because the search domain is larger. The localisation of the theme in a place only tells us that the theme is located somewhere

within the boundaries of this place, but it does not tell us where it is exactly located within the boundaries of that place.

There are certain entities for which it is difficult to decide whether they are things or places, and thus it is difficult to decide whether we are dealing with the location of places or objects. This is in particular the case for man-made landmarks such as buildings and houses and natural landmarks such as rivers, lakes, mountains etc. which will be discussed in the next subsection. Furthermore, the discussion of landmarks is important for an understanding of absolute systems because they are used as secondary reference points to compute the location of objects on a table-top space (=small-scale referential level; see also section 11).

10.2. Landmarks

Local landmarks are an interesting ontological category because they hold an intermediate position between “being a first-order entity” (e.g. a thing) and “being a place” (Lyons 1977: 693). As for Lyons, the physical world contains discrete, three-dimensional and self-moving first-order entities such as humans and animals as well as entities which are not self-moving, but moveable such as objects. According to him it is difficult to determine, however, whether landmarks such as cliffs, mountains, lakes etc., are perceived and conceptualised as first-order entities (such as humans, animals and movable objects) or not (Lyons 1977: 693). He comments about landmarks as follows:

There are some first-order entities (=landmarks) that are either permanently or normally static, rather than self-moving or moveable: but *they will not count as first-order entities unless the language so classifies them* and they stand out from their environment with respect to their colour, shape or texture. Such aggregates, collections or conglomerations of matter as cliffs, mountains, clouds, lakes, and so on, may or may not be perceived and conceptualized as first-order entities: their status is ontologically indeterminate; and they may be treated differently by different languages. (Lyons 1977: 693; emphasis mine)

For Lyons, the linguistic analysis of landmark terms is interesting because it might be revealing of how speakers of a particular language classify landmarks of either having the ontological status of being things or places. In languages in which speakers preferably use an absolute system for spatial description it is evenmore interesting to see how the landmark terms

used in absolute system linguistically contrast with other landmark terms, i.e. those which are not used in the absolute system.

From the point of view of an environmental psychologist, one could basically argue that local landmarks are places (like towns, countries or other culturally defined territories) because they are fixed geographical entities which form part of our environmental knowledge.

It will therefore be interesting to see how speakers of Marquesan linguistically treat landmarks, which hold an intermediate position between first-order entities and places: e.g. do landmark expressions in Marquesan share more morphosyntactic properties with the class of place names, location-denoting nominals, or common full words. In other words: do landmark expressions behave linguistically more like common full words which denote first-order entities, or do they behave more like place names, i.e. that class of nominals which denote places. In the empirical part of this study it will be shown that names for local landmarks in Marquesan indeed hold – with respect to their morphosyntax – an intermediate position between location-denoting nominals (e.g. place names, local nouns) and those lexical items which denote first-order entities, i.e. common full words (see ch. 5).

Landmarks which are chosen as secondary reference points in absolute systems are always *salient features* of an environment: they are of great cultural significance in the lives of a particular speech community or they are important points of reference in human navigation for orientational purposes (Bowden 1992; Svorou 1994: 79). In Oceania seasonal winds, stars and sea currents were important landmarks for navigation on sea (Gladwin 1970; Lewis 1994). Marquesans also make use of geophysical phenomena such as winds and sea currents for navigation on sea. How they make use of them, in particular of sea currents is discussed in detail in chapter 7, section 2.2.2.

Geophysical phenomena like river streams, sea currents, winds or the movement of the sun are not *static* geographical entities such as mountains or lakes, but they are geophysical phenomena which are *recurring* and therefore comparable to fixed local landmarks such as mountains or lakes. In languages using terms of geophysical phenomena for spatial description (e.g. ‘towards sunrise/sunset’), these terms tend to be used like cardinal direction terms. However, they can also be used like local landmark terms, as it is the case in Marquesan. Geophysical phenomena like sea currents can become to be connected with certain places and their inhabitants (e.g. N-MQA *to ‘uka* ‘the upstream-people, i.e. the people inhabitating the up-

stream-place'), and thus function like other local landmarks. It will be discussed in chapter 7, § 2.2.2 how and why the 'upstream'/'downstream'-terms are used like a local landmark-based system.

There are basically two types of landmarks to be distinguished (Pederson and Roelofs 1994: 71), namely terrain-independent and terrain-dependent landmarks. Terrain-independent landmarks (e.g. movement of the sun, stars) differ from local landmarks because they cannot be experienced as concrete places and therefore it is questionable if they are of the same ontological category as local landmarks (i.e. being conceived as a place). Note that some geophysical phenomena (i.e. sea currents, river streams) are terrain-dependent landmarks:

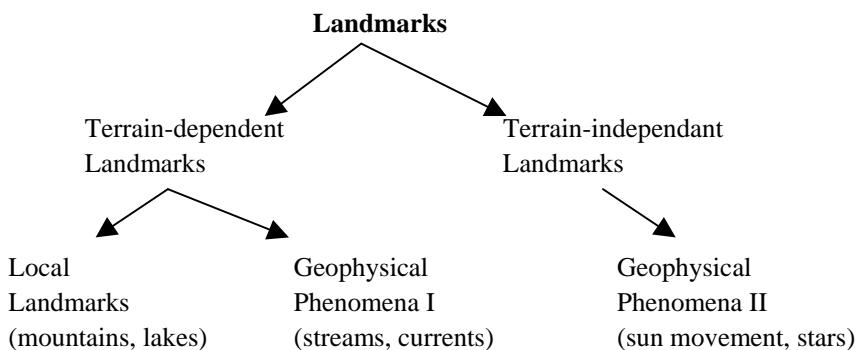


Figure 7. Different types of landmarks

Unlike the places of towns or the personal terrain of an individual, which have clear boundaries, local landmarks have a characteristic region or neighbourhood region around the landmark. Thus, the local landmark SEA includes the place of the sea as well as the boundary between sea and land, i.e. the shoreline. This concept of characteristic region makes landmarks comparable to objects which are also thought to have a characteristic region (see Miller and Johnson-Laird 1976; Wunderlich 1982, and see above section 4.2). The extension of this characteristic region of landmarks is vague and might vary.

In the literature on grammaticalisation of locatives it is often discussed how the lexical sources of landmarks develop into locatives (Svorou 1986, 1994; Heine, Claudi, and Hünnemeyer 1991; Bowden 1992). In Ewe, for instance, *dzi* 'heaven' is used to express ON-relations, in Papago *ca:gi'D* 'canyon' is used to refer to BETWEEN-relations etc. (Svorou 1994: 82).

The development of these landmark terms into locatives, as described by Svorou (1994), are not to be compared with landmark terms used in absolute systems. The type of landmark terms discussed by Svorou (1994) are polysemous and have undergone semantic change. For instance, the use of Papago *ca:gi'D* for BETWEEN-relations is a *metaphorical shift* of the use of *ca:gi'D* ‘canyon’.

The path of grammaticalisation of landmark terms to be used in absolute systems is rather a matter of *scale of reference* (i.e. the abstraction of a scale) and linguistic marking or construction type than of semantic change of landmark terms as such. I.e. landmark terms used in absolute systems do not need to undergo semantic change to be used as locatives (e.g. ‘the cup is *seaward of* the bottle’). The landmark terms of the SEA/MOUNTAIN-axis of the Balinese absolute system are directional terms which are always linked to the local landmarks SEA and CENTRAL MOUNTAIN, regardless of whether they refer to a place in the large-scale environment (e.g. the ‘sea’-region, i.e. the area around the beach) or of whether they are used on a small-scale table-top space (‘the bottle is *seaward of* the plate’).

However, this does not mean that landmark terms, which are used in absolute systems, cannot undergo semantic change at all. Words like ‘up’ and ‘down’ can become to be used for the denotation of the ‘uphill’- and ‘downhill’-region of a valley (see Brown and Levinson 1993; Bickel 1997). In fact, a number of languages use ‘up’- and ‘down’-expressions to denote inclinations of slopes, rivers, sea currents etc.. In this case we can speak of semantic change (Bowden 1997; Senft 1997 among others). The N-MQA ‘up’- and ‘down’-expressions have also undergone semantic change to denote the directional flow of sea currents (for details see ch. 5, § 6.3.2).

Many researchers call landmark terms used in absolute systems ‘directionals’ (see Bowden 1997; Ozanne-Rivierre 1997; Hill 1997 among others). One can argue that they acquire a directional meaning in contrast to simply denoting the place of a landmark. My analysis of directionality is closely linked to the abstraction of the scale of reference. I will argue that directionality is not part of the lexical meaning of landmark terms used in local landmark-based absolute systems. Directional readings, at least in the Marquesan case, are derived by *contextual factors*, namely by the use of landmark terms on a certain scale of reference. This will be discussed below (see this chapter, § 12 and ch. 5, § 6.3.3.2.2).

10.3. Partitioned regions in confined spaces

There is another type of location that I will call *partitioned region*. This type of location is based on partitioned regions of a confined space which can be a small location such as a room or table (=small-scale reference) or a larger local environment such as a valley or island (=large-scale reference).

Reference to this type of location can often be observed in living-room descriptions in which the speaker partitions a room into partial regions (see Ehrich 1985):

- (4.32) ... *wo man zur Tür reinkommt ja, dann ist also auf der rechten Seite bis zum Fenster geradeaus ist die Regalwand,*
 ‘... where one enters the door yeah, then there is on the right side up to the window a big shelf... .’ (Ullmer-Ehrich 1979: 81–82)

In small-scale reference, these regions are neither places nor regions of objects, but regions which are assigned by anchoring the zero-point of a coordinate system in the middle of a confined space such as a room, a table, the visual field of the speaker etc..

Speakers of Marquesan frequently refer to this type of location. They even have a distinct locative construction type in order to express this kind of location (see ch. 5, § 6.4).

On the large-scale referential level a local environment can also be partitioned into regional quarters, also called quadrants (Bickel 1997; Brown and Levinson 1993; Levinson 1996 among others). These quadrants basically function like places. Any linguistic community that uses absolute systems in large-scale as well as small-scale reference can divide their own local environment into quadrants, regardless of whether they use a cardinal or a local-landmark-based system (see e.g. Haugen [1987: 338] for Iceland).

11. Small-scale and large-scale reference

Most studies which describe the usage of an absolute system distinguish between small-scale and large-scale reference (Brown and Levinson 1993; de León 1994; Bowden 1997; Ozanne-Rivierre 1987, 1997; Hill 1997; Bickel 1997 among others).

In Tzeltal, for instance, the expressions ‘uphill’ and ‘downhill’ are used “routinely to describe the locations of things, either with respect to each other or with respect to protagonists or speakers, on both a large scale (*locations in the landscape*), and on a small-scale (*locations within, say, arm’s reach*)“ (Brown and Levinson 1993: 51; emphasis mine).

Like Brown and Levinson (1993) I will refer to the localisation of an object in a place as large-scale reference. The localisation of an object in an object region, on the other hand, is what I refer to as small-scale reference. Any object that is localised in arm’s reach (e.g. on a table, in a house or in the immediate surroundings of a person) is here defined as small-scale reference. The distinction between small-scale and large-scale reference is therefore based on the *size* of the locations: small-scale locations (e.g. object regions) tend to be smaller locations than places (e.g. landmarks or culturally bounded spaces such as towns, countries or territories of individuals).

However, the boundary between small-scale and large-scale reference is not always clear-cut because some relata such as houses and buildings can be considered as places as well as objects. Thus, the reference to the ‘inside’ or ‘outside’ of a house can be regarded as reference to a place or an object region.

The intriguing aspect about absolute systems is that names for landmarks can be used on a large-scale level, i.e. referring to the place of a landmark as well as on a small-scale level, i.e. referring to a region of an object (e.g. ‘the bottle is seaward of the bottle’).

One of the questions one might ask is if and how speakers of a language in which an absolute system is used express the difference between landmark terms used in small-scale reference and landmark terms used in large-scale reference. In other words: does a language have different markers or construction types in order to distinguish between the usage of landmark terms in large-scale and small-scale reference? And another question that might arise is if the language system represents landmark terms used on a large-scale differently from those used on a small-scale referential level?

Places have been defined as absolute locations that do not have to be defined with respect to another location or entity. As already mentioned above, place names and, to some extent, landmark terms are those linguistic expressions which typically denote places. Place names belong to the class of proper nouns, which are often characterised as not being able to take possessive attributes (and if so the usage is very restricted). So-called first-order entities, represented by the class of common full words, on the

other hand, can take possessive attributes, i.e. words referring to first-order entities can be part of or ‘possessed’ by someone or something (e.g. in part-whole-relationships).

When analysing the different kinds of location-denoting nominals and their linguistic constructions the size and the type of location (places vs. landmarks vs. object regions) do play a role. Both parameters are interrelated: the type of location is largely dependent on the size, or scale of reference, i.e. whether we are dealing with large-scale or small-scale reference. Object regions are those locations which are bound to the small-scale level, whereas places (e.g. towns, territories) are bound to the large-scale level. Object regions are locations which can only be defined with respect to an object and the nature of these locations is overtly relational. Thus, these locations are part of our object knowledge. Places are locations which are part of our environment, and they are therefore part of our environmental or geographical knowledge. Landmarks which are also part of our geographical knowledge are, however, an *ontological inbetween-category* of being neither thing nor place. Two aspects are interesting with respect to landmarks. First, it is interesting to examine how speakers of a particular language might linguistically treat this inbetween-category of landmarks. And secondly, in language communities where speakers preferably use an absolute system for the spatial description of small-scale spatial arrays (e.g. ‘The apple is *mountainward* of the bottle’), landmark terms are used to refer to object regions and not places. This is an interesting combination of type of location (i.e. object region) and linguistic expressions, i.e. landmark term which are based on our geographical knowledge of our environment. The interest of a linguist is, of course, to examine the linguistic constructions in which this usage of landmark terms occur. Moreover, one would like to investigate if and how the linguistic constructions of landmarks terms used in absolute systems (on a small-scale level) differ from other spatial expressions denoting regions of objects (e.g. ‘on’-region of a table as expressed by Eng. *on top of* in ‘The cup is *on top of* the table’).

12. Direction and goal

The term *directional* is widely used in the literature on spatial reference.³⁰⁰ It is used for constructions expressing motion towards a goal or from a source, or for static location in a particular direction (Bowden 1997; Hyslop 1999). We therefore have two types of directionality, namely *dynamic* and

static directionality. Dynamic directionality is expressed by motion towards a goal or from a source, whereas static directionality is expressed by a non-moving object which is facing or pointing towards a certain entity (i.e. object, person, place, landmark etc.). The goal or source can be an object, a person, a place, a local landmark or an event. Here are some examples:

1. Dynamic directionality:

- (4.33) *John puts the ball **on the table**.* (=motion towards a goal [=object])
- (4.34) *Peter comes **out of the kitchen**.* (=motion from a source [=place])
- (4.35) *Teiki is going **to Munich**.* (=motion towards a goal [=place])
- (4.36) *Tahia is going **to the party**.* (=motion towards a goal [=event])

2. Static directionality:

- (4.37) *The ball **is lying seawards**.* (=local landmark)
- (4.38) *The head of the cow **is facing towards Amsterdam**.* (=place)
- (4.39) *The tail of the pig **is turned towards you**.* (=person)
- (4.40) *Hans **is looking into the garden*** (=adhoc landmark).

The term directional as used in the literature is problematic for some of these constructions (Klein 1991). In the following I will take up the criticism of Klein (1991) and discuss why the term directional can only be used for some of the above mentioned directional constructions (see [4.33–40]). In fact, the term directional is only appropriate for some static directional constructions (see further below). Moreover, it will be discussed whether or not the notion of direction requires a concept of path.

I will argue in the following analysis that direction is an *abstraction* of the notion of goal and that *true directionality* only exists if one direction is defined by an opposing direction (see O’Keefe 1996). This analysis implies that absolute systems are truly directional systems. We will see, however, that absolute systems need to be used on the small-scale level in order to be truly directional systems (see below).

Prepositions such as Ger. *nach* ‘to’, *zu* ‘to’ and *aus* ‘from’ are often said to encode directionality.³⁰¹ According to Klein (1991) the term directional is misleading because the German prepositions *nach* ‘to’ und *zu* ‘to’ do not express a direction:

Es gibt beliebig viele Richtungen mit dem gemeinsamen Zielort “Garten” oder “Heidelberg”. Um eine Richtung zu charakterisieren, sind zunächst einmal zwei Ortsangaben erforderlich (von denen eine möglicherweise dem Kontext zu entnehmen ist). Es genügt aber nicht, zwei Orte anzugeben: es muß ferner gesagt werden, welcher von beiden Zielort und welcher Ausgangsort ist.... Was “von” und “nach” leisten, ist lediglich anzugeben, daß es sich bei dem betreffenden Ort um einen Ausgangsort bzw. um einen Zielort handelt; ... Statt von “Direktionalen” sollte man daher allenfalls von “Destinativen” reden. (Klein 1991: 89) [There are several different directions which all have the same goal location, namely “garden” or “Heidelberg”. In order to specify a direction, we first of all need two location specifications (of which one probably has to be inferred from the context). However, it is not sufficient to simply designate two locations: we need to say which of the two is the goal location and which is the source location.... What *von* “from” and *nach* “to, towards” simply encode, is that we are dealing with a source or goal location.... Instead of talking about “directionals” we should rather talk about “destinatives”.]

Crucial in the analysis of Klein (1991) is that these German prepositions *nach* ‘to’, *von* ‘from’ etc. express that the relatum is the goal or source location of the theme, irrespective of whether the theme will enter or exit, is about to enter or exit, or has already entered or exited the goal or source location. Contrary to Bierwisch (1988), Klein’s analysis does not require a path functor for the semantic analysis of directional constructions:

Eine eigene Kategorie “Weg” zur Beschreibung direktionaler Konstruktionen ist damit nicht erforderlich. Dies besagt natürlich nicht, daß der Begriff “Weg” kein sinnvoller sei. ... Aber dieser Weg wird nicht weiter explizit gemacht, obwohl unser Weltwissen über die Möglichkeiten, ein Buch auf einen Tisch zu legen, uns darüber das eine oder andere sagen mag. Gesagt wird jedoch nur, daß das Thema im Verlauf des Intervalles, über das hier etwas gesagt wird, zunächst an einem Ort ist, dem Ausgangsort (dieser kann implizit bleiben) und dann an einem andern, dem Zielort. (Klein 1991: 89) [We therefore do not need a path-function in order to describe directional constructions. This does not mean that the notion of “path” is a not sensible one.... But this path is not further made explicit, although we know through our world knowledge that the action of putting a book on a table might be quite revealing with respect to the possibilities we have. The only

thing, which is expressed, is that the theme, about which we say something, is at one point in time at a source location (this location might stay implicit) and then (at a different point in time) at a goal location during a particular time interval.]

Wunderlich and Herweg (1991) and Kaufmann (1989) also analyse directional constructions without a path functor because these constructions do not express a path in the direction towards a goal or away from a source, but they merely mark *a punctuated change of location* which either expresses the goal or source of the motion event. Kaufmann (1989: 132) and Wunderlich and Herweg (1991: 775) analyse directional constructions by applying a CHANGE-operator³⁰² that marks the change of location. Crucial in their analysis is that the theme *changes the location*.

A finely structured path concept is not necessary, but only the interval points 0,1. The interval points represent a kind of *dimension* on which the punctuated change of location takes place.

Klein's and Wunderlich and Herweg's analyses apply in particular to dynamic directional constructions (see [4.33–36]) which are frequently used in Indo-European languages.

A problem in their frames of analysis are e.g. verbless attributive constructions such as *die Strasse in den Wald* ‘the street (leading) into the forest’, constructions with perception verbs (see [4.40]) and other *static* directional constructions (see [4.37–39]). In the following I will explain why the analyses of Klein (1991) and Wunderlich and Herweg (1991) are only applicable to certain directional constructions. I will first turn to verbless attributive constructions.

Klein's analysis does not satisfactorily apply to themes which are *spatially extended* like roads, ropes, pipelines etc.:

- (4.41a) ***der Weg***[theme] *auf den Berg*[relatum] (Bierwisch 1988)
 ‘the road onto the mountain’

- (4.41b) ***die Pipeline***[theme] *nach Russland*[relatum] (Bierwisch 1988)
 ‘the pipeline to Russia’

These attributive constructions are problematic because according to Klein's analysis only part of the theme is localised, namely at the goal location ‘mountain’ or ‘Russia’. Moreover, verbless attributive constructions such as (4.41) cannot be analysed without a path functor because spatially extended themes implicitly denote a path (Bierwisch 1988: 15). Evidence

for Bierwisch's analysis is that themes without a maximal horizontal axis cannot be constructed with a directional attribute:

- (4.42) **der Stein auf den Berg* (Bierwisch 1988: 15)
 *the stone onto the mountain

Bierwisch (1988: 15) proposes a concept of path without a temporal parameter³⁰³. This path concept corresponds to the 'path concept 2' as discussed in section 4.4.1.

In Wunderlich and Herweg's analysis attributive constructions and also constructions with perception verbals (see [4.40]) are less problematic. In their frame of analysis, two elements are crucial: the concept of Dimension and the CHANGE-operator (1991: 775). In constructions like (4.41) the theme itself is the dimension. According to them, only that part of the theme in (4.41) is localised which has entered the region of the relatum (Wunderlich and Herweg 1991: 776).

Wunderlich and Herweg's and Klein's analyses are not applicable to static directional constructions with positional or directional verbals such as *lie* or *face* which are used to describe in particular small-scale spatial configurations. Imagine that there are e.g. several objects on a table of which a ball is lying in the direction of the landmark SEA and a speaker who uses an absolute system, which incorporates the landmark SEA, could refer to the ball by saying:

- (4.43) *The ball is lying seawards.* (=small-scale reference)

In (4.43) the theme is not spatially extended, nor does 'seawards' express the goal location nor a change of location to the place of the landmark SEA. We therefore can neither apply Wunderlich and Herweg's CHANGE-operator, nor can we analyse the directional constructions as proposed by Klein (1991), i.e. as the source or goal location of the theme. For static directional constructions such as (4.43) and (4.37–39) Klein's term destination (1991) is therefore not appropriate because there is no destination expressed in the directional construction in (4.43), i.e. the theme cannot be localised at the goal location at any point in time.

The usage of landmark terms in small-scale reference as demonstrated in (4.43) is not unproblematic with respect to some general assumptions about localisation (see this chapter, § 4.2). The localisation of the theme in (4.43) is problematic because it cannot be considered as a relation of inclusion

(see this chapter, § 4.2). In (4.43) the theme (=the ball) is localised with respect to the landmark SEA, which is clearly the relatum, but the theme is not included in the characteristic region of the landmark SEA. The problem is not solved by analysing directional constructions as in (4.43) by using Talmy's notion of prospect path (1996: 218):

- (4.44) *The cliff wall faces toward the valley.*

Nor can we analyse them in the same way as directional constructions with perception verbals ('path concept 3', see this chapter, § 4.4.1):

- (4.45) *John is looking towards the church.*

In (4.44) the location of the theme (=the cliff wall) is not localised as such, but the utterance only makes a statement about the theme's *orientation*, or, more precisely, how an inherent part of the theme (i.e. the wall of the cliff) is oriented towards another entity. In (4.45) it will be even harder to state what the theme precisely is. We would probably be inclined to say that the theme is John's gaze than rather himself as a whole person. And again, (4.45) does not express the theme's location, but rather the orientation of John's gaze. (4.43), on the other hand, does not express the theme's orientation, but its location (or *eigenort*). This is the interesting peculiarity of absolute systems.

In cognitive and psycholinguistic theories of space direction seems to be (mentally) represented as 'vectors' (O'Keefe and Nadel 1978; O'Keefe 1996), 'axes' (Carlson-Radvansky and Irwin 1993; Landau and Jackendoff 1993) or 'angles' (Brown and Levinson 1993; Levinson 1996). According to O'Keefe (1996: 281) directions are "calculated from the spatial relationship between two or more objects or places, which specify the origin and termination ... of the vector or a point along a vector". The theme is localised between the 'origin' and 'termination' of the vector or axis. The relatum is the termination point of the vector or axis (e.g. a landmark). Thus, in clauses like (4.43) landmark expressions do not refer to the place (or characteristic region) of the landmark, but only to a point on the imaginary line or vector which is directed towards the place of the landmark. Landmarks or places merely serve as reference points which fix the (mental) axes (or vectors, angles).

Klein (1991) defined direction as the *fixation between two locations*. He argued that German expressions like *nach* 'to' are not directionals because

nach linguistically only encodes goal, but not goal *and* source,³⁰⁴ thus we cannot say that Ger. *nach* is inherently directional. Moreover, *nach Amsterdam* ‘to Amsterdam’ can have various different sources, thus *nach Amsterdam* can express various different directions (see above).

In the case of absolute systems we can speak of directionality. However, it is not the lexical meaning of landmark terms (used in absolute systems) as such which is inherently directional, but the directional reading is derived by other factors. According to my analysis directionality is an abstraction of the concept of goal and that this abstraction is basically brought about by the abstraction of the scale of reference and by a conventionalised use of landmarks as part of a spatial system. Thus one can speak of directionality, if

- a) expressions of *permanently fixed* locations (e.g. landmarks) are used in small-scale reference (⇒ abstraction of the scale of reference, i.e. from large-scale to small-scale);

And, more importantly, if

- b) two permanently fixed locations *form an axis* (e.g. SEA/MOUNTAIN-axis) which can be regarded as the ‘fixation between two locations’ (Klein 1991).
- c) The corresponding landmark terms become *conventionalised* and form part of a *system of directional oppositions*, i.e. develop into a *system* of spatial reference (⇒ absolute system). In other words: an expression such as ‘seawards’ expresses true directionality only if there is a semantically opposing linguistic term which refers to the opposite direction (e.g. ‘mountainwards’).

It has been noted by O’Keefe that “for every direction there is an *opposite* direction” (1996: 280; emphasis mine). This aspect is in fact crucial for my analysis of directionality. This is also why *adhoc* landmark systems are not truly directional systems. The classification of *adhoc* landmark systems is difficult because they are neither truly directional systems nor can they be classified as a system of destinatives in the way defined by Klein (1991). This will be elaborated further below. Before turning to this crucial point of *systematic opposition*, one further aspect has to be pointed out with respect to directionality. This will also emphasize the role of scale of reference in the analysis of directionality.

The expression of directionality is not only restricted to static spatial configurations, but we can also speak of directionality when referring to dynamic configurations. Again this is due to the small-scale referential level. Dynamic configurations on a small-scale level are, for instance, elicited in the Route Description tasks (see methodology ch. 2, § 3.2.2.1). In those tasks objects are moved within a stylised landscape or village on a table-top space (=small-scale level). We find the following typical instructions referring to the movement of toy objects on a table in my data:

- (4.46) *Ua heke ananu ia 'i tai e, tihē ma tai o te=nei~ te=nei mea 'ere'ere e aha oti, e ha'e.*
 TAM descend always 3.sg LD sea EMPH arrive PREP sea POSS ART=Dem ART=Dem thing blue TAM what perhaps TAM house
 ‘He is constantly going seawards, (he) arrives seaward of this~ this blue thing, whatever it might be, (it) is a house.’ (RD-T/M: 076)

We can therefore state that the notion of directionality is not only confined to static configurations, but is valid for static and dynamic configurations alike. Dynamic configurations on a large-scale level are ambiguous with respect to directionality. An utterance like (4.47)

- (4.47) *E heke a'a te 'enana 'i tai.*
 TAM go.seaward Dem ART man LD sea
 ‘The man is going seawards.’

is ambiguous because we do not know whether the speaker only refers to a particular walking direction, or whether he is actually referring to the goal, i.e. the place of the landmark SEA. This example demonstrates that we can get a directional reading for dynamic configurations in large-scale reference as well, but this reading has to be inferred from the context. We can state that large-scale reference allows both readings, i.e. referring to a direction as well as a goal or place. Small-scale reference, on the other hand, only allows the directional reading.

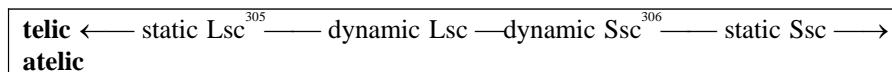
If the usage of landmark terms in large-scale reference basically refers to a place or goal, and the usage of landmark terms in small-scale reference (=absolute system) only refers to a direction, we can interpret direction as an abstraction of the notion of goal.

To summarise: the expression of direction as well as goal in large-scale reference only holds for dynamic, but not for static configurations. Static and dynamic small-scale configurations, on the other hand, cannot express a goal, but only a direction. Whether an utterance referring to a dynamic configuration on the large-scale level derives a directional reading can only be inferred from the context.

Table 12. Direction and goal in small-scale and large-scale reference

	static large-scale	dynamic large-scale	dynamic small-scale	static small-scale
direction	—	√	√	√
place or goal	√	√	—	—

According to the above analysis directionality is therefore inherently *atelic* because the theme does not reach the goal (e.g. the place of the landmark). Destinatives, on the other hand, are potentially *telic*.



Although we might have this telic/atelic distinction between a directional and destinative reading, the landmark or place always remains the relatum in relation to which the theme is localised, regardless of whether the theme is included in the ‘characteristic region’ of the relatum (i.e. the landmark) or not.

That landmark expressions and place names only derive a directional reading if they are part of a ‘linguistic system of directional oppositions’ will be discussed with respect to so-called *adhoc* landmark expressions. Languages like Kilivila (Senft 2001) make extensively use of *adhoc* landmarks in spatial descriptions of small-scale spatial arrays, in particular when referring to the orientation of object or body-parts (e.g. the pig’s front/back etc.):

- (4.48) *The pig’s head is (turned) towards the shore.*

These *adhoc* landmarks can be based on different kinds of entities such as objects, places, buildings, animate beings (i.e. animals and persons) and also (non-conventionalised) local landmarks (e.g. the shore, the bush). *Adhoc* landmarks are salient entities (local landmarks as well as objects)

within the *immediate* local environment (e.g. a valley, a village). Here is an example from the spatial description of a (static) small-scale spatial array of a Kilivila speaker:

- (4.49) ... *ma=na=kwa kali e=tota poa=la e=la o laodila,*
 Dem=Dem=CP.thing fence 3.sg=stand back=its 3.sg=go LOC bush
mata=la e=mwa o kwadeva... . (Senft 2001)
 eye=its 3.sg=come.to LOC shore
 ‘... this fence it is standing, its back goes *to the bush*, its eyes come
 to the shore... ’

Unlike landmark terms of truly directional systems, *adhoc* landmark expressions are *non-conventionalised* spatial expressions because they are chosen *arbitrarily* by the speaker as reference point. In the mind of the Kilivila islanders the local landmark BUSH is not defined as having an opposing direction. In other words: the landmark BUSH does not form a fixed axis with another salient landmark, as for instance with the SHORE. The question that now arises is why *adhoc* landmark expressions cannot be considered as being truly directional. Like other static directional constructions discussed above (see [4.37] and [4.43]), *adhoc* landmark expressions also denote ‘static location in a particular direction’ (Bowden 1997: 255). Although this function of *adhoc* landmark expressions is characteristic of landmark terms in truly directional systems (e.g. in Balinese ‘seaward/mountainward’) they cannot be considered as being truly directional for the following reason. *Adhoc* landmark expressions are not a system of truly directionals because the direction towards a certain landmark is not fixed and determined by an opposing direction. In truly directional systems, however, the directions towards the landmarks are fixed because, as I will argue, they are part of a *linguistic system of directional oppositions*. In other words: *adhoc* landmark systems do not have a fixed coordinate system. Fixed coordinates are the crucial element of a truly directional system. The SEA/MOUNTAIN-axis in Balinese is for instance such a fixed coordinate. The Kilivila *adhoc* landmark expressions *o laodila* ‘to the bush’ and *o kwadeva* ‘to the shore’ (see [4.49]) do not form a fixed axis of opposing directions although the position of the landmarks SEA and BUSH within the local environment of Kilivila speakers would invite to do so in particular for those Kilivila speakers who dwell along the coastal strip of Kiriwina island and therefore walking to the shore or to the bush are two opposing walking directions. In this respect the Kilivila *adhoc* landmarks SHORE and BUSH and the Balinese landmarks

SEA and CENTRAL MOUNTAIN are comparable. However, there is a difference in usage. A speaker of Kilivila can use *o kwadeva* ‘to the shore’ when he or she is in a village and wants to walk to the shore; but a Kilivila speaker can also use *o kwadeva* ‘to the shore’ when he or she is in canoe on sea and wants to paddle towards the shore.³⁰⁷ In constructions with *adhoc* landmark expressions the direction indicated by the landmark SEA is not fixed: there can be several different and even opposing directions around the *adhoc* landmark:

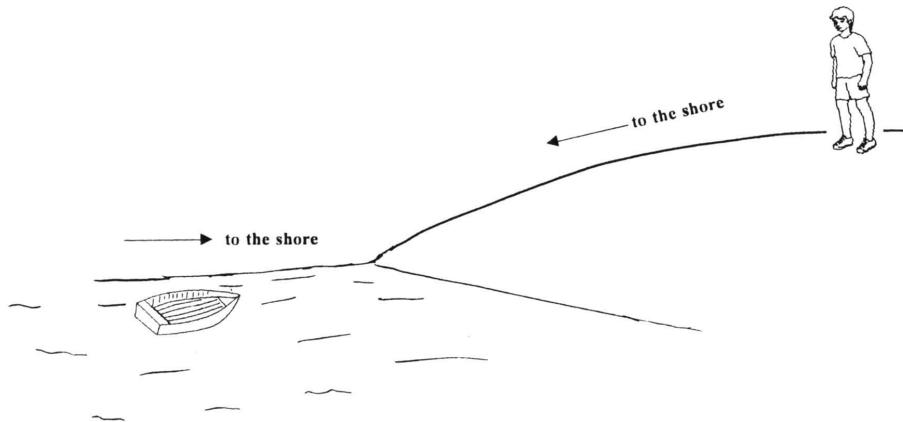


Figure 8. *Ad hoc* landmark system

Klein’s term *destinative* (1991) would be more appropriate for *adhoc* landmark expressions because they do not determine a particular fixed direction. This makes *adhoc* landmark expressions comparable to expressions such as *nach München* ‘to Munich’. The problem of using the term *destinative* for *adhoc* landmark expressions is that we are dealing with static configurations on a small-scale referential level, thus *o kwadeva* ‘to the shore’ does not express the goal location. Therefore it might be more appropriate to call *ad hoc* landmark systems *quasi-directional* systems. However, in the way *adhoc* landmark expressions are used in spatial reference (Senft 2001) they can be analysed like directional constructions with perception verbs because they express *orientation* and not location (or *eigenort*) of the theme.

Landmark expressions in truly directional systems, on the other hand, determine and restrict the direction due to the fixed coordinate axis. Speakers of Balinese would use ‘seaward’ when walking towards the shore, but they would use ‘mountainwards’ when rowing a canoe towards the shore:

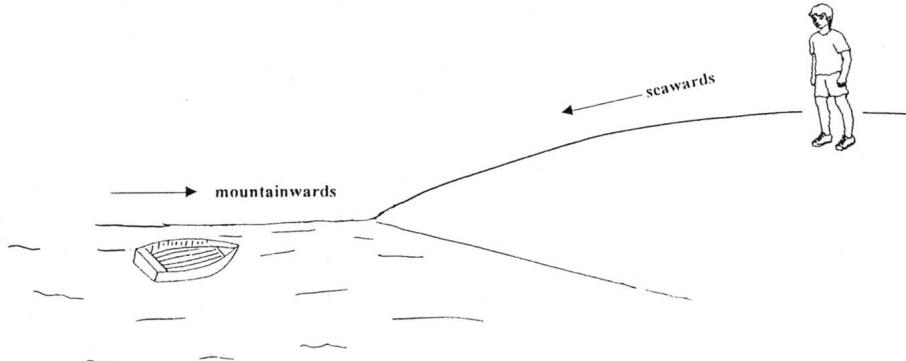


Figure 9. A truly directional system

However, this only proves partly that Balinese ‘seawards’ and ‘mountainwards’ are in a truly directional way because these usages could be easily understood as the theme moving towards the goal location SEA or CENTRAL MOUNTAIN (=large-scale reference). The notion of true directionality is more evident when we imagine the following situation: a person is on a bay in his canoe which is moving away from the shore. A speaker of Balinese would use ‘seawards’ although he is already situated amidst the landmark SEA. If the canoe would move in the opposite direction, then ‘mountainwards’ would be used again.

Any landmark expression can potentially develop into a directional (see Heine, Claudi, and Hünnemeyer 1991; Bowden 1992; Svorou 1994). A first step in the process of abstraction is that they are not only used for dynamic but also for static localisation (e.g. ‘The cow is descending seawards’ vs. ‘The cow is lying/facing seawards’), something we can also observe in the usage of Kilivila *adhoc* landmark expressions. The way *adhoc* landmark systems function, emphasizes the fact that truly directional systems are only expressed through a *system of directional oppositions*.

It was briefly mentioned above that absolute systems probably require an abstract concept of path, i.e. that of a mental vector, to analyse their usage. Languages which use a directional system in small-scale reference, frequently use the same source expression in large-scale reference and it is the question whether the usage of landmark terms in large-scale reference also require a concept of path for their analysis. According to Haugen (1987) Icelandic cardinal terms which are used in small-scale and large-scale reference alike (*norðr* ‘north’, *sudr* ‘south’, *astr* ‘east’ and *vestr* ‘west’), are in large-scale reference determined by the goal and not the

actual direction in which a moving theme might be localised. When these cardinal terms are used in large-scale reference which Haugen calls ultimate orientation (1969: 334), south or north means that the goal of a travelling person is the southern or northern part of the island, but it does not mean that south or north are the actual moving directions of the traveller. When someone goes south, he or she might first go north, east and west before arriving south. goes north, east and west before arriving south. The use of cardinal terms in large-scale reference is based on goal computation,³⁰⁸ and therefore it would be more appropriate to use Klein's (1991) term *destinatives* instead of *directionals*.

The observation that Icelandic cardinal terms in large-scale reference express goals rather than directions has one further consequence for their semantic description. They do not need a concept of path: the expression *suðr* 'south', for instance, merely expresses the goal location/destination, irrespective of the path the traveller might undertake in order to get e.g. to the southern region of Iceland.

As for the analysis of landmark terms in absolute systems it is difficult to say whether a concept of path is required for their analysis or not. If so, it can be viewed as an abstract (mental) vector in the way defined by O'Keefe (1996).

Truly directional systems can therefore be defined as being a *system of fixed directional oppositions*. Directionality is brought about by a process of referential abstraction of the scale. Directionality has been analysed as not being part of the lexical meaning of a landmark term. We will see in the empirical part of this study that landmark terms denoting landmarks are indeed not inherently directional. However, this does not mean that languages in general might not have the linguistic means to merely express directionality (e.g. an affix or case-marker). It is therefore the question how languages express directionality and if the linguistic means are distinct from those markers which, express goal and location.

Chapter 5

Semantic and morphosyntactic analysis of locative constructions in North Marquesan

1. Preliminary remarks

This chapter presents the linguistic means speakers of Marquesan use in order to describe static spatial arrays or configurations on a small-scale as well as large-scale referential level. In this study I am mainly concerned with those spatial expressions in Marquesan which are used recurrently and systematically in spatial descriptions (see methodology, ch. 2). Talking about locations and comprehending spatial language is only accomplished successfully if speakers of the same language share (more or less) the same meanings and compositional rules of spatial expressions. Moreover, the language user needs to combine his or her linguistic knowledge with context information. These are two of three basic requirements of any successful verbal communication about space as discussed in Klein (1990, 1991, and 1994; see also section 4.3). In this chapter I will focus on these two requirements of spatial reference, i.e. I am particularly interested in how the language user arrives at a certain interpretation of a referring spatial expression. In order to arrive at a certain interpretation of a spatial expression, we need to consider the following: how does the lexical meaning of Marquesan spatial expressions compose with other constituents of a clause and how does this linguistic knowledge combine with contextual information (e.g. encyclopaedic knowledge, scale of reference, speech situation).³⁰⁹ Spatial ‘expressions’ are, as we will see throughout this chapter, *complex noun phrase constructions* composed of several units or parts of speech which combine in varied and complex ways. The major part of my analysis is focused on how these units interact with each other and what they contribute to derive the meaning of a certain construction.

In the literature on Oceanic languages there is no real consensus of how to call these locative noun phrase constructions appropriately.³¹⁰ Bowden (1992: 4) uses the term locative to describe a functional category, i.e. “anything that is used to mark a locative relation, whether it is a noun, adverb,

preposition, affix or anything else is called a ‘locative’’. I will occasionally use the term locative in following Bowden’s definition of the term.

In Marquesan, and in many other Polynesian and Oceanic languages, complex locative noun phrase constructions typically consist of a locative preposition, a local noun, modifiers, possessive attributes or other attributive noun phrases. The following three examples from Maori, Samoan and Marquesan illustrate the type of complex noun phrase expressing spatial relations:

Maori

- (5.1a) *Kei tua atu o te whare puka-puka te toa hua rakau.* (Bauer 1997: 225)
 PREP.at loc.n.-back DIR.away POSS.of ART.the house book-RED.PL
 ART store fruit tree
 ‘The fruit shop is *past the library*.’ (lit. ‘... is at back further of the house books’)

Samoan

- (5.1b) *Le ofaga o le manulele i luga o le koko.*
 ART nest POSS ART bird
 PREP.LD loc.n.-top POSS ART cocoa
 ‘The nest of the bird *in the cocoa tree*.’ (lit. ‘...in top of the cocoa’)
 (Mosel and Hovdhaugen 1992: 96)

Marquesan

- (5.1c) *Pakeka='ia te pasavai ma mua o ia,*
 position=PASS ART trough.water PREP loc.n.-front POSS 3.sg
 ‘The trough is positioned *in front of it* (= the cow),’
 (FA-B/R-13: 10)
- (5.1d) *Te='a koivi piha~ 'a'e ia 'i vaveka toitoi o te='a ko'oka.* (FA-T/M-H-13: 41)
 ART=Dem female cow be.not 3.sg LD loc.n.-middle real,genuine POSS
 ART=Dem trough
 ‘That cow~ it is not *really in the middle of that trough*.’
- (5.1e) *U pe'au hua mou ko'oua: " 'A pau taua ma 'uka ake a'a o te mata'ae e noho*
 TAM say ART PL/DL old.man IMP go 1.dl.incl
 PREP loc.n.-top DIR Dem POSS ART headland TAM stay

ai."

ANA

'Those two old men said: "Let's go further *on top of the headland there* and stay there. "' (Lav-T/H: 133)

My description of spatial reference in Marquesan, or more precisely of the 'Ua Pou vernacular, mainly deals with the above types of complex noun phrases or locative constructions (see definition for 'construction' below).

These locative constructions as illustrated above for three Polynesian languages are not unfamiliar in Indo-European languages and have their linguistic counterparts, for instance, in English and French as illustrated in (5.2a) +(5.2b):

(5.2a) *The bird is on top of the house.*
 [PREP] [local noun] [possessive attribute]

(5.2b) *Le ballon est à gauche de la bouteille.*
 [PREP] [local noun] [possessive attribute]
 'The ball is *left of* the bottle.'

Although there is undoubtedly a structural similarity between the Indo-European and the Polynesian type of construction, Polynesian languages allow modification³¹¹ and variation within the same type of locative construction. (5.3a) and (5.3b) show the locative construction type discussed in (5.1) and (5.2) for Indo-European and Polynesian languages. Note that possible modifiers of the *lexical head* – in (5.1–2) the local noun – are in parenthesis:

(5.3a)
Indoeuropean locative construction type
 PREP – **local noun** – possessive attribute

(5.3b)
Polynesian locative construction type
 PREP – (Modifier) – **local noun** – (DIR) – (Dem) – (Modifier) – possessive attribute/ attributive NPs

There are three apparent differences between the Indo-European and Polynesian type. The Indo-European type does not allow modification, there is no variation with respect to (case-marking) prepositions and the attribu-

tive noun phrase which expresses the relatum can only be a possessive attribute. In Polynesian languages there are often two types of attributive noun phrases expressing the relatum. One is marked by the locative preposition PPN **i* and the other is marked by the inalienable possessive preposition PPN **o* (see Clark 1976: 55).

The Indoeuropean type as demonstrated in (5.2) can be regarded as a lexicalised phrase with fixed constructional elements. For instance, the preposition *on* in Engl. *on top of* cannot be exchanged by other prepositions (e.g. *in* or *from*). Its Polynesian counterpart can be also regarded as a construction, but its constructional slots leave room for variation. The Marquesan locative construction with local nouns as demonstrated in (5.1c–d) allows, for instance, a range of prepositions with distinct meaning contributions and three types of attributive noun phrases expressing the relatum (see this chapter, § 4 for details).

Table 13. Basic local noun phrase constructions in Marquesan

Preposition	Lexical head	Attributive NP (= relatum)
' <i>i</i>		<i>o</i> -NP (inalienable possessive <i>o</i>)
<i>ma</i>	local noun	' <i>i</i> -NP (locational-directional 'i')
<i>mei</i>		<i>he</i> -NP ('non-specific' article <i>he</i>)

In Marquesan there are five distinct groups of locative noun phrase constructions expressing spatial relations.³¹² These groups are distinguished on the basis of their lexical head which can be:

1. a local noun (see above)
2. a body-part term
3. a place name
4. the full words *keke* 'side', *hope* 'part, region' and *vahi* 'place'
5. a common full word, a proper name of person or a personal pronoun

The following locative prepositions occur in locative constructions and contribute the following meanings:

- (5.4) *'i* 1. Location x (= locative),³¹³ 2. Direction towards location x
 (= allative), 3. Goal x (= destinative)
 'io 1. Location of x (= locative), 2. Direction towards location
 of x (= allative), 3. Goal of x (= destinative)
 ma 1. Path, 2. Region
 mei Source (= ablative)

Some of the meaning contributions of these prepositions correspond to what is generally defined as locative ('*i*' and '*io*'), allative ('*i*' and '*io*') or ablative (*mei*) case.³¹⁴ In fact, these locative prepositions mark noun phrases which express specific semantic roles of localisation, namely that of location, direction, goal, source, path and region. In Marquesan, the semantic roles of location, direction and goal are not distinguished by different prepositions. In other words: the preposition '*i*' marks noun phrases which express the semantic roles of location as well as direction or goal. Likewise, the preposition '*io*' marks noun phrases which express the semantic roles of location, direction and goal. The basic difference between '*i*' and '*io*' is the following: '*i*' marks full words which denote locations such as local nouns, place names and body-part terms used as locatives; '*io*' marks full words which denote the so-called first-order entities such as proper names of persons and common full words including some landmark terms and body-part terms denoting object- and body-parts. '*Io*' is not an allomorph of '*i*' because the usage of '*io*' is restricted to spatial localisation. '*I*', on the other hand, is used for spatial as well as temporal localisation.

Local nouns, body-part terms and place names can only be marked by '*i*', *ma* and *mei*, but not by '*io*'. The preposition '*io*' typically marks common full words, proper names of persons or personal pronouns. The preposition '*io*' is the only preposition which is used exclusively to mark spatial relations. '*I*', *ma* and *mei* can also mark temporal relations.

The locative prepositions do not only contribute distinct meanings to the lexical head they precede, but they also trigger particular construction types with distinct constructional meanings. This can briefly be illustrated by the contrast between '*i*-' and *ma*-marking of the local noun *tai* 'sea'. Note that the following two examples are taken from data of the *Farm Animals game* in which the players describe spatial relations on the small-scale referential level:

- (5.5) *Hu'i='ia atu t=o ia keo i tai.* (FA-B/R-13: 007)
 turn=PASS DIR ART=POSS 3.sg bottom LD sea
 'Its bottom is turned *sewards*.' (lit. '...in the direction sea')

- (5.6) *E tahi piha ma tai o te tumu 'akau.*
 NUM one cow PREP sea POSS ART trunc wood
 'One cow, (it) is *seaward of* the tree.' (FA-T/M-2: 8)

Whereas '*i*-marked *tai* 'sea' in (5.5) expresses a direction and cannot take a possessive attribute, *ma*-marked *tai* specifies an object region of the

relatum and therefore takes a possessive attribute which expresses the relatum.

Although the composition of the different parts of speech within a locative construction can derive different meanings as demonstrated in (5.5–6), it is often not the linguistic expressions alone which derives a particular reading. For instance, if we take the example of the conflation of locative and allative case by the preposition *i* in Marquesan, how do we actually arrive at the directional reading ‘seawards’ in (5.5). Just looking at the meaning composition of the linguistic expressions alone, we would have an ambiguity between a locational reading ‘at sea, in the sea-region’ and a destinative/directional reading ‘to the sea, seawards’. We will see throughout this chapter that a directional reading as in (5.5) is not only driven by the meaning composition of the preposition *i* and the local noun *tai* ‘sea’ itself, but also by contextual factors which can be of a linguistic and/or extra-linguistic nature. By linguistic nature I mean in particular the compositional rules of the different constituents within a clause: for instance, how does the verb meaning interact with the locative construction, or in other words: how is the spatial information distributed within a clause and how do the different constituents combine with each other to derive a particular meaning.³¹⁵

The different scales of reference (i.e. large-scale vs. small-scale reference) are the extra-linguistic factors which are of particular importance for the interpretation of the Marquesan locative constructions. The ambiguities between a directional and a destinative reading which can arise with the *i*-case-marking, can be mostly disambiguated on the scale of reference. For instance, ‘*i*-marked *tai* ‘sea’ always gets a directional reading when it is used in small-scale reference (see this chapter, § 6.3.3.2). The distinction between small-scale and large-scale reference is also relevant for locative constructions with place names (see this chapter, § 6.1.3).

In many descriptions of spatial referential systems in Austronesian and Oceanic languages (Senft 1997) words such as ‘sea’, ‘inland’, ‘upstream’, ‘downstream’, ‘east’ and ‘west’ etc. are often called directionals or directional roots even though they might not occur with an allative preposition or affix expressing direction (see Bowden 1997; Ozanne-Rivierre 1997; McKenzie 1997; Hill 1997). I will argue that the semantics of the corresponding nominals in Marquesan, namely *tai* ‘sea’ or *uta* ‘inland’, *uka* ‘upstream’ or *a'o* ‘downstream’ are not inherently directional. As for those nominals the directional meaning is only derived on the level of utterance,

but not on the word level as such. Note, however, that there is a set of local nouns which are in fact inherently directional (see below).

Although the meaning contribution of the locative prepositions play a crucial role in the interpretation of locative constructions in Marquesan, various modifiers which can be combined with the lexical head of a locative construction help to express the location of the theme more accurately. The following three major groups of modifiers can occur in locative constructions:

1. Directional particles:

<i>mai</i>	'1. hither; 2. close to relatum'
<i>atu</i>	'1. thither, further away; 2. remote to relatum'
<i>a'e/ake</i>	'upwards'
<i>ihō</i>	'downwards'

2. Demonstratives:

<i>nei</i>	'close to speaker'
<i>a'a</i>	'neither close to speaker nor addressee'
<i>ana</i>	'somewhere over there (=unspecific)'

3. Other modifiers:

<i>toitoi</i>	'real, genuine'
<i>'oa</i>	'1. long, far; 2. EMPHATIC'
<i>haka'ua</i>	'again'
<i>'ina</i>	'a little'

Modifiers in locative constructions will be discussed in chapter 6. Note that such a complex way of accurately pinpointing the theme's locations by means of modification of the lexical head seems to be a characteristic feature of the Polynesian, or, in any case Marquesan locative construction type with local nouns. Modification, case-marking variation and other elements which distinguish the Polynesian from the Indo-European type show that the former type is not a lexical(ised) phrase. However, some of the Marquesan locative constructions which I will discuss are more idiomatic (and thus lexicalised) than others.

2. Defining a construction

In section 1 I have listed five groups of locative noun phrases which are distinguished on the basis of their lexical head. Within each respective group we can sometimes identify several types of locative constructions which are partly triggered by the locative prepositions (see below for details).

Constructions are often characterised as “schematic symbolic units” or “schematic templates” (Langacker 1990) or as “construction-based templates” (Van Valin and Lapolla 1997). Crystal (1997: 86) defines construction as follows:

In its most general sense in LINGUISTICS, ‘construction’ refers to the overall process of internal organization of a GRAMMATICAL UNIT – ... being ‘constructed’ out of a set of MORPHEMES by the application of a set of RULES. More specifically, it refers to the SYNTAGMATIC result of such a process, a particular type of construction ... being defined as a sequence of units which has a FUNCTIONAL identity in the grammar of a LANGUAGE.

With respect to the locative construction types I will be discussing throughout this chapter, the functional identity refers to phrase or noun phrase; the set of morphemes corresponds to the various parts of the construction schematically presented in (5.3), i.e. to prepositions, local nouns, attributes etc.. I will refer to the units of a construction (prepositions etc.) as constructional slots (e.g. case-marking slot, lexical head slot).

Constructions have to be distinguished from actually occurring linguistic expressions because constructions are complex signs which exist independently from the linguistic expressions that instantiate them (Schultze-Berndt 2000: 24).

Constructions are often regarded to be non-compositional and idiomatic, i.e. whose meanings cannot be derived from the single meanings of their units or constructional slots (see Fillmore 1988; Goldberg 1995). Thus, a construction has a meaning in its own right.

Some locative constructions in Marquesan might be more idiomatic than others (e.g. *hope-* or *keke-*constructions vs. constructions with place names or common full words). In other words: an idiomatic or non-compositional locative noun phrase can only get a particular meaning on the basis of a certain *pattern* and not on the basis of the meaning of its units alone (e.g. *ma*-constructions with local landmark nouns, see this chapter, § 6.3.3.2.2).

Moreover, source-marked noun phrases are not constructions in the way defined by Fillmore (1988) and Goldberg (1995) because the meaning of source-marked noun phrases is predictable from the meanings of their units (or morphemes). In many occurrences, the source preposition rather combines with constructions than forming part of a construction on its own. I use the term construction rather broadly referring to all types of noun phrases which express spatial relations of objects or persons.

Due to the nature of this study which investigates the various linguistic means of spatial reference in Marquesan, I am less focused on the meaning of a particular construction type as a whole, but rather on the ways and means of how the spatial information is packaged within a locative construction. One of my main interests lies in the semantics (or lexical meaning) of the lexical head of a locative construction (e.g. a local noun, a body-part term) and its compatibility or incompatibility with other ‘units’ such as prepositions, attributive noun phrases and modifiers (directional particles, demonstratives etc.). I will show that the compatibility or incompatibility of certain units around the lexical head is due to the semantics of the respective lexical head. In other words: the composition of units with a particular lexical head is to a great extent motivated by its semantics. Moreover, on the basis of the morphosyntactic properties of a lexical head we can also form distinct word classes such as local nouns, body-part terms, place names and common full words. As for the class of local nouns we can again form subclasses which are characterised by certain morphosyntactic properties and the ability to occur in certain construction types. The morphosyntax of these subclasses is again motivated by the semantics of these local nouns (see this chapter, § 6.3–6.3.3.7).

In order to adequately demonstrate the meaning of a lexical head and (also) its constructions I proceed in this chapter by giving an extensive description and exemplification of the range of uses in which a particular lexical head occurs (see this chapter, § 6). Thus, my approach is mainly descriptive.

3. The meaning of a locative construction and its units

In order to understand the meaning of a complex locative construction in Marquesan, one also has to understand the meaning of the separate units or morphemes which constitute this construction. One way to proceed is to group together all those spatial configurations which are expressed by the

same lexical head and marked by the same locative preposition. A second step would be to contrast these spatial configurations with other configurations which are expressed by the same lexical head, but with a different preposition. As we can see in (5.7–10), these constructions can be used for very different spatial configurations:

- (5.7) *Ena te pora ma 'uka he tapu.*
 exist ART bowl PREP loc.n.-up,top ART table
 ‘There is a bowl on top of the table.’
 (TRPB-Ta-97: 1)

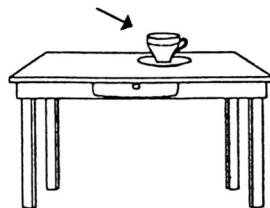


Figure 10. ‘Cup on table’

- (5.8) *Ena te ata 'i 'uka o te apapa.*
 exist ART picture LD loc.n.-up,top POSS ART wall
 ‘There is a picture on the wall.’
 (TRPB-Ti-97: 44)

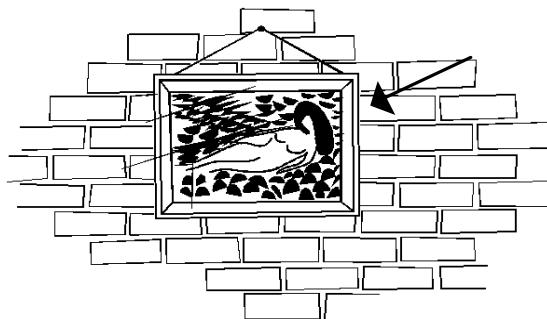


Figure 11. ‘Picture on wall’

- (5.9) *Ena te paraseta ma 'uka o te vaevae.*
 exist ART plaster PREP loc.n.-up,top POSS ART RED-foot
 'There is a plaster on the leg.' (TRPB-Hak-97: 35)

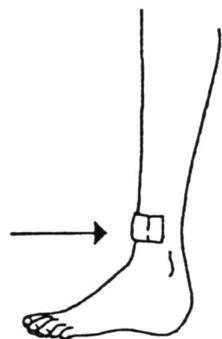


Figure 12. 'Bandaid on leg'

- (5.10) *Ena te pupu 'i 'uka o te maka.*
 exist ART fruit LD loc.n.-up,top POSS ART branch
 'There is a fruit/apple on the branch.'
 (TRPB-To-97: 27)

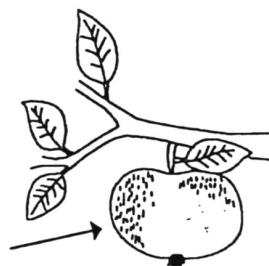


Figure 13. 'Apple on tree'

In order to adequately describe the meanings of the locative constructions in (5.7–10) one principally wants to know two things:

1. What is the meaning of the local noun '*'uka*?
2. What is the meaning contribution of the prepositions '*i* and *ma*?

When I discuss locative constructions and the meaning contribution of locative prepositions, I will basically try to give an answer to the above questions, which is, in fact, a difficult task.

When looking at the examples (5.7) and (5.8) one could say that '*uka*' means 'up' or 'higher than' and the difference between the prepositions '*i*' and '*ma*' can be explained by the different surface orientation of the relata (horizontal vs. vertical surface orientation). But if the preposition '*ma*' in combination with the local noun '*uka*' expresses that the theme is located on a horizontal surface, how could we explain the usage of '*ma*' in (5.9)? And how do we explain the usage of '*uka*' in (5.10) in which the theme is not 'up' or 'higher than' the relatum, but in fact below the relatum. Similar difficulties in the description of the meaning of spatial expressions are often discussed in the literature on languages which are not in the least related to Marquesan.³¹⁶ As it seems, this is a general problem of meaning descriptions of linguistic expressions. The general way to approach the problem is to postulate a general basic meaning of a linguistic expression. The basic meaning of an expression can be modified through semantic as well as cognitive operations which are driven by contextual factors such as the encyclopaedic knowledge of a speaker.³¹⁷

In the domain of spatial reference, for instance, this encyclopaedic knowledge (or world knowlegde) refers to the speaker's knowledge about objects and the typical relations and constellations they hold to each other (Klein 1991: 92). For instance, the typical spatial relation between a chewing-gum and a mouth is quite different from that of a pipe and a mouth. Thus, the particular interpretation of a spatial expression such as the preposition *in* in *chewing-gum in mouth* (= full containment) vs. *pipe in mouth* (=partial containment) is driven by a speaker's knowledge of the possible relations these entities hold to each other (chewing-gums, pipes and mouths) (Klein 1991: 92).

There is general consent in traditional linguistic description that expressions have a basic lexical meaning. However, there is less consensus on how this basic meaning can be actually understood. As for the semantics of spatial prepositions three positions can be distinguished in the literature (Nüse 1999; see also ch. 4). One position assumes that spatial prepositions are polysemous having a basic primary meaning which can derive other (secondary) meanings by certain derivation rules (Klein 1991; Schwarze 1989). For instance, in a prepositional phrase like Ger. *auf dem Tisch* 'on the table' *auf* is used in its primary meaning namely 'higher than and in contact with', whereas *auf* in the prepositional phrase Ger. *die Schrift auf dem Plakat* 'the writing on the poster' is a derived meaning of the primary meaning of *auf* (see Klein 1991 for details).

The second position taken in the literature is that spatial prepositions have an abstract invariant meaning which can be found in all different readings of a preposition (Bierwisch 1988; Herweg 1989). The abstract meaning is a topologically defined region of the relatum: for instance Ger. *in* means ‘within the outer confines of the relatum’ (Bierwisch 1988). The particular interpretation of a prepositional phrase is basically derived by the encyclopaedic knowledge of the language user (see above and ch. 4, § 4.3).

Nüse (1999) proposes a third ‘semantic model’ of spatial prepositions which also postulates an abstract invariant meaning, but whose regions of the relatum are based on *everyday concepts* such as SURFACE (Ger. *auf* ‘on, on top of’), SIDE (Ger. *an* ‘on, at’) and UNDERSIDE (Ger. *unter* ‘under’). The differences in the interpretation of the same spatial preposition are due to the different *instantiations* of the abstract invariant meaning, and not due to derivation rules as proposed by Klein (1991) and Bierwisch (1988). These different instantiations are greatly due to the nature of theme and relatum in a given spatial configuration. Thus, the theme in Ger. *die Schrift auf dem Wegweiser* ‘the writing on the signpost’ triggers a different instantiation of the abstract meaning of Ger. *auf* (= SURFACE) than the theme in Ger. *der Vogel auf dem Wegweiser* ‘the bird on the signpost’. For more details the reader is referred to Nüse (1999).

As for the Marquesan locative constructions one can observe that Klein’s as well as Nüse’s models apply. The different meaning contributions of the locative prepositions, in particular in constructions with local nouns, can be regarded as different instantiations of an abstract invariant meaning. This is clearly manifested in the different readings one might get with the preposition *ma*. The different readings of *ma* (e.g. ‘route’, ‘unspecific location’, ‘plurality’ etc., see also section 5) are different instantiations of the abstract invariant meaning of path and the usage of *ma* in certain constructions is often due to the nature of theme and relatum (see below for details).

Klein’s model (1991) is more appropriate when analysing the semantics of local nouns because they can be polysemous: for instance ‘*uka*’ means ‘up, top’ as well as ‘upstream’ whereby ‘*uka*’ ‘upstream’ is clearly a derived meaning of ‘*uka*’ ‘up’ (see in particular section 6.3.2).

One of the questions which now might arise is if different semantic models are valid for different word classes (i.e. prepositions vs. nominals), and if so, is this also valid for other languages. Thus, do prepositions have to be described with a different semantic model than nominals? As for some Marquesan locative constructions this obviously seems to be the case.

Throughout the following chapters I will distinguish between *lexical meaning* and *interpretation* or *reading*. The lexical meaning can be an invariant abstract meaning as well as a basic primary meaning with other secondary meanings of a lexical item. The term interpretation or reading refers to the utterance as a whole and is derived by linguistic as well as extra-linguistic contextual factors. For instance, a certain reading of an utterance is derived by compositional rules of different clause constituents (e.g. by interaction of the verb meaning with a particular locative construction) or by other extra-linguistic contextual factors such as the scale of reference.

4. Types of attributive noun phrases expressing the relatum

In this paragraph I will discuss the different types of attributive noun phrases in locative constructions which express the relatum. The relationship between an object region and the relatum can be characterised as a kind of part-whole-relationship, a relationship which is similar to that of an object part to its object, or a body-part to its body:

Part-whole-relationships

1. *Body-part to body*: legs, arms, hands, heads in relation to their body
2. *Object part to object*: ‘handle on cup’, ‘lid on saucepan’
3. *Object region to relatum*: ‘under’-region or ‘on’-region of a table

In Polynesian languages all three part-whole-relationships can be expressed by a possessive construction which consists of a lexical head and an attributive noun phrase marked by the inalienable possessive preposition PPN **o*³¹⁸ (Clark 1976: 44). (5.11–13) are examples of these part-whole-relationships in Marquesan:

1. Body-part to body:

(5.11)	<i>te</i>	<i>vae-vae</i> [part/body-part term]	<i>o</i>	<i>te</i>	<i>vehine</i> [whole/body]
	ART	RED.PL-foot		POSS.inal	ART woman
		‘the feet of the woman’			

2. Object part to object:

- (5.12) *Ee, 'i mua ho'i te a'o [obj.part] o te='a*
 yes LD front indeed ART bp.-face POSS.inal ART=Dem
papua [object] 'i mua. (FA-T/M-H-13: 022)
 enclosure LD front
 ‘Yes, the face of the enclosure is indeed in front, (it) is in front.’

3. Object Region to relatum:

- (5.13) *'A tuku te piha [theme] ma mua [region] o*
 TAM put ART cow PREP loc.n.-front POSS.inal
te pere'o'o [relatum].
 ART car
 ‘Put the cow in front [part/region] of the car [whole/relatum].’ (E)

Note that it is not the semantic contribution of the local noun in (5.13) alone which specifies the ‘front’-region of the relatum. As I have already pointed out in the previous subsections, the case-marking as well as other factors finally specify the object region of the relatum. The possessive attribute, however, refers to the relatum.

There are three types of attributive noun phrases in N-MQA which can express the relatum. These attributive noun phrases are marked by

- a) the inalienable possessive preposition *o* (see above [5.13] and [5.14] below),
- b) the article *he* (see [5.15]) and
- c) the locational-directional preposition *'i* (see [5.16–17]).

- (5.14) *Ee, 'ei'a tumu sapin, tuku ma hope o*
 yes loc.n-ANA trunc fir.csFr put PREP loc.n.-back POSS
te='a horave ma hope o te='a piha, e
 ART=Dem horse PREP loc.n.-back POSS ART=Dem cow Num
'ua tumu sapin
 two trunc fir.csFr
 ‘Yes, there is the tree, put (one) at the back of that horse (and) at
 the back of that cow, two trees?’ (FA-Hak-6)

- (5.15) *Ma 'uka he tumu 'akau ko-koti='ia* (TRPB-Val-23)
 PREP loc.n.-up ART trunc wood RED-cut=Perf
 ‘On top of the tree stump.’

- (5.16) *Epo~ te='a mou tumu sabin tuku koe*
 wait ART=Dem PL/DL trunc csFr.fir put 2.sg
ma hope [part/region] **'i te='a horave** [whole/relatum]
 PREP behind LD ART=Dem horse
 ‘Wait~ those two trees, you put (them) behind[region] that
 horse³¹⁹ [relatum].’ (FA-Hak-5)
- (5.17) **Ma tai 'i te=na papua e ko'oka inu='ia vai**
 PREP sea LD ART=Dem fence TAM trough drink=PASS water
na te koivi piha me he mea 'i kapo. (FA-B/R-16)
 for ART female cow like ART thing LD earlier.on
 ‘Seaward of that fence is a drinking trough for the cow, like earlier
 on.’

These three attributive noun phrases have to be distinguished from other attributive noun phrases found in locative constructions such as (5.18):

- (5.18) **Ma ko o te=nei tumu 'akau 'i tai e?**
 PREP across POSS ART=Dem trunc wood LD sea EMPH
 ‘Is (it) acrossward of this seaward tree?’ (lit. ‘... of this tree which
 is seaward’) (FA-B/R-6)

This kind of attributive noun phrase modifies the relatum. The types of attributive noun phrases I have been discussing above make reference to the relatum.

The relatum expressed by the above mentioned attributive noun phrases can only be expressed in locative constructions with local nouns and body-part terms. The class of place names cannot take possessive noun phrases nor any other attributive noun phrase. One cannot construct utterances like ‘the ball is at the Hakahau-region of the bottle’.³²⁰

The inability to combine with attributive noun phrases is one of the crucial properties which also distinguishes place names from local landmark expressions³²¹ when used in small-scale reference. Local landmark nouns such as *tai* ‘sea’ and *uta* ‘land, inland’ can construct an utterance like ‘the ball is at the ‘seaward/inland’-region of the bottle’ These constructions refer to an object region of a relatum:

- (5.19) **Ma tai o te='a papua e puaka.** (E)
 PREP sea POSS ART=Dem enclosure TAM pig
 ‘Seaward of that enclosure is a pig.’

- (5.20) *Ma uta o te='a tumu 'akau*_[relatum] *e koivi piha pukiki*_[theme].
 PREP inland POSS ART=Dem trunc wood TAM female
 cow red

‘Inland of that tree is a cow.’ (FA-B/R-9: 031)

Although landmarks have been defined as places (see ch. 4, § 10.2) and local landmark nouns can refer to places in a similar way place names do, this constructional difference between place names and local landmark nouns shows that both classes must also have different semantic properties. Place names have semantically unequivocal reference and they hold a unique denotation between the name and the location bearing that name (see this chapter, § 6.1.1). Local landmark nouns, on the other hand, are more like kind-denoting nominals. Thus, the difference in morphosyntactic properties is a reflection of the difference in the semantics of these expressions.

Possessive noun phrases containing a common full word can be further modified by possessive attributes (see [5.21–23]). This can be observed in particular when the speaker wants to refer to a precise object part of the relatum. Note that the first possessive noun phrase does not denote the relatum, but the second possessive noun phrase does:

- (5.21) *Ma mu'i toitoi o te='a ko nihinihi o te='a papua.*
 PREP behind really POSS ART=Dem side pointed POSS
 ART=Dem enclosure

‘Really behind that edge of that enclosure.’ (FA-T/M-H-14: 049a)

- (5.22) *Ma mua o te ava-puta o te='a ha'e o/a Mafeau*.
 PREP front POSS ART passage-hole POSS ART=Dem house
 POSS M.

‘In front of the door of Mafeau’s house.’ (E)

- (5.23) *Ma mua o te a'o o te='a tumu 'akau i'a te='a koivi puaka.* (FA-T/M-H-8: 021)
 PREP front POSS ART face POSS ART=Dem trunc wood
 there ART=Dem female pig

‘In front of that tree’s face, there is that sow.’

(5.23) is an interesting example of a locative construction because the object region is specified by the local noun *mua* 'front', whereas the object part of the relatum is specified by the body-part term *a'o* 'face'. This reference is rather unusual in my data because trees are often conceptualised of having no inherent 'front' or 'back'. Other speakers would tend to use either the body-part term or the local noun as the head noun of the locative construction, but not both:

- (5.24a) *Ma te a'o o te tumu 'akau.* (E)
 PREP ART bp.-face,front POSS ART trunc wood
 'At the face of the tree.'
- (5.24b) *Ma mua o te tumu 'akau.* (E)
 PREP loc.n-front POSS ART trunc wood
 'In front of the tree.'

Unlike body-part terms, local nouns cannot occur in possessive attributes. Local nouns can only function as lexical heads in locative noun phrase in constructions.

Historically the prepositions '*i*' (PPN **i*) and '*o*' (PPN **o*) are the connecting prepositions between lexical head and attributive noun phrase in locative constructions (Clark 1976: 55). The locative preposition PPN **i* and the possessive PPN **o* occur in a number of Polynesian languages: PPN **i* is used, for instance, in Rarotongan, Tahitian and Tongan, whereas PPN **o* is used in Hawaiian, Samoan, Vaitupu, Niue etc. (Clark 1976: 55). Some languages, such as Maori and Marquesan, use both prepositions with the preference for either the one or the other (see also Bauer [1997: 222–42] for Maori). In Proto-Polynesian both prepositions have probably coexisted (see Clark 1976: 57).

Clark (1976) does not mention *he* (PPN **sa*) being used as a connecting particle in locative constructions. The *he*-attributive noun phrase in locative constructions therefore seems to be an innovation of Marquesan grammar. It was already discussed in chapter 3, section 6.1.1.1 that *he* has a basic localisation function because in verbal clauses *he+common full word* often function as a locative complement phrase or adjunct expressing basic location (e.g. *he 'ua* means 'in the hole', *he tapu* 'on the table', *humu'ia he pusi* 'attached at/to the candle' etc.). When questioning my consultants about this, they said that *he+common full word* should be marked by the locational-directional preposition '*i*', thus *humu'ia he pusi* should be *humu'ia 'i he pusi* 'attached at the candle'. In casual speech, however, '*i*' is often omit-

ted. It is therefore possible that the *he*-attributive noun phrase expressing the relatum was at one stage '*i+he+common full word*', thus historically deriving from the locative PPN **i* attributive noun phrase. In my data, there are no locative constructions with '*i+he+common full word*' functioning as an attribute expressing the relatum, but only *he*-attributive noun phrases.

In some Polynesian languages, locative constructions in which the attributive noun phrase is not marked by the possessive PPN **o* can have ambiguous readings. In Rapanui, for instance, there is the rule that the same preposition which precedes the lexical head also precedes the attributive noun phrase (see [5.25]):

- (5.25) *He topa mai te timo ki roto ki te ana o Ana-te-ava-nui.* (Clark 1976: 57)
 TAM drag ART DIR warrior PREP.dir loc.n.-inside PREP.dir ART
cave POSS A.
 'The warriors were dragged into the cave of Ana-te-ava-nui.'

(5.25) is ambiguous because it could also be interpreted as two separate locative constructions expressing two different aspects or ways of localising the theme, thus meaning 'inside, to the cave'. If, on the other hand, *ki te ana* is interpreted as an attributive noun phrase it would mean that the warriors were dragged 'to the inside of the cave' (Clark 1976: 57).

There are comparable constructions in N-MQA, in particular when the lexical head and the attributive noun phrase are equally marked by '*i*' as in (5.26):

- (5.26) *Tuku te piha 'i mua 'i te tumu 'akau.*
 put ART cow LD front LD ART trunc wood
 'Put the cow in front of the tree.' (not: 'in front, at the tree')
 (FA-T/M-H-15)

However, these N-MQA constructions do not get an ambiguous reading. For instance, in (5.26) '*i mua 'i te tumu 'akau*' cannot be interpreted as two separate locative constructions. An independent locative construction which has a common full word as its lexical head is rarely marked by '*i*'.³²² Common full words which denote objects and smaller spaces are usually marked by '*io*'; thus '*i te tumu 'akau*' is an attributive noun phrase of '*i mua* 'in front'.

The three types of attributive noun phrases which combine with local nouns and body-part terms differ with respect to frequency and across age

groups. Attributive noun phrases which are marked by the preposition '*i*' rarely occur in my data. Most of the attributive noun phrases in locative constructions are marked either by the inalienable possessive *o* or the article *he*. With respect to those two markers (i.e. *o* and *he*) of attributive noun phrases there is clearly a variation across age groups. The *he*-marking is preferably used by younger speakers of Marquesan (i.e. under age 25), whereas *o* is preferably used by older speakers.

5. Some remarks on Marquesan locative prepositions

Marquesan has four locative case-marking prepositions (see [5.1]). The locative prepositions '*i*' and '*io*' are basically used with different subclasses of full words: '*i*' typically³²³ marks local nouns, body-part terms and place names, whereas '*io*' marks common full words and proper names of persons. '*I*' and '*io*' both mark the noun phrases with respect to location and goal. '*I*'- and '*io*'-marked noun phrases can also get a directional reading, but directionality is not expressed by the prepositions as such. Direction is regarded as an abstraction of goal which is determined by the scale of reference (see ch. 4, § 12).

Locative constructions with the preposition *ma* can have a variety of different readings such as '(concrete) path' or 'route', 'movement', 'unspecific location', 'surface', 'extension', 'vaster region', 'plurality' and 'object region'.³²⁴ These different interpretations of locative constructions with *ma* are instantiated by the nature of theme and relatum, the semantics of the lexical head, the construction type and the scale of reference (see below). Although I will speak in this chapter of the different meaning contributions of *ma*, I assume, however, that *ma* has an abstract invariant meaning, namely path. Thus, the instantiated meanings of *ma* (e.g. 'unspecific location', 'extension', 'route' etc.) on utterance level have an underlying abstract meaning path.

6. Different types of locative constructions in North Marquesan

In this subsection I discuss the most frequently occurring locative constructions in the 'Ua Pou vernacular and the combinatorial possibilities of the various lexical heads with prepositions, articles and attributive noun phrases expressing the relatum.

One aim of subsection 6 is to find out which meanings the separate units (or parts of speech) of a construction contribute, how these meanings interact semantically to arrive at a certain interpretation of a locative construction. Apart from the interaction on the linguistic level, there are also extra-linguistic contextual factors that account for a certain interpretation of a locative construction (see above). One of the extra-linguistic contextual factors is the difference between small-scale and large-scale reference. I have already pointed out in section 1 that depending on the scale of reference, we can get quite different interpretations of the same locative construction. In other words: a particular reading can sometimes only be disambiguated by taking the scale of reference into account. I will therefore make a distinction of the scale of reference at the relevant points in the discussion.

Locative constructions with place names and some local nouns can be used in small-scale as well as large-scale reference. Locative constructions which have *keke* ‘side’, *hope* ‘part, region’ and *vahi* ‘place’ and body-part terms as their lexical head are typically used for small-scale reference. The latter group of locative constructions (see this chapter, § 6.5), i.e. those with a common full word, a proper name of person and a personal pronoun as lexical head are used on both scales.

Table 14. Different types of lexical heads of locative constructions in large- and small-scale reference

	place names	body-part terms	local nouns	<i>keke</i> , <i>hope</i> and <i>vahi</i>	common FW, PN of persons, personal pronouns
small- scale reference	+	+	+	+	+
large- scale reference	+	— ³²⁵	+	—	+

The usage of place names as well as local landmark nouns (e.g. *tai* ‘sea’) for the description of small-scale spatial arrays is rather unusual for speakers of German, French or English: however, they play a central role in the spatial referential system of Marquesan.

Most attention will be paid to the different and often contrasting meaning contributions of the prepositions *i* and *ma*. With respect to the class of local nouns the meaning contributions of *i* and *ma* are often not predictable

and have to be studied almost case-by-case. This is due to the fact that the class of local nouns is a semantically heterogenous class (see below). I will begin with the class of place names because the meaning contributions of the prepositions does not vary greatly. Then I discuss body-part terms, local nouns and other more marginal locative constructions.

6.1. Locative constructions with place names

6.1.1. *The semantics of place names*

Place names belong to the class of proper names. It is disputed whether proper names have a meaning or not. Many philosophers and linguists, including Lyons, agree that proper names have reference, but not sense (Lyons 1977: 219).³²⁶ According to Lyons the semantic function of proper names is to “identify their referents, not by describing them in terms of some relevant property or properties which the name denotes, but by utilizing the unique unequivocally and arbitrary association which holds between a name and its bearer” (1977: 214).

The crucial fact about proper names is that they are semantically unequivocal and that they have direct referentiality. Although they are semantically unequivocal, they need a particular context in order to have unequivocal reference: two persons as well as two places (e.g. the two *Frankfurts* in Germany) can be the bearer of the same name. Thus the meaning of proper names is context-dependent. According to Lyons (1977: 216) “the relation which holds between a proper name and its bearer is very different from the relation which holds between a common noun and its denotata”. However, the distinction between proper names and common nouns is not always clear-cut: proper nouns can be extended to be a denoting kind (e.g. Ger. *Tempo* ‘handkerchief’, Engl. *hoover* ‘vacuum cleaner’), whereas kind-denoting expressions and definite descriptions or descriptive expressions can develop into proper names. In Marquesan place names are often derived from definite descriptions. These place names describe certain properties or typical and recurring events of that place: *Hana'eo* ('Ua Huka) is ‘valley (of) voices/echos’, *Teha'atiki* ‘the (place where people) sculpture’ (Nuku Hiva), *Hakaha'aha'a* ‘bay (of) rage/fury’ (Ua Pou), *Motu 'Oa* ‘long island’ (Ua Pou) etc. (see Laporte 1995: 7–31).

The descriptive content of these proper names is irrelevant to their semantic function: when they acquire direct and unequivocal reference to an

individual or place they belong to the class of proper nouns (Kany 1992). With respect to morphosyntactic properties the boundary between place names and so-called common nouns³²⁷ is not always clear-cut. Hill (1996), for instance, demonstrates for the Oceanic language Longgu a class of “place nouns” which is distinct from the class of place names. This class shares specific morphosyntactic properties with places names, but place nouns can also function as common nouns (1996: 313). Thus a word like *komu* ‘village’, commonly used to refer to any community of dwellings, can be used like a (quasi-)proper noun. When used as a proper noun, an utterance like ‘I go to (the) village’ has the same unequivocal reference as an utterance like ‘I go to Amsterdam’. According to Hill Longgu is an example of a language in which the cultural importance of Place, in particular of Home Place, is reflected in the language system.

In many languages of the world place names are marked by a locative case-marker or preposition (Lyons 1977: 694). However, not all languages use case-markers or prepositions with place names, in particular Oceanic and Melanesian languages.³²⁸ For instance, in Longgu (Hill 1996), the class of place names and place nouns (e.g. *luma* ‘house’, *komu* ‘village’) can be, but often are not marked by locative case-markers *i* ‘at (= locative)’ or *vu* ‘to, towards (= allative)’ because they are, according to Hill (1996: 315), inherently locational:

1. Place name:

- (5.27) *Ara ii'o Honaria*. (Hill 1996: 315)
 3.pl live H.
 ‘They live in Honaria.’ (lit. ‘they live **Honiara**’)

2. Place noun:

- (5.28) *Ara lau masu'u*. (Hill 1996: 316)
 3.pl go bush
 ‘They went to the bush.’ (lit. ‘they go **bush**’)

However, in Polynesian languages place names occur with locative prepositions.

The types of locative construction with place names in Marquesan are rather restricted which is probably due to the fact that they belong to the class proper names. Before describing the different constructions, I will first turn to the morphosyntactic properties of Marquesan place names.

6.1.2. The class of place names in North Marquesan

Unlike local nouns and body-part terms, place names are not a closed word class.³²⁹ With respect to their semantic and their morphosyntactic properties they are the most homogenous class. Place names are characterised by the absence of an article because they are inherently specific. They cannot take possessive attributes. Place names often occur with the demonstrative *nei* ‘close to the speaker’, but are rarely modified by directional particles and other modifiers. I only found one occurrence of a place name with the directional particle *mai*. In this occurrence *mai* is part of the circumposition *ma...mai*, and thus does not modify the place name as such (see ch. 6, § 2.2.1).³³⁰ The particle *ana* marking continuous aspect can occur with place names:

- (5.29) *Te=na tau maha'i a Kea 'i Hoho'i ana.*
 ART=Dem PL boy POSS K. LD H. CONT
 ‘Those two boys of Kea still live in Hoho’ i.’ (Nat-Nar-toa2-Com)

In this example *ana* does not modify the place name *Hoho'i* as such, but rather marks the whole clause, namely expressing the state of Kea’s boys living in *Hoho'i* still continues to be true.

Local nouns, body-part terms of type 3 (see below) and place names cannot be preceded by the location-marking preposition *'io*. The following table summarises the morphosyntactic properties of place names:

Table 15. Morphosyntactic properties of place names

	ART	PREP 'i, ma, <i>mei</i>	PREP 'io	POSS ATTR	DEM <i>nei</i>	DIR	MOD
place names	–	+	–	–	+/-	–	–

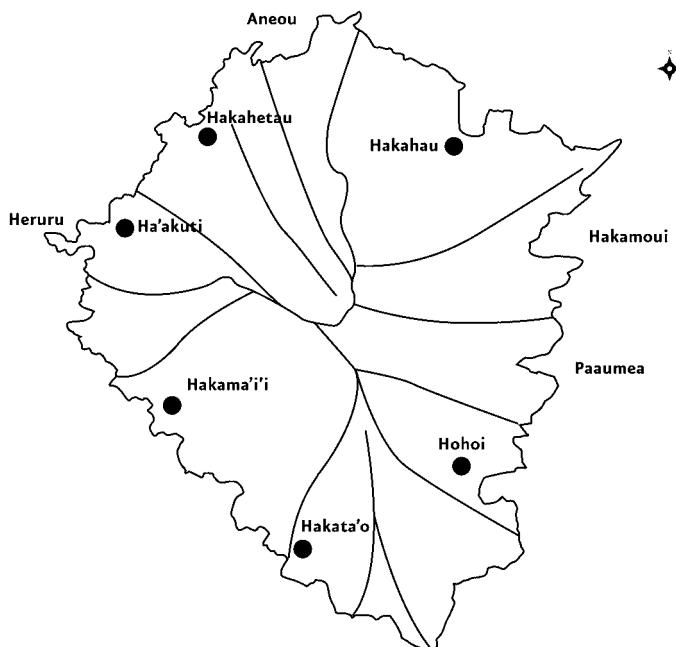
Place names are not only used to refer to a place on a large-scale referential level (see [5.30a]), but they are also used for small-scale reference (see [5.30b]), i.e. in the absolute frame of reference (see ch. 7, § 3.1.3). In small-scale reference they express for instance a direction as exemplified in (5.30b):

- (5.30a) *T=o 'atou tihe='ia 'i Atuona kave='ia e Rihi*
 ART=POSS 3.pl arrive=Perf LD A. take=PASS AGS R.

t=o ia toa paotu. (Nat-Toa3-Hak)
 ART=POSS 3.sg warrior all
 'At their arrival in Atuona, all his warriors were taken by Rihi.'

- (5.30b) *Te=na upoko hu'i koe 'i 'ima a'e 'i Hakata'o*
 ART=Dem head turn 2.sg LD hand left LD H.
 'That head, you turn (it) towards left hand, *towards Hakata'o.*'
 (FA-Hak-18)

For practical reasons I will therefore list those place names which frequently occur in my data. These place names are the names of villages on the island 'Ua Pou (see map 3 of 'Ua Pou island):



Map 3. 'Ua Pou island (North Marquesas)

The data were mainly collected in Hakahau, Hakama'i'i and Ha'akuti. Depending on the location of the speaker, the place names used in my data are either the neighbouring village of the speaker's location or the administrative center of the island, namely Hakahau.

(5.31)

Location of speaker	Neighbouring village/administrative center
<i>Hakama'i'i</i>	<i>Hakata'o/Pata'a – Hakahau/Ha'akuti</i> ³³¹
<i>Ha'akuti</i>	<i>Hakama'i'i – Hakahetau/Hakahau</i>
<i>Hakahau</i>	<i>Anaho – Aneou</i>

6.1.3. Meaning contribution of locative prepositions to place names

In large-scale reference, the locative case-marked place names always express basic spatial relations such as location ('i), direction ('i), goal ('i), path/trajectory (*ma*) and source (*mei*). In my data all occurrences of locative constructions with place names in small-scale reference are only marked by 'i expressing direction. 'I-marked place names on the small-scale level are often used to refer to the orientation of an object or body-part (see [5.34a–34b]) or to a moving direction of an object (see [5.34c]).³³² Place names cannot be marked by *ma* when used on the small-scale level. *Mei*-marked place names on the small-scale level are not attested in my data. Look at the following examples:

1. Location (large-scale)

- (5.32) *Ia he'e tatou 'i te 'ehi vahi 'i Hoho'i... .*
 TAM go 1.incl.pl LD ART coconut smash LD H.
 'When we went doing copra in Hoho'i....' (Nat-toa2-Hak)

- (5.33) *Ua haki te kui i te tama i te tekao*
 TAM tell ART mother DO ART child OBL ART talk
o t=o ia hua'a e pohu'e a'a
 POSS ART=POSS 3.sg family TAM live Dem
i Nuku Hiva
 LD N. H.
 'The mother told the child the story of her family who was living at Nuku Hiva.' (Kimitete 1990: 14)³³³

2. Direction (small-scale)

- (5.34a) *Ua hu'i te a'o 'i Anaho.*
 TAM be.turned? ART face,front LD A.

'The face is turned towards Anaho.' (RD-T/C-P3: 075)

- (5.34b) ***Ti'ohi te mata 'i mea 'i Aneou.*** (RD-T/C-P3: 038)
 look.at ART eyes,face LD thing LD A.
 'The eyes are looking towards ehh, towards Aneou.'
- (5.34c) ***Taha mai 'i Anaho.*** (RD-T/C-P3: 049)
 go.across hither LD A.
 '(It) is coming across towards Anaho.'

3. Goal (large-scale)

- (5.35) ***E tekao te=nei no t=o='u pakahio te he'e='ia mai o titahi hepe purutia 'i Anaho.*** (K2B,T10-1)
 TAM story ART=Dem about ART=POSS=1.sg grandmother ART
 go=Perf hither POSS ART.indef ship German LD A.
 'This is a story about my grandmother (at the time when) a German
 ship came to Anaho.' (lit. '... the coming of a ship to Anaho')

4. Path (large-scale)

- (5.36) ***E he'e au 'i Ha'akuti ma Hakahetau.*** (E)
 TAM go 1.sg LD H. PATH H.
 'I am going to Ha'akuti via/through Hakahetau.'

5. Source (large-scale)

- (5.37) ***I he'e mai ai te='a 'enana 'i titahi 'a, mei Hiva 'Oa ma 'uka o titahi vaka.*** (Mak-007)
 TAM go hither ANA ART=Dem man LD ART.indef day
 SOURCE H. 'O. PREP up POSS ART.indef canoe
 'That man came one day from Hiva 'Oa in a canoe.'

As for '*i*-marked place names the scale of reference can partly disambiguate between a locational, directional or destinative reading, i.e. when used on a small-scale referential level '*i*-marked place names only have a directional reading. As for place names used in large-scale reference the '*i*-marking can express location, direction or goal. In other words: a place name is always marked by '*i* regardless of whether the theme is *at* a certain place (= location), is moving *towards* a certain place (= direction) or is

intending to *reach* a certain place (= goal). The lack of formal distinction in case-marking between location, direction and goal is often disambiguated by the lexical meaning of the verbal which specifies whether the preposition *'i* expresses location or goal. For instance, if the verbal expresses no change of location, then we can interpret *'i* as expressing location (see [5.38]):

- (5.38) *Ua noho te 'enana mei Hiva 'Oa 'i 'Ua Pou nei...*.
 TAM live ART man from H. 'O. LD 'U. P. Dem.prox
 'The man from Hiva 'Oa lived here on 'Ua Pou' (Lav-H: 004)

If the verbal expresses change of location, then we have to interpret *'i* as a goal-marking preposition:

- (5.39) *Ua he'e Uhikaua'iki 'i Havaiki, ua noho me t=a ia vehine.* (Lav-U: 002)
 TAM go U. LD H. TAM live with
 ART=POSS 3.sg wife
 'Uhikaua'iki went *to* Havaiki (and) lived with his wife.'

The clearest case of expressing directionality is in small-scale spatial configurations (see [5.34]). Regardless of whether the clauses contain experience verbals (e.g. *ti'ohi* 'look at'), positional and directional verbals (e.g. *pakeka* 'oppose to', *hu'i* 'turn') or motion verbals, they always derive a directional reading when occurring with an *'i*-marked place name. The distinction between direction and goal is more difficult in utterances describing dynamic spatial configurations in large-scale reference. As for dynamic configurations on a large-scale referential level, an *'i*-marked place name can express goal as well as direction:

- (5.40) *E taha nei Teiki 'i Hoho'i.*
 TAM move.across Dem T. LD H.
 a. 'Teiki is moving acrosswards **to** Hoho'i.' (= goal)
 b. 'Teiki is moving acrosswards **in the direction of** Hoho'i.'
 (= direction)

T-marked place names in utterances describing dynamic configurations on a large-scale referential level (see [5.40]) rarely get a directional reading because speakers typically use place names in order to refer to a goal and

not to a direction. Note that this is different with local landmark nouns (see this chapter, § 6.3.3.2.1).

As for the interpretation of an utterance with an *i*-marked place name describing a dynamic configuration on a small-scale level, we always derive a directional reading. Thus, when moving objects on a table-top space – as in the *Route Description* task – speakers frequently make utterances like (5.41–42). Note that the data of the following two examples were recorded in Hakahau:

- (5.41) *'I Aneou ua ana taha koe, tihe 'io te pao='ia o te=na pou me tai nei,...*
 LD A. TAM a.little move.across 2.sg arrive PREP ART
 be.finished=NOM POSS ART=Dem post with sea Dem
 ‘Towards Aneou you are moving a little across, arriving at the end
 of that post with (the) sea(-side) here ...’ (RD-T/C-P3: 036)
- (5.42) *Kavi'i ma ko~ ma uta kavi'i ma uta taha mai 'i Anaho.*
 turn PREP across PREP inland turn PREP inland move.across
 hither LD A.
 ‘Turn (it) acrossward of (the posts)~ turn (it) inland of (the posts),
 inland, come acrosswards towards Anaho.’ (RD-T/C-P3: 048–49)

6.1.4. Summary

In the above sections I discussed the semantic as well as morphosyntactic properties of the class of place names in Marquesan. In Marquesan, locative constructions with place names can be used in large-scale as well as small-scale reference. In large-scale referential level place names refer to places, whereas on a small-scale level they can only refer to a direction. Place names do not take possessive attributes and therefore do not occur as a lexical head in possessive constructions (see table 15). Locative constructions with place names cannot specify an object region such as ‘x is at the *Hakahau*-region of y’ (see this chapter, § 4). This distinguishes place names from local landmark nouns (see also section 6.3.3.2.2). Moreover, being semantically unequivocal expressions place names are not marked for definiteness by articles and only allow very restricted modification (see also table 15). Place names are case-marked by prepositions which express location (*'i*), goal (*'i*), source (*mei*) and path (*ma*) in large-scale reference.

The expression of location and goal is therefore conflated in one preposition. The prepositions *ma* ‘through, along’ (= path) and *mei* ‘from’ (=source) are only used in large-scale reference. The reason for the restricted usage of *ma* and *mei* is probably due to the meaning contribution of the prepositions and the semantics of place names. If the path preposition *ma* marks place names, it means ‘route through place x’. This usage is only possible on the large-scale level because on a small-scale level the theme evidently cannot be localised as ‘going through place x’. For a similar reason *mei*-marked place names are not used on a small scale. This is obviously different for the location- and goal-marking preposition *i*. *I*-marked place names can be used in small-scale reference and always get a directional reading. The preposition *i* can mark place names on the small-scale level because direction is a simple abstraction of goal and this abstraction is brought about by the abstraction from a large- to a small-scale (see ch. 4, § 12).

In general, the ‘*i*-marking of place names does not distinguish location, goal or direction. As for the expression of directionality the extra-linguistic context, namely that of scale of reference, derives the directional reading. On the large-scale referential level ‘*i*-case-marked place names can either express location or goal/direction. On this level the reading is derived by compositional rules with other constituents of a clause, i.e. how the lexical meaning of a verbal (e.g. *noho* ‘live’ vs. *he'e* ‘go’) semantically derives a destinative or locational reading.

For the interpretation of locative constructions with place names, the following aspects play a role:

1. Meaning contribution of locative prepositions to place names;
2. Composition with other constituents of a clause;
3. The scale of reference.

6.2. Locative constructions with body-part terms

6.2.1. *The semantics of body-part terms*

In Oceanic languages the largest lexical source of expressions used for spatial description derive from body-part terms (Bowden 1992: 3). A number of other studies on Mesoamerican (Brugman and Macauley 1986; de

León and Levinson 1992) and African languages (Heine 1989)³³⁴ make similar observations. One of the conclusions these studies made is “that the human body, and the relationship between different parts of the body, have an important role to play in the way people understand and talk about spatial relationships” (Bowden 1992: 30).

The usage of body-part terms for spatial description also shows that human conceptualisation of space is itself based on metaphor (Bowden 1992: 30). It has been often argued that the main processes underlying grammaticalisation are structured by metaphor (Heine, Claudi and Hünnemeyer 1991: 45; Bybee and Pagliuca 1985). These grammaticalisation processes are metaphorical processes in which a lexical item is recruited to express a more abstract concept, such as a spatial concept, by weakening or emptying the semantic content (Bybee and Pagliuca 1985: 59). With respect to the meaning of such a lexical item (e.g. a body-part term) the resulting situation is a case of what is usually called ‘polysemy’ (Bowden 1992: 4). According to Bowden, however, polysemy can only be used when the distinct senses all belong to the same grammatical category. As for Marquesan body-part terms this is not the case. There are three different denotational domains of body-part terms which are distinguished on the basis of morphosyntactic properties and syntactic functions.

As for the study of the grammaticalisation of body-part terms into locatives, Bowden proposes the term heterosemy in order “to cover the wider range of semantic relatedness” between body-part terms (1992: 5).³³⁵

The process from denoting body-parts to expressing spatial concepts is, according to Heine, Claudi and Hünnemeyer (1991: 70), “not possible unless there is an intermediate stage whereby distinct conceptual domains are bridged by means of a metonymical understanding”. It is not my aim to point out the various cognitive and semantic stages of body-part terms developing into a closed class of locatives. I will however show how these stages are reflected in the language system of Marquesan. We will see that the development of a lexical item into a member of a closed class is indeed a continuum.

With respect to the grammaticalisation of body-part terms into locatives Svorou (1994: 91) observes a characteristic evolutionary path: the first stage is characterised by the semantic extension of the meaning of body-parts, namely extending the denotational domain from body-parts to object parts (see ch. 4, § 6). Crucial in the development from denoting an object part to being used as a locative is an intermediate stage of *adjacency* of the theme with the object part of the relatum. Thus at one point in time an ut-

terance like *the bucket is in front³³⁶ of the pig* could have only been uttered if the bucket was touching the pig's front. However, body-part terms which are used to denote object parts cannot yet be regarded as locatives when theme and relatum are still in the stage of adjacency (see below).

The semantic extension of body-part terms to denote object parts is a metonymical and not metaphorical shift (see also Heine, Claudi and Hünnemeyer 1991). The semantic extension to the denotational domain 'object parts' is the intermediate stage and crucial 'bridge' from the domain OBJECT to the domain SPACE (see below).

In the following subsection I describe the different uses of body-part terms (= denotational domains) and the different morphosyntactic properties of the constructions in which these body-part terms occur. One of the questions I will follow up is whether or not the different denotational domains of body-part terms form distinct classes, or in Bowden's terminology (1992: 4), belong to different grammatical categories.

6.2.2. Body-part terms in North Marquesan

Marquesan body-part terms are used in the following three denotational domains:

1. for the denotation of human and animal³³⁷ body-parts (= type 1; see [5.43]);
2. for the denotation of object parts (= type 2; see [5.44]);
3. in locative constructions to specify an object region (= type 3; see [5.45]).

part of BODY	\Rightarrow	part of OBJECT	\Rightarrow	SPATIAL REGION
type 1-construction		type 2-construction		type 3-construction

Type 1

- (5.43) *E ana hu'i i te keo 'i tai.*
 TAM almost turn DO ART bp-bottom LD sea
 'Turn the bottom almost seawards.' (FA-B/R-006–008)

Type 2

- (5.44) *Ua tihe 'io te a'o o t=o 'aua ha'e,*
 TAM arrive PREP ART bp-face,front POSS ART=POSS 3.dl house

ua ta'a te 'eo o na makaka... .
 TAM call ART voice POSS ART.DL nasty, insulting
 '(He) arrived at their house's front, the voice of the two insulting
 (men)... .' (Lav-T/H: 067)

Type 3

- (5.45) *'Ina mu'i e, 'a'e ho'i i he'e ma te tua*
 a.little behind EMPH be.not indeed TAM go PREP ART bp-back
o te tumu 'akau~ . (FA-T/M-H-9: 024–025)
 POSS ART trunc wood
 '(It) is a little behind, (it) is not really going to the back of the
 tree.'

We can regard all three types as different semantic types of constructions in which body-part terms occur as lexical heads. The following limited set of body-part terms are used for the denotation of object regions:

Body-part terms used in type 3-constructions:

- | | | |
|--------|-----------------|-----------------------------------|
| (5.46) | <i>a'o</i> | 'front' |
| | <i>tua</i> | 'back' |
| | <i>keo</i> | 'bottom, backside' |
| | <i>kaokao</i> | 'side, flank' |
| | <i>'ima a'e</i> | 'left hand (lit. 'hand lateral')' |
| | <i>'ima oko</i> | 'right hand (lit. 'hand strong')' |

Apart from *'ima a'e* 'left hand' and *'ima oko* 'right hand', the same body-part terms are used for the denotation of object parts (= type 2). Body-part terms denoting object parts form the most limited set.

The list of body-part terms denoting human and animal body-parts is extensive: apart from the list of body-part terms in (5.46), it also includes the names of various parts of the exterior as well as interior body such as *upoko* 'head', *'o'o* 'brain', *kopu* 'belly', *koekoe* 'intestines', *uma* 'breast', *kaki* 'neck', *vae* 'foot' and more specific parts such as *mata* 'eye', *haha* 'mouth', *nihō* 'tooth', *ihu* 'nose', *puaika* 'ear', *mamaka* 'ima 'finger', *matikuku* 'i'ima 'fingernails' etc..³³⁸

One major distinction between body-part terms of type-3-constructions and those of type-1- and type-2-constructions is that type-3-constructions cannot be marked by the preposition *'io*, but only by *'i*, *ma* and *mei*. The preposition *'io* marks locative and allative case with common full words,

proper names of persons and personal pronouns. Thus, body-part terms of type-1- and type-2-constructions share this property with common full words, proper names of persons and personal pronouns. A further distinguishing feature between body-part terms of type 1 and 2 and type 3 is that the former two types can function as core arguments (i.e. subject and objects) in any type of clause whereas body-part terms denoting regions of objects cannot. Here are two examples of body-part terms in type-2-constructions in subject position. Note that (5.47) is a non-verbal, (5.48) a verbal clause:

Body-part terms of type 2 in subject position:

- (5.47) *Ee, 'i mua ho'i te a'o o te='a papua 'i mua.* (FA-T/M-H-13: 022)

front

‘Yes, the face of the enclosure is indeed in front, (it) is in front.’

- (5.48) *'Umo'i haka=pipi'i te kaokao o te tumu 'akau e.*
 PROHIB CAUS=stick ART bp.-side POSS ART trunc
 'wood EMPH
 ‘Don’t stick the side of the tree (to it).’ (FA-B/R-2: 003)

Although type-2-constructions share the *'io*-preposition and the same syntactic functions with type-1-constructions, there are, however, a number of distinguishing properties between type-1- and type-2-constructions. Body-part terms denoting object parts do not share the following morpho-syntactic properties with body-part terms in type-1-constructions:

1. Modification by state verbs (see [5.49])
2. Preposed possessive attributes (see [5.50])
3. Preposed demonstratives (see [5.51])
4. Occurrence as the lexical head of a verb phrase (see [5.52–53])
5. Occurrence in compound constructions (see [5.54])
6. Occurrence in *isu-mamafa*-compounds (see ch. 3, § 4.1.1)

- (5.49) *Te tua pa'aha-'aha 'io 'ua Toti.* (FA-B/R-15: 021)
ART back RED-smooth PREP couple T.
‘The smooth back is towards Toti (and his wife’s) place.’
- (5.50) *No te koivi piha hu'i='ia atu t=o ia keo 'io te='a ha'e masini 'i tai.* (FA-B/R-7: 029)
TOP ART female beef turn=PASS DIR ART=POSS 3.sg bottom
PREP ART=Dem house machine LD sea
‘It is the cow whose bottom is turned towards the electricity house which is seawards.’
- (5.51) *Te=nā keo o te horave me hua mea 'i kapo... .* (FA-B/R-14: 005)
ART=Dem bottom POSS ART horse like ART.ana thing LD earlier.on
‘That bottom of the horse, (it) is like earlier on... .’
- (5.52) *E keo hu'i='ia atu 'io te tere.* (FA-B/R-5: 029)
TAM bottom turn=PASS DIR PREP ART television
‘(It) is the bottom, (it) is turned towards the television.’
- (5.53) *Pe'au ko pukiki e keo.* (FA-B/R-16: 002)
say side red TAM bottom
‘(You) say asshole, (it) is a bottom.’
- (5.54) *To'o koe i te koivi piha tuku i te upoko ma 'uka o te vi'i tua o te koivi puaka.* (FA-B/R-7: 012)
take 2.sg DO ART female beef put DO ART head
PREP up POSS ART glide back POSS ART female pig
‘You take the cow put the head on top of the spine of the sow.’

The properties of type-1-constructions listed above (see [5.49–54]) are not shared with type-3-constructions either.

Body-part terms in type-1- and type-3-constructions can be marked by the locative prepositions '*i*', *ma* and *mei*, whereas body-part terms denoting object parts cannot (see below for a discussion).³³⁹ However, body-part terms of type-1-constructions are rarely marked by '*i*'; instead, there is a clear preference for '*io*-marking'.³⁴⁰ '*Io*-marked body-part terms mostly take a possessive attribute (see [5.55]), whereas '*io*-marked common full words rarely do so (see this chapter, § 6.5). The preposition *ma* in type-1-

constructions contributes the meaning of ‘concrete path’, namely ‘along, around’. *Ma* also contributes the meaning of ‘along, around’ with common full words (see [5.57]):

- (5.55) *Ua mau 'io he kaki o te po'otu.*
 TAM hold,attach PREP ART neck POSS ART beauty
 ‘(The garland) was attached on the neck of the beauty.’
 (Lav-T/H: 024)

Ma with a body-part term:

- (5.56) *U marei='ia ma te kaki, u ku-kumi='ia haka=mate.*
 TAM lwTah.lasso=PASS around ART neck TAM RED-kill,hit=PASS CAUS=dead
 ‘(She) was put a lasso around the neck, (she) was killed, made dead.’ (Lav-T/H: 042)

Ma with a common full word:

- (5.57) *E aha 'a, i hiti mai ai Makai'anui e, ma he va'anui e tihē 'io he ava.* (Mak-095)
 well TAM go.up hither ANA M. EMPH along ART route,road TAM arrive PREP ART passage
 ‘Well, Makai'anui came up along the road (and) arrived at the (mountain) passage.’

Ma contributes quite a different meaning with body-part terms of type-3-constructions. Moreover, type-3-constructions can occur with a combination of the prepositions *mei+ma*, whereas type-1-constructions do not (see below).

The properties of the three denotational domains of body-part terms are summarised in table 16 below:

Table 16. Morphosyntactic properties of body-parts terms across all three denotational domains

	Part of (=type1)	body	Part of (=type 2)	object	Object (=type 3)	region
1. PREP <i>'io</i>	+ (preferred)	+		—		
2. PREP <i>'i</i>	+ (marginal)	—		+		
3. PREP <i>ma</i>	+	—		+		
4. PREP <i>mei</i>	+		— (?)	+		
5. Combination of PREPs <i>mei+ma</i>	—	—		+		
6. Core arguments	+		+	—		
7. Modification by state verbal	+		—	—		
8. Preposed poss. PREP (<i>t=o/t=a</i>)	+		—	—		
9. Lexical VP	+		—	—		
head						
10. In compound constructions	+		—	—		
11. In <i>isu-mamafa</i> compounds	+		—	—		

Body-part terms of type-1-constructions share (except for *isu-mamafa*-compounds) most of their morphosyntactic properties listed in table 5 (see ch. 3, § 4.1.1) with common full words. Body-part terms of type-2-constructions share the ability to be marked by *'io* and to function as core arguments like body-part terms of type-1-constructions and common full words. However, with respect to modification (and other properties) type-2-constructions are as restricted as type-3-constructions.

Body-part terms are distinguished from local nouns and place names in that they are preceded either by the article *te* or *he*. The body-part terms *'ima oko* ‘right hand’ and *'ima a'e* ‘left hand’ usually do not occur with the articles *te* and *he* on their own when used as locatives. They mostly occur in *keke* ‘side’-constructions such as *'i te keke 'ima a'e* ‘at the left hand side’ (see this chapter, § 6.2.3.3). However, when denoting real body-parts *'ima a'e* and *'ima oko* simply occur with articles like other body-part terms in type-1-constructions:

- (5.58) *'Atahi 'a to'o ai te ko'oua i te ke'a 'i te*
when TAM take ANA ART old.man DO ART stone LD ART

'ima a'e, u heau te mata 'i 'uka, ua tuhi te
 hand left TAM raise ART eyes LD up TAM point ART
 'ima oko 'io he kahui 'ehi. (Lav-H: 099)
 hand right PREP ART pile coconut
 'When the old man took a stone into the left hand, the eyes raised
 upwards, the right hand pointed to the pile of coconuts.'

Moreover, unlike all other body-part terms of type-2- and type-3-constructions '*ima oko* 'right hand' and '*ima a'e* 'left hand' can occur as the lexical head of a verb phrase, like other modified body-part terms (compare ch. 3, § 4.1.1).

All body-part terms can take possessive attributes (see above). Modification by directional particles, demonstratives and other modifiers which frequently occur in locative constructions with local nouns, seldomly occur in locative constructions with body-part terms. There are occurrences of *tua* 'back' with the directional particle *mai*. The reason why body-part terms in locative constructions are rarely modified is due to the semantics of the body-part terms used as locatives. More will be said about their semantics and particular usage below and in chapter 7, section 3.1.1.

Body-part terms are a semantically more homogenous class than local nouns. The meaning contribution of the locative prepositions is, however, less predictable than with place names. The distribution of body-part terms across the spatial semantic systems in N-MQA are demonstrated in the following table:

Table 17. Usage of body-part terms in spatial semantic systems

	Topology	Intrinsic FoR ³⁴¹	Relative FoR	Absolute FoR
<i>a'o</i> 'face'	—	+	+	—/+ (marginal)
<i>tua</i> 'back'	—	+	+	—/+ (marginal)
<i>keo</i> 'bottom'	—	+	—	—
<i>kaokao</i> 'side'	+ ³⁴²	+	+	—
<i>'ima oko</i> 'right hand'	—	+	—	—/+ (marginal)
<i>'ima a'e</i> 'left hand'	—	+	—	—/+ (marginal)

N-MQA body-part terms as listed in (5.46) can all be used within the intrinsic frame of reference; only some of those body-part terms can be used in the relative frame of reference. In her evolutionary path of body-part terms Svorou (1994: 89) also shows that the usage of body-part terms in the

intrinsic frame of reference is prior to the usage of body-part terms in the relative frame of reference.³⁴³ This is also clearly evidenced with respect to the Marquesan class of body-part terms. *Keo* ‘backside, bottom’ can only be used in the intrinsic frame of reference and not in the relative frame of reference. The reason for the restricted usage of *keo*³⁴⁴ ‘bottom’ with respect to frames of spatial reference is that *keo* has only recently shifted to be used in type-3-constructions. This usage of *keo* is due to a shift in the lexicon. *Hope* ‘behind’, previously a body-part term meaning ‘backside, bottom’ and formerly being used as a body-part term of type-3-constructions (see Dordillon 1931: 171),³⁴⁵ is not used with the general article *te* in contemporary Marquesan anymore. Moreover, in my data *hope* ‘behind’ has all the properties of a local noun, thus *hope* has changed to the class of local nouns. The change of word class has effected a change in the usage of body-part terms of type-3-constructions, thus *keo* replacing *hope*. That this change must have only recently taken place is probably also reflected in the fact that *keo* ‘backside, bottom’ can only be used in the intrinsic frame of spatial reference.

On the basis of the distinct morphosyntactic properties and syntactic functions of the three different denotational domains of Marquesan body-part terms we can say that they form distinct sets or subclasses of body-part terms. The set of body-part terms being used for spatial reference is only restricted to a small set comprising basically four body-part terms deriving from the body-parts ‘face’, ‘back’, ‘bottom’ and ‘flank’. The usage of ‘*ima a'e* ‘left hand’ and ‘*ima oko* ‘right hand’, also being part of this small set, have quite different construction types and also refer to different spaces or regions than the construction types with ‘*a'o* ‘face’, *tua* ‘back’, *keo* ‘bottom’ and *kaokao* ‘flank’ and are therefore discussed in a separate paragraph (see this chapter, § 6.2.3.3).

The intermediate stage in the development from a lexical item to a grammatical category (Heine, Claudi, and Hünnemeyer 1991: 70), i.e. from a body-part term denoting a body-part to a term expressing spatial concepts is represented by type-2-constructions in Marquesan. The usage of body-part terms to denote object parts is a metonymical shift and represents the conceptual link between the first and third denotational domain of Marquesan body-part terms. The intermediate stage of type-2-constructions is reflected in the language system, namely in its morphosyntactic properties and syntactic functions (e.g. the ‘*io*-marking and the function as core arguments). According to Heine (1989: 101) the shift from denoting object parts to denoting regions of objects is a shift which is based on a *categorial*

metaphor, namely that from OBJECT to SPACE.³⁴⁶ This shift which is characterised by a stage of adjacency or contact of the theme with the relatum's object part (Heine 1989; Svorou 1994; Levinson 1992; Bowden 1992) cannot be identified for Marquesan.

For instance, in (5.59) the theme (= the ball) is not in contact with the relatum's object part, namely the car's front. Thus, a usage of the body-part term *a'o* 'face' in (5.59)

- (5.59) *Ena te popo ma te a'o o te pere'o'o.* (E)
 exist ART ball PREP ART face,front POSS ART car.
 'There is a ball at the car's front/face.'

clearly shows that *a'o* 'face' does not denote an object part, but a region which is linked to an object part of the relatum, i.e. the car's front. Usages of body-part terms as in (5.59) therefore belong to the domain of SPACE (and not OBJECT) and can be classified as a type-3-construction.

It was said above that it was difficult to say whether body-part terms denoting object parts can be marked by the locative prepositions '*i*', *ma* and *mei*. When these three locative prepositions mark the body-part terms *a'o* 'face', *tua* 'back', *keo* 'bottom' and *kaokao* 'side, flank' in constructions in which the relata are featured (e.g. pigs, houses, cars) they are likely to specify an object region of these featured relata:

- (5.60a) *Ma te keo o te puaka.* (E)
 PREP ART bottom POSS ART pig
 'At the back of the pig.'
- (5.60b) *Mei te tua o te ha'e.* (E)
 from ART back POSS ART house
 'From the back of the house.'

Body-part terms denoting object parts can function as core arguments. They are only used as locative complement phrases or adjuncts when they are marked by '*io*'. Body-part terms of type-3-constructions, on the other hand, are only used as locative complements or adjuncts, but not as core arguments. Interestingly, body-part terms denoting body-parts can function as locative complement phrases or adjuncts because there is no ambiguity between the denotation of a part and a spatial region as in the case of type-2-constructions. Note that contact between theme and relatum is always

implied when type-1-constructions are marked by a locative preposition (see also above [5.55–56]):

- (5.61) *Ua taki te hei 'io he kaki o te po'otu: "Ra ra ra ra."*
 TAM make.sound ART garland PREP ART neck POSS ART
 beautiful.woman INTJ INTJ INTJ INTJ
 ‘The garland made a sound on the neck of the beautiful woman:
 “Ra ra ra ra.”’ (Lav-T/H: 029)
- (5.62) *Ua ta'a Tuohe: “Taka'oa e, puna te vai mei te vae o Tea'ai e!”* (Lav-T/H: 289)
 TAM call T. T. EMPH spring ART water
 from ART foot POSS T. EMPH
 ‘Tuohe called: “Taka'oa, water is springing from Tea'ai's foot!”’

As for '*io*-marked type-2-constructions there need not be contact between theme and relatum (see [5.44]), but the '*io*-marking indicates that the constructions denote an object part and not a region of an object. Thus, the preposition '*io*' marks the distinction between the domains OBJECT and SPACE. Thus '*io*' only marks the location of concrete things and entities, but not (more abstract) regions or locations. This also explains why body-part terms of type-3-constructions cannot be marked by '*io*'.

The shift from the domain OBJECT to the domain SPACE is reflected in a syntactic transition from being used as core arguments to being solely used as locative complement phrases or adjuncts. This kind of transition is typically found in the grammaticalisation processes of body-part terms (see Heine 1989: 106; Bowden 1992: 12–13). We can conclude for Marquesan that the two domains OBJECT and SPACE are more or less divided with respect to syntactic functions and case-marking. That noun phrases which refer to locations are less individuated than noun phrases referring to concrete entities (e.g. dogs, houses), object part, body-parts or persons is reflected in the syntax and case-marking of the language.³⁴⁷

6.2.3. *N-MQA* body-part terms used as locatives: type-3-constructions

In this subsection I will discuss the meaning contribution of the locative prepositions '*i*', *ma* and *mei* with body-part terms of type-3-constructions as well as the different readings these locative constructions get when they

combine with the general article *te* or the non-specific article *he*. Locative constructions with body-part terms can be used in the intrinsic as well as relative frame of spatial reference. The combination of articles and prepositions differs with respect to these two frames of spatial reference. At this point I will not discuss how they are used and to which object regions they refer (see ch. 7, § 3.1.1 and § 3.1.2 for details), but only in which way they combine with articles and prepositions.

6.2.3.1. Prepositions and articles in type-3-constructions used in the relative frame of reference

Body-part terms listed in (5.63) are used in the relative frame of reference:

- (5.63) *a'o* 'face'
 tua 'back'
 kaokao 'side, flank'

Type-3-constructions used in the relative frame of reference can only be marked by the preposition *ma* and can only be preceded by the article *te*:

- (5.64) *O te piha ma te tua o te tumu 'akau.*
 TOP ART cow PREP ART back POSS ART trunc wood
 'It is the cow which is at the back of the tree.' (FA-T/M-4: 001)

Type 3-constructions form a close unit consisting of:

(5.65)

ma+te+BODY-PART TERM+o+te/t-(Dem/POSS+PPS) – common full word

In type-3-constructions which are used in the relative frame of reference neither the preposition *ma* nor the article *te* can be exchanged by other prepositions or articles. These type-3-constructions are lexical phrases in which the lexical head and the possessive attribute denoting the relatum are the only variable units.

In (5.65) the preposition *ma* in co-occurrence with a possessive construction contributes the meaning of region, namely that the theme is localised in an object region of the relatum. Thus, in (5.64) the *ma*-possessive construction indicates that the body-part term *tua* specifies an object region

of the relatum, i.e. the tree's 'back'-region. In type-3-constructions used in the intrinsic frame of reference *ma* contributes quite different meanings of path (see below).

That the type-3-construction in (5.65) has fixed constructional units is further evidenced by the way source is marked in these constructions (see [5.66]): the source-marking preposition *mei* precedes the whole construction and does not mark the lexical head – i.e. the body-part term – directly. Thus, in (5.65) only the whole construction and not the body-part term itself refer to an object region (see this chapter, § 6.2.4 for a comment).

- (5.66) *Ua heke te piha 'i tai mei ma te tua*
 TAM go.down ART cow LD sea PREP.from PREP ART back
o te tumu 'akau. (E)
 POSS ART trunc wood
 'The cow is going down seawards from the back (region) of the
 tree.'

6.2.3.2. *Prepositions and articles in type-3-constructions used in the intrinsic frame of reference*

Body-part terms listed in (5.67) are used in the intrinsic frame of reference:

- (5.67) *a'o* 'face'
tua 'back'
keo 'bottom'
kaokao 'side, flank'
'ima a'e 'left hand (side)'
'ima oko 'right hand (side)'

Type-3-constructions used in the intrinsic frame of reference are distinguished from type-3-constructions used in the relative frame of reference in that there is not only a greater variety in the use of prepositions, but also in the way the source preposition *mei* and the articles *te* and *he* combine with these body-part terms. They can be marked by the prepositions *'i* (see [5.68]), *ma* (see [5.69]) and *mei* (see [5.70]). When used in the intrinsic frame of reference, *mei* can mark the lexical head directly (see [5.70]):

- (5.68) *Ua tihē hua vehine po'otu 'i te a'o o te ha'e o hua mou ko'oua.*
 TAM arrive ART.anā woman beautiful LD ART face POSS ART house POSS ART.anā PL/DL old.man
 ‘That beautiful woman arrived at the house’s front of those two old men.’ (Lav-T/H: 094)
- (5.69) *I te va'a='ia mai o hua mou vehine, ua titā te tumu konini ma te a'o o t=o 'aua ha'e.* (Lav-U/N: 027)
 LD ART wake.up=Perf DIR POSS ART.anā PL/DL woman TAM come.closer,expand ART trunc wonderful PREP ART face POSS ART=POSS 3.dl house
 ‘At the awakening of those two women, the wonderful tree expanded at/along the front of their house.’
- (5.70) *Ua hiti e tahi puaka 'i uta mei te a'o o te papua.* (E)
 TAM go.up NUM one pig LD inland from ART face POSS ART enclosure
 ‘One pig is going up inland from the face of the enclosure.’

The example in (5.70) does not imply that the theme is in contact with the relatum at the point of departure of the ascending motion event. The difference between *'i* and *ma* in (5.68) and (5.69) is subtle and the choice of preposition might be triggered by the verbal. In (5.68) *'i* is used because it marks the destination of the arrival event. In (5.69), however, there is no change of location of the theme, but only a spatial extension of its size. It is more plausible to argue that the preposition *ma* in (5.69) expresses the meaning ‘extension along (the front of the house)’.

The difference between *'i* and *ma* in type-3-constructions used in the intrinsic frame of reference is not always clear. In the above examples *'i* expresses punctuated location, whereas *ma* expresses spatial extension which can be regarded as an instantiated meaning of the abstract meaning of path. In examples with other body-part terms such as *kaokao* ‘side’ *ma te kaokao* can refer to any ‘side’-region of an object (e.g. a cube, a car), whereas *'i te kaokao* can only refer to the inherent ‘side’-region of an object (e.g. to the side-region of a car, but not its inherent ‘front’- or ‘back’-region). Thus *ma te kaokao* could be used in the place of *'i te kaokao* but not vice versa. This is shown in the following examples.

In (5.71) and (5.72) *'i te kaokao* and *ma te kaokao* both refer to the same regions of the relatum, namely the ‘side’-regions of the long branches of the tree which are often conceptualised as the inherent sides of a tree. In (5.73) *ma te kaokao* refers to a different object region than in (5.71–72), namely to the near side of the tree (see appendix 1, photo 5 and 7). In (5.72) we can furthermore observe that the *ma*-marking of *kaokao* is not specific enough because the speaker tries to be more specific by referring to the object part of tree, i.e. its side twice (*te kaokao o tena/te tumu 'akau* ‘the side of that/the tree’):

Photo 7

- (5.71) *Tapi'i te'a koivi puaka 'i te kaokao o te tumu 'akau.* (FA-B/R-7: 009)
 stick ART=Dem female pig LD ART side POSS ART
 trunc wood
 ‘Stick that sow at the side of the tree.’

Photo 5

- (5.72) *Ma te kaokao~~ te kaokao o te=na tumu 'akau e koivi piha, te kaokao o te tumu 'akau me tai.*
 PREP ART side ART side POSS ART=Dem trunc wood
 TAM female beef ART side POSS ART trunc wood with sea
 ‘At the side~~ the side of that tree~ is a cow, the side of the seaward tree.’ (FA-B/R-5: 018)

Photo 8

- (5.73) *Ma te kaokao o te=na tumu 'akau te=nei keke me taua...* (FA-B/R-8: 005)
 PREP ART side POSS ART=Dem trunc wood
 ART=Dem side with 1.dl.incl
 ‘At the side of that tree, this side where we are.’ (lit. ‘...with us two’)

With respect to the body-part term *kaokao* *'i*-marking seems to be more specific – referring to an inherent side part or the region connected with an inherent side part –, whereas *ma*-marking is more general referring to any side.

As mentioned above type-3-constructions can be combined with the general article *te* or the non-specific article *he*. According to my consultants there is no big difference between *he* and *te* when the body-part term is

marked by the preposition *i*. The difference between the use of the two articles is probably the following:

- | | |
|----------------------------|--------------------------------|
| (5.74a) <i>i he kaokao</i> | vs. (5.74b) <i>i te kaokao</i> |
| LD ART side | LD ART side |
| 'at any of the two sides' | 'at one side' |

I he keke 'ima a'e/oko 'at the left/right hand side' are attested, whereas **i he a'o* and **i he tua* are not attested in my data. Moreover, consultants rejected **i he a'o/tua* simply because objects only have one 'front'-, 'back'- or 'bottom'-side. *I he kaokao* is felicitous because an object can have several sides.

However, all body-part terms in type-3-constructions used in the intrinsic frame of reference can combine with *ma+he*. In this combination the speaker clearly expresses that the location of the theme is unspecific. Compare (5.75a) and (5.75b):

- | | |
|--|--|
| (5.75a) <i>ma he tua o te ha'e</i> (E) | |
| PREP ART back POSS ART house | |
| 'somewhere at the back of the house' | |
| | |
| (5.75b) <i>ma te tua o te ha'e</i> (E) | |
| PREP ART back POSS ART house | |
| 'at the back of the house' | |

In combination with some local nouns the preposition *ma* can express 'unspecific location'. However, in combination with body-part terms, it does not seem to be the preposition *ma* which triggers the reading 'unspecific location'. In (5.75a) the preposition *ma* specifies the object region of the relatum. Unspecificity of the theme's location is clearly expressed by the non-specific article *he*.

A locative constructions like (5.75a) can also be used for dynamic configurations expressing that 'an object is moving along the back of the house'. Locomotion and 'unspecific location' are both conceptually related to path: locomotion takes place along a path, and a location is unspecific if an entity is scattered over a vaster region which is not confined to a clearly defined location. Therefore, we can again argue that the preposition *ma* probably has an abstract underlying meaning of path and that the concrete meanings of locomotion and unspecific location are instantiated meanings of the abstract meaning of path.

The reading ‘unspecific location’ in the construction *ma+he+body-part term* is in particular attested for *tua* ‘back’, *a'o* ‘face’ and *keo* ‘bottom’. The body-part term *kaokao* ‘side’ also often occurs in a *ma+he*-construction: *ma he kaokao* does not express ‘along the side’, but it means ‘besides, next to, close to’, thus *ma he kaokao* ‘besides’ expresses the topological notion of proximity. *Ma he kaokao* ‘besides’ might have derived from the reading ‘unspecific location’ meaning ‘anywhere along the sides of the relatum’.

Table 18. Distribution of prepositions and articles in type-3-constructions

	PREP <i>ma</i>	PREP 'i	PREP <i>mei</i>	combination <i>mei+ma</i>	ART <i>te</i>	ART <i>he</i>
type 3 (=relative FoR)	+	-	+	+	+	-
type 3 (=intrinsic FoR)	+	+	+	-	+	+

In the next subsection I will discuss the different construction types of the body-part terms '*ima a'e* ‘left hand’ and '*ima oko* ‘right hand’. Note that these constructions rarely express a region of an object (mostly an object part). If they refer to object regions, i.e. if they are used as locatives, their usage is confined to the speech participants’ left or right sides, a usage we have classified as intrinsic (see ch. 4).

6.2.3.3. Construction types with '*ima a'e* ‘left hand’ and '*ima oko* ‘right hand’

When the body-part terms '*ima a'e* ‘left hand’ and '*ima oko* ‘right hand’ are used as locatives in a locative construction they are mostly constructed with the common full word *keke* ‘side’. The most frequent constructions with these body-part terms are '*i+te+keke*-constructions (see [5.76a]). In many occurrences the article *te* is omitted (see [5.76b]):

- (5.76a) *E tahi 'enana e taha a'a 'i te keke*
 NUM one man TAM walk.across Dem.dist LD ART side
'ima oko... . (FA-T/M-8: 001)
 hand right
 ‘One man, (he) is walking across at the right hand side.’

- (5.76b) *Taha mai te='a horave 'i keke 'ima oko 'io te tumu 'akau.* (FA-T/M-2: 010)
 go.across hither ART=Dem horse LD side hand right PREP
 ART trunc wood
 'That horse is going across at right hand side towards the tree.'

There are also a number of *ma+te*-constructions, but no *ma+he*-constructions are attested in my data:

- (5.77) ***Ma te keke 'ima a'e e tahi isorave.***
 PREP ART side hand left NUM one horse
 'One horse is at the left hand side.' (FA-T/M-18: 007)

The difference between '*i*' and *ma* in these constructions is not clear because most of the *ma+te*-constructions do not occur with a possessive attribute or any other attributive noun phrase. There is only one example with a possessive attribute:

- (5.78) ***Ma te keke 'ima oko o te tumu 'akau e tahi isorave.***
 PREP ART side hand right POSS ART trunc wood
 NUM one horse
 'At the right hand side of the tree is one horse.' (FA-T/M-1: 003)

In (5.78) the function of *ma* could be the specification of an object region. In all other '*ima a'e/ima oko*-constructions *ma* does not seem to contrast with '*i*'.

The body-part terms (*keke*) '*ima oko* 'right hand (side)' and (*keke*) '*ima a'e* 'left hand (side)' differ from other body-part terms in type-3-constructions in that they can occur as the lexical head of a verb phrase. In verbal contexts they occur as relative clauses (see [5.79a]), or as a predicate of a verbal clause (see [5.79b]):

- (5.79a) *Te papua ma te keke ma te keke o te horave, e keke 'ima oko.* (FA-T/M-15: 016)
 ART enclosure PREP ART side PREP ART side POSS ART
 horse TAM side hand right
 'The enclosure, it is at the side, the side of the horse which is at the left hand side.'

- (5.79b) *E keke 'ima oko te horave.* (FA-T/M-15: 018)
 TAM side hand right ART horse
 'The horse is (at the) right hand side.'

Note that with respect to the body-part terms (*keke*) '*ima a'e* 'left hand (side)' and (*keke*) '*ima oko* 'right hand (side)' the range of TAM-markers is restricted to *e*.

In some utterances '*ima a'e* 'left hand' and '*ima oko* 'right hand' occur without the common full word *keke* 'side' and any other nominal or verbal markers. In (5.80) '*ima a'e* 'left hand' is a modifier of *keke tuaivi* 'mountain side':

- (5.80) *Te upoko 'i te keke tuaivi 'ima a'e.*
 ART head LD ART side mountain hand left
 'The head,(it) is at the left hand mountain side.' (FA-T/M-18: 008)

There is one occurrence with '*ima oko* 'right hand' without *keke* 'side' and prenuclear markers, but with a possessive attribute which shows that these body-part terms have nominal properties:

- (5.81) *Pe'au koe 'i kapo 'ima oko o te horave?*
 say 2.sg LD earlier.on hand right POSS ART horse
 'You said earlier on right hand of the horse.' (FA-T/M-2: 022)

In casual speech speakers often leave out morphosyntactic marking and just use content words (or full words) to convey their information. In (5.82) '*ima oko* 'right hand' and state verbal *meita'i* 'good' do not have any markers at all:

- (5.82) *Ma tai te='a, na koe e pe'au te horave meita'i*
 PREP sea ART=Dem TOP 2.sg TAM say ART horse good
'ima oko.
 hand right
 'That is seaward, it is you who are saying that the horse is good
 right hand.' (FA-T/M-2: 019)

6.2.4. Summary

In this subsection I have discussed the usage of Marquesan body-part terms with respect to three different types of constructions. All three construction types can be distinguished on the basis of morphosyntactic properties as well as syntactic functions. Synchronously a small set of Marquesan body-part terms (see [5.46]) can be used in three different denotational domains, namely denoting

1. body-parts
2. object parts
3. object regions.

Whereas the first two denotational domains belong to the domain OBJECT, only the latter can be said to belong to the more abstract domain SPACE. It was shown that the denotational domain ‘object part’ can be clearly regarded as an intermediate stage from the domain OBJECT to the domain SPACE. This intermediate stage is characterised by the fact that body-part terms in type-2-constructions can be marked by the preposition ‘*io*’ and that they can function as core arguments. ‘*Io*-marking is a typical feature of body-part terms used in type-1-constructions as well as a characteristic feature of locative case-marking with common full words. Body-part terms in type-3-constructions, on the other hand, cannot be marked by ‘*io*’. They share this property with other nominal classes which are used in the domain SPACE, namely place names and local nouns. We can therefore say that the locative case-marking by ‘*io*’ is characteristic for those nominals which denote concrete entities (e.g. objects, body-parts), whereas the preposition ‘*i*’ is used with those nominals which are used in the domain SPACE, and thus denote locations (e.g. places, ‘object regions’).

The categorial shift from the domain OBJECT to the domain SPACE is also reflected in the syntactic functions of the different construction types in verbal clauses. Whereas type-1- and type-2-constructions can function as core arguments as well as complement phrases and adjuncts, type-3-constructions can only function as complement phrases and adjuncts. This syntactic transition has been often described as a typical process in the grammaticalisation of body-part terms into locatives (see Heine 1989; Bowden 1992).

On the other hand, type-2-constructions share many properties with type-3-constructions (e.g. no modification by state verbs, no preposed

possessive preposition; see table 16). The set of body-part terms used in type-2- and type-3-constructions is restricted to a small set of body-part terms which are derived from those body-parts which coincide with the major asymmetrical axes of a body, namely ‘face, front’, ‘back’, ‘bottom’, ‘flank’, ‘left hand’ and ‘right hand’. The use of the body-part terms *ima a'e* ‘left hand’ and *ima oko* ‘right hand’ is however rather restricted and when used for spatial reference these two body-part terms occur in construction types which are distinct from type-3-constructions (see this chapter, § 6.2.3.3).

In the spatial domain (= type-3-constructions) the body-part terms *keo* ‘bottom, backside’ and *tua* ‘back, spine’ can both refer to so-called ‘back/behind’-regions of objects. However, these two body-part terms are not used arbitrarily, but the orientation of an entity’s main axis plays a role when choosing *keo* or *tua*. The body-part terms *keo* ‘bottom’ is preferably used with those objects and entities whose main axis is extended on the horizontal plane (e.g. four-legged animals, cars). When the main axis is extended on the vertical plane (e.g. with humans, trees) then *tua* ‘back, spine’ is preferably used to refer to the ‘behind’- or ‘back’-region of an entity (e.g. *ma te tua o te tumu 'akau* ‘at the back of the tree’).

With respect to frames of spatial reference type-3-constructions can be used in the intrinsic as well as relative frames of spatial reference. In the relative frame of reference we can only observe one construction type, whereas body-part terms used in the intrinsic frame of reference show a variation of locative prepositions as well as articles. This variation of prepositions and articles express subtle meaning differences (e.g. the difference between a *ma+te-* and a *ma+he-*possessive construction).

It was shown in this subsection that the three different denotational domains of body-part terms can be distinguished on the basis of morphosyntactic properties and syntactic functions. However, one cannot say that the three different denotational domains form distinct subclasses and that body-part terms used in the domain SPACE belong to a different grammatical category, and thus are heterosemous (Bowden 1992: 5). It is more plausible to argue that there is a small set of body-part terms (see [5.46]) which are polysemous. All constructions with Marquesan body-part terms are noun phrase constructions and thus body-part terms used in type-3-constructions do not form a distinct grammatical category or class, but they belong, like body-part terms in type-1- and type-2-constructions, to the class of full words (see ch. 3, § 4.1.1). The different morphosyntactic properties which are manifested in type-1-, type-2- and type-3-constructions is not due to the

degree of grammaticalisation of a body-part term as such, but rather due to the different meaning of a body-part term. For instance, the body-part term *tua* has three different meanings, namely

1. back, spine of a body (= body-part)
2. back-part of an object (= object part)
3. ‘back’-region of an object (= location).

In the meaning of ‘back, spine of a body’ *tua* can take all morphosyntactic properties which are characteristic for type-1-constructions, and in the meaning of ‘back part of an object’ *tua* shows all the morphosyntactic properties which occur in type-2-constructions and when *tua* denotes a location it can take all the properties of type-3-constructions.

6.3. Locative constructions with local nouns

6.3.1. *The class of local nouns in North Marquesan*

The class of local nouns is characterised by the absence of a preceding article. Local nouns are a small closed class of nominals which are exclusively used to express spatial relations in small-scale as well as large-scale reference. In N-MQA the following words belong to the class of local nouns:³⁴⁸

(5.83)	
' <i>a'o</i>	‘1. down, ground, 2. downstream’ (PPN ³⁴⁹ * <i>lalo</i> ‘bottom’)
' <i>uka</i>	‘1. up, top, 2. upstream’ (PPN * <i>lunga</i> ‘top’)
' <i>oto</i>	‘1. inside, 2. in the bay’ (PPN * <i>loto</i> ‘inside’)
<i>vaho</i>	‘1. outside, 2. on the ocean’ (PPN * <i>fafō</i> ‘outside’)
<i>vaveka</i>	‘middle, between’
<i>mua</i>	‘1. first, 2. front’ (PPN * <i>mu'a</i> ‘front’)
<i>mu'i</i>	‘1. behind, 2. last’ (PPN * <i>muri</i> ‘back, rear end’)
<i>hope</i>	‘1. behind, 2. hidden’ ³⁵⁰

<i>tai</i>	'sea'
	(PPN * <i>tahi</i> 'sea')
<i>uta</i>	'1. inland, 2. ashore, land'
	(PPN *' <i>uta</i> 'shore, inland')
<i>ko</i>	'1. left or right side of a valley, 2. side'
	(PPN * <i>koo</i> 'there')
<i>kapai</i>	'in direction of the sea, seaward'
<i>kauta</i>	'further inlandward'
<i>kako</i>	'1. in direction to the left or right side of the valley, 2. in any direction'
(<i>hea/sea</i>	'where' ³⁵¹)
	(PPN * <i>fea</i> 'where')

Vaveka 'middle, between' and *hope* do not belong to the reconstructed class of local nouns in Proto Polynesian (see Clark 1976: 55). Note that these two local nouns partly differ in some constructions from the other local nouns.

The class of local nouns is the most heterogenous class. While some local nouns are used to express topological relations, others are employed within the intrinsic, relative or absolute frame of spatial reference. We can therefore group the following local nouns together:

1. Local nouns which are used in the intrinsic or relative frame of spatial reference: *mua* 'first, front', *mu'i* 'last, behind', *hope* 'behind' and *ko* 'side'.
2. Local nouns which are used in the absolute frame of spatial reference:
 - a) *tai* 'sea', *uta* 'inland', *ko*³⁵² 'left or right side of valley';
 - b) *kapai* 'seaward', *kauta* 'landward' and *kako* 'in direction to the left or right side of the valley';
 - c) '*uka* 'upstream' and '*a'o* 'downstream'.³⁵³
3. Local nouns expressing topological relations: '*oto* 'inside', *vaho* 'outside' and *vaveka* 'middle, between'.
4. Local nouns expressing spatial relations on the vertical UP/DOWN-axis: '*a'o* 'down, ground' and '*uka* 'up, top'.

We will see in the following subsections that this subgrouping within the class of local nouns is reasonable because it will give a clearer understanding of the interaction between meaning contribution of prepositions

and local nouns and their compatibility or incompatibility to take attributive noun phrases.

Kapai ‘seaward, further seaward’, *kauta* ‘landward, further inland’ and *kako* ‘in direction to the left or right side of the valley’³⁵⁴ have been derived by the unproductive prefix *ka-* meaning ‘move further’.³⁵⁵ This prefix adds a real directional sense to the local nouns *tai* ‘sea’, *uta* ‘inland, land’ and *ko* ‘left or right side of valley’ and we can therefore say that *kapai*, *kauta* and *kako* are, unlike *tai*, *uta* and *ko*, inherently directional. *Kapai*, *kauta* and *kako* belong to the class of local nouns because they do not take an article and are used in the same locative constructions types as other local nouns. *Kapai*, *kauta* and *kako* are often used in predicate function. In this usage they are rarely marked by prepositions, but frequently modified by the directional particles *mai* ‘hither’ and *atu* ‘thither’ (see [5.84a–84b]) or demonstratives (see [5.84c]):

- (5.84a) *Kauta atu koe!* (E)
 landward thither 2.sg
 ‘Move further inland!’
- (5.84b) *Kapai mai koe!*
 seaward hither 2.sg
 ‘Move seaward toward me!’ (E)³⁵⁶
- (5.84c) *Ati'i ana to'o te='a tumu te='a sapin*
 be.like Dem take ART=Dem trunc ART=Dem IwFr.fir.tree
tuku keke me ko, kako a'a
 put side with across move.acrossward there
 ‘Like that, take that tree, that *sapin*, put (it) at the across-side, put
 (it) there acrosswards’ (FA-Mars/Ce-34oc: 06)

The following table shows the distribution of local nouns across spatial semantic systems:

Table 19. Usage of local nouns across semantic systems of spatial reference

Local noun	Topology	Intrinsic FoR	Relative FoR	Absolute FoR
<i>'a'o</i> '1. down, 2. downstream'	+	-	-	+
<i>'uka</i> '1. up, 2. upstream'	+	-	-	+
<i>'oto</i> '1. inside, 2. in bay'	+	-	-	-
<i>vaho</i> '1. outside, 2. on the ocean'	+	-	-	-
<i>vaveka</i> 'middle'	+	-	-	-
<i>mua</i> '1. first, 2. front'	-	+	+	-
<i>hope</i> '1. behind, 2. hidden'	-	+	+	-
<i>mu'i</i> '1. behind, 2. last'	-	+	+	-
<i>tai</i> 'sea'	-	-	-	+
<i>uta</i> '1. inland 2. ashore'	-	-	-	+
<i>ko</i> '1. across, 2. side'	-	+	+	+
<i>kapai</i> 'seaward'	-	-	-	+
<i>kauta</i> 'landward'	-	-	-	+
<i>kako</i> '1. acrossward 2. towards side'	-	+	-	+

Due to the semantically heterogenous nature of local nouns the meanings prepositions contribute to the local nouns vary greatly. This will be discussed in the following subsections.

Locative constructions in which local nouns function as lexical head allow the broadest range of modifiers such as directional particles, demonstratives and other modifiers (see ch. 6). Moreover, local noun constructions can occur with all three attributive NPs expressing the relatum (see this chapter, § 4). All other locative constructions only take possessive attributes, if at all. Table 20 shows the morphosyntactic properties of local nouns.³⁵⁷

Table 20. Morphosyntactic properties of local nouns in N-MQA

	ART	PREP 'i, ma, mei	PREP 'io	POSS ATTR	DEM	DIR	MOD
Local nouns	-	+	-	+	+	+/-	+/-

Vaveka ‘middle’ can occur with the article *te* or *he* when denoting the middle part of an object:

- (5.85) *O 'inei te vaveka o te va'anui.*
 PRES here ART middle POSS ART road
 ‘The middle of the road is here.’ (Zewen 1987: 65)

- (5.86) *T=o ia pao='ia 'ina tata'eka 'i he*
 ART=POSS 3.sg finish=PASS almost close LD ART
vaveka='ia o te='a tumu 'akau ma uta ma uta.
 middle=NOM? POSS ART=Dem trunc wood PREP inland PREP inland
 ‘Its end is almost at the middle part of the tree inland (of it) inland
 (of it).’ (FA-T/M-H-9: 015)

The local nouns '*oto*' and '*vaveka*' can occur in constructions in which they are preceded by an article (e.g. '*io he 'oto tai*’ ‘puddles on the rocks by the sea’). This construction is lexicalised and not productive in Marquesan.³⁵⁸

6.3.2. The semantics of North Marquesan local nouns

Many local nouns in N-MQA are polysemous. For instance, '*uka*' has two distinct meanings (or senses) expressing

1. ‘up, top’ and
2. ‘upstream’

I do not regard the meaning ‘upstream’ of '*uka*' as being derived from the meaning ‘up’ by a “mechanism of contextual modulation” (Cruse 1988; Ruhl 1989), but as a different sense or meaning of the lexical item '*uka*'. Extended senses can be derived by processes of semantic narrowing and semantic bleaching³⁵⁹ in specific uses of a lexical item. Extended meanings are thought to have derived from the basic meaning of a lexical item which

can be distinguished from the extended senses by a number of criteria such as frequency, historical priority, default interpretations of speakers etc. (see Schultze-Berndt 2000: 33). For instance, when applying the criterion of historical priority we can say that ‘up, top’ seems to be the basic meaning of *'uka* (see Clark 1976: 55). This also corresponds to the default interpretation of speakers. In (5.81) the first listed meaning represents the basic meaning of the local noun. All other listed meanings or senses are derived. The basic meanings which I glossed for the local nouns are based on Clark (1976) as well as on the default interpretation of speakers.

With respect to Bowden’s definition of polysemy (1992: 4) we can say that the above listed local nouns in (5.81) are truly polysemous because the different senses of a local noun belong to the same grammatical category.

Some meanings or senses of a local noun are more of a metonymical nature whereas others are more of a metaphorical nature. For instance, *'i vaho* ‘on the ocean’ or *'i 'oto* ‘in the bay’ are metaphorical uses of the local nouns *vaho* ‘outside’ and *'oto* ‘inside’ conceiving the contrast between SEA and LAND as a relationship of containment vs. non-containment (or inclusion vs. exclusion).³⁶⁰ Metonymical uses of local nouns are represented, for instance, by the derived meaning of *'uka* ‘upstream’ or *'a'o* ‘downstream’.

In section 3 I pointed out that one objective of this thesis is to illustrate the semantic interaction between the locative prepositions and the lexical head of a locative construction. Whereas the meaning contribution of the locative prepositions are regarded as different meaning instantiations of an invariant abstract meaning (e.g. path for the preposition *ma*), the lexical head can be polysemous (e.g. *'uka* ‘up, upstream’). If a local noun is polysemous, as in the case of *'uka*, we can regard the meaning of ‘upstream’ as a secondary meaning which has been derived by a process of semantic narrowing in specific uses³⁶¹ of *'uka*. The derived meaning of ‘upstream’ cannot be regarded as merely being derived by contextual factors on the level of utterance. In other words: ‘upstream’ is one of the lexical meanings of *'uka*.

That the distinction of the lexical meanings of one local noun is important when discussing the meaning contribution of locative prepositions shall also be briefly illustrated by the two following examples. Both utterances in (5.87) and (5.88) have the same phonological realisation as well as the same theme and relatum involved in the spatial configuration, but both clauses refer to quite different spatial regions of the relatum:

- (5.87) 'A *tuku* *te* *pora* *ma* '*uka* *o* *te* *tapu.*
 TAM put ART bowl PREP **up,top** POSS ART table
 'Put the bowl *on top of* the table.' (E)

- (5.88) 'A *tuku* *te* *pora* *ma* '*uka* *o* *te* *tapu.*
 TAM put ART bowl PREP **upstream** POSS ART table
 'Put the bowl *upstream of* the table.' (E)

It would be very difficult to derive the reading of (5.88) if we assume that '*uka*' only has the basic meaning of 'up, top'. We would arrive at an interpretation of 'on top of the table', but we would not get the reading 'upstream of the table' which specifies quite a different spatial region of the relatum (= table). The need for a distinction between the lexical meanings of a local noun should have become evident.

Apart from these two lexical meanings of '*uka*', '*uka*-phrases often refer to 'the top of the mountain' or 'the upper part of a valley'. Those interpretations of '*uka*-phrases are, however, not lexicalised meanings of '*uka*' (see [5.89–90]):

- (5.89) *Hu'i atu 'io te='a vahi me te tere me*
 turn DIR PREP ART=Dem place with ART IwFr.television with
te pou=tere 'i 'uka.
 ART post=TV (=satellite) LD up
 'Turn (it) towards that place with the television with the TV
 satellite on top of the mountain.' (FA-B/R-10: 018)

- (5.90) *U ma'akau Te'akima'ui'ui o=ia nei te va'anui*
 TAM think T. PRES=Dem Dem ART route
mea piki='ia 'i 'uka.
 thing climb.up=Perf LD up
 'Te'akima'ui'ui thought this here is the route to climb up on top of
 the mountain.' (Lav-U: 161)

The interpretation of '*i 'uka*' in (5.89–90) as 'on top of the mountain' is derived by contextual factors such as context of the narrative, composition with other constituents of the utterance, and/or encyclopaedic knowledge of the speakers. In (5.89) it is clearly the encyclopaedic knowledge of speakers which derives the interpretation of 'on top of the mountain'. All speakers of Hakahau, where (5.89) was recorded, know that the only TV satellite of their valley is on top of the mountain (and not on top of a house or elsewhere). In (5.88) it is the context of the narrative as well as composition

with other constituents of the utterance (e.g. *va'anui mea piki'ia* 'route to be climbed up') which derive the reading of 'on top of the mountain'.

Often one can also infer from the scale of reference which interpretation *i 'uka* might get. If *i 'uka* is uttered on a large-scale level, it would most probably receive one of the following three interpretations:

1. 'on top of the mountain',
2. 'in the upper part of a valley or village' or
3. 'up in the sky'.

On a small-scale level *i 'uka* could receive interpretations such

1. 'on the ceiling'
2. 'on the wall'
3. 'anything which is above the ground floor' etc..

In all these interpretations of *i 'uka* the lexical meaning of *'uka* is one and the same meaning, namely 'up'.

In section 1 it was said that the meaning of the local landmark nouns *tai* 'sea', *uta* 'shore, inland', *ko* 'left or right side of valley', *'uka* 'upstream' and *a'o* 'downstream' is not inherently directional. These local nouns denote landmarks or places and not a direction towards a place or landmark. It is the construction (i.e. the '*i*-marking) as well as the scale of reference which derive a directional reading. *Kapai* 'seaward', *kauta* 'inlandward' and *kako* 'towards the left or right side of the valley', on the other hand, are inherently directional due to the affixation of directional prefix *ka-*.

The following aspects are involved in deriving the interpretation of a locative construction with local nouns:

1. Meaning contributions of the various units of a construction (e.g. preposition, local noun, modifiers, possessive attribute etc.).
2. Composition with other constituents of an utterance.
3. Encyclopaedic knowledge of speakers (e.g. object knowledge).
4. Scale of reference.
5. Meaning of the construction itself (e.g. *ma*-possessive construction).

6.3.3. Meaning contribution of the locative prepositions

In this subsection the meaning contributions of '*i*', *ma* and *mei* are discussed as well as the compatibility or incompatibility of a case-marked local noun to combine with attributive noun phrases which express the relatum (see this chapter, § 4). The preposition *mei* always marks source. Some *mei*-marked local nouns can occur with attributive noun phrases whereas others cannot. The incompatibility to take attributive noun phrases is due to the semantics of the local noun. A similar restriction can also be observed with some '*i*-marked local nouns which is also due to the semantics of the local noun. With respect to local nouns the preposition *ma* contributes its full range of meanings, i.e. (concrete) path, region of an object, unspecific location, surface, spatial extension, movement and plurality. However, not all local nouns can receive the full range of meanings. *Ma* is most frequently used for the specification of an object region on the small-scale level.

6.3.3.1. Local nouns used in the intrinsic and relative frame of reference

The local nouns *mua* 'first, front', *mu'i* 'last, behind' and *hope* 'behind' are used exclusively in small-scale reference and can be marked by '*i*', *ma* and *mei*. The local noun *ko* is polysemous and can be used in all three frames of spatial reference (see table 19). When it is used in the meaning of 'side' *ko* is used within the intrinsic and relative frames of spatial reference and can only be marked by *ma*.

All *ma*-marked local nouns used in the relative and intrinsic frames of spatial reference, express that the theme is localised in an object region of the relatum:

- (5.91) *'A to'o koe i te tumu 'akau* [theme] *tuku*
 TAM take 2sg DO ART trunc wood put
ma hope o te'a ko pukiki o te='a
 PREP loc.n-back POSS ART side red POSS ART=Dem
piha [relatum]
 cow
 'You take a tree, put (it) at the back of that asshole of that cow... .'
 (FA-Hak-9: 014)

- (5.92) *Hm, e heke nei titahi piha ma mua*
 INTJ TAM go.seawards Dem ART.indef cow PREP loc.n-front

o te='a tumu 'akau. (FA-T/M-H-17: 003)
 POSS ART=Dem trunc wood
 ‘Hm, a cow is going seawards in front of that tree.’

- (5.93) *I he kaokao te mua, ma ko o te tumu 'akau.* (FA-T/M-H-17: 053–054)³⁶²
 LD ART side ART front PREP side POSS ART trunc
 wood
 ‘The front is at a side, at the side of the tree.’

The attributive noun phrase expressing the relatum is often omitted when it is clear from the context what the relatum is (see [5.94]) or when the addressee takes up the same locative construction in the next conversational turn, as demonstrated in (5.95):

- (5.94) *Tutae pi'au koe, pe'au au te horave ma mua.*
 shit stink 2.sg say 1.sg ART horse PREP loc.n-front
 ‘Shit, damn you, I said the horse is in front (of not mentioned
 relatum).’ (FA-T/M-H-17: 35)

- (5.95) *O te pe'au=ia e koe ia='u te piha ma mua o te tumu 'akau? – Ee, ma mua.*
 TOP ART say=PASS AGS 2.sg OBL?=1.sg ART cow PREP
 loc.n-front POSS ART trunc wood yes PREP loc.n-front
 ‘It was said to me by you that the cow is in front of the tree? –
 Yes, in front.’ (lit. ‘it was the saying to me by you’; FA-T/M-H-17:
 041–42)

Ma- as well as ‘*i*-marked *mua*, *mu'i* and *hope* can take attributive noun phrases expressing the relatum. *Mua*, *mu'i* and *hope* mostly occur with possessive attributes, and occasionally with ‘*i*-marked attributes. There are no occurrences with *he*-marked attributive noun phrases.

- (5.96) *I mua toitoi o='u?* (FA-T/M-H-14: 058)
 LD loc.n-front really POSS=1.sg
 ‘Really in front of me?’

- (5.97) *Epo~ te='a mou tumu sapin tuku koe ma hope 'i*
 later ART=Dem PL/DL trunc csFr.-fir put 2.sg along behind LD
te='a horave. (FA-Hak-5)
 ART=Dem horse

'Wait~ those two tress, you put (them) behind that horse.'

- (5.98) *E 'ina mamao i mu'i o titahi koivi puaka.*
 TAM a.little distant LD loc.n-behind POSS ART female pig
 'It is a little distant behind the other sow.' (FA-B/R-8: 021)

I-marked *ko* cannot take possessive attributes or any other attributive noun phrase expressing the relatum (see below).

I- and *ma*-marked *mua*, *mu'i* and *hope* in a possessive construction express that the theme is localised in an object region of the relatum. Most of my consultants did not see a big difference in the meaning between, for instance, '*i mua o te puaka* 'in front of the pig' and *ma mua o te puaka* 'in front of the pig', though most consultants prefer the *ma*-construction and classified it as 'better' Marquesan. However, there is a subtle difference between the *i*- and *ma*-marking. In my data I could observe that the *i*-construction³⁶³ is only used within the intrinsic frame of reference. It was also confirmed by my consultants that the *i*-construction is more felicitous when it is used in the intrinsic frame of reference. Thus, '*i mua o te puaka* means 'at the pig's front', whereas *ma mua o te puaka* could mean 'at the pig's front' or 'in front of the pig (from the speaker's perspective)':

- ma mua o te puaka*
 1. 'in front of the pig' (relative)
 2. 'at the pig's front' (intrinsic)

- 'i mua o te puaka*
 'at the pig's front' (intrinsic)

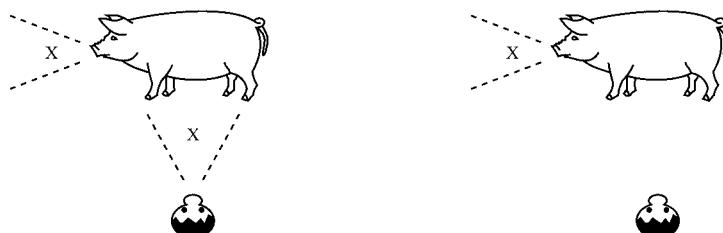


Figure 14. 'Front'-regions of a pig

Ma-marked *mua*, *mu'i* and *hope* can be used in the intrinsic as well as relative frame of reference, whereas *i*-marked *mua*, *mu'i* and *hope* (in a possessive construction) are restricted to the intrinsic frame of reference. Note that *i*-marked body-part terms in type-3-constructions are also used exclusively in the intrinsic frame of reference (see this chapter, § 6.2.3.2).

At this stage it seems important to point out that the preposition *ma* has a wider range of usages than '*i*' with respect to those locative constructions which occur in a possessive construction. We can furthermore summarise at this point that *ma* in combination with a possessive attribute or an '*i*-marked attribute seems to specify an object region.

In my data there are no occurrences of *mei*-marked *mua*, *mu'i* and *hope* when they occur in a possessive construction. According to my consultants one can express that an object is moving from the 'front'- or 'back'-region of an object by marking the local noun directly with *mei* (see [5.99]) or by combining the preposition *mei* with the *ma*-construction. Thus, *mei* marks the whole *ma*-construction (see [5.100]):

- (5.99) *E hiti nei e tahi horave mei mu'i o te ha'e.*
TAM go.inland Dem NUM one horse from behind POSS

ART house

'One horse is going inland from behind the house.' (E)

- (5.100) *E heke a'a e tahi puaka 'i tai mei ma mu'i o te horave. (E)*
TAM go.seaward Dem NUM one pig LD sea from PREP
behind POSS ART horse

'One pig is going down seawards from (the) behind (region) of the horse.'

With respect to the marking of source there is a similarity in the type-3-constructions of body-parts terms used in the relative frame of reference (see [5.65]) and the *ma*-possessive construction of the local nouns *mua*, *mu'i* and *hope* as illustrated in (5.100). The way source is marked in these noun phrases is evidence that the preposition *ma* in combination with a possessive attribute is felt as one fixed construction type.

Mua 'front', *mu'i* 'behind' and *hope* 'back, behind' can also be marked by '*i*' or *mei* without the occurrences of any attributive noun phrases (see [5.101–104]). In some utterances these locative constructions have a directional reading (see [5.101]):

- (5.101) *Hu'i atu i te upoko 'i mua. (FA-Hak-4: 004)*
turn DIR DO ART head LD front
'Turn the head towards the front.' (i.e. in the direction of gaze of
the speaker)

In other utterances these locative constructions have the function of indicating the location of the theme. However, phrases like '*i mua* 'in front' and '*i mu'i* 'behind' do not specify an object region. It is as if the speaker divides the space *in front of him or her* into different regions or spaces. If the space in front of the speaker is a table, the table has for instance a 'front'-region, a 'back'-region etc.. The theme is then localised within these 'front'- or 'back'-regions. This type of location has been called partitioned region (see ch. 4, § 10.3).³⁶⁴ In complex spatial configurations partitioned regions do not correspond to regions of objects. This kind of reference can be often observed in the *Farm Animals* data as illustrated in (5.102–104a).

In (5.102) '*i mua*' means that the cow's bottom is simply localised in 'the front region of the table'. In (5.103) the specification of such a partitioned region and an object region are contrasted in the same utterance and quite differently constructed i.e. we can observe an '*i*-marking without a possessive attribute vs. a *ma*-marking with a possessive attribute):

Photo 15 (see appendix 1)

- (5.102) *I mua 'i'a te [te] haka=moe='ia atu i*
 LD front there ART ART CAUS=lie=Perf DIR DO
t=a ia keo. (FA-T/M-H-15: 065)
 ART=POSS 3.sg bottom
 'The [the] position of its bottom is in (the) front there.'

Photo 9

- (5.103) *E tahi tumu 'akau 'i mu'i~ ma mua o*
 NUM one trunc wood LD behind PREP front POSS
te='a tumu 'akau, e tahi koivi piha ma mua.
 ART=Dem trunc wood NUM one female cow PREP front
 'One tree is behind~ in front of that tree is one cow, in front (of it).' (FA-T/M-H-9: 004–05)

Photo 15

- (5.104a) *E inu a'a te piha 'io he pao='ia o*
 TAM drink Dem ART cow PREP.loc ART finish=Perf POSS
te=na mou pou 'i tai nei mea'a 'i mua~ok?
 ART=Dem DL/PL post LD sea here but LD front ok
 'The cow is drinking at the end of those two posts, here seawards, but in front~ ok?' (FA-T/M-H-15: 071)

- (5.104b) *Aua e haka='oko i te tekao mei mu'i.*
 PROHIB TAM CAUS=hear DO ART talk from behind

'Don't listen to the talking (coming) from behind.'
(Dordillon 1931: 273)

Phrases without attributive noun phrases (e.g. possessive attributes) like *i mua*, *i mu'i* and *mei mu'i* in (5.101–104) are typically used in small-scale reference. Moreover, the fact that *i*-marked *mua* and *mu'i* do not occur with attributive noun phrases is also considered as evidence that these phrases refer to those table-top spaces or regions.

I- and *mei*-marked local nouns without attributive noun phrases also often function as modifying attributive noun phrases of common full words:

- (5.105) *Te 'ua o te pou mei uta 'i'a te keo o te horave,* (FA-T/M-H-15: 020)
ART two POSS ART post from inland there ART bottom POSS
ART horse
'The second post from inland the bottom of the horse is there,'

Table 21. Locative constructions with respect to different types of location

	Object region	Partitioned region
<i>I</i> -marking with attributive NP	+	–
<i>Ma</i> -marking with attributive NP	+	–
<i>Mei</i> -marking with attributive NP	+	–
<i>I</i> -marking without attributive NP	–	+
<i>Mei</i> -marking without attributive NP	–	+

6.3.3.2. Local nouns used in the absolute frame of reference

Local landmark nouns are used in small-scale as well as large-scale reference. In large-scale reference the meaning contribution of the preposition *ma* is quite different than when on the small-scale level. The meanings which *ma* contributes to local landmark nouns on the large-scale level are

partly similar to those of place names, both being location-denoting nominals. However, there are also significant differences between the two classes of nominals. I will begin with the meaning contributions of *'i*, *ma* and *mei* in large-scale reference.

6.3.3.2.1. In large-scale reference

In large-scale reference the preposition *mei* expresses source from a place (see [5.106]), whereas *'i* expresses location, direction and goal of a place (see [5.107–110]):

Source

- (5.106) *Ua 'oko t=a ia vahana mei uta i te hihini 'eo 'i tai.* (Lav-T/H: 346)
 TAM hear ART=POSS 3.sg husband from inland DO ART soft,quietly voice LD sea
 'Her husband heard from inland a soft voice seawards.'

Location

- (5.107) *I titahi 'a, 'ua kite hua maha'i i te manu 'i uta 'io he mouka.* (Lav-U: 151)
 LD ART.indef day Perf see Art.ana boy DO ART bird LD inland PREP ART high.mountain
 'One day, the boy saw a bird inland close to the high mountain.'

- (5.108) *Ena te tuakana o Tuohē me te kui 'i tai t=o 'aua ha'e.* (Lav-T/H: 115)
 exist ART older.brother POSS T. and ART mother LD sea ART=POSS 3.dl house
 'Tuohē's older brother and the mother had their house seawards.
 (= at the seaward place)'

Goal

- (5.109) *Ua hua Uhikaua'iki 'i uta 'io t=a ia vehine.*
 TAM return U. LD inland PREP ART=POSS 3.sg wife
 'Uhikaua'iki returned inland to his wife.' (Lav-U: 028)

With respect to the expression of directionality in large-scale reference, we often get an ambiguous reading not knowing whether the locative construction expresses direction or goal:

Direction or goal?

- (5.110) *Ma te ahiahi u haka=heke tahipito ka'ioi*
 PREP ART evening TAM CAUS=descend ART.indef.pl unmarried.man
'i tai 'io he tohua. (Lav-T/H: 021)
 LD sea PREP ART public.place
 'Some time in the evening the other bachelors made (the protagonist) go down seawards to the public place.'

(5.110) is ambiguous because we do not know whether the *tohua* 'public place', the goal of the motion event, is part of the place of the landmark SEA or not. If the *tohua* 'public place' is not part of the SEA-place, then '*tai* 'seawards' expresses direction because the bachelors make the protagonist move in seaward direction without reaching the SEA-place.

We get several different interpretations with *ma*-marked local landmark nouns. Like place names *ma*-marked local landmark nouns also express a 'concrete path', thus meaning '*through or along landmark x*', in particular with the local landmark nouns *tai* 'sea' and *uta* 'land, inland'. When e.g. someone asks 'by which way or route someone went' (see [5.111]), there are only two possible answers for intra-island transport on the Marquesas (see [5.112a+b]):

- (5.111) *Ma hea te he'e='ia mai?*³⁶⁵
 PATH where ART go=Perf hither
 'By which way did (you) come?' (E)
- (5.112a) *U he'e mai au ma tai.*
 TAM go hither 1.sg PATH sea
 'I came **over** sea.' (E)

- (5.112b) *U he'e mai au ma uta.*
 TAM go hither 1.sg PATH land
 'I came **over** land.' (E)

In (5.112b) *uta* clearly refers to the land or shoreline of the island and not to the 'inland'-area of a valley which is opposed to the 'sea'-region of a valley. This usage of *uta* contrasts with '*i*-marked *uta* which refers (in most cases)³⁶⁶ to the 'inland'-area of an island (see figure 15):

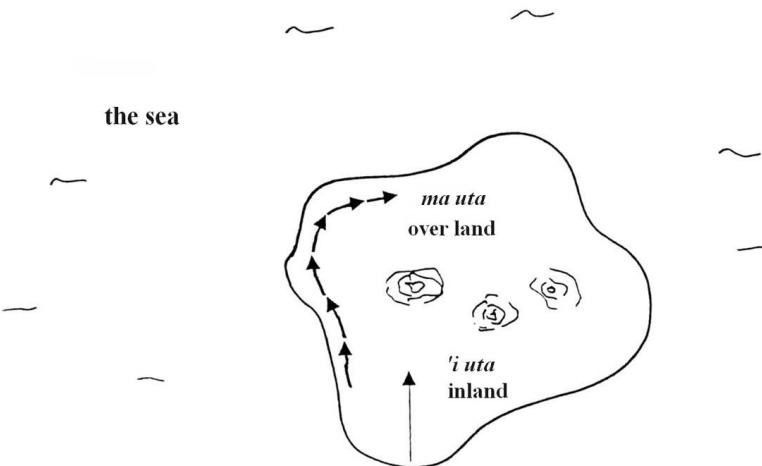


Figure 15. *Ma uta* ‘over land’ vs. *i uta* ‘inland’

Note that the local landmark noun *uta* is polysemous meaning ‘land, shore’ in (5.112b) and ‘inland’ in *i*-marked uses of *uta* (see ch. 7, § 2.2.1).

Moreover, *ma*-marked *tai* ‘sea’ and *uta* ‘inland’ can also denote the vaster region of the landmark. In this meaning ‘vaster region of landmark x’ *ma*-marked local landmark nouns do not take possessive attributes:

- (5.113a) *A'e he manu haka'ua ma tai nei.* (Lav-U: 154)
be.not ART bird again PREP sea Dem.prox
'There are no more birds within the vaster sea-region.'³⁶⁷
- (5.113b) *Ua i'o te ha'e o te po'i ma tai,*
TAM pass.slide ART house POSS ART people PREP sea
'The house of the people slid to the vaster sea-region,' (Lav-T/H: 300)
- (5.114) *E hoa, pehea 'oa te ko'aka o na vehine a'a ia taua. 'a'e hi-hiti mai ma uta nei.*
VOC friend how EMPH ART found POSS ART.pl woman Dem OBL 1.dl.incl be.not RED-go.up hither PREP inland Dem.prox
'Hey friend, how then can we two find the women. They did not come up here to the inland **region**.' (lit. ‘... how then the finding of the woman by us...’) (Lav-U/N: 024)

Finally, the preposition *ma* expresses *unspecific* location or goal.³⁶⁸ In (5.115) *ma uta* simply means ‘somewhere at or to the inland place’, ex-

pressing an unspecific goal within the boundaries of the ‘inland’ place or region. The locative construction *ma uta* cannot take possessive attributes or any other attributive noun phrases because *ma uta* clearly denotes a place:

- (5.115) *E hiti nei au ma uta.* (E-Ti-99)
 TAM ascend Dem 1.sg PREP inland
 ‘I am going up somewhere to the inland place.’

In order to express that a person is coming from an unknown location of the ‘inland/sea’-region, speakers usually mark the *ma*-marked local landmark noun with the preposition *mei*:

- (5.116) *Mei ma uta mai nei au.* (E-Ti-99)
 from PREP inland hither Dem 1.sg
 ‘I am coming somewhere from the inland place.’

This might indicate that the noun phrases *ma uta/ma tai* are considered as one constructional unit by speakers of Marquesan. The local nouns *tai* ‘sea’ and *uta* ‘inland’ frequently occur in *ma*-constructions to express ‘un-specific location or goal’; *ko* ‘left or right side of valley’, *a'o* ‘downstream’ and *'uka* ‘upstream’ are rarely used in this way. When one wants to express that someone is coming ‘somewhere from the left or right side of the valley (= across)’, my consultants preferred (5.117):

- (5.117a) *Mei ko mai nei au.* (E-Ti-99)
 from across hither Dem 1.sg
 ‘I am coming from the across place.’

(5.117b) is somehow not more revealing the precise location than (5.116):

- (5.117b) *Mei uta mai nei au.* (E-Mo-99)
 from inland hither Dem 1.sg
 ‘I am coming from the inland place.’

But (5.116) is often preferred when speakers want to conceal to other people where they are going to or coming from. Apart from using the *ma*-marking as a stilistic device, it can also express that speakers do indeed not know the precise location, in particular when they are about to leave to a

certain location (in the sense of ‘I am going somewhere inland’). *Ma*-marked *kapai* ‘seaward’ and *kauta* ‘landward’ can also express ‘unspecific location’:

- (5.118) *Ma kapai nei.* (E-Mo-99)
 PREP seaward here
 ‘(It is) somewhere seaward here.’

Note that there is often little difference in meaning between the prefixed *ma kauta nei* ‘somewhere (further) inland here’ and the unprefixed form *ma uta nei* ‘somewhere inland here’. *Kapai* and *kauta* might be a little more unspecific or vague because they are inherently directional.

In large-scale reference most constructions with local landmark nouns do not occur in constructions with possessive attributes or any other attributive noun phrases (similar to place names). There is however one construction type with local landmark nouns which takes a possessive attribute; in this construction the local landmark nouns are marked by the preposition ‘*i*:

- (5.119) *Ma 'uka o mea o Ho'oumi tihe 'i tai titahi tuaivi 'i tai o Ho'oumi pe'au='ia te='a vahi o Pakiahinga'u.* (Pea-Mi: 154)
 PREP up POSS thing POSS H. arrive LD sea ART mountain LD sea POSS H. say=PASS ART=Dem place PRES P.
 ‘Above of ehh of Ho'oumi going down to the sea-region, at the sea-region of Ho'oumi there is a mountain, that place is said to be Pakiahinga'u.’ (lit. ‘... arrive at sea... ’)

The ‘*i*-possessive construction with local landmark nouns is quite restricted in its usage. An ‘*i*-possessive construction containing a local landmark noun as its lexical head can only be used when referring to a location on the large-scale level (e.g. ‘sea’-region) and the same construction cannot be used for small-scale reference (see this chapter, § 6.3.3.2.2). Furthermore, the possessive attribute can only contain a place name as its head and not a common full word e.g. denoting an object. This is not surprising because the place of a local landmark cannot be part of a smaller location (as this would be the case with an object), but it can only be part of a larger place such as a village or valley. This in fact shows that aspects of granularity such as size matter in the semantic analysis of locative constructions and often explain why certain construction types occur or cannot occur. The

example in (5.119) in fact shows that places (i.e. geographical regions) can contain other places when there is an asymmetry in size (see Miller and Johnson-Laird 1976; Talmy 1983; Landau and Jackendoff 1993 for similar observations).

When local landmark nouns are marked by *ma* we get three different readings of path, namely ‘concrete path’, ‘vaster region’ and ‘unspecific location’. As for place names *ma* only contributes the meaning of ‘concrete path’, thus local landmark nouns have a wider range of meaning contributions of *ma*. With respect to ‘*i*-marking local landmark nouns also has a wider range of readings than place names because ‘*i*-marked local landmark nouns can get a directional reading.

Table 22. Meaning contributions of '*i*' and *ma* with local landmark nouns and place names in large-scale reference

	Local landmark nouns	Place names
<i>ma</i> ‘concrete path’	+	+
<i>ma</i> ‘vaster region’	+	–
<i>ma</i> ‘unspecific location’	+	–
‘ <i>i</i> ’ ‘Location’	+	+
‘ <i>i</i> ’ ‘Goal’	+	+
‘ <i>i</i> ’ ‘Direction’	+	–

Most constructions with local landmark nouns in large-scale reference do not take possessive attributes because they refer to places (i.e. to the places of the landmarks), however with the exception of the ‘*i*-possessive construction in which the head of the possessive attribute is a place name. This construction is only possible because the places denoted by place names – in the Marquesan case valleys – are larger in size than the places denoted by local landmark nouns. The incompatibility of place names with possessive attributes is semantically of a different nature. Place names do not take possessive attributes because they are not viewed to be part of another location by the language user. In other words: it does not make much sense to talk about the Hakahau valley of 'Ua Pou island, although the location of the Hakahau valley is factually part of the island 'Ua Pou. The usage of a possessive construction is only possible when there are two distinct locations called Hakahau. The place names used in the 'Ua Pou vernacular however, hold a unique semantic relationship between the name and the location bearing that names and therefore need not to be specified further. In small-scale reference, however, local landmark nouns can occur

in different construction types because they denote quite different types of location, i.e. object regions and partitioned regions.

6.3.3.2.2. In small-scale reference

When local landmark nouns are used in small-scale reference, they express spatial configurations on the horizontal planes. This also includes the usage of '*a'o* 'downstream' and '*uka* 'upstream'. '*A'o* 'downstream' and '*uka* 'upstream' have to be clearly distinguished from '*a'o* 'down, ground' and '*uka* 'up, top' which are used for spatial relations on the absolute vertical UP/DOWN-axis.

In small-scale reference the preposition *ma* expresses that the theme is localised in an object region of the relatum. In this case *ma*-marked local landmark nouns take possessive attributes. All local landmark nouns can be constructed as in (5.120):

(5.120)

PREP <i>ma</i> – local landmark noun – <i>o</i> -NP (= possessive attribute)
--

This construction type is henceforth called the *ma*-possessive construction. It is the most common means to specify an object region of an object (see also above). The *ma*-possessive construction has the meaning 'object region of relatum', regardless of whether the lexical head is a body-part term, an inherently relational local noun or a local landmark noun.

With respect to the expression of the relatum in attributive noun phrases there are no occurrences in my data in which local landmark nouns take any of the other two attributive noun phrases (i.e. '*i*-NP and *he*-NP). The preposition *ma* does not contribute any other meanings with local landmark nouns on the small-scale level than the meaning 'object region'.

Here are a few examples of the construction type in (5.120) taken from the *Farm Animals* data (for photo see appendix 1). Examples (5.124–125) are taken from a mother-child-dyad in which the mother frequently uses '*uka* 'upstream', but her 4-year-old son does not yet comprehend the meaning of '*uka* 'upstream'. Note that in (5.125) the mother switches in her instruction to a different locative (*mua* 'front') in order to simplify the utterance for the child:

Photo 2

- (5.121) *E tahi piha* [theme] ***ma tai*** *o te tumu*
 NUM one beef PREP loc.n-sea POSS ART trunc
'akau [relatum].
 wood
 'One cow is seaward of the tree.' (or: 'at the sea-region of the tree') (FA-T/M-2: 008)

Photo 9

- (5.122) ***Ma uta o te='a tumu 'akau*** [relatum] *koivi piha*
 PREP inland POSS ART=Dem trunc wood female cow
pukiki [theme]~~ *pao.* (FA-B/R-9: 031)
 red be.finished
 'Inland of that tree is a red cow~~ that's it.'

Photo 8

- (5.123) *To'o koe i te='na tumu 'akau* [theme] ***ma ko mai***
 take 2.sg DO ART=Dem trunc wood PREP across DIR
ma ko o te='nei puaka [relatum] *keke me*
 PREP across POSS ART=Dem pig side with
te='a vehine.
 ART=Dem woman
 'You take that tree acrossward, acrossward of this pig (at the) side with that woman.' (FA-Hak-8)

Photo 8

- (5.124) ***Ma 'uka o te 'enana, ma 'uka.***
 PREP upstream POSS ART man PREP upstream
 '(Put the pig) upstream of the man, upstream (of him).'
 (FA-A/P-K22B-8)

Photo 4

- (5.125) *Ee, pe'e=na. to'o te tumu 'akau, tuku ma 'uka*
 yes, like=Dem take ART trunc wood put PREP upstream
o t=o koe vae-vae. – Hm? – 'A'o'e, 'ina,
 POSS ART=POSS 2.sg RED-foot INTJ be.not there
ma mua o Puaiki ma mua.
 PREP front POSS P. PREP front
 'Yes, like that. Take the tree, put (it) upstream of your feet.
 (= mother) – Hm? (= child) – No, there, in front of Puaiki,³⁶⁹ in front. (= mother)' (FA-A/P-K22B-4)

The inherently directional local nouns *kapai* ‘seaward’, *kauta* ‘landward, further inland’ and *kako* ‘in direction to the left or right side of the valley’ can also occur in the *ma*-possessive construction type:

- (4.126a) 'A *tuku te pora ma ka=uta o te putei.*
 TAM put ART bowl PREP further=inland POSS ART IwFr.bottle
 'Put the bowl further inland of the bottle.' (E-Ta-99)
- (5.126b) *Ben, ana kapai atu mea iti,*
 csFr.well a.little further.seaward thither STV-P little
 ma kapai atu mea iti o te=na
 PREP further.seaward thither STV-P? small POSS ART=Dem
 puaka.
 pig
 'Ben, a little further seaward, (it) is a little, further seaward of that pig.' (RD-To/C-P3-010)

Note that these uses are rather rare and probably only used by older speakers (40+), if at all.

Unlike the local nouns *mua* ‘front’, *mu'i* ‘behind’ and *hope* ‘back, behind’ (see this chapter, § 6.3.3.1), local landmark nouns used on the small-scale level do not occur in an *i*-possessive construction. All my consultants rejected phrases like the following:

- (5.127) **Ena te puaka i tai o te papua.* (E)
 exist ART pig LD sea POSS ART enclosure
 (*There is a pig seawards of the enclosure)
- (5.128) **I ko o te papua e piha.* (E)
 LD across POSS ART enclosure TAM cow
 (*Acrosswards of the enclosure is a cow)

Local landmark nouns need to be marked by *ma* in order to take a possessive attribute whereas *mua* ‘front’, *mu'i* ‘behind’ and *hope* ‘behind, hidden’ can take possessive attributes when they marked by *i* as well as *ma*. This is due to the different semantics of the *mua/mu'i/hope*-type and local landmark nouns. *Mua*, *mu'i* and *hope*, local nouns which are only used in small-scale reference, are inherently relational, whereas local landmark nouns are always linked to the real local landmarks they denote. Thus, in order to be an inherently relational part or region of an object local land-

mark nouns need to occur in the *ma*-possessive construction type. If the usage of a local noun is restricted to the small-scale referential level, i.e. always denoting inherently relational parts or regions of an object, as in the case of *mua*, *mu'i* and *hope*, the location and goal marker '*i*' is not very likely to contrast with the path marker *ma*. A local landmark noun which can refer to places as well as object regions, is very likely to have a contrast between location and goal marker '*i*' and the path marker *ma*.

In large-scale reference local landmark nouns express location, direction and goal when they are marked by '*i*'. Note that the '*i*-marking of local landmark nouns contributes the same meanings as with place names used in large-scale reference (see this chapter, § 6.1.3). In small-scale reference '*i*-marked local landmark nouns can only get a directional reading, but not a locational or destinative reading (see [5.129–131]). This is also the case when '*i*-marked place names are used in small-scale reference:

- (5.129) *Ee~ ma uta o te=na horave e koivi piha,*
 yes PREP inland POSS ART=Dem horse TAM female beef
 ti'ohi='ia atu 'i tai. (FA-B/R-1: 006–7)
 look.at=Perf thither LD sea
 ‘Yes~ inland of that horse is a cow, (it) is looking seawards.’

- (5.130) *I uta te upoko tu='ia te upoko 'i uta*
 LD inland ART head stand=Perf ART head LD inland
 e keke me uta.
 TAM side with inland
 ‘The head is inland. The head is positioned inland, is at the side with inland.’ (FA-T/M-15: 062)

- (5.131) *Te=nei mea te=nei mea~~ 'i ko pe'e='a 'i'a*
 ART=Dem thing ART=Dem thing LD across like=Dem there
 pe'e='a. (FA-Hak-13)
 like=Dem
 ‘This thing, this thing~~ (it) is across like that, there like that.’

The directional reading of '*i*-marked local landmark nouns (and also place names) is therefore triggered by the scale of reference. We also get a different reading when local landmark nouns are marked by the source preposition *mei* on the two different scales of reference. In large-scale reference the source of *mei*-marked local landmark nouns refers to the place of the landmark (see [5.132]). In small-scale reference, however, the *mei*-

marking expresses *direction from* the place of the landmark and *not source from* the place of the landmark itself, as in (5.133):

Large-scale reference

- (5.132) *Ua titā te ta'a mei uta, ua ve'o i hua vaka.*
 TAM approach ART call from inland TAM put.into.sea DO ART canoe
 'When the calling approached from inland, (they) put the canoe onto the sea.' (Lav-T/H: 236)

Small-scale reference

- (5.133) *E tahi horave e heke mai nei mei uta mai.*
 NUM one horse TAM go.seawards hither here from inland hither
 'One horse, it is coming seawards from (the direction of the) inland (place) towards here.' (FA-T/M-H-17: 006)

In (5.133) the context of the utterance is such that the inland-place cannot be the place of departure because the reference is on the small-scale level.

Whereas local landmark nouns can be marked by the source preposition *mei* in small-scale reference to indicate the direction from a landmark, they are however, not compatible with possessive attributes when *mei*-marked:

- (5.134) *E heke nei te piha *mei tai o te papua.*
 TAM go.seawards Dem ART cow from sea POSS ART enclosure
 (*The cow is going seawards from the seaward-region of the enclosure.) (E)

If one wants to express that the theme is, for instance, moving from the seaward- object region of the relatum, then the local landmark noun has to occur in the *ma*-possessive construction:

- (5.135) *E heke nei te piha mei ma tai o te papua.*
 TAM go.seawards Dem ART cow from PREP sea POSS ART enclosure
 'The cow is going seawards from the seaward-region of the enclosure.' (E)

Thus, the preposition *mei* marks the whole locative construction *ma tai o te papua* (i.e. [*mei* [*ma tai o te papua*]])¹, like the *ma*-possessive construction with body-part terms used in the relative frame of reference (see this chapter, § 6.2.3.1).

Mei-marked local landmark nouns cannot co-occur with possessive attributes because unlike the local nouns *mua* ‘front’ and *mu'i* ‘behind’ they are not inherently relational and therefore cannot be directly marked by *mei* when occurring in a possessive construction. The incompatibility of *mei*-marked local landmark nouns with possessive attributes is semantically comparable to place names again which cannot take possessive attributes at all. However, unlike place names, local landmark nouns can be used in the *ma*-possessive construction.

Local nouns which are inherently relational such as *'oto* ‘inside’ or *mu'i* ‘behind’ can be directly marked by *mei* (i.e. without the intervening of *ma*) and can take possessive attributes (see [5.136]) or other attributive noun phrases (see [5.138]) at the same time, i.e. in the same locative construction:

- (5.136) *Eh, me te taki o Tahi i hua kai
INTJ COM ART take.out POSS T. DO ART.ana food
mei 'oto o titahi vahi hamani, tuku 'i
from loc.n.-inside POSS ART.indef envelope paper put LD
vaho.... .
loc.n-outside*
'Eh, when Tahia was taking out the food from the inside of a paper envelope, (and) put it outside... .' (lit. ‘...with Tahia’s taking out of the food...’) (CH-B-043)

- (5.137) *E heke nei e tahi horave mei mu'i o te
TAM descend Dem NUM one horse from behind POSS ART
ha'e.
house*
'One horse is descending seawards from behind the house.' (E)

- (5.138) *'A to'o te pora mei 'uka he tapu, 'a tuku
TAM take ART cup from up,top ART table TAM put
'i 'a'o. (E-B-97)
LD ground,down*
'Take the cup from top of the table, put (it) on the ground.'

When local landmark nouns function as *place-denoting* locatives in large-scale reference they cannot take possessive attributes because places are absolute locations which are not inherently relational (to other locations). This property (i.e. the inability to combine with, for instance, possessive attributes) was also observed for the class of place names (see this chapter, § 6.1.2). Object regions can only be identified with respect to the *eigenort* of an object because they are inherently relational regions of objects. They are part of the characteristic region of an object and, unlike places, object regions do not exist independently of that object. Local nouns like *'oto* ‘inside’ or *mu'i* ‘behind’ are inherently relational locatives which denote inherent parts or regions of objects and therefore can take possessive attributes, regardless of the locative case-marking. This is why *i-* and *mei*-marked *mu'i* or *'oto* allow possessive attributes.

Local landmark nouns like *tai* ‘sea’ and *uta* ‘inland’, on the other hand, do not allow possessive attributes when *i* or *mei*-marked because the semantics of these local nouns remain somehow to be place-denoting regardless of whether they are used in small-scale or large-scale reference. When a local noun like *tai* ‘sea’ is used in small-scale reference, it has to be constantly associated with the local landmark SEA, thus the meaning of the local landmark nouns is bound in some way or another to the place of the landmark. In other words: on their own *tai* and *uta* merely denote the landmarks SEA and INLAND:

local	landmark	noun	x	⇒	'landmark	x'
			<i>tai</i> ‘sea’	⇒		‘landmark SEA’

versus

inherently relational local noun	x	⇒	'object region of	y'
	<i>'oto</i> ‘inside’	⇒		‘inside of y’

The local nouns *tai* and *uta* are not inherently relational (like, for instance, *'oto* ‘inside’) and cannot specify an object region as such. In the *ma*-possessive construction type the meaning of local landmark nouns remains to be place-denoting. In other words: it is not the meaning of the lexical head, but the *meaning of the construction* which specifies an object region:

- (5.139) *Ena te pora ma tai o te putei.*
 exist ART bowl PREP sea POSS ART bottle
 ‘There is a bowl in the sea ‘(spatial object) region’ of the bottle.’

‘seaward of y’	⇒	ma-possessive construction
----------------	---	----------------------------

Moreover, a local landmark noun like *tai* ‘sea’ is not inherently directional as proposed by several studies of local landmark systems in Austronesian languages (see Senft 1997), but place-denoting. Thus, the *ma*-possessive construction with local landmark nouns means that *the relatum has an object region which lies in the direction of the local landmark denoted by the local landmark noun*. The semantics of local landmark nouns (as place-denoting nominals) also explains why local landmark nouns cannot directly be marked by *mei* expressing source from a local landmark-region of an object. The local landmark noun need to occur in a *ma*-possessive construction (see [5.135]).

Notwithstanding the numerous similarities between the semantics of local landmark nouns and place names, there are however crucial differences. Place names, which do not take possessive attributes, can consequently not occur in the *ma*-possessive construction type. The incompatibility to take possessive attributes is probably due to the fact that place names hold a unique association between the name and the place bearing that name. As for local landmark nouns this is not the case. Local landmarks like SEA, MOUNTAIN or BUSH exist repeatedly and independently in several different environments and names for local landmarks are therefore more like kind-denoting nominals. That is why local landmark nouns can take possessive attributes. Within a particular environment like a Marquesan valley, however, they become uniquely referring expressions (i.e. proper-name-like expressions or quasi-proper nouns) because from the point of view of a valley inhabitant there is only *one* place which can be associated with the SEA, MOUNTAIN or BUSH etc..

Lyons’ observation (1977: 693) that landmarks hold an intermediate position between “being a (first-order) entity” and “being a place” is clearly reflected in the usage of some Marquesan local landmark nouns. First-order entities such as humans, animals and objects are represented by kind-denoting words, whereas places are often expressed by place names. The local landmark nouns discussed in this subsection share morphosyntactic properties with the class of common full words as well as place names.

There are basically three factors which trigger the different readings of locative constructions with local landmark nouns:

1. Meaning of the construction itself (see *ma*-construction);
2. Meaning contribution of locative prepositions to lexical heads;
3. Scale of reference.

The composition with other constituents within a clause are less relevant for the derivation of a particular reading with local landmark nouns. Encyclopaedic knowledge such as detailed knowledge of a local environment and its local landmarks (e.g. a mental map of the environment) does not play a role in the derivation of a particular reading, but it is in fact, a prerequisite for using locative constructions with local landmark nouns in spatial reference at all (see ch. 4, § 9.2.3). As for the locative constructions with local landmark nouns it is often the scale of reference which triggers the derivation of a particular reading and not necessarily the prepositional marking.

Table 23. Co-occurrence of possessive attributes and prepositions with place names, local landmark nouns and inherently relational local nouns in small-scale reference

	place names	local landmark nouns	inherently relational local nouns (<i>mua</i> 'front' etc.)
' <i>i</i> -marking (+poss. Attr.)	—	—	+ (intrinsic FoR only)
' <i>i</i> -marking (−poss. Attr.)	+	+	+
<i>ma</i> -marking (+poss. Attr.)	—	+	+ (intrinsic and relative FoR)
<i>mei</i> -marking (+poss. Attr.)	—	—	+
<i>mei</i> -marking (−poss. Attr.)	(+)	+	+
<i>mei-ma</i> -marking (+poss. Attr.)	—	+	+

6.3.3.3. Summary

In the previous subsections it was discussed how the locative prepositions '*i*', *ma* and *mei* combine with those local nouns which are used in the intrinsic, relative and absolute frames of spatial reference. It was shown that the compatibility and incompatibility of the locative prepositions with other attributive noun phrases is dependent on the semantics of the lexical head.

Local nouns which are used in the intrinsic and relative frames of spatial reference are inherently relational nouns and therefore can take a possessive attribute when they are marked by the location/goal- and source-marking prepositions '*i*' and *mei*. Local landmark nouns used on the small-scale level, on the other hand, cannot take a possessive attribute when they are marked by '*i*' and *mei*. It was concluded that local landmark nouns are place-denoting nominals regardless of whether they are used in small-scale or large-scale reference. This would explain their incompatibility with possessive attributes when they are directly marked by the location/goal or source preposition. This means that a local landmark noun such as *tai* 'sea' needs to occur in the *ma*-possessive construction in order to say that an object is in the 'seaward-region of another object' (= object region). The fact that local landmark nouns need to occur in a *ma*-possessive construction in order to specify an object region, also shows that it is the *meaning of the construction*, but not the meaning of the local landmark noun as such which specifies the location type object region. This is again evidence that local landmark nouns such as *tai*, 'sea', *uta* 'inland' or *ko* 'left or right side of valley' are not 'inherently directional', but place-denoting nominals.

Directionality can be derived in different ways: by a linguistic structure as well as an extra-linguistic context. Directionality is expressed by a linguistic structure when local landmark nouns occur in a *ma*-possessive construction because that type of construction means that the relatum has an object region which lies in the direction of the landmark denoted by the local landmark noun. In other locative constructions, directionality is derived by the scale of reference. '*i*'- and *mei*-local landmark nouns always get a directional reading in small-scale reference. In large-scale reference, the same constructions mostly refer to the location, goal or source of the landmark, but not a direction. This shows that in N-MQA direction can be analysed as an abstraction of goal, as proposed in chapter 4, section 12.

Finally, the previous subsections have also revealed similarities and differences between the class of place names and local landmark nouns. Place

names and local landmark nouns both denote the same type of location in large-scale reference, namely places. However, place names and local landmark nouns have quite different formal properties. Place names behave like proper nouns in that they do not take possessive attributes. Consequently, place names cannot occur in a *ma*-possessive construction. Local landmark nouns share properties with place names, but also with kind-denoting nominals: they can take possessive attributes and can therefore occur in a *ma*-possessive construction. They behave like uniquely referring expression, or ‘quasi-proper nouns’, when they are used in a particular valley: a valley only has one place which can be connected with the ‘sea’- or ‘inland’-region.

In the previous subsections we could observe of wide range of meaning instantiations of *ma*. However, the *ma*-possessive construction is the most common construction type which seems to be only used in small-scale reference in order to specify object regions.

In large-scale reference, the preposition *ma* instantiates various different meanings of path, in particular with the local landmark nouns *tai* ‘sea’ and *uta* ‘inland, land’. These meanings include the following: ‘concrete path’, ‘unspecific location’ and ‘vaster region’. When these meanings are instantiated *tai* and *uta* cannot take possessive attributes. *Ma*-marked *tai* and *uta* with a possessive attribute indicate that a location is specified on the small-scale referential level.

6.3.3.4. Local nouns expressing topological relations

The local nouns '*oto* ‘inside’, *vaho* ‘outside’ and *vaveka* ‘middle, between’ are typically used to express topological relations such as INCLUSION and EXCLUSION.

In this paragraph I discuss the meaning contributions of '*i*', *ma* and *mei* in combination with the local nouns '*oto* ‘inside’, *vaho* ‘outside’ and *vaveka* ‘middle, between’ in small-scale reference. The local nouns '*oto*' and '*vaho*' can also be used in large-scale reference (see ch. 7, § 2.1.1).

In this subsection the focus is on the different meaning contributions of '*i*' and *ma* with '*oto*', *vaho* and *vaveka*. '*Oto*', *vaho* and *vaveka* are, like *mua* ‘front’, *mu'i* ‘behind’ and *hope* ‘behind, hidden’, inherently relational local nouns. Thus, the meaning of these local nouns entails that the location they specify is inherently related to objects (see also above):

<i>'oto</i>	'inside of x'
<i>vaho</i>	'outside of x'
<i>vaveka</i>	'middle of x, between x and y'

Unlike local landmark nouns, *'oto* 'inside', *vaho* 'outside' and *vaveka* 'middle' do not require to occur in the *ma*-possessive construction in order to specify an object region of the relatum: they can simply occur in an '*i*-possessive construction (see below). In some occurrences *ma*-marked *vaho* 'outside' expresses 'explicit relationality', but it is of a slightly different nature than in locative constructions with local landmark nouns. This will be discussed further below.

The path preposition *ma* marks *'oto*, *vaho* and *vaveka* when 'movement' is involved or when the location of the theme is 'unspecific', 'spatially extended' or when there are several themes localised (= plurality). Spatial extension of the theme means that the theme has a path-like shape (e.g. a rope or smeary substances spread over a surface, e.g. 'butter on knife'). Whether or not a path-like shape of the theme plays a role when speakers mark *'oto*, *vaho* and *vaveka* by *ma* was elicited in placement tasks (see ch. 2, § 3.2.2.4 for methodology). In this subsection the data of eight main consultants are presented here. Only one of eight consultants felt that the local nouns *'oto* and *vaho* have to be marked by *ma* if the theme is spatially extended (see table 24). All other consultants thought that '*i*-marking is likewise acceptable. In the data of the *Topological Relations Picture Book I* could, on the other hand, observe a number of uses of *ma vaho* which are related to the meaning of 'spatial extension' as well as 'surface contact of theme' (see below).³⁷⁰ In table 24 the different instantiations of *ma* with *'oto* 'inside', *vaho* 'outside' and *vaveka* 'middle' of all eight consultants are summarised:

Table 24. Different instantiations of the path marker *ma* with *'oto* 'inside', *vaho* 'outside' and *vaveka* 'middle, between'

	<i>ma</i> <i>'oto</i>	<i>ma</i> <i>vaho</i>	<i>ma</i> <i>vaveka</i>
1. Movement	8/8 ³⁷¹	5/8	7/8
2. Spatially extended theme	1/8	1/8	0/8
3. Relationality	0/8	4/8	0/8
4. Unspecific location	4/8	1/8	0/8
5. Plurality	2/8	2/8	0/8

The interpretations derived by *ma*-marked '*oto*, *vaho* and *vaveka* are by far the most complex and varied. The preposition '*i*' marks '*oto*, *vaho* and *vaveka* with respect to location and goal (see below). The preposition '*i*' often expresses that the relationship between theme and relatum is a kind of *default*-relation, i.e. when the relationship between theme and relatum is static and the nature of theme and relatum is a (proto)typical one:

- (5.140) *Ua kite Hekei ia Tuohē u moe='ia 'i 'oto me*
 TAM see H. DO T. TAM sleep=Perf LD inside with
te vehine.
 ART wife
 'Hekei saw Tuohē who was sleeping with (his) wife inside (the house).' (Lav-T/H: 162)

When the relationship between theme and relatum somehow involves the notion of path as in the case of dynamic configurations (see [5.141]) or when the theme is spatially extended, speakers frequently use *ma*:

- (5.141) *Ia kite ko'ua i te 'enana 'i te puta ha'e*
 TAM see 2.dl DO ART man LD ART hole house
nei, u oi-oi ko'ua ma 'oto. (Lav-U/N: 183)
 Dem.prox TAM RED-move 2.dl PATH inside
 'When you two see a man at this door, you have to move inside.'

Regardless of their case-marking, all locative constructions with '*oto*, *vaho* and *vaveka* can take possessive attributes, but they are often omitted when it is clear from the context to what the relatum refers. They rarely occur with *he-* and '*i*-marked attributive noun phrases. Note that *ma*-marked '*oto*, *vaho* and *vaveka* with a possessive attribute do not carry the meaning of the *ma*-possessive construction type in (5.120), namely '*x being in object region of y*' (see discussion with local landmark nouns). In locative construction with '*oto*, *vaho* and *vaveka* the preposition *ma* instantiates different meanings of path.

The interpretation of locative constructions with '*oto*, *vaho* and *vaveka* is basically triggered by three factors:

1. Meaning contribution of the locative prepositions to the local nouns;
2. Composition with other constituents of a clause;
3. Encyclopaedic knowledge of speakers (e.g. object knowledge).

1. *Mei*-marking:

The source preposition *mei* can mark all three local nouns. When *mei* marks '*oto* ‘inside’ and *vaho* ‘outside’ it often refers to the inside or outside of a house, and it frequently occurs without a possessive attribute:

- (5.142) *U pe'au Hekei mei vaho: "E Tuohe, 'a u'u mai."*
 TAM say H. from outside VOC T. TAM enter DIR
 ‘Hekei said from outside: “Hey Tuohe, come out.”’
 (Lav-T/H: 163)

- (5.143) *Ua hano te vahana ia ia u tatai mei 'oto,*
 TAM get ART husband DO 3.sg TAM chase from inside
topa 'i vaho tihe ma 'a'o o te upe.
 fall LD outside arrive PREP down POSS ART stone.platform
 ‘The husband got him and chased (him) from inside, (he) fell
 outside (and) arrived below the stone platform.’ (Lav-U: 190)

2. *I*-marking:

I-marked locative constructions with '*oto*, *vaho* and *vaveka* typically get a locational and destinative, but rarely a directional reading:³⁷²

Locational reading

- (5.144) *U pe'au atu Anihoka 'i na mata'eina'a: "... 'a va'u 'otou i te 'ehi 'a ha'a=nui 'i 'oto o te vaka,"*
 TAM say DIR A. LD ART.pl village.people TAM
 rub,grate 2.pl DO ART coconut TAM CAUS=many LD inside
 POSS ART canoe
 ‘Anihoka said to his village people:“... you rub the coconuts (and)
 increase (them) inside the canoe,”’ (Lav-H: 046)

- (5.145) *Ena 'i vaho o t=o ia ha'e.*
 exist LD outside POSS ART=POSS 3.sg house
 ‘(He) is outside his house.’ (TRPB-Ta: 6)

- (5.146) *Ena te papua 'i vaveka o te='a horave me te piha.*
 exist ART enclosure LD middle,between POSS ART=Dem
 horse and ART cow
 ‘There is an enclosure between that horse and the cow.’ (E-Ti-98)

The local noun *vaveka* ‘middle, between’ often does not occur with a possessive attribute. In order to express that an object is *between* two other objects, speakers of Marquesan often express this spatial configuration as in (5.147):

- (5.147) ... *te='a tumu 'akau 'i vaveka*, *te piha*
 ART=Dem trunc wood LD between,middle ART cow
 ma mua te horave ma mu'i.
 PREP front ART horse PREP behind
 ‘... that tree is in the middle, the cow is in front, the horse is
 behind.’ (FA-T/M-H-17: 211–213)

Goal is expressed in *'i*-marked locative construction when the predicate indicates a change of location as for instance in clauses with action (see [5.148]) and transfer verbs (see [5.149]):

Destinative reading

- (5.148) *Ua ta'a Tuohē mei vaho:* “*Hekei 'a u'u mai koe 'i vaho nei.*”
 TAM call T. from outside H. TAM enter,exit hither
 2.sg LD outside Dem.here
 ‘Tuohē called from outside: “Hekei, you come here outside.”’
 (lit. ‘exit towards me outside here’) (Lav-T/H: 183)
- (5.149) *U pe'au Temoko:* “*'A kave mai koe 'i 'oto nei.*”
 TAM say T. TAM carry hither 2.sg LD inside here
 ‘Temoko said: “You bring (it) here inside.”’ (Lav-U: 259)

3. *Ma*-marking

a) Movement on concrete path:

All my consultants agreed that *ma*-marked *'oto*, *vaho* and *vaveka* seem to be used when the theme is moving or is thought to be moving and is not directed towards a certain goal (= atelic). *Ma* clearly contributes the meaning of ‘concrete path’:

- (5.150) *Ia oi te puaka, he'e ma 'oto o te papua.*
 TAM move ART pig go PREP inside POSS ART enclosure
 ‘When the pig moves, (it) goes inside the enclosure.’³⁷³ (E-B-98)
- (5.151) *U pe'au:* “*'Umaha te=na vae-vae o te*
 TAM say why ART=Dem RED-foot POSS ART

haka=oi-oi ma 'oto o te=na kahu?
 CAUS=RED-move PREP inside POSS ART=Dem cloth
 '(He) said: "Why are the feet being moved along the inside of the cloth?"' (Lav-U/N: 192)

- (5.152) "Ia kite ko'ua³⁷³ i te 'enana 'i te puta ha'e
 TAM see 2.dl DO ART man LD ART hole house
 nei, u oi-oi ko'ua **ma 'oto.**" ...E oi-oi
 Dem.prox TAM RED-move 2.dl PREP inside TAM RED-move
ma 'oto o te kahu na kio'e.
 PREP inside POSS ART clothes ART.DL rat
 "When you two see a man here at the door, you will have moved
 inside. Two rats were moving inside the clothes.'
 (Lav-U/N: 183–91)

Vaho 'outside' is often marked by *ma* when movement is involved, but when the configuration is clearly static (see [5.153b]), then *ma* is not felicitous, but only '*i*:

- (5.153a) *E he'e a'a te puaka ma vaho o te*
 TAM go Dem ART pig PREP outside POSS ART
papua.
 enclosure
 'The is going around the outside of the enclosure.' (E-B-98)
 vs.
 (5.153b) *Humu='ia te puaka 'i vaho/ *ma vaho.* (E-B-98)
 attach=PASS ART pig LD outside PREP outside
 'The pig is attached outside.'

According to some consultants '*i*' and *ma* are both felicitous, even when the configuration is dynamic:

- (5.154) *I sea te puaka? – E he'e 'i vaho ako'e'a e*
 LD where ART pig TAM move LD outside CONJ.or TAM
he'e ma vaho. (E-B-98)
 go PREP outside
 'Where is the pig? – (It) is moving outside or (along) outside (of
 the enclosure).'

'*I*-marking is felicitous because '*i*' is often neutral with respect to the marking of location, in particular when the local noun is inherently rela-

tional. That the pig in (5.154) is moving around the enclosure is already expressed by the action verbal *he'e* 'go'. The *ma*-marking of *vaho* is felicitous because movement is involved. With inherently relational local nouns *i* can be considered as a default locative preposition because it can often occur in the same context as *ma*, but *ma* cannot occur in the same contexts as *i* (see [5.153b]).

With respect to *vaveka* 'middle' the prepositions *i* and *ma* clearly express a contrast between static (see [5.155]) and dynamic configurations (see [5.156]). *I vaveka* is best glossed as 'between', whereas *ma vaveka* can be glossed as 'through the middle, moving through the middle' (see [5.157]). *Ma vaveka* is only used with (loco)motion verbal, but not with transfer verbals (e.g. *tuku* 'put', see [5.158]):

- (5.155) **Koti-koti** te kiko **ma** vaveka. (E-B-98)
 RED-cut ART meat PREP middle
 'Cutting the meat in the middle.'

- (5.156) ... *to'o koe i te koivi puaka hu'i te keo 'io*
 take 2.sg DO ART female pig turn ART bottom PREP
he ha'e masini 'i vaveka o te=na mou
 ART house IwFr.machine LD between POSS ART=Dem DL/PL
tumu 'akau e.
 trunk wood EMPH
 '...you take a sow, turn the bottom towards the machine house,
 (it is between those two trees.' (FA-B/R-6: 5)³⁷⁴

- (5.157) **Ma** vaveka=*'ia* *o t=a koe fa'a'apu te piha*
 PREP middle=Perf POSS ART=POSS 2.sg gardening ART cow
te rere'ia. (E-B-98)
 ART escape=Perf
 'The cow is escaping through the middle of your gardening.'

- (5.158) */?A *tuku te puaka ma vaveka o te*
 TAM put ART pig PREP middle POSS ART
papua.
 enclosure
 (*Put the pig in the middle of the enclosure.)

'*Oto* 'inside' cannot be marked by *ma* if the predicate of the verbal clause is a transfer verbal. The preposition *ma* can only mark '*oto* 'inside' when the theme is already within the boundaries of the INCLUSION-space

of the relatum (e.g. a container). Thus, *ma* cannot express movement towards a goal, but only movement *within a location*. Transfer verbals therefore require '*i*-marking:

- (5.159) 'A *tuku* *te* *memau* '*i*/ **ma* '*oto* *o* *te*
 TAM put ART thing LD.goal PATH inside POSS ART
ha'e.
 house
 'Put the thing inside the house.' (E)

That the path marker *ma* is incompatible with transfer verbals is due to the fact that the locative complement phrase of transfer verbals expresses the goal and not the path of the location transfer. Thus the concept of path is not required for the analysis of Marquesan transfer verbals.³⁷⁵

That these subtle meanings are difficult to acquire, or have possibly changed, can often be observed in the speech production of older children (see [5.160a+b]). The next two examples are taken from a *Farm Animals* interaction of the a 13-year-old girl with a 10-year-old boy. The 13-year-old girl produces the following two utterances whose usage does not correspond to adult usage:

- (5.160a) *Puaka* '*a'e* *he* *titi~* *tuku* *koe* *ma* '*oto* *tuku* *te*
 pig be.not ART breast put 2.sg PREP inside put ART
upoko '*i* *Ha'akuti.*
 head LD H.
 'Pig which has no breasts, you put (it) inside (the fence), put the head towards Ha'akuti.' (FA-R/T-7oc)
- (5.160b) *To'o* *koe* *te* *horave* *horave* *tuku* *ma* '*oto.*
 take 2.sg ART horse horse put PREP inside
 'You take the horse horse put (it) inside.' (FA-R/T-32oc)

Unlike *ma*-marked '*oto* 'inside' and *vaveka* 'middle', *ma*-marked *vaho* can occur with a transfer verbal. The compatibility of *ma vaho* with transfer verbals, on the one hand, and the inability of '*oto* and *vaveka* to combine with transfer verbals, on the other hand, suggests that *ma* contributes a meaning to *vaho* other than movement and concrete path (see below). Moreover, in order to express that a 'pig is moving outside or around an enclosure' a number of consultants preferred a different construction altogether than *ma*-marked *vaho*:

- (5.161) *Vi'ipu ma te kaokao o te papua.*
 circle PREP ART side POSS ART enclosure
 'Circle at the side of the enclosure.' (E-Ad-98)

b) Spatial extension of theme:

The local nouns '*oto* 'inside' and *vaho* 'outside' are often marked by *ma* if the theme is spatially extended around or along the relatum. When, for instance, a rope is (coiled) around the outside of a container-object (see [5.162–63]), or the theme extends along the inside of an entity (see [5.164]):

- (5.162) *Kavi'i='ia te aho ma vaho o te papua.*
 twist=PASS ART rope,band PREP outside POSS ART enclosure
 'The rope is twisted around the outside of the enclosure.'
 (E-Ta-98)

- (5.163) *'A'e pe'au='ia e hai ko'oi i te vea,*
 be.not say=PASS TAM transport waist DO ART lwFr.glass
pe'au='ia tuku ma vaho o te vea. (E-Ti-98)
 say=PASS put PREP outside POSS ART glass
 'One does not say it coils the glass, one says put around the
 outside of the glass.'

- (5.164) *Ua rere te vehine 'i 'oto, ma 'oto o te kahu*
 TAM retreat ART woman LD inside PREP inside POSS ART cloth
patoko.
 strong.support
 'The woman retreated inside along the inside (surface) of the
 strongly supported cloth.' (Lav-U/N: 175)

Although all other seven consultants in the placement tasks did not feel that the marking of *ma* is obligatory when the theme is spatially extended, I could find a number of utterances of *ma*-marked *vaho* for similar configurations in the elicited data of the *Topological Relations Picture Book* (see ch. 2, § 3.2.2.2). For the configuration 'fence around house (15)' a number of consultants marked *vaho* 'outside' with *ma* and rejected '*i vaho* in this configuration altogether:

- (5.165) *Ena te papua ma/ *'i vaho o te ha'e.*
 exist ART enclosure PREP *LD outside POSS ART house
 'There is a fence around the outside of the house.' (TRPB-To-15)

However, if a point-like theme is outside a container object (e.g. ‘dog next to kennel (6)’, *i vaho* is preferred. *Vaho* is preferably marked by *ma* in configurations such as ‘belt around waist (42)’, ‘apple on stick (70)’ and ‘shoe on foot (21)’ which could all be characterised as having spatially extended themes in one way or another. However, *ma* is not only used in those configurations when the theme is spatially extended, but also when the theme is in contact with the outside surface of the relatum. This seems to be in particular the case for the local noun *vaho*. Note that the notion of contact is often referred to as being a topological notion (see ch. 4, § 8).

c) Surface contact in *ma vaho* utterances:

The local noun *vaho* ‘outside’ is often used to describe configurations in which the relatum is a container or container-like object. However, there are a number of spontaneous utterances of *ma vaho*, elicited from the *Topological Relations Picture Book*, in which the relatum is not a container or container-like object. *Ma vaho* was spontaneously uttered by a number of consultants for configurations such as ‘belt around waist’, ‘apple on stick’ and ‘shoe on foot’ (see above).

All these configurations have in common that the theme is in contact with the outside surface of the relatum. With respect to these relata the *ma*-marking in *ma vaho* clearly seems to express contact between theme and relatum. None of these configurations could be expressed by *ma vaho* if there would not be any surface contact between theme and relatum.

Whereas non-container-like objects (e.g. waists, apples and feet) require contact between theme and relatum, contact between theme and relatum is indeterminate when the relatum is a container-like object (see above). In these configurations the theme needs to be spatially extended (see [5.162–165]):

Table 25. Ma vaho with container- and non-container-like relata

	container-like relata (e.g. enclosures, bowls)	non-container-like relata (e.g. waists, feet, sticks)
1. Spatial extension of theme	+	+
2. Surface contact	– (contact indeterminate)	+

There are, however, configurations between theme and container-like relatum in which the theme needs to be in contact with the outside surface of the relatum. This is for instance the case in configurations such as ‘stamp on envelope’:

- (5.166) *Ua to'o te='a upoko ta=pi'i ma/ *'i vaho*
 TAM take ART=Dem head CAUS=stick PREP *LD outside
o te='a hamani. (TRPB-To-3)
 POSS ART=Dem letter,envelope
 'That head (= stamp) is taken (and) sticked outside that letter.'

Unlike the configurations 'belt around waist (42)', 'apple on stick (70)' and 'shoe on foot (21)', the theme in 'stamp on envelope (3)' is not spatially extended. One of the questions which might arise is why *vaho* has to be marked by *ma* and cannot be marked by '*i*'. The *ma*-marking can be explained by the contact-relation between theme and relatum, quite comparable to the configurations with non-container objects. Moreover, the usage of *ma vaho* would be slightly odd if the stamp would not be in contact with the letter (but lying next to it), although letters are container-like objects. This can be explained by the fact that the relatum is not really conceived as a container-object when it is not directly interacting with the theme. We can therefore say that the usage of *ma vaho* for the above configurations is also dependent on the nature of the theme. For the configurations 'stamp on letter (3)', 'belt around waist (42)', 'apple on stick (70)' and 'shoe on foot (21)' *ma vaho* is used because the theme has the *ability* to be in contact with the outside surface of the relatum, regardless of the nature of the relatum (see below). It is important to emphasize at this point that the usage of a certain locative construction is dependent on the nature of the relatum as well as the theme.³⁷⁶

The preposition *ma* in *ma vaho* contributes the following meanings:

1. 'Being within the 'outside'-region of the relatum *without* being necessarily *in contact* with the *outside surface* of the relatum';
2. 'Being *in contact* with the *outside surface* of the relatum'.

With respect to the first meaning contribution of *ma* the relatum has to be a container object. As for the second meaning contribution the nature of the relatum is irrelevant because all objects have outside surfaces. In order to use *ma vaho* theme and relatum simply have to be in contact with each other, but in such a way that the theme *adheres along* the outside surface of the relatum. *Ma vaho* is therefore preferably used when the themes are spatially extended. According to my consultants a point-like theme which adheres to the outside surface of non-container-like relata would hardly be expressed by *ma vaho*. This CONTACT-relation would rather be expressed

by the general location-marking preposition '*io*'. The fact that *ma vaho* for 'stamp on envelope' is possible, despite the point-like theme, might be due to the nature of the relatum, namely its container-like property. '*Io*' is used in configurations with point-like themes when the relatum is not a container-like object (e.g. 'bread crumb sticking on finger').

Table 26. Usage of *ma vaho* with varying themes and relata

	spatially extended themes	point-like themes
container-like objects	<i>ma vaho</i> (−/+ CONTACT)	<i>ma vaho</i> (+ CONTACT)
non-container-like objects	<i>ma vaho</i> (+ CONTACT)	' <i>io</i> ' (+CONTACT) * <i>ma vaho</i>

The basic meaning of the local noun *vaho* is 'outside'. When *vaho* is marked by *ma*, it can refer to the 'outside'-region of a container-like object as well as to the outside surface of any relatum. The usage of *ma*-marked *vaho* requires contact when the relatum is not a container-like object. In this case the theme also needs to be spatially extended. Contact is also required for container-like objects when the nature of the relatum is such that it needs to be interacting with the theme (e.g. by having contact) in order to be conceived as a container object as demonstrated above for 'stamp on letter'. In this case the theme need not be spatially extended. In the discussion of the meaning derivation of *ma*-marked *vaho* I neglected the difference between '*i*'- and *ma*-marking so far. In configurations in which the relatum is not a container object (see drawings 42, 21 and 70 in appendix 2) '*i vaho*' does not contrast with *ma vaho*: all my consultants rejected that these configurations could be expressed by '*i vaho*'. Thus, '*i vaho*' cannot be used when the theme is localised with respect to the outside surface of the relatum. In fact, an object can only be localised with respect to the outside surface of another object if it is in contact with the surface. *Vaho* can only be marked by '*i*' if the relatum is a container object or a terrain (see below). With respect to container or container-like objects some uses of '*i vaho*' and '*ma vaho*' partly overlap.

We can summarise that the path preposition *ma* marks *vaho* when the spatial configuration have the following characteristics:

1. 'Movement on concrete path';
2. 'Spatial extension of theme';
3. 'Surface contact and spatial extension with non-container like objects'.

d) Relationality:

It was said at the beginning of this subsection that the *ma*-marking also expresses a kind of relationality. This relationality is of a different nature than with local landmark nouns in which *ma* with a possessive construction specifies an object region. Due to the fact that '*oto*', *vaho* and *vaveka* are inherently relational local nouns the '*i*'- as well as *ma*-marking both express that the theme is localised in an object region of the relatum. Moreover, the compatibility of any preposition with possessive attributes is also evidence for their inherently relational meaning:

- (5.167) *Ena te peto 'i vaho o t=o ia ha'e.*
 exist ART dog LD outside POSS ART=POSS 3.sg house
 'There is a dog outside his kennel.' (TRPB-Ta-6)

All consultants felt that *ma vaho* is most felicitous when the theme is taken directly from the inside of a container object and put closely to the 'outside'-region of that container object. Some consultants thought that a similar reading can also be applied for *ma 'oto*, but not for *ma*-marked *vaveka* 'middle'. Moreover, *vaho* and '*oto*' are also preferably marked by *ma* when there is already an object at the inside or outside of a container object. For instance, *ma vaho* would be preferably used in (5.167) when there is another object inside the dog's kennel. We get a similar meaning contribution of *ma* with '*uka* 'up, top'. For a configuration such as 'man on roof (34)' speakers would use '*i uka*' if they would be seeing the man from the outside of the house. However, if the speaker is inside the house *ma*-marked '*uka*' is preferably used for the configuration 'man on roof'.

As for a better understanding of the meaning contribution of *ma* in *ma vaho* one has to contrast the uses with those of '*i*-marked *vaho*'. This is somehow difficult because the uses of '*i vaho*' and *ma vaho* partly overlap when the relatum is a container-like object (see above). On the basis of numerous discussions with my consultants, '*i vaho*' means something like 'outside the boundaries' of a house,³⁷⁷ or outside two-dimensional spaces like a terrain or territory. When '*i vaho*' refers to the 'outside boundaries' it rarely occurs with a possessive attribute. Imagine a person being located inside a house would ask the whereabouts of Teiki. According to my consultants it would be odd to utter (5.168), and likewise (5.169):

- (5.168) *I sea Teiki? – ?? Ena 'i vaho o te ha'e.*
 LD where T. exist LD outside POSS ART house
 ‘Where is Teiki? – ?? Outside the house.’ (E)
- (5.169) *?? 'I vaho o te henua.* (E)
 LD outside POSS ART land
 ?? ‘Outside the land.’

I vaho seems to be denoting a place rather than an object region meaning ‘outdoors’, quite similar to *i tai* ‘sea place’ or *i uta* ‘inland place’. This might also be the reason why *i vaho* is not really felicitous with possessive attributes when speakers want to express that someone or something is ‘outdoors’ or ‘outside the boundaries’ of a terrain.

e) Unspecific location and vaster region:

When the preposition *ma* marks the local nouns *'oto* ‘inside’ and *vaho* ‘outside’ it could also express that the location of the theme is not known or unspecific. *Ma*-marked *vaho* and *'oto* are therefore best glossed as ‘somewhere inside or outside’. Note that in (5.172–73) *ma* captures the meaning of ‘everywhere’ in the sense of covering a vast area:

- (5.170) *I sea te popo? – Ena ma 'oto a'a 'a'e au e kite 'i hea.* (E-Am-98)
 LD where ART ball exist PREP inside Dem.dist be.not 1.sg TAM know LD where
 ‘Where is the ball? – It is *somewhere* there inside, I don’t know where.’
- (5.171) *'A'o'e 'aua i kite ena me te 'enana ma 'oto.*
 be.not 3.dl TAM see exist with ART man PREP inside
 ‘They did not see that there are men *somewhere* inside.’
 (Lav-U: 049)
- (5.172) *Haka=kanahau='ia ma 'oto.* (E-Mo-98)
 CAUS=nice=Perf PREP inside
 ‘(The house) is embellished *around* the inside (covering a vast area).’
- (5.173) *Na 'atou e ha'i i te tekao ma vaho*
 TOP 3.pl TAM transport DO ART talk,gossip PREP outside

- i te po'ea o Taihau'ani... .* (Lav-E: 043)
 OBL ART handsome POSS T.
 'It is them who spread the gossip/news about Taihau'ani's beauty
everywhere outside... .'

f) Plurality:

Ma also expresses plurality if several objects are distributed at the 'inside'- or 'outside'-region of a container object. However, only two consultants felt that '*oto* 'inside' and *vaho* 'outside' should be marked by *ma*:

- (5.174) *Me titahi mea e pe'au ena ma vaho mea nui.*
 be.like ART thing TAM say exist PREP outside STV-P many
 'Like the other thing, (when you) say (they) are *ma vaho* there are
 many.' (E-B-98)
- (5.175) *Ua pi te hua'a ma vaho i te kaikai.*
 TAM full ART family PREP outside OBL ART food,eating feast
 'Due to the eating feast there was a lot of family outside.'
 (Lav-U/N: 128)

6.3.3.5. Summary

In the previous subsection it was discussed which meanings the locative prepositions '*i*, *ma* and *mei* contribute to the local nouns '*oto*, *vaho* and *vaveka*'. The local nouns '*oto*, *vaho* and *vaveka*', which express INCLUSION- and EXCLUSION-relations, are inherently relational local nouns like *mua* 'front, first', *mu'i* 'behind, last' and *hope* 'back'. In order to express a *default*-relation between theme and relatum (e.g. theme is localised at the 'inside'-region of relatum), the local nouns are simply marked by '*i*' and take a possessive attribute. '*Oto*, *vaho* and *vaveka* are always compatible with a possessive attribute, regardless of the prepositional marking of the local nouns.

Whereas the *ma*-possessive construction with local landmark nouns only specifies an object region, the preposition *ma* in a possessive construction with '*oto*, *vaho* and *vaveka*' contributes subtle meanings: *ma* expresses different instantiations of path, namely 'movement (along a path)', 'unspecific location', 'spatial extension of theme', and 'plurality'.

The local noun '*oto* 'inside' is only used with container-objects; *vaho* 'outside' can also be used with non-container-like objects. In these occur-

rences *vaho* means ‘outside surface’ and has to be marked by *ma*, and theme and relatum have to be in contact with each other. Thus, *ma vaho* means ‘outside surface’ when the relatum is a non-container-like object.

The usage of *ma* can be due to the nature of the theme and the relatum. In dynamic configurations all three local nouns are marked by *ma* which is due to the path-like location of the object region of the relatum:

- ma vaho* ‘along the ‘outside’-region of relatum x’;
- ma ‘oto* ‘along the ‘inside’-region of relatum x’;
- ma vaveka* ‘through the ‘between’-region of relata x and y’.

In static configurations the usage of *ma* is clearly due to the nature of the theme, namely its path-like shape. A path-like theme can consist of one object which has to be spatially extended, or the localised entity consists of several point-like objects (= plurality). We can conclude from this that the location of spatially extended objects is described like point-like objects moving along a path. Note that this is one of the universal claims made by Talmy (1983).³⁷⁸

There is an interesting difference between the *ma*-marking of *‘oto* ‘inside’, *vaho* ‘outside’ and *vaveka* ‘middle’ and those local nouns used in the intrinsic, relative and absolute frames of spatial reference (see this chapter, § 6.3.3.1–6.3.3.2). When the latter group of local nouns are marked by *ma* and take a possessive attribute, this seems to mean object region of an object:

- ma mua o te puaka* ‘in the front’-region of the pig’
- ma tai o te puaka* ‘in the ‘seaward’-region of the pig’ etc..

We can assume that the meaning ‘object region of object x’ is derived by the whole construction, i.e. the *ma*-possessive construction, and not the prepositional marking of *ma* alone. There are no other meaning contributions of *ma* when *mua* ‘front’, *mu’i* ‘behind’, *tai* ‘sea’ etc. take possessive attributes. In locative constructions with *ma*-marked *‘oto* ‘inside’, *vaho* ‘outside’ and *vaveka* ‘middle’, on the other hand, various meanings of path are instantiated (see above).

So far, we can conclude that the different instantiations of the path-preposition *ma*³⁷⁹ can be observed in locative constructions of all three classes of spatial lexemes (i.e. place names, body-part term and local nouns) in one way or another. With place names *ma* can only contribute the

most basic meaning, namely ‘concrete path’. When *ma* marks body-part terms we have several different instantiations of path, namely ‘concrete path’, ‘unspecific location’ and ‘spatial extension of theme’. The widest range of path-instantiations can be observed in locative constructions with ‘*oto* and *vaho*.

6.3.3.6. Local nouns expressing spatial relations on the UP/DOWN-axis

The local nouns ‘*a'o* ‘down, underside’ and ‘*uka* ‘up, top’ are used in two major referential domains. They express

1. spatial relations on the absolute vertical UP/DOWN-axis, and
2. so-called topological relations.³⁸⁰

As for the expression of topological relations the locative construction types with ‘*a'o* and ‘*uka* and their combinations with prepositions and possessive attributes are conceptually the most complex domain:

- (5.176) *Ena te pora ma 'uka he tapu.* (TRPB-Ti-1)
 exist ART bowl PREP up,top ART table
 ‘There is a bowl on top of the table.’

The ‘*uka*-construction in (5.176) seems to conflate dimensional information of the absolute vertical UP/DOWN-axis with topological notions such as CONTACT³⁸¹ and/or intrinsic features of objects (= UPSIDE SURFACE). According to Levinson (1996: 161) similar complexities can be observed for English topological prepositions such as *on top of* and *under* (see ch. 4, § 8).

When ‘*a'o* ‘down, underside’ and ‘*uka* ‘up, top’ are marked by the preposition *ma*, they are partly used for the same spatial configurations as English *on top of*, *above* and *under*. As for Marquesan the local nouns ‘*a'o* ‘down, underside’ and ‘*uka* ‘up, top’ are best described as expressions which denote spatial relations on the absolute vertical UP/DOWN-axis.³⁸² However, the particular use of a preposition, a construction type and modifying elements express whether there is, for instance, SURFACE CONTACT and/or intrinsic features (e.g. SUPPORTING SURFACE, UPSIDE of an object) involved as well in the spatial configuration (see ch. 6 and below for details). I will show that ‘down’ and ‘up’ are the basic meanings of ‘*a'o* and ‘*uka* and that those locative constructions with ‘*a'o* and ‘*uka*

which can be glossed as English *on*, *on top of*, *above* and *under* are derived meanings, mainly due to occurring in a *ma-* or *i*-marked locative construction.

A'o and *'uka* can refer to inherent UPERSIDES, LATERAL SIDES and UNDERSIDES of objects when the local nouns occur with attributive noun phrases. *A'o* and *'uka* can take two different attributive noun phrases to express the relatum, namely the possessive noun phrase and the *he*-attributive noun phrase. *A'o* and *'uka* do not occur with *i*-marked attributive noun phrases (see this chapter, § 4). The *he*-attributive noun phrases are preferred by younger speakers. Note that *'uka* can refer to all sides (i.e. upperside, lateral sides) of an object except the underside (see below). When *'a'o* and *'uka* are marked by *i* and are not constructed with an attributive noun phrase (e.g. possessive attribute), they simply express UP- and DOWN-relations on the absolute vertical axis.

In the following I will discuss the locative constructions which refer to spatial relations on the absolute vertical UP/DOWN-axis first. With respect to the absolute vertical UP/DOWN-axis topological notions and intrinsic features such as CONTACT and SUPPORTING SURFACE are not involved. Following that discussion the uses of *'a'o* and *'uka* are described when topological and intrinsic features play a role. These two discussions on the usage of *'uka* and *'a'o* focus on constructions with the prepositions *i* and *ma*. *Mei*-marked locative constructions with *'a'o* and *'uka* will be discussed at the end of this subsection.

The absolute vertical UP/DOWN-axis has been defined as an objective property of space derived by gravity (Klein 1990, 1994). The vertical UP/DOWN-axis corresponds to the canonical body orientation of human beings (Klein 1990, 1994; Hill 1982; Ehrich 1985). If this canonical body orientation is dissociated from the vertical UP/DOWN-axis (e.g. when lying in bed) then it is, according to Klein (1990: 23) the body orientation which is crucial in the usage of 'up'/'down'-expressions: for instance, 'up' in bed corresponds to the normal position of the head, and 'down' is where the feet are (Klein 1990: 23). Klein concludes that in non-canonical positions objective properties of space are often less relevant than subjective properties such as the body orientation of human beings.

The absolute vertical UP/DOWN-axis only has one (physical) anchor point which is the *ground location* or *soil*:³⁸³ there is no fixed location which is opposed to the ground location. Although most speakers probably conceive the sky as being the opposing fixed location to the ground location, there is objectively no location which delimits the notion of UP.

Nethertheless the vertical UP/DOWN-axis is *fixed* by the force of gravity and is therefore absolute.

Words which express spatial relations on this fixed vertical UP/DOWN-axis can be used as truely directional expressions because their axis is fixed and they are semantically opposing terms which denote opposite directions.

With respect to purely spatial relations on the absolute vertical UP/DOWN-axis '*a'o* 'down' and '*uka* 'up' can express a

1. Place (i.e. UP-place³⁸⁴ [e.g. 'in the mountains', 'in the bush', 'in the sky'] and DOWN-place [e.g. 'in the valley', 'by the sea', 'on the soil']);
2. Direction (i.e. 'upwards' and 'downwards'), and
3. They can be used *relationaly* (i.e. 'higher or lower than previous location').

When '*a'o* 'down' and '*uka* 'up' are marked by the preposition '*i*' they express location (here: a place), direction and relationality in the sense of 'higher than/lower than previous location'. In these usages '*a'o*' and '*uka*' cannot take possessive attributes or any other attributive noun phrases. When I modelled an action of putting a bowl on the floor and then taking it up again, the consultant made the following utterance:

(5.177) Vai='ia e Gaby te kaiu pora 'i 'a'o, he
leave=PASS AGS G. ART little bowl LD down ART
tohua 'i 'a'o, 'a to'o te='a mea 'a tuku
floor LD down TAM take ART=Dem thing TAM put
atu 'io ia 'i 'uka.
thither PREP 3.sg LD up

'The little bowl was left by Gaby on the ground (lit. 'down'), ground is the floor, then take that thing (and) put it up towards herself.' (CM-B-97)

The expression '*i* '*a'o* does not necessarily denote the soil or surface of the earth, thus an absolute location, but '*i* '*a'o' rather denotes the next possible big horizontal surface below which can serve as a ground location.³⁸⁵ '*I* '*a'o* expresses a location which is characterised by the delimitation of a larger horizontal surface. In Marquesan '*i* '*a'o' seems to be frequently denoting locations such as the 'floor'-place, the 'soil'-place, the 'beach'-place etc.. That '*i*-marked '*a'o* seems to be denoting a place, i.e. a location which is unrelational, is also emphasised by the fact that '*i*-marked '*a'o* cannot**

take possessive attributes at all. In this usage '*a'o*' is comparable to place names and local landmark nouns used in large-scale reference.

'*Uka*' and '*a'o*' can also be marked by *ma* when denoting places on the large-scale referential level (e.g. 'in the mountains' or 'by the sea'). In these constructions *ma* contributes the meaning of 'unspecific location' or 'vast region' (see ch. 5, § 6.3.3.2.1) and they cannot take possessive attributes either:

- (5.178) *Ena te 'enana ma 'a'o a'a.* (E-Mo-99)
 exist ART man PREP down Dem.dist
 'There is a man somewhere down there (by the sea).'

In most occurrences '*i*-marked '*uka*' either denotes a place (e.g. 'in the mountains') or it is used to express a relational meaning, namely 'any point which is *higher than previous location*' (see [5.177]). '*I*-marked '*a'o*' could also be used relationally meaning 'lower than the previous point of reference towards the ground location'. One could, for instance, imagine such a reading when one wants to attach a picture on the wall and has to follow instructions such as '*a tuku i 'a'o*' 'put (it) down' without meaning to put the picture on the floor.

Interestingly '*i* 'uka' 'up' is often used when the theme is below the speaker's level of gaze, thus the usage of '*i* 'uka' is independent from the perspective of the speech participants (i.e. their level of gaze):

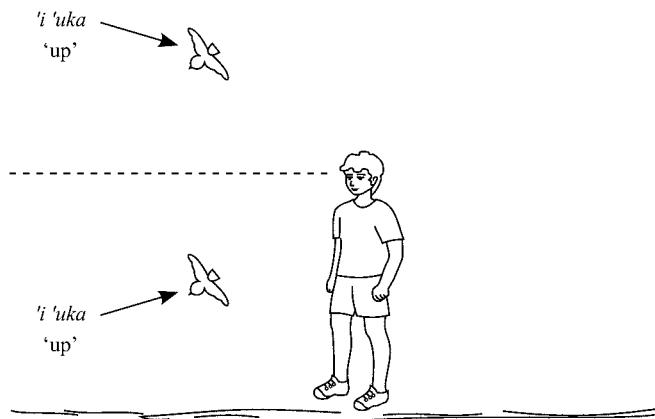


Figure 16. Usage of 'i 'uka' with respect to the language user's direction of gaze

I 'uka therefore means ‘any point which is *higher than the soil/ground location* and not in contact with the soil or ground location’. Speakers of Marquesan therefore seem to make use of an objective rather than a subjective property of space.³⁸⁶

Whether *i*-marked *'a'o* and *'uka* get a directional, relational or even destinative reading is mostly dependent on the composition with verbs. The distinction between a directional (‘upwards/downwards’) and relational (‘higher than/lower than’) reading of *i 'a'o* and *i 'uka* is only subtle. We always get a directional reading with experience verbs:

- (5.179) *E ti'ohi ia i 'uka.* (E)
 TAM look.at 3.sg LD up
 ‘He looks upwards.’

I-marked *'uka* gets the relational reading in composition with transfer verbs (see [5.180]). When co-occurring with atelic (loco)motion verbs we have an ambiguity between a directional and a relational reading. The relational reading is in most cases the preferred one:

Transfer verbal

- (5.180) *'A tuku te ata i 'uka.* (E)
 TAM put ART picture LD up
 ‘Put the picture up (= higher than previous location).’

Atelic motion verbal

- (5.181) *'A huru te ata i 'uka.* (E)
 TAM push ART picture LD up
 ‘Push the picture up(wards).’

Whereas *i*-marked *'uka* with atelic motion verbs always gets a directional or relational reading (and not a destinative reading), *i*-marked *'a'o* with atelic motion verbs can also get a destinative reading because *i 'a'o* can refer to a goal, namely some delimited ground location:

- (5.182) *'A huru te ata i 'a'o.*
 TAM push ART picture LD down,ground
 a. ‘Push the picture downwards.’ (= directional reading)
 b. ‘Push the picture on(to) the floor.’ (= destinative reading)

In the case of '*i*-marked '*a'o* neither the prepositional marking nor the composition with a certain verbal can clearly distinguish between direction and goal or a 'lower than'-reading. Clearly the interpretation of an utterance like (5.182) is not achieved by the mere lexical composition of several different constituents and their meanings, but the derivation of a particular reading is left to pragmatic inferences.

In the following I will discuss the prepositional marking of '*a'o* 'down' and '*uka* 'up' when topological and intrinsic features such as SURFACE CONTACT and TOPSIDE and UNDERSIDE are involved in the spatial configuration. When the local nouns '*a'o*' and '*uka*' take possessive attributes or *he*-attributive noun phrases they can refer to the 'underside of *y*' and the 'topside or lateral sides of *y*':

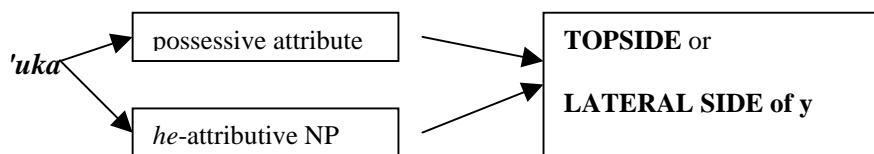


Figure 17. Occurrence of '*uka*' with attributive NPs and its reference to object parts

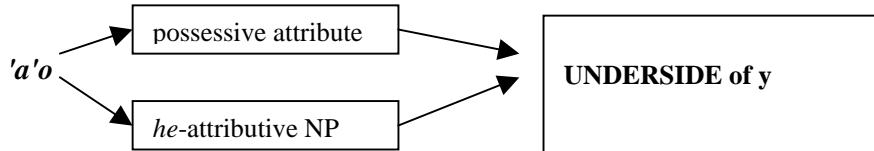


Figure 18. Occurrence of '*a'o*' with attributive NPs and its reference to object parts

One of the questions we might ask is whether the lexical meanings of '*uka*' and '*a'o*' really denote inherent surfaces of objects such as TOPSIDE, UNDERSIDE etc. or whether a particular construction type (e.g. a *ma*-possessive construction) and other contextual factors such as gravity derive the interpretation of '*uka*' as e.g. 'topside' and '*a'o*' as 'underside'?

1. '*Uka* 'up, top':

'*Uka* 'up, top' is marked by *ma* if there is a *supporting horizontal surface* as e.g. the supporting surface of a table, a shelf or a chair:

- (5.183) *E vai nei Gaby i te kaiu pora ma 'uka he tapu.*
 TAM leave Dem G. DO ART little bowl PREP top ART
 table

'Gaby is leaving the little bowl on top of the table.' (E-CM-B-97)

When the surface is vertical (e.g. a wall, cupboard doors) '*uka*' cannot be marked by *ma*, but has to be marked by '*i*' instead.³⁸⁷ In fact all my older consultants (+25 of age) rejected *ma*-marked '*uka*' for configurations in which the theme was in contact with VERTICAL SURFACES. In the elicited utterances of the configurations 'picture on wall (44)', 'telephone on wall (25)' and 'handle on cupboard (61)', '*i*-marked '*uka*' can take possessive attributes or *he*-attributes:

- (5.184) *Ena te ata *ma/ 'i 'uka o te apapa.*
 exist ART picture PREP LD up POSS ART wall
 'There is a picture on the wall.' (TRPB-Ta-18)

Examples (5.183) and (5.184) seem to suggest that the usage of '*i*'- and *ma*-marked '*uka*' is due to the different orientation of surfaces: '*i*' '*uka*' is used for spatial configurations on vertical surfaces, whereas *ma* '*uka*' is used for configurations on horizontal surfaces. On the basis of the analysed data of the *Topological Relations Picture Book* I further elicited the differences between '*i*'- and *ma*-marked '*uka*' by modelling actions like adhering a magnet or a piece of modelling clay onto vertical and horizontal surfaces of a chair or table. *Ma*-marking was consistent with horizontal surfaces (see [5.185]), whereas '*i*' '*uka*' was used exclusively for vertical surfaces (see [5.186]):

Horizontal surface

- (5.185) *Vai='ia Gaby ma 'uka he tapu.* (E-CM-B-97)
 leave=Perf G. Prep top ART table
 'Gaby left (the book) on top of the table.'

Vertical surface

- (5.186) *Ta=pi'i='ia Gaby 'i 'uka o te pou.*
 CAUS=stick=Perf G. LD up POSS ART post,table.leg
 'Gaby sticked (it) on the table leg/post.' (E-CM-B-97)

This opposition of surface orientations seems to reflect the differences in prepositional marking of '*uka*' providing that the horizontal surface is a supporting surface. In the configurations 'lamp on ceiling (63)' (see [5.187]) and 'fly on ceiling (7)' (see [5.188]) the orientation of the surface is also horizontal, but ceilings are not supporting surfaces. My consultants spontaneously marked '*uka*' by '*i*' and rejected *ma*-marked '*uka*' altogether for these configurations:

- (5.187) *Tau'eva='ia *ma/ 'i 'uka o te apapa.*
 hang=PASS PREP LD up POSS ART ceiling
 '(It) is hung on the ceiling.' (TRPB-To-63)
- (5.188) *Ena te tikau'e *ma/ 'i 'uka o te parafo.*
 exist ART fly PREP LD up POSS ART ceiling
 'There is a fly on the ceiling.' (TRPB-Jo-7)

In fact, (5.187) and (5.188) can be conceived as relations in which the theme is supported by *hanging* or *adhesion* (see also [5.186]). HANGING-relations are configurations in which the theme is attached *by nature* (see [5.189]) or attached and tied to the relatum *by human hand* (see [5.190-91]). All these configurations cannot be expressed by *ma*-marked '*uka*:

- Attachment by nature* ('apple on tree [27]')
- (5.189) *Ena te puku *ma/ 'i 'uka o te maka.*
 exist ART unripe.fruit PREP LD up POSS ART branch
 'There is a fruit (hanging) on the branch.' (TRPB-Jo-27)

Attachment/tying by human hand ('ballon on stick [20]')

- (5.190a) *Humu='ia *ma/ 'i 'uka o titahi 'akau.*
 tie,attach=PASS PREP LD up POSS ART.indef wood
 '(It) is tied on a wooden (stick).' (TRPB-To-20)
- (5.190b) *Ena te tautau *ma/ 'i 'uka o te kete.*
 exist ART strings PREP LD up POSS ART bag
 'There are strings on the bag.' (TRPB-To-66)
- (5.191) *A pine i te='a kanikani *ma/ 'i 'uka o*
 TAM pin DO ART=Dem duck PREP LD up POSS

t=o koe kahu.
 ART=POSS 2.sg clothes
 '(You) are pinning that duck³⁸⁸ on your clothes.' (E-CM-B-97)

The difference between '*i*- and *ma*-marked '*uka* can therefore be characterised as being one between SUPPORTING HORIZONTAL SURFACE- vs. HANGING/ATTACHMENT/TIED TO-relations (henceforth: HANGING-relations). Although HANGING-relations cannot be expressed by *ma* '*uka*, some *ma* '*uka*-relations can also be expressed by '*i* '*uka*. For instance, the configurations 'man on roof (34)', 'hat on head (5)', 'tree on top of mountain (17 + 65)', 'cork in bottle (62)', 'hose on treestump (coiled) (23)' allow '*i*'- as well as *ma*-marked '*uka*. Most consultants had a preference for either '*i*'- or *ma*-marked '*uka*. Some consultants preferred '*i* '*uka* for the configurations 'man on roof (34)' and 'tree on top of mountain (17)' because the surface was not clearly a *horizontal* surface. Other consultants preferred *ma* '*uka* for 'man on roof' because the theme (i.e. the man) is not at the highest point of the roof, i.e. its spire. If the man would have been positioned right on the spire of the roof, '*i* '*uka* would be more felicitous than *ma* '*uka*. Similarly, for the configurations 'tree on top of mountain (65)', 'cork in bottle (62)', 'hat on head (5)' and 'hose on treestump [coiled] (23)' '*i* '*uka* is as felicitous as *ma* '*uka* because the theme is at the *highest point* or surface of the relatum, even though the surface is a supporting horizontal surface. The contrast between '*i* '*uka* and *ma* '*uka* only becomes apparent when relata have two supporting horizontal surfaces as e.g. chairs, sofas, cars:³⁸⁹

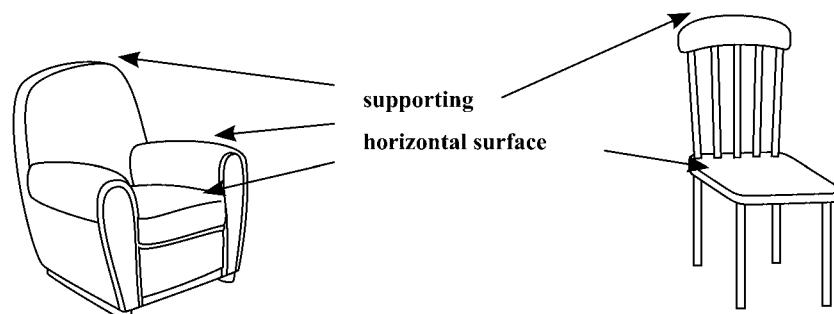


Figure 19. Supporting horizontal surfaces of chair and armchair

With respect to chairs and sofas the two supporting horizontal surfaces differ in size, spatial extension and also in height³⁹⁰ of the surface, providing that the objects are in a canonical position. When a chair is in canonical position and the theme is localised at the highest supporting horizontal surface, '*i*-marked *'uka* is used. *Ma 'uka*, on the other hand, is most felicitous when the theme is localised on the seating surface of the chair:

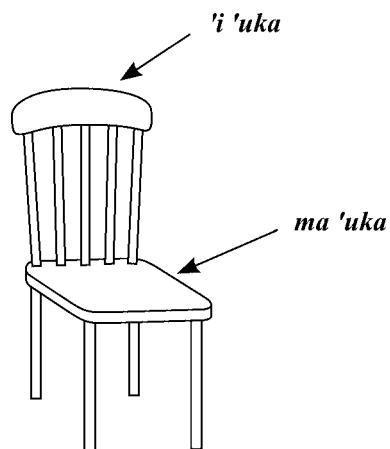


Figure 20. 'I 'uka- and ma 'uka-regions on a chair

There are two possible explanations why there is a difference in prepositional marking of *'uka* with respect to relata such as chairs and sofas:

1. Difference in height: '*i* 'uka' is used because it is the highest point/surface of the relatum;
2. Horizontal surface extension: '*i* 'uka' is used because the highest supporting horizontal surface of a chair or sofa is spatially not extended³⁹¹ and therefore not conceptualised as a *supporting* surface.

The fact that '*i*- as well as *ma*-marked *'uka* are felicitous with the configurations 'tree on top of mountain (65)', 'hat on head (5)' and 'hose on treestump [coiled] (23)' would be an argument for the first explanation because the horizontal surfaces of mountain tops, heads and treestumps, which are the only horizontal surfaces of these relata, are clearly spatially extended surfaces which can serve as supporting surfaces. However, in these configurations *'uka* can be marked by *ma* and '*i* alike. In other words:

the '*i*-marking of '*uka* in 'hat on head' and 'hose on treestump' cannot be triggered by the lack of a perceptually salient supporting surface. '*I*-marked '*uka* is therefore felicitous because the supporting horizontal surface is at the highest point of the relatum.

Although most consultants only allowed *ma*-marked '*uka* for the configurations 'apple on plate' and 'cup on table', two consultants felt that '*i*' *uka* is also felicitous. However, the configurations 'pencil on desk (59)', 'hose on treestump [draped] (43)', and 'tablecloth on table (29)' all consultants agreed that only *ma*-marked '*uka* is possible and '*i*' *uka* was unanimously rejected. All these configurations have a more or less spatially extended theme in common. Moreover, as for the configurations 'hose on treestump [draped] (43)' and 'tablecloth on table (29)' the theme is spatially extended beyond the boundaries of the 'supporting horizontal surface'-region of the relatum which is often expressed by a specific verbal:

- (5.192) *Tomi=’ia ma ’uka o te tapu.* (TRPB-Ta-29)
 cover=Perf PREP top POSS ART table
 '(Someone) covered (the cloth) over top of the table.'

Spatial extension of theme is also clearly expressed in (5.193):

- (5.193) *’A pa’u i te pani ma ’uka o te papaika!*
 TAM smear DO ART coconut.oil PREP top POSS ART cheek
 'Smear coconut oil on the cheek!' (CM-To-97)

(5.193) is a counterexample of *ma* '*uka* only being used for supporting horizontal surfaces. However, the *ma*-marking of '*uka* in (5.193) does not contribute the meaning 'supporting surface', but 'spatial extension of the theme'. *Ma* contributes a different meaning to '*uka* than for instance in (5.185), a meaning contribution which is similar to that of the configurations 'hose on treestump [draped] (43)' and 'tablecloth on table (29)'. In (5.193) the usage of *ma* '*uka* is in some ways similar to some of the uses of *ma vaho* meaning 'extended outside surface contact' due to a spatially extended theme. The local nouns '*uka* 'up, top' and *vaho* 'outside' both seem to express the 'outside surface' of an object. In fact, some consultants used *ma* '*uka* and *ma vaho* for the same configurations,³⁹² and some preferred *ma* '*uka* to *ma vaho* for the configuration 'belt around waist' and rejected '*i*-marked '*uka*:

- (5.194) *Taka ai au *'i/ ma uka o au.*
put.belt.on ANA 1.sg LD PREP top POSS 1.sg
'I put a belt around me.' (TRPB-Ta-42)

The *ma*-marking of '*uka*' in (5.193) can be due to two circumstances, namely spatial extension of theme or adhesion³⁹³ of theme. In configurations in which the theme is adhered, but not spatially extended, both prepositional markings of '*uka*' are possible, often with a preference for *ma* '*uka*:

- (5.195) *Ta=pi'i 'i/ ma 'uka o titahi hamani.*
CAUS=stick LD/ PREP up POSS ART.indef letter
'(It) is sticked onto the letter.' (TRPB-To-3)

Similarly to 'stamp on letter (3)', 'bandaid on foot (35)' was also sometimes expressed by *ma* '*uka*. Adhesion-relations therefore have a tendency³⁹⁴ to be expressed by *ma*-marked '*uka* regardless of whether the surface orientation is horizontal or not. The *ma*-marking of '*uka* is therefore due to two circumstances:

- 1) *Spatial extension* of the theme (see [5.193–94])
or
- 2) *Adhesion* of theme, preferably when spatially extended (see [5.195]).

'*I*-marking of '*uka*' is not felicitous in (5.192–94) simply because the theme is spatially extended. In (5.192–95) *ma* '*uka* seems to contribute the meaning 'contact with side surfaces brought about by adhesion and/or spatial extension of theme'. Again we can conclude that the *ma*-marking is not necessarily dependent on the nature of the relatum, but also on the nature of the theme.

The meaning derivation and choice between '*i*' and *ma* in locative constructions with '*uka*' is often driven by the complex interplay of the nature of theme and relatum. Thus, an object region of a *ma* '*uka*-construction is specified on the basis on the nature of theme and relatum. This means that the speakers make use of their encyclopaedic knowledge of objects in order to interpret and specify an object region. For instance, speakers of Marquesan use for the configurations 'hat on head' and 'butter around (lateral) sides of head' the same locative construction, namely *ma*-marked '*uka*, although the object regions which are specified are quite different. This seems to be a general principle in spatial language use which Nüse (1999)

has shown, among other things, in a series of experiments for German spatial prepositions.

So far it has not been discussed if theme and relatum need to be contact when *ma 'uka* is used with respect to supporting horizontal surfaces. The usage of *ma 'uka* is, in fact, indeterminate with respect to contact or non-contact between theme and relatum because it can be used for configurations such as 'cloud above mountain (37)' or 'lamp above table (13)':

- (5.196) *Ena te ao ma 'uka o te mouka.*³⁹⁵
 exist ART cloud PREP up POSS ART mountain
 'There is a cloud above the house.' (TRPB-To-36)

- (5.197) *Tau'eva='ia ma 'uka o te tapu.*³⁹⁶ (TRPB-To-13)
 hang=PASS PREP up,top POSS ART table
 '(The lamp) is hung above the table.'

In (5.196–97) *ma 'uka* simply means 'higher than relatum and not in contact with relatum'. These *ma 'uka*-uses will be called ABOVE-uses. *Ma*-marked '*uka*' in (5.196–97) does not refer to an inherent or intrinsic feature of the relatum, i.e. its 'topside', but to the relatum as a whole. This becomes apparent when the relatum is in a non-canonical position, for instance when the supporting surface of a table is tilted (see figure 21):

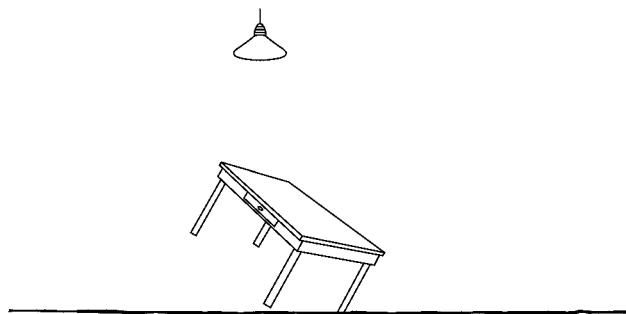


Figure 21. Table in non-canonical position

In figure 21 the theme is evidently not localised with respect to the intrinsic supporting surface of the relatum, but only with respect to the vertical absolute UP/DOWN-axis in relation to the relatum as a whole.

The question one might ask is if '*uka*' means 'up' in (5.196–97) and 'top(side)' in (5.183) and (5.185). For the configurations described in (5.196–97) one could argue that '*uka*' means 'topside' because the relata are in a canonical position and the theme's location can be analysed with respect to the 'topside' of the relatum, thus '*uka*' meaning 'topside' and not 'up'. In other words: does '*uka*' in (5.196–97) denote an UP-location on the vertical UP/DOWN-axis and in (5.183) and (5.185) an inherent feature, i.e. a supporting surface?

We can probably assume that '*uka*' means 'up' in all occurrences, regardless of whether the theme is localised with respect to a supporting surface or in the 'above'-region of a relatum and that the meaning of 'topside' is derived by contextual factors. SUPPORTING SURFACE- and the ABOVE-configurations are expressed by one and the same construction whose interpretation is indeterminate with respect to contact. In the 'supporting surface'-uses of *ma 'uka* contact with the topside of an object is a simple outcome of the gravitational force, and it is not part of the meaning of *ma 'uka*. Although we might tend to interpret '*uka*' in (5.198) as 'topside'

- (5.198) *Ena te pora ma 'uka he tapu.*
 exist ART bowl PREP up ART table
 'There is a bowl on top of the table.'

we can interpret the utterance as follows: the relatum's supporting surface prevents the theme from falling onto the ground and therefore the theme remains in a state of being 'up'. Thus the interpretation of '*uka*' as 'topside' in 'supporting surface'-uses (e.g. 'on top of the table') is simply derived by the force of gravity.

In other languages corresponding spatial expressions are for instance English *on top of* and German *auf*. As for these spatial expressions the notion of CONTACT is lexicalised in the meaning of these expressions (see Klein 1991; Bierwisch 1988) because the notion of CONTACT distinguishes Ger. *auf* 'on top of'³⁹⁷ from Ger. *über* 'above'.

Moreover, we cannot analyse occurrences of '*uka*' in a possessive construction or with a *he*-attributive noun phrase as 'topside' because we would also have to account for the *ma*-possessive construction in (5.196–97). N-MQA '*uka*' therefore does not denote the inherent upperside surface

of an object as such. It is the linguistic and extra-linguistic context which derive the meaning of ‘topside’. Note that the meaning of ‘*uka* ‘up’ also holds for those HANGING-relations in the ‘*i*-possessive construction: everything which is hanging is conceived as being UP.

That ‘*uka* indeed means ‘up’ is also shown in that it contrasts with ‘*a'o* ‘down’. For instance, *ma 'uka* can be used with spatially extended themes around any surface of the relatum except the underside surface,³⁹⁸ thus ‘up’ is anything which is not connected with the underside of an object. In contrast to ‘*uka*’, ‘*a'o* can only be used in connection with the underside surface. With respect to the surfaces of an object, ‘*uka* therefore contrasts with ‘*a'o*’.

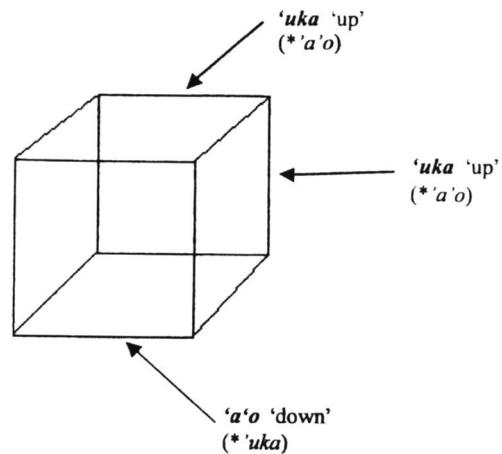


Figure 22. ‘Uka- and ‘a'o-regions

The following table summarises the various spatial relations with ‘*i*- and *ma*-marked ‘*uka*’:

Table 27. Usages of the prepositions ‘*i*’ and *ma* with respect to ‘*uka* ‘up’

	horizont support	hanging relations	under-side	extension of theme	adhesion (vertical surface)	highest point of relatum
‘ <i>i</i> 'uka	−/(+)	+	−	−	+	+(pref.)
<i>ma 'uka</i>	+ (pref.)	−	−	+	+	−/(+)

2. '*A'o* 'down':

The difference between '*i a'o*' and '*ma a'o*' is not as complex as the difference between '*i*-' and '*ma*-marked '*uka*'. If an object is localised by '*i a'o*' it simply means 'on the ground or floor' and is unrelated to any other object. When '*a'o*' occurs in a *ma*-possessive construction, it is expressed that the theme is localised in the vicinity of the underside of the relatum. Thus, the *ma*-possessive construction with '*a'o*' as its lexical head derives the interpretation object region of relatum. Look at figure 23:

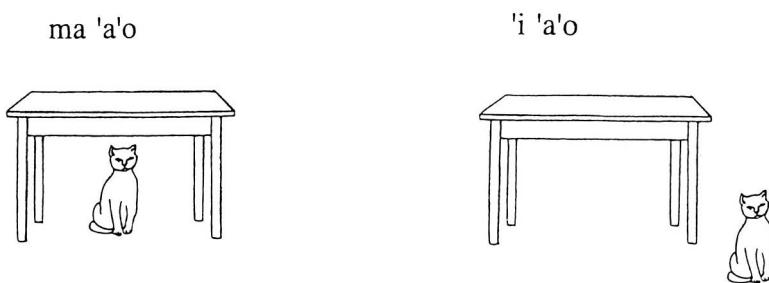


Figure 23. *Ma a'o* 'cat under table'³⁹⁹ vs. *i a'o* 'cat on floor'

- (5.199a) *Ena te potu ma 'a'o o te tapu.*
exist ART cat PREP down POSS ART table
'There is a cat under the table.' (TRPB-Ta-59)

- (5.199b) *Ena te potu 'io he tohua 'i 'a'o.*
exist ART cat PREP ART floor LD down
'There is a cat on the floor.' (E-Ti-99)

Ma-marked '*a'o*' possessive constructions are most felicitously translated as Engl. *under* although not all configurations which can be expressed in English by *under* correspond to N-MQA *ma a'o*-constructions. For instance, Engl. *under the wallpaper* cannot be translated in N-MQA by *ma a'o*. Instead, speakers of Marquesan use *ma mu'i* 'behind (the wallpaper)'.

Ma-marked '*a'o*' can always take possessive attributes whereas '*i*-marked '*a'o*' cannot (see above). In configurations which are expressed by *ma a'o* the theme and the relatum need not be in contact, i.e. the construction *ma a'o* is indeterminate with respect to contact or non-contact. In other words: the object region *ma a'o* means 'vicinity underside surface'. The indeterminacy of contact or non-contact was also stated for the 'on top of/above'-

readings of *ma 'uka*.⁴⁰⁰ However, due to the force of gravity most *ma 'uka*-configurations show a CONTACT-relation between theme and relatum, whereas *ma 'a'o*-configurations are characterised by NON-CONTACT. Whether a CONTACT-relation between theme and relatum exists or not, can be expressed by a modifying directional particle (see ch. 6, §2.2.2.4).

The usage of *ma*-marked '*a'o*-utterances suggests that the lexical meaning of '*a'o*' might be connected to the inherent underside surface of an object. In other words: it is possible that '*a'o*' does not solely express spatial relations on the vertical UP/DOWN-axis, but that the usage of *ma*-marked '*a'o*' is restricted to the inherent underside surface of an object. Whether or not this is the case cannot be answered at the present state of my data and needs to be further investigated by confronting speakers with object configurations in non-canonical positions. It seems, however, likely that it is the *ma*-possessive construction which probably derives the meaning of 'underside'.

In order to say that an object is taken from the floor or ground speakers would simply mark '*a'o*' by the preposition *mei*:

- (5.200) 'A *to'o* ***mei*** '*a'o*. (CM-To-97)
 TAM take from down
 'Take from the floor.'

However, if something is taken 'from the under-region of an object', '*a'o*' has to be marked by *ma* before it can be marked by *mei*. The local noun '*a'o*' cannot be marked by *mei* without occurring in the *ma*-possessive construction. '*A'o*' has to occur in the *ma*-possessive construction in order to specify the 'under'-region of the relatum:

- (5.201) 'A *to'o* ***mei*** ***ma*** '*a'o* *o* *te* *tapu*.
 TAM take from PREP down POSS ART table
 'Take (it) from underneath the table.' (CM-To-97)

Under certain conditions, however, '*a'o*' need not to be marked by *ma* when source with respect to the 'under'-region is marked. This is in particular the case when the local noun '*a'o*' is modified by the directional particle *a'e/ake* 'upwards'.⁴⁰¹ The modification by *a'e/ake* 'upwards' expresses that the theme is in contact with the underside of the relatum (e.g. a chewing gum sticking at the underside of a table):

- (5.202) *A to'o mei 'a'o ake.* (E-CM-To-97)
 TAM take from down upwards
 'Take it from the underside/underneath.'

Note that *mei 'a'o* can not mean 'from the floor/ground' because '*a'o ake*, literally meaning 'down upwards' can hardly make reference to a floor or ground location, but only to the underside of an object.

In order to say that something is taken from an upper surface the local noun '*uka*' is simply marked by *mei* regardless of whether the surface is horizontal or vertical. In these constructions '*uka*' can take possessive attributes or other attributive noun phrases:

- (5.203) *To'o mei 'uka o te tapu.*
 take from top POSS ART table
 'Take from the table.' (CM-To-97)
- (5.204) *Ua taki au mei 'uka o te apapa.*
 TAM take.off 1.sg from up POSS ART wall
 'I take (it) off from the wall.' (E-Mo-97)

Some consultants would also use the combination of the prepositions *mei+ma* if the upper surface is a supporting surface:

- (5.205) *Taki Gaby i te paraseta mei ma 'uka he tapu,*
 take.off G. DO ART plaster from PREP up ART table
ta=pi'i 'io he pora.
 CAUS=stick PREP ART bowl
 'Gaby takes away the plaster from the table and sticks it on the bowl.' (CM-B-97)

In the case of '*a'o* 'down' the preposition *ma* clearly has the function of indicating the 'under'-region of an object. With respect to '*uka*' the prepositions '*i*' and *ma* both indicate object regions of the relatum providing that '*uka*' takes, or least can take possessive attributes or *he*-attributive noun phrases:

1. Object region:⁴⁰² SUPPORTING HORIZONTAL SURFACE (e.g. *ma 'uka he tapu* 'on top of the table')

2. Object region: SUPPORTING BY HANGING (e.g. *i 'uka o te tumu 'akau* ‘hanging in/on the tree’)
3. Object region: HIGHEST SUPPORTING HORIZONTAL SURFACE (e.g. *i 'uka o te isea* ‘on top of the chair [its highest supporting surface]’)

6.3.3.7. Summary

In the previous subsections it was discussed how the local nouns ‘*uka* ‘up’ and ‘*a'o* ‘down’ are used and in which types of constructions they occur. The local nouns ‘*uka*’ and ‘*a'o*’ are used in two major referential domains, namely when expressing

1. spatial relations on the absolute vertical UP/DOWN-axis;
2. ‘topological relations’.

It was shown that the basic meanings of ‘*uka*’ and ‘*a'o*’ are ‘up’ and ‘down’, even when they express topological relations corresponding to Engl. *on top of* and *under*. Whether they express topological relations or spatial relations on the vertical UP/DOWN-axis is dependent on the type of locative constructions in which they occur. When they occur with a possessive attribute or *he*-attributive noun phrase they express so-called topological relations (e.g. *on top of* and *under*); when they occur without an attributive noun phrase they simply denote spatial relations on the vertical UP/DOWN-axis. The vertical UP/DOWN-relations denote locations on an absolute axis. These locations do not need to be defined in relation to another location, i.e. they are absolute locations like, for instance, places. This absolute axis has one anchor point, namely the ground. All other locations (or points) on the vertical axis are considered to be UP. ‘*Uka*’ therefore means ‘any point which is higher than the soil or a ground location’. It was also shown that speakers use ‘*uka*’ in exactly this way and that the usage of ‘*uka*’ ‘up’ is not influenced by the speaker’s position of his eyes or gaze of direction. Contrary to the observation Klein (1994) made for Ger. *oben*, speakers of Marquesan make use of an objective rather than a subjective property of space, namely the gravitational axis.

When ‘*uka*’ and ‘*a'o*’ take possessive attributes or *he*-attributive noun phrases, they specify object regions, namely the ‘underside’ or ‘top- and lateral sides’ of an object. According to the analysis in section 6.3.3.6 the

meanings of ‘topside’, ‘lateral side’ or ‘underside’ are derived by the type of construction in which ‘*uka*’ and ‘*a’o*’ occur (e.g. in a possessive construction) as well as by extra-linguistic factors such as gravity. *Ma* ‘*uka*-constructions are indeterminate with respect to CONTACT: the same construction can be used for SUPPORTING SURFACE- as well as ABOVE-relations. This is also evidence that ‘*uka*’ simply means ‘up’. The same holds for *ma*-marked ‘*a’o*-constructions. We can conclude from this that ‘*uka*’ and ‘*a’o*’ denote vertical UP/DOWN-relations, even when they occur in a possessive construction type and express so-called topological relations.

We can now draw a parallel to local landmark nouns such as *tai* ‘sea’ and *uta* ‘inland’. Like ‘*uka*’ and ‘*a’o*’, *tai* and *uta* do not take possessive attributes when they refer places in the large-scale environment, and they occur in a *ma*-possessive construction when they specify an object region. Like *tai* and *uta*, ‘*uka*’ and ‘*a’o*’ are not inherently relational nouns, but denote fixed locations which are based on an absolute axis. The difference between *tai* and *uta* and ‘*uka*’ and ‘*a’o*’ is that the former are salient landmarks or places, whereas the latter are not. In this context we also have to note that ‘*a’o*’ ‘down, ground’ can only take a possessive or *he*-attributive noun phrase when it is marked by *ma*, but not by ‘*i*'. ‘*A’o*’ has this property in common with *tai* ‘sea’ and *uta* ‘inland’, but not with ‘*uka*’.

The local noun ‘*uka*’ occurs in a *ma*- as well as an ‘*i*-possessive construction. Those constructions mark different topological relations and subtle meanings differences which are often due to the nature of the theme. The *ma*- as well as ‘*i*-possessive construction both specify object regions. The different locative prepositions ‘*i*’ and *ma* indicate which object regions are specified: *ma*-marking specifies ABOVE- and SUPPORTING SURFACE-relations, whereas ‘*i*-marking specifies HANGING-relations. The path marker *ma* is probably used for ABOVE- and SUPPORTING SURFACE-relations because the object region is conceived as being a ‘vaster region’ than in HANGING-relations. When the theme is, however, spatially extended in a typical HANGING-relation (e.g. on vertical surfaces), or adheres along the lateral surface of the relatum speakers also use *ma*. The usage of *ma* with respect to HANGING-relations is solely due to the path-like shape of the theme.

The ‘*i*- and *ma*-possessive construction with ‘*uka*’ both express that the theme is supported to remain in the state of being UP. The contrast between ‘*i*- and *ma*-marked ‘*uka*⁴⁰³’ is in most cases a contrast between SUPPORT BY HANGING (= ‘*i*-marking) vs. SUPPORT BY HORIZONTAL SURFACE

(= *ma*-marking), thus the seemingly distinction between horizontal and vertical surfaces: themes on vertical surfaces can only be supported by hanging, unless the nature of the theme is such that it can support itself on the vertical surface as in the case of adhering and smeary substances. Adhering and smeary substances on vertical surfaces are expressed by *ma*-marked ‘*uka* when the theme is spatially extended. The *ma*-marking ‘*uka* is, however, solely, due to the nature of the theme, i.e. its spatial extension. Note that *ma* also marks other local nouns when the theme is spatially extended as for instance *vaho* ‘outside’ and *'oto* ‘inside’ (see above).

6.3.3.8. Constructions with local nouns in non-spatial conceptual domains

In this subsection I will briefly discuss the same meaning contributions of *ma* and ‘*i* which can be found in constructions with local nouns expressing other conceptual domains such as temporality and plurality. Moreover, I will give some examples of constructions with local nouns which are not used spatially.

In constructions which express temporal relations we also have the contrasting usage of the prepositions ‘*i*’ and *ma*. The preposition ‘*i*’ expresses a punctuated and specific localisation on the time axis in the past, whereas *ma* expresses unspecificity often referring to future events or an extended period of time (e.g. Engl. *during* as in *during the afternoon*):

- | | | |
|--|-----|--|
| (5.206a) <i>'i titahi 'a</i>
LD ART.indef day
'one day'
(past reference [=specific]) | vs. | (5.206b) <i>ma titahi 'a</i>
PREP ART.indef day
'some other day'
(future reference [=unspecific]) |
| (5.207a) <i>'i te po</i>
LD ART night
'at night, yesterday night' | vs. | (5.207b) <i>ma te po</i>
PREP ART night
'during the night' |
| (5.208a) <i>'i te ahiahi</i>
LD ART evening
'in the evening' | vs. | (5.208b) <i>ma te ahiahi</i>
PREP ART evening
'during the evening' |
| (5.209) <i>O'io'i 'a he'e tahipito 'i te ika hi, e hano</i>
tomorrow TAM go other.people LD ART fish pull TAM get | | |

*tahipito i te puaka kukumi, ma te ma'uteia o te
 other.people DO ART pig kill PREP ART dawn ART
 tao.*

grill

‘Tomorrow, some people go fishing, others will kill a pig, the grilling will be some time during dawn.’ (Lav-U: 232)

- (5.210) *U pe'au te vehine: ‘A heke koe, epo au
 TAM say ART woman TAM go.seaward 2.sg later 1.sg
 heke ma te ahiahi.’*
 go.seaward PREP ART evening
 ‘The woman said: ‘You go down seaward, I will go down later some time during the evening.’’ (Lav-U/N: 164)
- (5.211) *Ma te o'io'i, u he'e haka'ua Te'akima'ui'ui 'i
 PREP ART tomoorow TAM go again T. LD
 te manu ve'o.* (Lav-U: 130)
 ART bird pierce
 ‘Tomorrow⁴⁰⁴ Te'akima'ui'ui is going again to catch birds.’
- (5.212) *Ua he'e haka'ua te tau ka'ioi 'i te kaka'a
 TAM go again ART PL bachelor LD ART gecko
 mea ko'ika='ia ma te ahiahi.* (Lav-T/H: 048)
 in.order.to feast=Perf PREP ART evening
 ‘The bachelors went again to the gecko in order to feast during the evening.’

Ma is also used to express plurality, in particular when several objects are distributed over a vast region (see also above):

- (5.213) *Mea nui te mako ma 'i'a.* (E)
 STV-P many ART mango PREP there
 ‘There are a lot of mangos (spread) all over there.’

Plurality is also expressed when *ma* marks a noun phrase containing a body-part term of type-1-constructions (see this chapter, § 6.2):

- (5.214) *'A i 'oa i kite ai 'atou i te he'e='ia mai
 be.not TAM long TAM see ANA 3.pl DO ART go=Perf hither
 ma te a'o o te tau ka'ioi me hua mou
 PREP ART face POSS ART PL bachelor with ART.ana PL/DL*

ko'oua... .

old.man

'It was not long when they saw the coming to the bachelors' faces and those of the old men.' (Lav-T/H: 108)

My consultants confirmed that if there would have been only *one* bachelor, then it would be more felicitous to use the preposition '*i*', thus '*i te a'o o te ka'ioi* 'at the face of the bachelor'.

The local nouns '*oto* 'inside', '*uka* 'up', *hope* 'behind, hidden' and *mu'i* 'behind, last' occur in constructions which are used non-spatially. Note that there is also a variation with respect to case-marking of the local nouns with '*i*', *ma* and *mei*. However, not all local noun constructions can take all prepositions when they are used non-spatially (see [5.218]):

- (5.215) *Me hua mea Anihoka ua hika Anihoka 'i 'oto o te='a toua='ia.* (Lav-H: 089)
like ART.same thing A. TAM fall A. LD inside
POSS ART=Dem war=Nom
'Same thing again, Anihoka got involved into the war.'
- (5.216) *Me hua mea u pohu'e He'ato mei 'oto o te=ia toua='ia.* (Lav-H: 106)
like ART.same thing TAM survive H. from inside POSS
ART=Dem war=Perf
'Same thing again, He'ato survived the war.' (lit. 'from inside')
- (5.217) *I/ ma 'oto o te 'eo 'enana.*
LD PREP inside POSS ART language man
'in the Marquesan language'
- (5.218) *E patu nei au e tahi hamani *ma/ 'i 'uka o te 'eo 'enana.*
TAM write Dem 1.sg NUM one book PREP LD up,top
POSS ART language man
'I am writing a book about the Marquesan language.'
- (5.219) *U putu-putu 'atou paotu 'i mu'i iho 'o te pure meta.* (Zewen 1987: 65)
TAM RED-gather 3.pl all LD behind,after DIR POSS ART
pray mass
'They all gathered together right after the mass.'

- (5.220) *Ma hope iho ua he'e ia 'i te henua ti'ohi.*
 PREP behind,after DIR TAM go 3.sg LD ART land look.at
 'Afterwards he went to look at the country.'
 (Mutu and Teikitutoua 2002: 85)

6.4. Locative constructions with *hope* ‘part, region’, *keke* ‘side’, and *vahi* ‘place’

In this subsection I will primarily discuss the locative construction type which has *hope*⁴⁰⁵ ‘part, region’ and the common full word *keke* ‘side’ as their lexical heads:

- (5.221) ... 'a he'e atu ai 'i **hope** me tai 'i'a te
 TAM go DIR ANA LD part,region with sea there ART
koivi te='a pihā... (FA-T/M-H-9: 019)
 female ART=Dem cow
 '... (it) is going towards the sea region, the female, that cow is
 there... .' (lit. '... towards the region/part with sea...')
- (5.222) *t=o ia keo hu'i='ia t=o ia keo*
 ART=POSS 3.sg bottom turn=PASS ART=POSS 3.sg bottom
'i te keke me 'ua Teiki. (FA-B/R-9: 011)
 LD ART side with couple T.
 'Its' bottom, its bottom is turned towards the side where Teiki and
 his wife live.' (lit. '...towards the side with couple Teiki')

A similar construction type we also find with the common full word *vahi* ‘place’:

- (5.223) ..., *mea'a te mata ho'i 'io te='a vahi me te='a*
 but ART face indeed PREP ART=Dem place with ART=Dem
konihī-nihī 'io {ke} 'io koe (FA-T/M-H: 16)
 corner.post-RED PREP LAPSE PREP 2.sg
 '..., but the face is indeed at that place with the corner posts
 towards {ye} towards you.'

Vahi-constructions as demonstrated in (5.223) are only partially comparable with *keke*- and *hope*-constructions (see below). Locative constructions with *hope* ‘part, region’ and *keke* ‘side’ seem to be referentially and constructionally quite similar. On the referential level, *keke*- and *hope*-

constructions express that the language user refers to partitioned regions, i.e. to regions of the space in front of the speaker (e.g. a table). In the *Farm Animals game*, for instance, speakers frequently seem to divide the tabletop space in front of them into a ‘sea’-, ‘inland’- or ‘across’-region, i.e. the regions which lie in the direction of the ‘sea’-, ‘inland’- or ‘across’-quadrants:

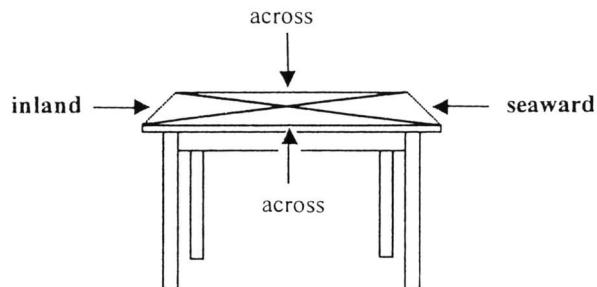


Figure 24. Partitioned regions on a table

Keke- and *hope*-constructions therefore rarely refer to object regions or places. There are only a few occurrences like (5.224) in which a *keke*-construction refers to an object region:

- (5.224) *E 'ua tumu 'akau, ti'ohi ma 'a'o o te tumu*
 NUM two trunc wood look.at PREP under POSS ART trunc
'akau, ma te keke me uta, ma uta o te=nei
 wood PREP ART side with inland PREP inland POSS ART=Dem
mou tumu 'akau e tahi piha.(FA-T/M-3: 001–03)
 PL/DL trunc wood NUM one cow
 ‘(There are) two trees, under the trees, at the *inland-side*, *inland* of these two trees is one cow.’

However, in (5.224) the speaker additionally uses the local noun construction type in order to indicate that he is, in fact, referring to an object region. Occasionally there are occurrences of *keke*-constructions in which the *me*-marked noun phrase containing a local landmark noun can also take possessive attributes:

- (5.225) *E inu a'a te koivi piha i te vai te keke me tai te koivi piha 'i tai 'i te keke me tai o te pasa.*
 TAM drink Dem ART female cow DO ART water ART side with sea ART female cow LD sea LD ART side with sea POSS ART trough
 'The cow is drinking water at the sea side, the cow it is seawards, at the sea side of the trough.' (FA-B/R-9: 004)

The (second) *keke*-construction in (5.225) also seems to refer to an object region as in (5.224). *Keke*- and *hope*-constructions are in particular used in small-scale reference. Speakers rarely use these constructions when referring to the sea- or inland-place of a valley. Apart from *keke*-constructions with local landmark nouns, the *me*-marked noun phrases often contain a place name:

- (5.226) *'A tuku te puaka 'i te keke me Hakata'o.*
 TAM put ART pig LD ART side with H.
 'Put the pig at the side with Hakata'o.' (E-Ti-99)

From a constructional point of view *keke*- and *hope*-constructions are also similar because the lexical head always has to have an attribute, in most cases⁴⁰⁶ a *me*-marked noun phrase. Occurring with an attribute of some sort is probably the most characteristic feature of this construction type:

- (5.227)
 PREP – (ART) – *keke/hope* (= lexical head) – *me*-attributive NP/possessive attribute

Keke- and *hope*-constructions most frequently occur with *me*-marked attributive noun phrases. These *me*-marked attributive noun phrases can contain a

1. local landmark noun,
2. place name,
3. proper name of person,
4. common full word, and
5. personal pronoun.

Me-marked attributes can neither contain body-part terms of type-3-constructions nor local nouns which do not belong to the group of local landmark nouns.

Although *keke-* and *hope-*constructions seem to be a similar construction type, there are a number of differences between the *keke-* and *hope-*constructions which are probably due to the word classes to which *keke* ‘side’ and *hope* ‘part, region’ belong.

Keke ‘side’ belongs to the class of common full words because it has the same morphosyntactic properties as other common full words. *Hope* ‘part, region’, on the other hand, is more difficult to classify because it lacks all the typical characteristic properties of the class of common full words in the locative construction type discussed in this subsection.⁴⁰⁷ *Hope* ‘part’ does not occur

1. with articles;
2. as the lexical head of a verb phrase;
3. with modifiers;
4. with pre- and postposed demonstratives;
5. with the locative prepositions *'io*, *ma* and *mei*.

Keke-constructions, on the other hand, allow the above mentioned properties:

1. Articles:⁴⁰⁸

- (5.228) *Te pasa inu='ia vai 'i te keke me tai.*
 ART container drink=Perf water LD ART side with sea
 ‘The trough is at the sea-side.’ (FA-B/R-9: 001)

- (5.229) *Ena 'i he kaokao ke, 'i he keke me tuaivi.*
 exist LD ART side different LD ART side with mountain
 ‘(It) is at a different side, at the mountain side.’
 (FA-T/M-H-8: 97)

In (5.229) the *keke*-construction does not have an attribute because the article *titahi* ‘other’⁴⁰⁹ already defines which side is referred to:

- (5.230) *I te kaokao [kaokao] a'a 'i titahi keke⁴¹⁰*
 LD ART side side there LD ART.other side

‘At the side [side] over there, at the other side.’
 (FA-T/M-H-14:71)

2. Lexical head of a verbal phrase:

- (5.231) *I uta te upoko tu='ia te upoko 'i uta,*
 LD inland ART head stand=Perf ART head LD inland
e keke me uta.
 TAM side with inland
 ‘The head is inland, the head is positioned inland, (it) is (at the) inland-side.’ (FA-T/M-15: 62)

- (5.232) *E keke me tai e tahi tumu 'akau.*
 TAM side with sea NUM one trunc wood
 ‘One tree is (at the) sea-side.’ (FA-T/M-8: 6)

3. With modifier:

- (5.233) *...ona keke me 'ua Teiki 'umo'i 'i vaveka 'umo'i*
 a.little side with couple T. PROHIB LD middle PROHIB
'i vaveka o te ko'oka. (FA-B/R-15: 9)
 LD middle POSS ART trough
 ‘... at little towards the side (where Teiki and his wife live), don’t (put it) at the middle, at the middle of the trough.’
- (5.234) *Te koivi piha 'i te keke tuaivi me 'ua Teiki*
 ART female cow LD ART side mountain with couple T.
ti'ohi='ia atu te mata 'i tai. (FA-B/R-2: 5–6)
 look.at=PASS DIR ART face LD sea
 ‘The cow, (it) is at the mountain side where Toti (and his wife live), the face is looking seawards.’
- (5.235) *Te keo 'i te keke [keke] papua me tai.*
 ART bottom LD ART side side enclosure with sea
 ‘The bottom (it) is at the enclosure side [side] in the direction of the sea.’ (FA-T/M-13: 16)

4. Pre- and postpositioned demonstratives:

- (5.236) *Ee, te upoko hu'i mai 'i te=nei keke 'io taua.*
 yes ART head turn hither LD ART=Dem side PREP 1.dl.incl

'Yes, the head turn (it) towards us, at this side towards us two.'
(FA-B/R-9: 13)

- (5.237) *Mea 'io titahi keke mo'i 'i te keke nei*
do PREP ART.other side PROHIB LD ART side Dem
me koe,
with 2.sg
'Put (it) at the other side, don't (put it) at this side where you are.' (lit. '... at the side here with you') (FA-T/M-H-8: 8)

5. Locative prepositions other than '*i*:

- (5.238) *E tahi horave 'i 'oto hu'i='ia mai te a'o*
NUM one horse LD inside turn=PASS hither ART face
'io he keke me koe.
PREP ART side with 2.sg
'One horse, (it) is inside, the face is turned towards me and you at the side where you are.' (FA-T/M-H-15: 11)

Ma-marked *keke*-constructions tend to have a possessive attribute instead of a *me*-marked noun phrase:

- (5.239) *Te papua ma te keke ma te keke o te*
ART enclosure PREP ART side PREP ART side POSS ART
horave, e keke 'ima oko. (FA-T/M-15: 16)
horse TAM side hand right
'The enclosure is at the side, is at the side of the horse which is right hand side.'

Keke-constructions can be marked by the preposition *mei* 'from'. However, there are no occurrences with *mei*-marked *keke*-constructions attested in my data.

Apart from the above mentioned differences between *keke*- and *hope*-constructions there are a number of other distinguishing properties. *Hope*-constructions only allow *me*-marked noun phrases, whereas *keke*-constructions allow a broad range of attributes. These attributes include relative clauses and possessive attributes (see [5.239]), modifiers and NN-constructions (see [5.233–35]). Moreover, in *keke*-constructions *me*-marked attributive noun phrases can contain, apart from local nouns, also common full words, proper names of persons, place names or personal pronouns. In

hope-constructions, on the other hand, *me*-marked noun phrases can only contain local landmark nouns:

- (5.240) *Te='a piha 'io te=nei pao='ia pou ma mua nei*
 ART=Dem cow PREP ART=Dem end=NOM post PREP front Dem
'i hope me tai.
 LD part,region with sea
 'That cow, (it) is at this last pot in front close to me, at the sea-region.' (FA-T/M-H-15: 033)

In *hope*-constructions *me*-marked local landmark nouns can be modified by the demonstrative *nei* 'here':

- (5.241) *Me he mea 'ina 'i te ta'i 'i kaokao o*
 be.like ART thing be.there LD ART edge LD side POSS
te='a ta'i 'i hope me tai nei. (FA-B/R-16)
 ART=Dem edge LD part,region with sea Dem.prox
 'As if it is there at the edge, at the side of the edge at the sea region (which is) close to me.'

There are no other modifiers found in this type of *hope*-construction.

We can conclude that, unlike *keke*-constructions, *hope*-constructions are lexical phrases which have fixed constructional slots consisting of the locative preposition '*i*', the lexical head *hope* and an attributive *me*-marked noun phrase containing a local landmark noun:

- (5.242)
Hope-construction
 PREP '*i* – lexical head *hope* – *me* + local landmark noun

Hope-constructions are less frequent in my data than *keke*-constructions which can be explained by the ability of the common full word *keke* to take a wide range of attributes which can contain different classes and subclasses of words (local nouns, proper names of persons, place names, personal pronouns etc.). This makes *keke*-constructions more flexible in spatial reference because the language user can express fine-grained differences of an object's particular position and orientation. These means of expression are particularly used when an object's main orientation axes deviate from the major SEA/INLAND-axis.

- (5.243) *Pakeka=’ia mai ’i te keke me te=’a vahi*
 oppose=PASS DIR LD ART side with ART=Dem place
e inu a’ā te piha. (FA-T/M-H-9: 028)
 TAM drink Dem ART cow
 ‘(It) is positioned at the side with that place where the cow is drinking.’
- (5.244) *T=o ia keo hu’i=’ia t=o ia keo*
 ART=POSS 3.sg bottom turn=PASS ART=POSS 3.sg bottom
’i te keke me ’ua Teiki (FA-B/R-9: 011)
 LD ART side with couple T.
 ‘Its bottom, its bottom is turned towards the side where Teiki (and his wife live).’
- (5.245) *Te upoko ’io he tuaiivi⁴¹ ’i te keke tuaiivi, te*
 ART head PREP ART mountain LD ART side mountain ART
keo ’i te keke ’uapu.
 bottom LD ART side road
 ‘The head (it) is towards the mountain, at the mountain side, the bottom is at road side.’ (FA-T-M-3)

Keke-constructions allow speakers to express that an object is oriented towards the side where a certain person lives (see [5.244]) or where other non-conventionalised landmarks are (e.g., a road, the post office, the school, the hospital etc.). Non-conventionalised landmarks are occasionally also constructed with *vahi* ‘place’:

- (5.246) ... *hu’i atu ’io te=’a vahi me te tere me*
 turn DIR PREP ART=Dem place with ART television with
te pou=tere ’i ’uka. (FA-B/R-10: 018)
 ART post=television LD top.of.mountain
 ‘... turn (it) towards the place with the television (satellite) with the television post on top of the mountain.’

The construction with *vahi* ‘place’ in (5.246) is constructionally and referentially similar to the *keke*- and *hope*-constructions. *Vahi* ‘place’, like *keke* ‘side’, belongs to the class of common full words and therefore also has a wider range of morphosyntactic properties than *hope*-constructions (e.g. articles, demonstrative, locative prepositions etc). *Vahi*-constructions as in (5.246) occur less frequently in the data and they mostly refer to non-conventionalised landmarks (see [5.246]) and locations within a complex

spatial configuration such as the photo stimuli of the *Farm Animals game* (see [5.247–48]):

- (5.247) *T=o=ia a'o hu'i='ia mai 'io te='a vahi me*
 ART=POSS=3.sg face turn=PASS DIR PREP ART=Dem place with
te='a ko'oka inu vai.
 ART=Dem trough drink water
 'Its face (it) is turned towards that place with the trough.'
 (FA-T/M-H-9:047)
- (5.248) *Te keo 'io te='a vahi me te konih-i-nihi*
 ART bottom PREP ART=Dem place with ART corner.post-RED
'i hope.
 LD behind
 'The bottom is at the place with the corner posts (of the enclosure) which are behind.' (FA-T/M-H-16)

Although *vahi*-constructions as demonstrated in (5.246–48) are in many ways similar to *keke*-constructions there are, however differences. For instance, the *me*-marked attributive noun phrase in *vahi*-constructions cannot contain local nouns or place names. Moreover, *vahi*-constructions do not occur with the locative preposition '*i*'; instead they are case-marked by '*io*'. Note that '*io*-case-marking is a characteristic feature of the locative case-marking of common full words. The preposition '*i*', on the other hand, is the locative preposition of local nouns, body-part terms⁴¹² and place names. This means that *keke* and *hope* which frequently occur with the locative preposition '*i*' are from the point of view of their morphosyntactic properties between the class of common full words and the classes of local nouns, body-part terms and place names which do not allow '*io*-marking. *Keke* and *hope* are more treated like location-denoting nominals than *vahi*.

Due to the constructional and referential similarity of *keke*- and *hope*-constructions speakers sometimes shift from *keke* to *hope* as the lexical head in the same utterance as in (5.249–50):

- (5.249) *Ee, te='a te='a piha e inu a'a te vai*
 yes ART=Dem ART=Dem cow TAM drink Dem ART water
'i 'oto o te='a ko'oka 'i he keke~ 'i
 LD inside POSS ART=Dem trough LD ART side LD
hope me tai.
 part,region with sea

'Yes, that that cow which is drinking water inside that trough at the side~ at the sea side.' (FA-T/M-15)

- (5.250) *Pakeka=’ia titahi hope ’i ko ’io ’ua Teiki,*
 oppose=PASS ART.indef part LD across PREP couple T.
titahi keke~ hope, ’io taua moe pakeka=’ia.
 ART.other side part,region PREP 1.dl.incl lie oppose=PASS
 'One part is opposed acrosswards towards Teiki's place, the other
 side~ region towards us two lie (it down) (it) opposed.'
 (FA-B/R-15)

The first *hope* in (5.250) is not the lexical head of a locative construction, but the lexical head of the subject noun phrase. In (5.250) the subject noun phrase *titahi hope* 'the other part' shares morphosyntactic properties with *keke* 'side' (e.g. occurring with an article). In this usage *hope* means 'part of an object or living creature'. There are also other such occurrences in which *hope* clearly shows morphosyntactic properties of common full words such as occurring with articles, demonstratives and locative prepositions other than *i* (see [5.251–253]). However, in those occurrences *hope* 'part of an object or living creature' is, like *keke*, always modified because *hope* as such does not specify to which part the speaker refers to. It is therefore no surprise that *hope* is often modified by a body-part term or a local noun⁴¹³ (see [5.251–253]). In (5.251) the Matcher in a *Farm Animals* interaction asks if the theme is to be put at the 'behind part'. The Director replies by specifying the body-part as well as the relatum, namely at the 'cow's bottom part':

- (5.251) *I te=’a hope mu’i ? – Ee, ’i te=’a hope*
 LD ART=Dem part loc.n.-behind yes LD ART=Dem part
keo pihā?
 bottom cow
 'At that behind part ? – Yes, at that bottom part (or the) cow.'
 (FA-Hak-6)

- (5.252) *Ua hano Te’akimauiui ma te hope upoko, u*
 TAM go T. PREP ART part head TAM
haka=va’ia ia ia. (Lav-U: 166)
 CAUS=wake.up DO 3.sg
 'Te'akimauiui went along the head part, and woke her up.'

The modifying body-part term can also take a possessive attribute as in (5.253):

- (5.253) *E hu'i koe i te ko pukiki 'i tai mea'a
 TAM turn 2.sg DO ART side red LD sea but
 te='a piha te='a piha mea e piha pukiki e
 ART=Dem cow ART=Dem cow thing TAM cow red TAM
 hu'i a'a 'i vaveka toittoi 'io te='a hope
 turn Dem LD middle real,genuine PREP ART=Dem part
 tua o te='a ihorave~ pao?
 back POSS ART=Dem horse be.finished*

‘You turn the ass seawards but that cow that cow eh the red cow (you) turn (it) right in the middle, at the place where the back part of that horse is~~ finished?’ (FA-Hak-1)

*Hope ‘part of an object or living creature’ can also take *ma*-marked ‘*a'o* down, underside’ and ‘*uka* ‘up, top’ as its attribute:*

- (5.254a) *Te hope ma 'a'o o te piha.
 ART part PREP underside POSS ART cow
 ‘The underside-part of the cow.’ (E-Ma-99)*

- (5.254b) *Te hope ma 'uka o te piha. (E-Ma-99)
 ART part PREP top POSS ART cow
 ‘The upperside-part of the cow.’*

Obviously the word *hope* is difficult to classify. In any case we can classify it as belonging to the class of full words because *hope* occurs as the lexical head of noun phrases and also verb phrases.⁴¹⁴ The classification within the class of full words is however more problematic. Nevertheless, we can make a neat distinction between *hope* ‘behind, hidden’ and *hope* ‘part, region’, not only on the basis of their distinct meanings, but also due to the type of constructions in which they occur. In the meaning of ‘behind, hidden’ *hope* has been defined as belonging to the class of local nouns. It has all the morphosyntactic properties of the local noun class and occurs in the same constructions types in which local nouns function as lexical head. Note, however, that *hope* ‘behind, hidden’ is not reconstructed for the Proto-Polynesian class of local nouns or L-class nouns (see Clark 1976: 55).

In the meaning of '(unspecific) part of an object or living creature' *hope* clearly has similar morphosyntactic properties as common full words. In *hope*-constructions as depicted in (5.242) *hope* does, however, not allow the properties which are characteristic for the class of common full words. The reason for this simply is that the *hope*-construction type in (5.242) is a lexical phrase which has predetermined constructional slots. However, what is common for all occurrences in which *hope* 'part, region' is the lexical head of a noun phrase, is that it has to have an attribute of some sort in order to specify to which part or region *hope* refers to. In other words: *hope* cannot occur without a modifying attribute, even when it seems to have properties like other common full words, i.e. occurring with an article, demonstrative and a variety of locative prepositions (see [5.251–53]).

The following table summarises the most characteristic properties of *hope* 'part, region' as a common full word and of *hope-*, *keke-* and *vahi-* constructions.

Table 28. Properties of *hope-*, *keke-* and *vahi*-constructions

	ART <i>te</i>	PREP <i>'i</i>	PREP <i>'io</i>	nominal attribute ⁴¹⁵	<i>me-</i> attribute	possessive attribute
<i>Hope</i> 'part' (common FW)	+	+	+	+	–	–
<i>Hope-</i> construction	–	+	–	–	+	–
<i>Keke-</i> construction	+	+	+	+	+	+
<i>Vahi-</i> construction	+	–	+	+?	+	+

6.4.1. Summary

In the previous subsection the types of locative constructions were discussed which have *hope* 'part, region' and the common full words *keke* 'side' and *vahi* 'place' as their lexical head. Unlike the previously discussed classes of spatial lexemes, i.e. place names, body-part terms and local nouns, *hope*, *keke* and *vahi* denote unspecific locations and therefore they need to be modified in order to specify a location. In most cases *hope*,

keke and *vahi* take a *me*-marked attribute which often contains local nouns, common full words, personal pronouns and place names. The *me*-marked attributes in locative constructions with *hope* ‘part’ can only contain a local landmark noun. Moreover, in *hope*-constructions the lexical head is not preceded by an article. The *hope*-construction can therefore be regarded as a lexical phrase. *Keke-* and *vahi*-constructions, on the other hand, show a great variety of prepositional marking and modification and they can also take *me*-marked attributive noun phrases as well as possessive attributes. *Hope-*, *keke-* and *vahi*-constructions are often used to refer to non-conventionalised landmarks or to the location type partitioned region, in particular on a so-called table-top space (= small-scale reference).

6.5. Locative constructions with common full words, proper names of persons and personal pronouns

In this subsection I discuss the locative construction types which have a common full word, a proper noun of person or a personal pronoun as their lexical head. Common full words, proper names of persons and personal pronouns can occur with the following locative prepositions:

- (5.255) *'io* ‘at or towards place of x’
 'i ‘at or towards place x or event x’
 ma ‘along, around, unspecific location’
 mei ‘from’

The preposition *'io* is the only locative preposition which can occur with all three word (sub)classes:

- (5.256) *Ia hemo na me'ama, 'atahi 'a tīhe ai te*
 TAM catch ART.pl moon,month then TAM arrive ANA ART
 'oko 'io te haka'iki 'io He'ato u kai='ia
 news PREP ART chief PREP H. TAM eat=PASS
 Kanatete e te Hiva 'Oa.
 K. AGS ART H. 'O.
 ‘After a few months, the news arrived at the chief, at He'ato (that)
 Kanatete was eaten by the people from Hiva 'Oa.’ (Lav-H: 016)

- (5.257) *U pe'au te vehine po'otu: " 'A'e au e hakaea*
 TAM say ART woman beautiful be.not 1.sg TAM stop

'io **ko'ua**, e he'e au 'i tai, na te hei o
 PREP 2.dl TAM go 1.sg LD sea TOP ART garland POSS
 Tuohe i vava'o mai." (Lav-T/H: 040)
 T. TAM call DIR
 'The beautiful woman said: "I am not going to stop at your place,
 I am going seawards, it is Tuohe's garland which is calling me.'"

The occurrence of the other three locative prepositions with those three word classes is more restricted. I will first turn to the preposition '*io*' before proceeding with the other locative prepositions. Note that the preposition '*i*' only occurs with common full words, but not with proper names of persons and personal pronouns. Moreover, '*i*' only occurs with particular common full words and therefore stands, more or less, in complementary distribution to the preposition '*io*'.

1. Distribution of locative case-markers '*io*' and '*i*:

In occurrence with common full words, proper names of persons and personal pronouns, '*io*' means 'at or towards place of x'. When occurring with proper names of persons or personal pronouns it often refers to the personal/private dwellings or home of a person. '*Io*-marked common full words can also refer to the private dwellings of a person if the common full word denotes a person (see [5.256] and [5.258]):

- (5.258) *U pe'au ia ia:* " *Mea meita'i, e tu'u tama,*
 TAM say DO 3.sg STV-P good VOC POSS.Pr.1.sg child
e heke koe 'i tai 'io to hoa 'io Hekei."
 TAM go.seaward 2.sg LD sea PREP your friend PREP H.
 '(He) said to her: "It's good, my dear child, you go down
 seawards to your friend('s place), to Hekei('s place).'"
 (Lav-T/H: 177)

Although '*io*-marking is a characteristic feature of locative case-marking of common full words, not all common full words can be marked by '*io*'. For instance, common full words which denote events have to be marked by the locational-directional preposition '*i*:

- (5.259) *U he-he'e 'i te avaika me t=a 'aua mou*
 TAM RED-go LD ART fishing with ART=POSS 3.dl PL/DL
'enana hoe vaka. (Lav-T/H: 006)
 man row canoe
 '(They) went fishing with their two canoe-rowing men.'

- (5.260) ...*e hano i te tau toa to'o mea he'e atu*
 TAM fetch DO ART PL warrior take in.order.to go DIR
'i te toua umu huke o Kanatete 'i Hiva 'Oa.
 LD ART war oven revenge POSS K. LD H. 'O.
 '... (he) went and got warriors took (them) in order to go to the
 revenge war for Kanatete at Hiva 'Oa.' (lit. ...'to the revenge war
 of Kanatete...') (Lav-H: 023)

Common full words denoting buildings and smaller, more confined spaces (e.g. objects, body-parts, passages, public places) are in most cases *io*-marked:

- (5.261) *Ua he'e hua vaka ua tihe 'io he mata'ae,*
 TAM go ART.ana canoe TAM arrive PREP ART cape
ua to'o 'atou i hua mou maha'i, ua tuku
 TAM take 3.pl DO ART.ana PL/DL boy TAM put
'io he vaka.
 PREP ART canoe
 'The canoe left , (it) arrived at the cape, they took those two
 boys and put (them) in the canoe.' (Lav-T/H: 231)
- (5.262) *Ua heke te mo'i po'otu, ua tihe 'io he*
 TAM descend ART girl beautiful TAM arrive PREP ART
ava.
 mountain.passage
 'The beautiful girl descended when (she) arrived at the mountain
 passage.' (Lav-T/H: 036)
- (5.263) *Ua mau 'io he kaki o te po'otu.*
 TAM hold PREP.loc ART neck POSS ART beautiful
 '(It) was holding at the neck of the beauty.' (Lav-T/H: 024)
- (5.264) *Ma te ahiahi u haka=heke tahipito ka'ioi 'i tai*
 PREP ART evening TAM CAUS=descend other bachelor LD sea
'io he tohua.
 PREP ART public.place
 'Some time in the evening, the other bachelors made (him) go
 seawards to the *tohua*.⁴¹⁶' (Lav-T/H: 021)

According to my consultants common full words which denote institutions are preferably '*i*-marked' (e.g. the school, the church, the government, the local council):

- (5.265a) *E he'e au 'i te ha'e hamani/ 'i te ha'e pure.*
 TAM go 1.sg LD ART house book LD ART house prayer
 'I am going to school/to church.' (E-B-99)

When one refers to the actual building of these institutions, then '*io*-marking is preferred:

- (5.265b) *E he'e au 'io te ha'e hamani.*
 TAM go 1.sg PREP ART house book
 'I am going to the school (building).'

Other common full words which denote the same or a similar space '*i*' and '*io*' are used interchangeably, even sometimes in the same utterance or sentential sequence:

- (5.266) *E noho ana io he tahuna, i te tahatai, titahi ka'ioi o Hi'imoana t=o ia ikoia.* (Kimitete 1990: 10)
 TAM stay,sit CONT PREP ART gravel.beach LD ART
 Iw.Tah.-beach ART.indef bachelor PRES H. ART=POSS 3.sg
 name
 'A bachelor called Hi'imoana, was sitting at the gravel beach, at the beach.'

With respect to those common full words it seems that there are no restrictions in the grammar and speakers might simply have a preference for the one or the other locative preposition.

Common full words which denote vaster spaces or landmarks (e.g. *moana* 'ocean', *vao* 'bush'), on the other hand, are preferably case-marked by '*i*'. Compare the '*io*-marking of *tahuna* 'gravel beach' and the '*i*-marking of *moana* 'ocean' in (5.267):

- (5.267) *Ia ha'a=pi te tai, ua hati te ka'u io he tuhuna. Ia hua atu te ka'u i te moana.*
 TAM CAUS=full ART sea TAM be.broken ART wave PREP ART
 gravel.beach TAM return DIR ART wave LD ART ocean

‘When the sea filled (the beach with water) the wave broke at the gravel beach. Then the wave returned to the ocean.’ (Kim-10)

Other vaster spaces are for instance valleys or landmarks such as the bush or islands:

- (5.268) *Ia tau atu 'i te=ia motu ua he'e 'atou 'i te koika ti'ohi 'i hua henua.* (Lav-E: 017)
 TAM land DIR LD ART=Dem island TAM go 3.pl LD ART
 feast look.at LD same land
 ‘When (they) arrived at an island, they went to the feast, had a look at the land.’
- (5.269) *Ena me te papa 'enana 'i te='a ka'avai... .*
 exist with ART PL.group man LD ART=Dem valley
 ‘There were a lot of people in that valley... .’ (Lav-E: 037)
- (5.270) *Ua he'e 'atou 'i uta 'i te vao.*
 TAM go 3.pl LD inland LD ART bush.interior.of.island
 ‘They went inland, to the bush.’ (Lav-T/H: 273)
- (5.271) *Te='a mou ko'oua t=o 'aua noho 'i te vao.*
 ART=Dem PL/DL old.man ART=POSS 3.dl stay LD ART bush
 ‘Those two old men, they lived in the bush.’ (lit. ‘... their residence/house (it) is in the bush’) (Lav-U/N: 002)

Note that no occurrences with '*io*-marked *vao* ‘bush’ were found in my data. However, *motu* ‘island’ in particular *ka'avai* ‘valley, river’ are often also marked by '*io*:

- (5.272) *Ua tihe 'io titahi ka'avai iti.* (Lav-U: 111)
 TAM arrive PREP ART.indef valley small
 ‘(They) arrived at a small valley.’
- (5.273) *Ua he'e 'atou, ua tihe 'io titahi ka'avai iti.*
 TAM go 3.pl TAM arrive PREP ART.indef valley small
 ‘They left, arrived at a small valley.’ (Lav-T/H: 367)

Even *tai* ‘sea’ is occasionally case-marked by '*io*, not only when it refers to the actual place of the sea (see [5.274–75]), but also when it refers to the direction towards the place of the sea (see also [5.276]):

- (5.274) *Ua topa te vakao Hekei 'io he tai.*
 TAM fall ART canoePOSS H. PREP ART sea
 'Hekei's canoe was put onto the sea.' (Lav-T/H: 132)
- (5.275) *Ena te hepe 'io he tai.* (TRPB-To-97)
 exist ART ship PREP.loc ART sea
 'There is a ship on the sea.'
- (5.276) *Te koivi piha t=o ia upoko ti'ohi='ia atu 'io te mouka 'i uta, te keo 'io he tai.*
 ART female cow ART=POSS 3.sg head look.at=PASS thither
 PREP ART high.mountain LD inland ART bottom PREP
 ART sea
 'The cow, its head (it) is facing towards the mountains inland, the bottom is towards the sea.' (FA-B/R-17: 008)

In (5.274–76) *tai* shares morphosyntactic properties with common full words and is therefore considered to also function as a common full word.⁴¹⁷ Note that *tai* ‘sea’ is the only local landmark noun which can be used in that way. Possible reasons for these occurrences of *tai* in (5.274–76) will be discussed in chapter 7, section 2.2.1.

Note that when *ka'avai* ‘valley’ or *motu* ‘island’ take a possessive attribute or when they are simply modified by a place name, the common full word always seems to be case-marked by *'i*:

- (5.277a) *I hua ava, i te ka'avai o Puama'u i te motu Hiva 'Oa...*
 LD ART.ana period LD ART valley POSS P. LD ART island H. 'O.
 'At that time, in the valley of Puama'u, on the island Hiva 'Oa... .'
 (Kimitete 1990: 10)
- (5.277b) *Ia hua atu 'E'evaihopu 'i te henua o te kui me te hua'a,* (Lav-E: 023)
 TAM return DIR E. LD ART land POSS ART mother with ART family
 'When 'E'evaihopu returned to the land of the mother and the family,'

Also smaller spaces (e.g. beaches) and other entities (e.g. trees) seem to be case-marked by '*i*' when they take possessive attributes:

- (5.278) ... *no te ha'a=tutuki me t=o ia tau pa'io'io*
 for ART CAUS=meet with ART=POSS 3.sg PL ancestor.spirit
i te tahatai o Taiahae. (Kimitete 1990: 2)
 LD ART Iw.Tah.beach POSS T.
 ‘... in order to unite his ancestral spirits at the beach of Taiohae.’

- (5.279) *Ua tihe 'atou 'i te vao 'i te tumu o te opata.*
 TAM arrive 3.pl LD ART bush LD ART trunc POSS ART
 elevation
 ‘They arrived in the interior of the island, at the center of the highest elevation.’ (Lav-T/H: 278)

The '*i*-marking in (5.277–79) could be solely due to the fact that the common full word has a possessive attribute. However, if we bear in mind that '*i*- vs. '*io*-marking express the difference between the marking of locations as such and the locations of concrete entities (such as persons or things), it is possibly that these common full words in the examples (5.277–79) are more regarded as locations than as things. It was pointed out before that landmarks are hold an intermediate position between “being a thing” and “being a place” (Lyons 1977). This seems to be somehow reflected in the locative case-marking of Marquesan landmark nominals.

Table 29. Distribution of '*i*- and '*io*-marking in the class of common full words

	smaller space/ entities etc.	vaster space	landmark	institution	with possessive attribute	event
' <i>i</i> - marking	–	+	+	+	+	+
' <i>io</i> - marking	+	+	+	+	–	–

Note that the distribution of '*i* and '*io* as demonstarted in table 29 only represents a tendency. Some common full words allow both prepositions. '*Io* is however not acceptable with most local nouns, except *tai* ‘sea’, place names and body-part terms used as locatives (= type-3-constructions, see this chapter, § 6.2.3).

2. Locative case-marking of *ma*:

With respect to the three word classes mentioned at the beginning of this subsection, the locative preposition *ma* only occurs with common full words. *Ma* expresses for instance that the theme is moving ‘through’ or ‘along’ a location or in several locations (= plurality; see [5.281–82]):

- (5.280) *U he-he'e hua mou pakahio ma he one,*
 TAM RED-go ART.anा PL/DL old.woman through ART sand
ua kite 'aua i hua u'e... . (Lav-U: 019)
 TAM see 3.dl DO ART.anा penis
 ‘The two old women went through the sand, the two recognized the penis...’
- (5.281) *Ma titahi 'a ua vi'i He'ato ma na*
 PREP ART.indef day TAM make.a.tour H. PREP ART.pl
ka'avai o 'Ua Pou... . (Lav-H: 023)
 valley POSS 'U P.
 ‘One day He'ato made a tour through valleys of 'Ua Pou... .’
- (5.282) *Ua he'e te hei 'i te po'otu 'umihi ma na*
 TAM go ART garland LD ART beautiful look.for PREP ART.pl
henua. (Lav-T/H: 023)
 land
 ‘The garland went to search the beauty in several countries.’

Common full words are only case-marked by *ma* when they denote places or vaster regions, but not when they denote objects. Specifying the location with respect to an object requires other locative constructions containing local nouns or body-part terms. Unlike common full words denoting objects, body-part terms denoting real body-parts can be marked by *ma*. *Ma*-marking with body-part terms occurs in particular when there is a spatially extended theme located around the body-part:

- (5.283) *U marei='ia ma te kaki, u kukumi='ia*
 TAM lasso,rope=PASS PREP ART neck TAM hit,kill=PASS
haka=mate. (Lav-T/H: 042)
 CAUS=dead
 ‘It was roped around the neck, it was killed, made dead.’

With common full words *ma* occasionally expresses unspecific location:

- (5.284) *U pe'au te kui:* “ ‘A hano koe ‘a umihi **ma**
 TAM say ART mother TAM go 2.sg TAM search PREP
he tau vahi e noho nei 'atou.” (Lav-U/N: 367)
 ART PL place TAM live Dem 3.pl
 ‘The mother said:“You go and search over several places where
 there now live.”’

In (5.285) *ma*-marked *tai* ‘sea’ also expresses the path along which something or someone moves. Note the contrastive marking of '*io*' and *ma* in (5.285), marking the contrast between location and path:

- (5.285) *Ua he'e Tehei'opua'iki 'i tai, ua ti'ohi 'i tai, ua*
 TAM go T. LD sea TAM look.at LD sea TAM
kau 'io he tai me te tapi ko'ika, me te,
 swim PREP ART sea with ART ornament feast with ART
pawahina me te peuekoio, me te tahi'i=katu,
 ornament.beard with ART feather.ornament with ART fan=?
me te poe vaevae, ua kau ma he tai.
 with ART ornament.hair RED-foot TAM swim over,along ART sea
 ‘Tehei'opua'iki went to the sea place, (he) looked seawards, (he)
 swam *in the sea* with feast ornaments, with a white beard
 ornament, feather ornaments, a fan, foot ornaments made out of
 (human) hair, (like this he) swam *over the sea.*’ (Lav-U/N: 269).

'*Io*- and *ma*-marked *tai* ‘sea’ again function as a common full word here (see also above). '*I*-marked *tai* in the same example, however, functions as a local noun because it has the properties of local nouns (i.e. no article) and its meaning is directional (e.g. he is looking *seawards*) or referring to the sea place which is by the shore. The first two noun phrases containing *tai* do not refer to the actual landmark SEA, but to the location around the landmark SEA (‘Tehei'opua'iki went to the *sea* place, ...’). In these noun phrases they show the properties of local nouns (no article), and thus functioning as location-denoting nominals. Again, this shows the difference between the marking of location as such vs. marking of a concrete entity such as the landmark SEA. Speakers seem to mark a difference of whether they are talking about the location as such or whether they are talking about the actual landmark.

3. Locative case-marking of *mei*:

Common full words can be directly marked by *mei*, whereas proper names of persons or personal pronouns are often marked by '*io* before being marked by *mei*:

- (5.286) *Puna te vai mei te oho o Tea'aihu'i.*
 spring.from ART water from ART surface POSS T.
 'Water sprang from Tea'aihu'i's (body) surface.' (Lav-T/H: 283)

- (5.287) *U pe'au na ko'oua: "Mei 'io koe matou, e kati'ehe ika t=o t=a maua vehine."*
 TAM say ART.dl/pl old.man from PREP 2.sg 1.pl.excl TAM
 desire.strongly fish ART=POSS ART=POSS 1.dl.excl woman
 'The two old man said: "We are coming from your place, our two wives strongly desire to eat fish.'" (lit. '... our wives have a strong fish desire') (Lav-U/N: 096)

- (5.288) *Mei 'io Rimo te=nei ta'o.* (Zewen 1987: 61)
 from PREP R. ART=Dem taro
 'This taro is from Rimo('s place).'

There is not sufficient data to judge whether the '*io*-marking in (5.287–88) is obligatory. In some constructions with common full words we have the same *mei*-'*io*-marking pattern as in (5.287–88). Note that the '*io*-marking in those examples express that something comes from the inside of the entity denoted by the common full word:

- (5.289) *U tapa-tapa, u pe'au hua mou maha'i mei 'io he vaka.* (Lav-T/H: 252)
 TAM RED-hit,tap TAM say ART DL/PL boy
 from PREP ART canoe
 'They were tapping those boys said from inside the canoe.'

- (5.290) *'Atahi 'a he-he'e ai te po'i mei 'io he vaka 'i uta.* (Lav-T/H: 260)
 then TAM RED-go ANA ART people from PREP ART
 canoe LD inland
 'Then the people went from inside the canoe inland.'

- (5.291) *Me he mea i kao pu mei 'io he*
 be.like ART thing TAM appear simply from PREP ART

*mata.*⁴¹⁸
 face
 ‘As if (it) was simply appearing from within the face.’ (DR)

Mei-‘io-marking is felicitous when the common full word denote a particular location (see [5.292]), but ‘io-marking is not felicitous when the common full word denotes events (see [5.293–94]):

- (5.292) *U hua mai hua vehine mei 'io he vai.*
 TAM return hither ART woman from PREP ART water
 ‘That woman came back from the water (place).’ (Lav-U/N: 080)
- (5.293) *Ua pao, u hua mai Tuohe mei te vai*
 TAM finish TAM return hither T. from ART water
kaukau. (Lav-T/H: 139)
 RED-swim
 ‘When (he) finished, Tuohe came back from the swimming.’
- (5.294) *Ua tihe Toto mei te hana, u pe'au te vehine:*
 TAM arrive T. from ART work TAM say ART woman
“O'io'i hakaea, etue i te hana.”
 tomorrow stop,make.a.rest PROHIB.stop DO ART work
 ‘Toto came back from work, the wife said:“Tomorrow (you are stopping), stop the work.”’ (Lav-U/N: 324)

Common full words which denote vaster spaces are mostly only marked by *mei*:

- (5.295) *Ua to'o He'ato i te tau toa mei te=ia*
 TAM take H. DO ART PL warrior from ART=Dem
ka'avai mei te=ia ka'avai
 valley from ART=Dem valley
 ‘He'ato took warriors from each valley’ (Lav-H: 024)

Mei-marked common full words which denote objects can be merely marked by *mei*, but they also often occur in the *mei*-‘io-combination:

- (5.296) *O te piha e heke a'a 'i tai mei te*
 TOP ART cow TAM descend Dem LD sea from ART
horave e heke a'a tai.
 horse TAM descend Dem sea

'It is the cow which is descending seawards from the horse which is going sea(wards).' (FA-T/M-H-17: 215–16)

- (5.297) *Ana mamao mei 'io te papua.* (FA-T/M-15: 019)
almost distant from PREP ART enclosure
'(It is) almost a little distant from the enclosure.'

The following table summarises the locative prepositions and the *mei*-*'io*-marking with proper names of persons, personal pronouns and particular denotational classes of common full words:

Table 30. Locative case-marking with common full words, proper names of persons and personal pronouns

	common FW (objects)	common FW (vaster spaces)	common FW (events)	PN of person	personal pronoun
<i>'Io-</i> marking	+	+	–	+	+
<i>I-</i> marking	–	+	+	–	–
<i>Ma-</i> marking	–	+	–	–	–
<i>Mei-</i> marking	+	+	+	(–/+)?	(–/+)?
<i>Mei-'io-</i> marking	+	–	–	+	+

Finally it has to be mentioned that in contrast to *'i*, *ma* and *mei* the preposition *'io* is the only locative preposition which is solely used for spatial localisation. The other three prepositions can also be used in temporal reference. The use of *'io* for spatial localisation alone also explains why *'io* cannot mark common full words denoting events.

6.5.1. Summary

This subsection investigated how simple location is marked when referring to entities such as objects, persons, local landmarks and events. Thus, I looked at the locative case-marking of common full words (denoting ob-

jects, local landmarks and events), proper names of persons and personal pronouns (denoting persons).

On the basis of formal properties, it was shown that speakers of Marquesan mark the difference between the two ontological categories of first-order entities (i.e. things and persons) and locations or places, thus they formally mark the difference between a “what”- and “where”-category. Concrete entities such as objects and persons clearly receive the ‘*io*-marking which is incompatible with the classes of spatial lexemes, i.e. those nominals which refer to locations (= place names, body-part terms⁴¹⁹ and local nouns). However, despite an obvious distinction between a “what”- and “where”-category there are interesting borderline cases, namely those nominals which denote local landmarks: *vao* ‘bush’, *tahatai* ‘beach’, *moana* ‘ocean’, *motu* ‘island’, *ka’avai* ‘river, valley’, and also *tai* ‘sea’. It was pointed out by Lyons (1977) that landmarks are semantically an interesting ontological category because they hold an intermediate position between “being an entity” and “being a place”. It was shown in this subsection that this intermediate position is reflected in the Marquesan language. Landmark nominals seem to have a preference for ‘*i*-marking, although ‘*i*-’ as well as ‘*io*-marking are both possible with some of these nominals, even with the local landmark noun *tai* ‘sea’.

We can therefore conclude that the formal marking of categories which are semantically inbetween “being an entity” and “being a place” – such as landmarks are – is clearly reflected in the language system. Despite the ‘*i*-marking which they share with local nouns and place names, landmark nominals have many properties which they also share with common full words (‘*io*-marking, articles). Speakers seem to be sensitive to (semantic) borderline cases (e.g. landmarks) and express this inbetween-category in their language. Moreover, the size of the landmarks seems to play a role of whether the landmark nominals are marked by ‘*i*’ or ‘*io*’. Vaster spaces such as islands or oceans are marked by ‘*i*’ which might be an indication that these landmarks are rather conceived as locations than as things. Other, more abstract entities such as institutions and events are also often marked by ‘*i*’. ‘*Io*’ seems to be a locative preposition which is preferably used to mark the location of concrete entities (= objects and persons). Quite generally, locations, institutions and events are more abstract than concrete objects and persons, and these categorial differences are clearly reflected in the Marquesan language. The following table summarises the ‘*i*-’ and ‘*io*-marking across the different lexical classes:

Table 31. ‘I- and ‘io-marking across lexical classes

	PREP ‘i	PREP ‘io	ART
1. Landmark terms	+	(+)	+
2. Local nouns	+	-	-
3. Place names	+	-	-
4. Proper names of persons	-	+	(+)
5. Personal pronouns	-	+	-
6. Common full words	-	+	+
7. Objects (expressed by common full words)	-	+	+
8. Events + time relations (expressed by common FWs)	+	-	+

Chapter 6

Modifiers in locative constructions

1. Introductory remarks

In this chapter I discuss the modifiers which occur in locative constructions. This includes directional particles (see this chapter, § 2.–2.2.3.), demonstratives (see this chapter, § 3) and other modifying words such as *toi-toi* ‘real, genuine’, *oa* ‘long’ and the diminutive *ina* ‘a little’ (see this chapter, § 4). In section 5, I describe how these modifiers can be combined in order to express different degrees of distance. Note that modification in locative constructions mostly occurs when the lexical head is a local noun. With respect to Klein’s idea (1994) of amplification and reduction of the basic space (see ch. 4, § 5), the kinds of modification we find in Marquesan locative constructions have to be regarded as amplifications.

When analysing directional particles and demonstratives we enter the domain of spatial deixis (see ch. 4, § 4.3). These modifiers therefore add deictic information to the lexical head of a locative construction. This is in particular interesting with respect to constructions with local landmark nouns which are used in the absolute frame of spatial reference. Thus, speakers combine an external reference point of the local environment (e.g. the landmark SEA) with deictic information which can only be understood in relation to the speaker, i.e. the *ego*.⁴²⁰

The main emphasis is on the analysis of directional particles. Directional particles mostly occur as modifiers of verbals, but they can also modify local nouns and the body-part term *tua* ‘back, spine’. In the first part of section 2, I discuss the usage of directional particles with respect to their usage in verbal phrases because these uses show the most basic spatial meanings of directional particles. These meanings partly apply to local nouns. In locative constructions with local nouns directional particles also have other meanings which can be regarded as derived meanings of their basic spatial meanings.

Hooper (1994) proposes a basic analysis for all uses of directional particles (see below). I therefore felt the need to describe the use of directional

particles in a wider perspective which also includes non-spatial uses of directional particles (see this chapter, § 2.1.2). This will also add to a better understanding of the use of directional particles in locative constructions.

The study of modification in locative constructions with local nouns shows that these types of constructions share the property of modification with other noun phrase constructions.

Furthermore, this chapter shows that locative constructions in Marquesan are constructionally quite different from the comparable Indo-European locative construction type (see ch. 5, § 1) because they allow modification, whereas the Indo-European type does not.

2. Directional particles

N-MQA has the following four directional particles⁴²¹ which function as postpositioned particles in verbal phrases and noun phrases:

(6.1)

- | | |
|----------------|---|
| <i>mai</i> | 1. ‘towards speaker or a deictic center other than the speaker and addressee (e.g. location which is in the focus of attention)’
2. ‘come, appear’ |
| <i>atu</i> | ‘towards addressee, away from speaker <i>and</i> towards a location, entity or person other than the speaker’ |
| <i>ihō</i> | 1. ‘downwards’, 2. ‘descend’ |
| <i>a'e/ake</i> | ‘upwards’ |

Note that the glosses in (6.1) are purely spatial and that these directional particles also function as temporal and aspectual markers, as reciprocals, comparatives, reflexives,⁴²² and they function as expressions of person deixis (1. and 2. person). However, polysemy of directional particles is clearly not a particularity of N-MQA, but it is characteristic for a number of Polynesian and Oceanic languages (see Elbert and Pukui 1979; Lichtenberk 1991; Hooper 1994; Hyslop 1999). Elbert and Pukui (1979: 95) even conclude in their description of Hawaiian directional particles that “it is difficult or impossible to fashion hard and fast rules for the use of the directionals”.

In this subsection and for the purpose of this study I am primarily concerned with the spatial uses of directional particles. However, also non-

spatial uses of these particles will be briefly discussed in order to sketch the complexity of their usage.

All four directional particles occur as postpositioned elements in verbal phrases and noun phrases: they typically modify verbals, local nouns or lexical heads of nominalised verbal clauses (see ch. 3, § 6.1.2.2), but not lexical heads of noun phrases:

Verbal

- (6.2) *U hua mai hua mou pakahio, u 'umihi... .*
 TAM return hither ART.ana PL/DL old.woman TAM search
 'The two old women came back,(they) searched... .' (Lav-U: 029)

Local noun

- (6.3) *E tahi horave e heke mai nei mei uta mai.*
 NUM one horse TAM descend hither Dem from loc.n.-inland hither
 'One horse is coming down seaward from inland towards me.'
 (FA-T/M-H-17)

Nominalised verbal clause

- (6.4) *I te hua='ia mai o na ko'oua, u moe='ia Hina'aumia i 'oto.* (Lav- U/N: 083)
 LD ART return=Perf hither POSS ART.dl old.man TAM lie=Perf
 H. LD inside
 'When the two old men came back, Hina'aumia slept inside.'

However, *mai* and *atu* occasionally occur after common full words:

- (6.5) *Mei 'io te ha'e pure mai ua he'e Teiki.*
 from PREP ART house prayer DIR TAM go T.
 'Appearing from the place of the church, Teiki went away.'
 (C&G-To-97-20)

In (6.5) *mai* does not modify the lexical head of the noun phrase, but the whole noun phrase. The function of *mai* in (6.5) is quite similar to the function of directional particles with local nouns. The usage of *mai* and *atu* in noun phrases will be discussed below (see this chapter, § 2.2).

In verbal phrases only *mai* 'hither' and *atu* 'thither' are used spatially. *Iho* and *a'e/ake* only have a spatial sense (i.e. 'upwards/downwards') when they modify local nouns in noun phrases. In verbal phrases *ihoh* and *a'e/ake*

contribute temporal, reflexive and emphatic meanings (see Mutu and Teiki-tutoua 2002: 66–67; see also Zewen 1987).

When used spatially the directional particles *ihō* ‘downwards’ and *a'e/ake* ‘upwards’ express movement on the absolute vertical UP/DOWN-axis. *Mai* and *atu*, on the other hand, are deictic means of expression. According to Hooper (1994: 3) each token of *mai* and *atu* in Tokelauan must be understood in relation to some anchor or deictic center regardless of whether these particles are used spatially, temporally, aspectually or otherwise. This is also basically true for N-MQA *mai* and *atu*. However, Hooper (1994: 3) also emphasizes that the meanings of these particles in semantic domains other than the spatial cannot be reduced to simple reflexes of their basic deictic meaning.

The term directional particle is in two ways problematic for N-MQA. First, *mai* and *ihō* do not only function as particles, but can also function as lexical head of verbal phrases. When used as verbals they have the same morphosyntactic properties as intransitive verbals. When used as verbals *mai* means ‘come’ and *ihō* ‘descend’:

- (6.6a) *Ua kite 'Oumati, ua mave ia ia: "A mai, 'a mai koe e te hukona."* (Lav-U: 237)

TAM see 'O. TAM welcome DO 3.sg TAM come TAM come
2.sg VOC ART relative
“Oumati saw (him) and welcomed him: “Come, you, (my) relative come!””

- (6.6b) *Ua mave ia 'atou, u pe'au: "Me mai, 'a he'e mai."*

TAM welcome DO 3.pl TAM say TAM come TAM go
hither
‘(He) welcomed them (and) said: “Come, come.”’⁴²³ (Lav-U/N: 095)

- (6.7) *Mea 'oa u pe'au Hina i te vahana: "O'io'i e ihō taua i 'a'o i te 'eita vave'e."*

STV-P long TAM say H. DO ART husband tomorrow
TAM descend 1.dl.incl LD down LD ART weed cut.weeds,pull.out
‘Some time passed then Hina said to (her) husband: “Tomorrow we two are going down below in order to cut weeds.”’ (lit. ‘...to the weeds cutting’) (Lav-U: 205)

Moreover, the term directional is not really appropriate as discussed in chapter 4, section 12 and in Klein (1991). For instance, *mai* ‘hither’ expresses that something is directed towards the speaker, i.e. the speaker is the goal. On the other hand, the lexical meaning of *mai* does not indicate the source and thus *mai* can express various different directions towards the speaker:⁴²⁴

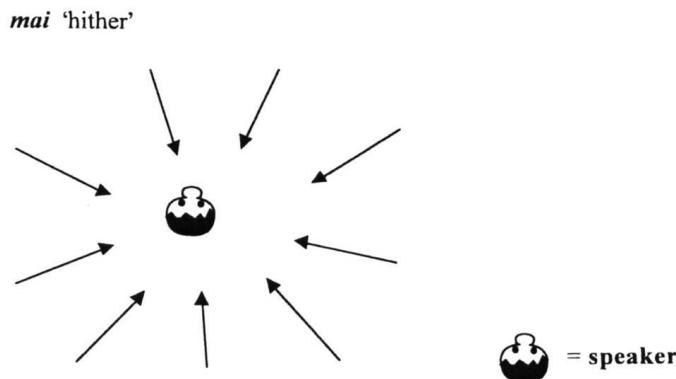


Figure 25. Directional movement towards speaker

However, the term directional particle has become established in descriptions and grammars of Polynesian and Oceanic languages (Bauer 1997; Hooper 1994, 2001; Hill 1997; Mosel and Hovdhaugen 1992; Lichtenberk 1991) for those forms which can be reconstructed for PPN **mai*, **atu*, **hake* and **hifo* (see Clark 1976). For practical reasons I conform to the general terminology by calling those words also directional particles.

2.1. Directional particles in verbal phrases and nominalised verbal clauses

Directional particles always follow the lexical head of a verbal phrase or nominalised verbal clause. In co-occurrence with other verbal modifiers there is, according to Mutu and Teikitutoua (2002: 65), some flexibility in the order of directional particles and verbal modifiers. In my data I found a regular order: verbal modifiers such as *haka'ua* ‘again’, *pu* ‘only, simply’ and *vave* ‘quickly’ always occur between the lexical head and the directional particle:

Order of directional particles and verbal modifiers in a verbal phrase:

TAM – lexical head – **verbal modifier** – directional particle

- (6.8) *Ua hua Uhikaua'iki 'io te kui, 'a'e hua haka'ua mai 'i Havaiki.* (Lav-U: 105)
 TAM return U. PREP ART mother be.not return
again hither LD H.
 ‘Uhikaua’iki returned to the mother, (he) did not return again to Havaiki.’
- (6.9) *U pe'au Tuohe:“ 'A u'u pu mai koe 'i vaho nei.”*
 TAM say T. TAM exit,enter simply hither 2.sg LD outside Dem.prox
 ‘Tuohe said:“Simply come out here.”” (Lav-T/H: 186)
- (6.10) *U noho anaiho Tuohe 'io he ha'e, na te tau hoa e ka'oha pu atu ia ia... .*
 TAM stay only T. PREP ART house TOP ART PL friend TAM greet simply DIR DO 3.sg
 ‘Only Tuohe stayed in the house, it is his friends who simply greeted him... .’ (Lav-T/H: 018)
- (6.11) *U pe'au hua mou makaka:“ 'A'e tihе vave mai t=a koe vahana?”* (Lav-U/N: 150)
 TAM say ART.ana PL/DL evil,wicked be.not arrive quickly
 hither ART=POSS 2.sg husband
 ‘The two wicked (men) said: “Your husband does not quickly come back?”’

Demonstratives, the progressive particle *ana*, emphatic particles and the modal marker *a'e* ‘please, insist’ always follow directional particles:

TAM – lexical head – (MOD) – DIR – (ana) – Dem/modal marker *a'e-* emphatic particle

- (6.12) *U pe'au te mo'i:“E he'e au, u tihе mai nei 'a te vava'o a te hei.”* (Lav-T/H: 032)
 TAM say ART girl TAM go 1.sg TAM arrive hither Dem EMPH ART call POSS ART garland

'The girl said:“(When) I am leaving, the calling of the garland is going to arrive here.”'

- (6.13) *Ena Teiki e hiti mai ana 'io taua.*
 exist T. TAM go.inland hither CONT PREP 1.dl.incl
 'There is Teiki who is coming inland towards us.' (C&G-Ti-97-4)
- (6.14) *U pe'au 'i titahi vehine:“ e hoa, 'a va'a 'a he'e mai a'e koe 'a ti'ohi i te=nei kaka'a. ”*
 TAM say LD ART woman VOC friend TAM wake.up TAM go hither please 2.sg TAM look.at DO ART=Dem gecko
 '(He) said to a woman: "Hey friend, wake up, come here please (and) look at this gecko." (Lav-U/N: 036)

The perfective suffix *-ia* is always attached to the lexical head of the verbal phrase (see [6.15a]) or nominlaised verbal clause (see [6.15b]) and the directional particle follows the suffixed lexical head:

- (6.15a) *U pe'au Te'akimauui:“ 'A i kave='ia mai te tekao hou... .”*
 TAM say T. be.not TAM carry=Perf hithe ART gossip,talk new
 'Te'akimauui said:"(You) do not bring any new... .'" (Lav-U: 171)
- (6.15b) *I te hiti='ia mai o te 'ua vehine, i kite ai i te ha'a o Tehei'opua'iki.* (Lav-U/N: 243)
 LD ART go.inland=Perf hither POSS ART two woman TAM see ANA DO ART pandanus POSS T.
 'When the second woman came inland, there (she) saw Tehei'opua'iki's pandanus.'

There are only a few occurrences in which *-ia* is suffixed to the postpositioned directional particle:

- (6.16) *Me te taha mai='ia 'io ia me te po'o toki*
 and ART walk hither=Perf PREP 3.sg with ART piece axe
e hano koti-koti te vehie mea nui t=a 'aua kaikai.
 TAM want RED-cut ART fire.wood STV-P many ART=POSS 3.dl food

'And he came over to her with an axe in order to cut fire-wood, so that they would have a lot of food.' (Ch-B-004)

2.1.1. Spatial uses of *mai* and *atu* in verbal phrases

The primary uses of *mai* and *atu* are often thought to be the spatial uses of these particles (Hooper 1994; Lichtenberk 1991). *Mai* and *atu* are spatial deictic terms. In a *demonstratio ad oculos*-situation in which deictic terms are used the meaning of *mai* and *atu* has to be interpreted in relation to the first and second person, i.e. speaker and addressee serve as deictic center or *origo*. Like any other spatial deictic terms in other languages, *mai* and *atu* can also be used in speech situations other than the *demonstratio ad oculos*-situation as for instance in narratives and reported events.⁴²⁵ When deictic terms are used in narratives, the referential space is no longer the shared perceptual space of speaker and addressee in a *demonstratio ad oculos*-situation, but it is one of a mental space in the imagination of the language user. Due to this fundamentally different speech situation in narratives, the deictic center does not coincide with the speech participants of the *demonstratio ad oculos*-situation, but is shifted elsewhere. In order to understand the spatial uses of *mai* and *atu*, we have to distinguish between these two speech situations. In the following I will begin with a description of the uses of *mai* and *atu* in the *demonstratio ad oculos*-situation. Then I will discuss the uses of *mai* and *atu* in narratives and reported events. Although there is a transposition of the deictic center in narratives, the uses of *mai* and *atu* remain spatial. This distinction of speech situations is based on Bühler (1934).

2.1.1.1. Usage of *mai* and *atu* in a *demonstratio ad oculos*-situation

According to Mutu and Teikitutoua (2002: 64) *mai* expresses 'direction towards speaker (=hither)', whereas *atu* expresses 'direction away from speaker (=thither)'.⁴²⁶ According to this analysis the speaker has to be regarded as the deictic center. In (6.17) and (6.18) we have two examples of *mai* and *atu* being used in an elementary speech situation.⁴²⁷ In (6.17) the basic spatial meaning of *mai* is undoubtedly 'towards speaker or hither', but in (6.18) *atu* clearly does not express 'direction away from speaker', but 'direction towards addressee':

- (6.17) *E aha t=o koe hia i heke mai ai?*
 TAM what ART=POSS 2.sg desire TAM go.down hither ANA
 ‘What is your desire that you have come down to me?’
 (Lav-U: 238)
- (6.18) *U pe'au Hekei ia Tuohe: ‘A to'o atu, e hoa, t=a koe vehine.*” (Lav-T/H: 377)
 TAM say H. DO T. TAM take toward.add VOC
 friend ART=POSS 2.sg woman
 ‘Hekei said to Tuohe:“Hey friend, take your wife.”’

Also other occurrences of *atu* in my data are not appropriately glossed as ‘away from speaker’. For instance, in the *Come & Go Questionnaire*⁴²⁸ simple motion away from the speaker is not expressed by *atu*. In fact, most of my consultants rejected a construction with *atu* when the motion event is atelic (e.g. scene 13; see appendix 4):

- (6.19) *Ua he'e Teiki 'a i tihe.* (C&G-B-97-13)
 TAM go T. be.not TAM arrive
 ‘Teiki went away (from the speaker’s location), (but) he has not arrived yet’.

Atu can only be used if the motion event is telic, i.e. all uses of N-MQA *atu* involve a goal. The goal of the motion event can be a location, an event, a person or an object (e.g. scene 1, see appendix 4):

- (6.20) *Ua he'e atu ia 'i te kaokao o te tumu 'akau.*
 TAM go DIR 3.sg LD ART side POSS ART trunc wood
 ‘He went to the side of the tree.’ (C&G-B-97-1)

The only restriction which seems to exist for *atu* is that it cannot express ‘direction towards speaker’ (*atu* ≠ ‘hither’). *Atu* can be therefore glossed as ‘direction towards a location, an event, an object or a person which is not the speaker’. Although *atu* cannot be used when the speaker is the goal, the usage of *atu* is dependent on the speaker’s perspective. In a *demonstratio ad oculos*-situation *atu*-utterances express that the source of the direction or movement is the speaker, whereas the goal is a location, an entity, the addressee or a third person. We can therefore describe the basic meaning of *atu* as ‘away from speaker and towards addressee, a third person, a location or an entity’. The reason why I assume this basic meaning for *atu* again

arises from the *Come & Go Questionnaire*. In scene 7 (see appendix 4), for instance, the motion event can be described as going from a source location to a goal location, but the source location is not the speaker. None of my consultants would construct the utterance with *atu* although the motion event is telic. Instead they use the demonstratives *a'a* ‘there’ or *ana* ‘some-where over there’:⁴²⁹

- (6.21) *E he'e a'a Teiki mei 'io he horave tihe 'io
TAM go Dem T. from PREP ART horse arrive PREP
he ko'oka. (C&G-Ti-97-7)
ART trough*
‘Teiki is going from the horse arriving at the trough.’

Atu-constructions expressing motion events in large-scale reference⁴³⁰ are conditioned by three factors:

1. The motion event has to be telic.
2. The source can be the speaker (=away from speaker).
3. If the source is not the speaker, then the addressee has to be the goal.
(=towards addressee).

All other scenes of the *Come & Go Questionnaire* (scenes 8, 9, 10, 15, 17 in appendix 4) which clearly did not involve motion or directional movement towards speaker or addressee were neither expressed by *atu* nor by *mai*. In scene 9, for instance, the theme is moving around speaker and addressee, but its movements are not directed towards the speaker and addressee:

- (6.22) *E taha a'a Teiki ha'a=vi'i taua. (C&G-Ti-97-9)
TAM walk Dem T. CAUS=round 1.dl.incl.
'Teiki is walking around us two.'*

The use of *atu* requires the involvement of speaker *or* addressee and it often involves both speaker *and* addressee, in particular when the movement and interaction is exclusively between speaker and addressee. It is therefore no surprise that verbals of saying and transfer verbals are often constructed with *mai* and *atu*:

- (6.23) “*Pe'au atu au ia koe 'umo'i e kukumi i*
say tow.add 1.sg DO 2.sg must.not TAM hit,kill DO

te=na ko'oua. ” (Lav-U/N: 073)
 ART=Dem old.man
 “I told you not to kill that old man.””

- (6.24) *U pe'au Hekei: "'A kave atu na koe t=a*
 TAM say H. TAM carry tow.add for 2.sg ART=POSS
tauua vehine." (Lav-T/H: 379)
 1.dl.incl. woman
 ‘Hekei said: “(I) will bring our wife to you.””

In verbal clauses with verbs of saying and transfer verbals, first and second person recipients and undergoers can be simply expressed by *mai* and *atu* in an actual speech situation:

- (6.25) *Pe'au mai!*
 say hither
 ‘Tell me!’

- (6.26) *'A pau taua 'i tai, 'a tuku mai t=a*
 TAM go 1.dl.incl. LD sea TAM give hither ART=POSS
koe hue, e Tahia, (Lav-U: 015)
 2.sg recipient VOC T.
 ‘Let's go seawards, give me your bowl/recipient, Tahia... .’

Due to the fact that verbal clauses containing transfer verbals can express their first and second person recipients by directional particles, which are not arguments (see ch. 3, § 4.1.2.1), we can say that transfer verbals have two constructional frames:

- 1). When recipients are not expressed by directional particles, all three participants are expressed by nominal arguments, and thus the clause is constructed in a ditransitive frame;
- 2). When recipients are expressed by directional particles, the clause is constructed in a transitive frame with only two nominal arguments.

The following table shows the number of participants and arguments and how recipients are expressed in the two different constructional frames of transfer verbals:

Table 32. Participants, arguments and recipients in constructions with transfer verbs

	Number of participants	Number of arguments with respect to semantic roles	Recipient expressed by directional particles <i>mai</i> or <i>atu</i>
Ditransitive construction	3	3 (agens, undergoer, recipient)	(optional) ⁴³¹
Transitive construction	3	2 (agens, undergoer)	+

We can conclude so far that in a *demonstratio ad oculos*-situation the speaker and, to a certain extent, also the addressee are the most crucial parameters for the spatial usage of these particles.

There is a difference between *mai* and *atu* with respect to telicity and atelicity. When *mai* is used the motion event need not be telic. For instance, scene 3 in the *Come & Go Questionnaire* is an atelic motion event, but *mai* is used all the same:

- (6.27) *E taha mai ana Teiki.* (C&G-To-97-3)
 TAM walk hither Dem T.
 ‘Teiki is coming towards me/us.’

Like any other spatial deictic terms in other languages⁴³² the deictic center or *origo* can be transposed. However, we strictly have to separate in which speech situations (e.g. a *demonstratio ad oculos*-situation etc.) there is a transposition of the deictic center. For instance, in an elementary speech situation *mai* ‘hither’ can be used for locations of importance and in particular for events:

- (6.28) *E he'e mai koe 'i te pure?* (E)
 TAM go hither 2.sg LD ART prayer
 ‘Are you coming to the prayer?’

With respect to persons the deictic center cannot be transposed in a *demonstratio ad oculos* situation when *mai* is used: *mai* is strictly speaker-bound. An utterance like Engl. *May I come in?*⁴³³ in which the speaker transposes the ‘deictic center’ to the addressee is impossible to construct in Marquesan:

- (6.29) *Mea meita'i ia he'e mai au 'io koe?
 STV-P good TAM go hither 1.sg PREP 2.sg
 *May I come to you?

Instead, the verbal has to be modified by *atu*:

- (6.30) Mea meita'i ia he'e atu au 'io koe?
 STV-P good TAM go tow.add 1.sg PREP 2.sg
 'May I go towards you?'

The following table summarises the different uses of *mai* and *atu* in a *demonstratio ad oculos*-situation:

Table 33. Usage of *mai* and *atu* in a *demonstratio ad oculos*-situation

	towards 1.person	towards 2.person	towards 3.person	towards goal	towards place of import- ance	towards place of events
<i>mai</i>	+	-	-	-	+	+
<i>atu</i>	-	+	+	(+)	+	+

The usage of *mai* and *atu* is also illustrated in the following figure:

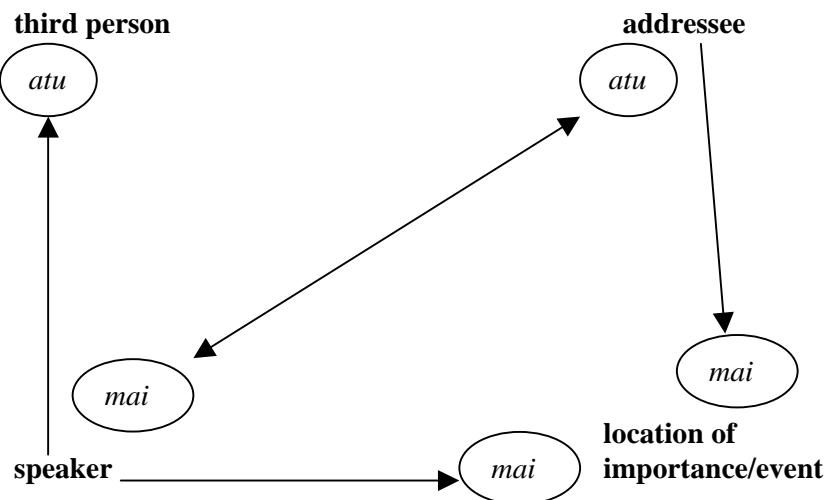


Figure 26. *Mai* and *atu* in a *demonstratio ad oculos*-situation

2.1.1.2. Usage of mai and atu in narratives and reported events

In narratives and reported events speaker and addressee are only of importance in direct speech. Narrated events are centered around the protagonist(s) and the deictic center which has therefore often shifted to the protagonist (see [6.31]) – mostly expressed as third person – or to the person which is in momentary focus of the narrative (see [6.432–33]):

- (6.31) *Kite ko'e Anihoka e aha t=o He'ato tihe mai*
 know cease A. TAM what ART=POSS H. arrive hither
 'iо ia, e tihe manihu'i oti... . (Lav-H: 039)
 PREP 3.sg TAM arrive visitor perhaps
 ‘Anihoka did not know why He'ato's people arrived at his places,
 perhaps (they) arrived as visitors... ’
- (6.32) *I te he'e='ia o Tehei'opua'iki ua kite te*
 LD ART go=Perf POSS T. TAM see ART
 vehine ena 'a tihe mai t=a ia vahana.
 woman exist TAM arrive hither ART=POSS 3.sg husband
 ‘When Tehei'opua'iki left, the woman knew that her husband was
 about to come back.’ (Lav-U/N: 211)
- (6.33) *'A i 'oa i kite ai 'atou i te he'e='ia*
 be.not TAM long TAM see ANA 3.pl DO ART go=Perf
 mai ma te a'o o te tau ka'io'i me hua mou
 hither PREP ART face POSS ART PL bachelor with ART PL/DL
 ko'oua, 'i vaveka te mo'i po'otu. (Lav-T/H: 108)
 old.man LD middle ART girl beautiful
 ‘It was not long when they saw their coming in front of the
 bachelors and the two old men, among them was a beautiful girl.’

If the basic meaning of *mai* is ‘towards speaker’ in a *demonstratio ad oculos*-situation, in narratives the deictic center has shifted to a third person which is the protagonist or a person in momentary focus. The usage of *mai* as demonstrated in (6.31–33) therefore indicates that the narrator takes the perspective of the protagonist or person in focus.

Moreover, movement and action towards a location which is in focus of the narrative can be expressed by *mai*. In these occurrences, the location referred to by *mai* does not necessarily coincide with the protagonist's location, thus the usage of *mai* does not indicate the protagonist's perspective:

- (6.34) *Ua hua Uhikaua'iki 'io te kui, 'a'e hua haka'ua mai 'i Havaiki.* (Lav-U: 105)
 TAM return U. PREP ART mother be.not return again
mai 'i Havaiki. hither LD H.
 ‘Uhikaua'iki returned to his mother, (he) did not return again to Havaiki.’
- (6.35) *Ua he'e mai te ka'io'i ua amo ia Tuohe,*
 TAM go hither ART bachelor TAM carry DO T.
ua kave 'io he ha'e ka'io'i. (Lav-T/H: 174)
 TAM carry,take PREP ART house bachelor
 ‘The bachelors came and carried Tuohe, took (him) to the bachelors’ house.’
- (6.36) *'A'e Hekei i hua mai 'io he ha'e.* (Lav-T/H: 149)
 be.not H. TAM return hither REP ART house
 ‘Hekei did not return to the house.’

Note that the usage of *mai* in (6.34–36) is somehow similar to the usage of *mai* in a *demonstratio ad oculos* situation (see [6.28]) in that it expresses locations. However, *mai* rather expresses the momentary location in focus where the events of the narrative take place and it also indicates the movement of the protagonists from one location to another. We can therefore say that the discourse function of *mai* in narratives is to keep track of the locations (=location-tracking).

- (6.37) *Ua kave mai na 'enana i te vaka*
 TAM carry hither ART.pl/dl man LD ART canoe
i 'ei'a te ha'a=moe a i te nino.
 LD there ART CAUS=lie EMPH DO ART body
 ‘The men brought (him) to the canoe where the body was laying.’
 (Kimitete 1990: 20)

In the following text passage, the house of two old women is the momentary location in focus. Events are described as either coming or going away from that house. The two old women tie their valuables together before they leave the house to do other things. The protagonist, Uhikaua'iki, also leaves their house. These leaving-events are not marked by directional particles. Note, however, that the return of the two old women is marked by *mai*:

- (6.38) *Ua humu hua mou pakahio me te 'ouoho, ua pao,*
 TAM tie ART.anा PL/DL old.woman with ART hair TAM finish
ua to'o i t=a 'aua hue, ua hano 'i te
 TAM take DO ART=POSS 3.dl bowl TAM go.and.get LD ART
pukava kohi na t=a 'aua po'upuna. Ua hua
 mussel collect for ART=POSS 3.dl grandchildren TAM return
Uhikaua'iki 'i uta 'io t=a ia vehine. U
 U. LD inland PREP ART=POSS 3.sg wife TAM
hua mai hua mou pakahio, u 'umihi i
 return hither ART.anा PL/DL old.woman TAM search DO
hua taetae a 'aua. (Lav-U: 027-29)
 ART.anा valuables POSS 3.dl
 ‘These two old women tied (their valuables) together with hair. When finished, (they) took their bowls, (and) went to collect mussels for their grandchildren. Uhikaua'iki returned inland to his wife. When the two old women returned (to their house/home), they searched for those valuables of them.’

In narratives *mai* and *atu* can equally express ‘movement or direction towards a location’:

- (6.39) *Mea hani na ia te he'e mai i te paepae*
 STV-P habit for 3.sg ART go hither LD ART paepae
Pikivehine no te kaituto 'i mua o te
 P. in.order.to ART think.deeply LD front POSS ART
ava=tai. (Kimitete 1990: 2)
 passage=sea
 ‘He used to go to the paepae Pikivehine in order to think deeply in front of the bay.’ (lit. ‘it was habit for him to come to’)
- (6.40) *Ia tau atu He'ato me t=o ia mata'eina'a toa*
 TAM land DIR H. with ART=POSS 3.sg village warrior
'io te haka'iki o te='a ka'avai... .
 PREP ART chief POSS ART=Dem valley,river
 ‘When He'ato landed with his village warriors at the chief of the valley... .’ (Lav-H: 037)
- (6.41) *Ia tihe atu hua po'i 'i te koika,*
 TAM arrive DIR ART.anा people LD ART feast
 ‘When the people arrived at the feast... .’ (Lav-E: 062)

The basic meaning of *atu* ‘towards a location, entity or person other than the speaker’ has not really changed in narratives. Only the source of the directional movement of *atu*-utterances has again shifted from the speaker to the protagonist (see [6.42–44]):

- (6.42) *Ua to'o Mohovaha i te ke'a me te he'e atu 'io te hoaka.*⁴³⁴
 TAM take M. DO ART stone with ART go DIR
 PREP ART oval.plate
 ‘Mohovaha took a stone and went to the oval plate.’ (Lav-H: 054)
- (6.43) *Ma titahi 'a ua vi'i He'ato ma na ka'avai o 'Ua Pou vi'i pu e hano i te tau toa*
 PREP ART day TAM make.tour H. PREP ART.dl valley,river
to'o mea he'e atu 'i te toua umu huke o Kanatete 'i Hiva 'Oa. (Lav-H: 023)
 POSS 'U. P. turn simply TAM get DO ART PL warrior
 take in.order.to go DIR LD ART war oven revenge POSS
 K. LD H. 'O.
 ‘One day He'ato made a tour through the valleys of 'Ua Pou, simply making a tour and getting warriors in order to make a revenge war for Kanatete at Hiva 'Oa.’
- (6.44) *U ti'ohi atu 'E'evaihopu i te=ia tau vehine, 'a'e he mea e hei me t=o ia ma'akau mea vehine na ia.*
 TAM look.at DIR E. DO ART=Dem PL woman
 be.not ART thing TAM right with ART=POSS 3.sg thought
 STV-P woman for 3.sg
 ‘E'evaihopu looks at his women, his thoughts are not just that (they) can be a wife for him.’ (Lav-E: 020)

Although both *mai* and *atu* can express directional movement towards a location or person in narratives, there is a subtle difference between the usage of *mai* and *atu*. When *mai* is used the narrator takes some kind of quasi-perspective and it seems that he or she is somehow more involved in the narrative than when *atu* is used. Consistent uses of *atu* in a narrative for directional movement towards and away from the protagonist in fact expresses a more neutral or distant perspective of the narrator as illustrated in (6.45):

- (6.45) *Me hua mea, u to'o haka'ua i titahi pikao,*
 be.like ART.anा thing TAM take again DO ART.indef piece
u kokomo atu 'io he haha. (Lav-H: 084)
 TAM push.in DIR PREP ART mouth
 ‘Like before, (he) took again a piece (and) pushed it into the
 mouth.’
- (6.46) *Tihe atu ai 'io te ha'e, 'atahi 'a pe'au Anihoka*
 arrive DIR ANA PREP ART housethen TAM say A.
ia ia.... . (Lav-H: 042)
 DO 3.sg
 ‘When they arrived at the house, then Anihoka said to him.... .’

In narratives the frequency of *mai* and *atu* differs and is due to the perspective-taking of the narrator. In the narrative *He'ato* (see examples [6.40], [6.42–43] and [6.45–47]), there is an overwhelming use of *atu*: almost every directional movement is expressed by *atu* (50 occurrences); there are only six occurrences of *mai* of which only three are used spatially. This clearly expresses the distant and less involved perspective of the narrator.

There are other uses of *mai* and *atu* which are more abstract than the spatial uses, but which still retain some spatial element in their usage. This is for instance the case with experience verbals and verbals of saying (see above [6.23] and [6.25]). With respect to those verbals directionality is expressed a) towards the speech participants, b) from the experiencer to the experiencee, or c) towards the thing perceived as in (6.47–48):

- (6.47) ... 'atahi 'a kite **atu** Anihoka ia He'ato me *t=o*
 then TAM see DIR A. DO H. with ART=POSS
ia mata'eina'a me te mave atu ia ia.... .
 3.sg village.people with ART welcome DIR DO 3.sg
 ‘... then Anihoka saw He'ato with his village people and welcomed
 him.... .’ (Lav-H: 037)
- (6.48) *Ua 'oko atu hua tau hoihoi nei i te tekao*
 TAM hear DIR ART.anा PL monster Dem DO ART talk
ka'i'e
 proud,snooty
 ‘These monstrous looking people heard snooty talk.... .’
 (Lav-E: 049)

The directionality which is expressed by experience verbals and verbals of saying is more abstract than the kind of directionality expressed with motion verbals: for instance, it is only the experiencer's gaze which arrives at the experiencee's location, but not the experiencer him- or herself as such. Experience verbals are more often constructed with *atu* than with *mai* because the perception proceeds away from the experiencer (see also Hooper (1994) for Tokelauan). Hooper (1994: 10) also remarks for Tokelauan that *mai* is only used if the point of view of the experiencee is adopted. This is also true for Marquesan (see [6.49]):

- (6.49) 'A *i* *kite mai hua vehine ia Te'akimauiui,*
 be.not TAM see hither ART woman [experiencer] DO T. [experiencee]
 ua hano i te vai kau-kau. (Lav-U: 122)
 TAM go.get DO ART water RED-swim
 'That woman did not see Te'akimauiui, (she) went to have a wash.'

Note that the usage of *mai* and *atu* with experience verbals is similar in a *demonstratio ad oculos*-situation.

2.1.2. Non-spatial uses of directional particles in verbal phrases

Directional particles can be used to express temporal relations. *Atu* often expresses remoteness to a reference point on the time axis. The time referred to can be *before* or *after* the point of reference:

1. Time *after* the point of reference:

- (6.50) *Na ai e kave atu t=o ia 'oko po'ea?*
 TOP who TAM carry,spread DIR ART=POSS 3.sg news handsome
 'Who is going to spread the new about his beauty?' (Lav-E: 046)

2a. Time *before* the point of reference:

- (6.51) *Ua rere hua vehine, 'io he tai te ka'o='ia*
 TAM escape ART woman PREP ART sea ART disappear=Perf
 atu. (Lav-U: 192)
 DIR
 'That woman has escaped, the disappearance was on sea.'

Most *atu*-utterances which do not indicate a spatial goal mostly have a temporal reading. Moreover, *atu*-utterances have a temporal reading if the verbal is not used in the literal sense, but has taken on a more figurative meaning as *kave* ‘carry > spread’ in (6.50).

‘Time just before the point of reference’ is often expressed by *atu nei*, thus *atu* is followed by the proximal demonstrative *nei*. In (6.52–53) the point of reference is the fictitious time of utterance in a narrative:

2b. Time *before* the point of reference:

- (6.52) ...e kite ***atu*** ***nei*** au ia 'atou 'i 'oto o te=*nei*
 TAM see DIR Dem 1.sg DO 3.pl LD inside POSS ART=Dem
ko'ika 'i te=*nei* 'a. (Lav-E: 065)
 feast LD ART=Dem day
 ‘... I have (just) seen them at the feast today.’

- (6.53) *U pe'au te kui ia ia:* “*E ti'ohi meita'i koe ia koe, e tu'u mo'i, 'oa mate koe me t=o mou hoa 'i te he'e* ***atu nei***.”
 TAM say ART mother DO 3.sg TAM watch.out good 2.sg OBL 2.sg VOC my girl lest dead 2.sg be.like ART=POSS PL/DL friend LD ART go DIR Dem
 ‘The mother said to her: “Take good care of yourself, my dear girl, lest you will be dead like your two friends who have just gone before (you).”’ (Lav-T/H: 087)

The directional particle *iho* is a relative tense marker expressing that an event has happened ‘soon/just after’ another event:

- (6.54) *Ma'o anamai Vivahana, u ha'a=tata atu me te vaka 'ehi, me te 'e'eku iho i te 'ehi 'io he vaka.* (Lav-H: 063)
 stand.up suddenly V. TAM CAUS=near DIR with ART canoe coconut and ART throw DIR DO ART coconut PREP ART canoe
 ‘Vivahana suddenly stood up, came closer with the canoe (transporting) coconut and then soon after threw the coconut into the canoe.’

- (6.55) ...ua vahi e 'ua pikao, me te to'o ***iho*** i
 TAM crack NUM two piece and ART take DIR DO

titahi pikao me te kokomo 'io he haha me
 ART.indef piece and ART push.in PREP ART mouth and
 te mama **iho.**
 ART chew DIR
 ‘... (he) cracked two pieces and soon after that took one piece,
 pushed (it) into the mouth and (immediately after) began to
 chew.’ (Lav-E: 083)

With respect to marking temporal relations *mai* is used to express change of states, in particular with two-state-verbals which are also used as state verbals (see [6.58]):

- (6.56) *Me hua mea ta He'ato i t=o ia toa ia*
 be.like ART.ana thing call H. DO ART=POSS 3.sg warrior 3.sg
Vivahana: “A va'a mai koe, 'a hano 'a 'o'oi
 V. TAM wake.up DIR 2.sg TAM go TAM extract
i te 'ehi mea ka'aku nei.” (Lav-H: 062)
 DO ART coconut STV-P fresh.breadfruit.dough Dem
 ‘Like before, He'ato called his warrior Vivahana:“Wake up, go and extract coconut (milk) in order to make fresh breadfruit dough.”’
- (6.57) *'Io te='a taki='ia i te='a pahu ma'o*
 PREP ART=Dem make.sound=Perf DO ART=Dem drum stand.up
mai hua~ t=a='u po'upuna nei. (K1B, T5: 16)
 DIR ART.ana ART=POSS=1.sg grandchildren Dem
 ‘When the drums started to play that~ my granddaughter stood up.’
- (6.58) *Kauo'o mai au e va'u 'ehua 'ua 'ite au....*
 grow.up,big DIR 1.sg NUM eight year Perf know 1.sg
 ‘(When) I was eight years old I knew... .’ (K1B, T6: 19)

The directional particle *a'e/ake* can also be used to express a temporal relation meaning ‘just before’:

- (6.59) *Kite ko'e Anihoka e aha t=o He'ato tihe*
 know cease A. TAM what ART=POSS H. arrive
mai 'io ia, e tihe manih'i'i oti, 'oko a'e
 hither PREP 3.sg TAM arrive visitor perhaps hear DIR
Anihoka o te umu huke ia Kanatete tenei.
 A. PRES ART oven revenge OBL K. now
 ‘Anihoka did not know why He'ato’s people arrived at his place,

perhaps (they) arrived as visitors, (but) Anihoka has just heard that there is now revenge for Kanatete.' (lit. '... it is revenge because of Kanatete') (Lav-H: 039)

In most other occurrences of *a'e/ake* the particle expresses 'insistence'⁴³⁵ (see [6.60]) or is used as a kind of politeness marker (see [6.61]):

- (6.60) *U pe'au te kui:* “ *Ua ka'o 'io he ha'e ka'ioi,*
 TAM say ART mother TAM disappear PREP ART house bachelor
'umo'i koe e tohe, 'a hano a'e koe 'a ti'ohi
 PROHIB 2.sg TAM dispute TAM go DIR 2.sg TAM look
toitoi 'io he ha'e.”
 really PREP ART house
 ‘The mother said:“It has disappeared in the bachelor’s house, you should not dispute (and I insist that) you go and have a good look in the house.”’ (Lav-U/N: 188)
- (6.61) *U pe'au te vehine:* “ *Etue 'a pe'au a'e koe*
 TAM say ART woman stop TAM say DIR 2.sg
noio, noio, ua taki.” (Lav-U/N: 157)
 INTJ INTJ TAM make.noise
 ‘The woman said:“Stop saying noio noio please, it’s noisy.”’

The directional particles *atu* and *a'e/ake* are also used as comparative markers of the superlative (see Zewen 1987: 90).

Mai and *atu* are further used to express reciprocity (see also Zewen 1987):

- (6.62) *U avei 'aua, u hopu atu hopu mai, u*
 TAM meet 3.dl TAM embrace DIR embrace DIR TAM
moe-moe 'aua. (Lav-U/N: 319)
 RED-make.love 3.dl
 ‘They met (and) embraced each other, (and) they made love.’

Most of the uses we have discussed above involved some kind of directionality towards or away from a deictic center, though with differing degrees of abstraction. In the following I would like to give examples of a usage of *mai* which does not involve directionality. In those examples *mai* means something like ‘appear’, ‘show’ or ‘evidence that something was done or exists’.⁴³⁶

- (6.63) *'I 'ei'a u pepe'u i t=o ia koekoe i te au'i'i o te henua, ma 'ei'a te ko'ana mai te pepena i te tau himene me te haka hou.*
 LD there TAM open DO ART=POSS 3.sg spirit OBL ART image,reflection POSS ART nature PREP here ART be.found appear ART create DO ART PL song and ART dance new
 ‘There he opened his mind to the inspirational image of nature, through there he received the creating (force for) new songs and dances.’ (Kimitete 1990: 2)
- (6.64) *U nuku mai te mata'eina'a no te hupai i te ko'ika.* (Kimitete 1990: 6)
 TAM assemble DIR ART village for ART rise,lift DO ART feast(here:funeral)
 ‘The village assembles for the celebration of the funeral.’
- (6.65) *I vae ai te po'otu no t=o ia 'a pao=na te haka mai i te Hakamanu.* (Kimitete 1990: 6)
 TAM like ANA ART beauty for ART=POSS 3.sg day finish=Dem ART dance show DO ART H.
 ‘The beauty liked to dance the Hakamanu on here last day.’
- (6.66) *E to'u po atahi 'a vai mai i t=o ia nino.*
 NUM three day then TAM leave appear DO ART=POSS 3.sg body
 ‘After three days (the spirit) left her body.’ (Kimitete 1990: 6)

The meaning directional particles contribute often depend on the lexical meaning of the verbal they modify. For instance, in combination with motion verbs and transfer verbs which imply some kind of directional movement the meaning contribution of *mai* and *atu* is purely spatial.⁴³⁷ A more abstract notion of directionality is expressed by experience verbs and verbals of saying. With two-state-verbals *mai* expresses inchoative aspect.

2.1.3. Summary

The meaning and usage of directional particles is complex. They add spatial deictic information, but they can also function as temporal and aspectual markers as well as reciprocals, comparatives, evidentials and reflexives. Their spatial uses are probably the primary uses of these particles. This is also often stated for other Polynesian or Oceanic languages (Hooper 1994; 2001; Lichtenberk 1991).

With respect to the spatial uses of directional particles, we have to distinguish two different situational contexts, namely a *demonstratio ad oculos*-situation and the context of narratives and reported speech (= *Deixis am Phantasma* [Bühler 1934]).

According to Hooper (1994) every usage of a directional particle must be understood in relation to some anchor or deictic center, regardless of whether these particles are used spatially or non-spatially (e.g. temporally). This even holds for the most abstract uses of these particles (e.g. as evidentials).

In a *demonstratio ad oculos*-situation, most occurrences of *mai* and *atu* express deictic movement between speech participants: *mai* expresses movement towards the speaker, whereas *atu* basically expresses movement towards the addressee or a third person. In large-scale reference, *atu*-constructions express a telic motion event. *Mai*-utterances are not necessarily telic.

As for the usage of *mai* in a *demonstratio ad oculos*-situation, the deictic center cannot be transposed to a speech participant other than the speaker (e.g. the addressee). However, *mai* can be used for locations of importance (e.g. the church) or places of events, even though the speaker is located somewhere else. Thus, the restriction of the transposition of the deictic center only holds for speech participants, but not for locations of importance or places of events. *Atu* can be generally used to mark any goal location (except the speaker), providing that the motion event is telic.

In narratives and reported events the deictic center is transposed to the protagonist or a person of importance. The usage of *mai* indicates that the narrator takes the perspective of the protagonist or person in focus. *Mai* can put a focus on the location around which the events of the narrative evolve. The spatial meaning of *atu* does not differ greatly from its uses in a *demonstratio ad oculos*-situation greatly because it mostly refers to a location, entity or person other than the speaker. *Atu* can also express movement towards the protagonist. In this case the narrator wants to express a more

neutral or distant perspective towards the protagonist. Thus, *mai* and *atu* are subtle stylistic devices to express which attitude the narrator adopts towards the protagonist: *mai* involves more mental closeness or a closer identity with the protagonist (by taking his perspective), whereas *atu* expresses a more distant viewpoint to the events of the narrative and the protagonist.

2.2. Directional particles in noun phrases

Directional particles occur in noun phrases with common full words, personal pronouns, local nouns and body-part terms.

2.2.1. Directional particles in noun phrases with common full words and personal pronouns

Only *mai* and *atu* occur in noun phrases in which the lexical head is a common full word or personal pronoun. These noun phrases function as locative phrases and are mostly marked by the locative preposition '*io* 'at, in, on'. '*Io*-marked noun phrases can be further marked by *mei* which indicates the source of the movement or by *ma* which expresses the passage through a location or place (see [6.74–75]). *Mai* and *atu* express the same directional movement as when modifying the lexical head of a verbal phrase in a *demonstratio ad oculos*-situation. Although the goal in (6.67) is not the speaker, the movement is, however, towards the speaker (see scene 18, appendix 4). In (6.68) the movement is clearly away from the speaker and the goal is the location of an object (see scene 14, appendix 4):

- (6.67) *Ua he'e Teiki mei 'io he ko'oka mai tihe 'io te ha'e pure.* (C&G-To-97-18)
 TAM go T. from PREP ART trough DIR arrive PREP
 ART house prayer
 'Teiki has left from the trough arriving at the church.'

- (6.68) *Ua taha Teiki mei 'io te ha'e pure atu tihe 'io he ko'oka.* (C&G-To-97-14)
 TAM go.across T. from PREP ART house prayer DIR arrive
 PREP ART trough
 'Teiki is going across from church arriving at the trough.'

The directional particles *mai* and *atu* in (6.67–68) do not modify the lexical head of the noun phrase, but they can be rather interpreted as being part of a circumposition which is formed by the source preposition *mei* and one of the two directional particles. Thus, the preposition *mei* and *mai/atu* are on the same structural level:

- (6.69) [***mei*** ['io/ma [NP]] ***mai/atu***]

The circumposition *mei....mai/atu* has the function of precisely marking the directional movement between source and goal. Note that the circumposition *mei .. mai* is constructionally and in its semantic function similar to Ger. *von her* in Ger. *vom Himmel her* ‘from heaven hither’. Marquesan, however, has the additional possibility of marking directional movement when the goal is not the speaker by using *atu* instead of *mai*. noun phrases with this circumposition often function as predicates in non-verbal clauses:

- (6.70) ***Mei*** 'io maua ***atu*** te he'e 'io he ko'oka.
from PREP 1.dl.excl. DIR ART go PREP ART trough
'The going towards the trough is from our place.' (C&G-Ti-97-14)

- (6.71) ***Mei*** 'io te ha'e pure ***atu*** t=o ia he'e.
from PREP ART house prayer DIR ART=POSS 3.sg go,leave
'His leaving is from the church (onwards).' (C&G-To-97-14)

In the following example it is not clear whether *mai* forms the circumposition *mei....mai* ‘from....hither’ or whether *mai* functions as the lexical head of a verbal phrase:

- (6.72) ***Mei*** 'io te ha'e pure ***mai*** nei au.
from PREP ART house prayer DIR/come? now 1.sg
'I am just coming from the church.' (C&G-To-97-6)

Note that if *mei...mai* are to be interpreted as a circumposition, then the *mei...mai*-noun phrase (in [6.72]) functions as the predicate of a non-verbal clause. These constructions are quite similar to constructions with local landmark nouns:

- (6.73) ***Mei*** ma tai ***mai*** nei au. (E-Ti-99)
from PREP loc.n.-sea DIR/come? Dem 1.sg
'I am just coming (somewhere) from the seaward place.'

On a large-scale referential level *ma*-marked local landmark nouns express unspecific location/place.

Motion events which go past or through a certain location or place (see scene 11, appendix 4) are expressed by the circumposition *ma....atu*. The preposition *ma* means ‘along, through’ with common full words:

- (6.74) ***Ma te ha'e pure atu me te hua mai.***
 through ART house prayer tow.loc with ART return hither
 ‘(It is moving) passed the church and comes back.’
 (C&G-To-97-11)

- (6.75) ***Ua he'e Teiki ma 'io te ha'e pure atu.***
 TAM go T. through PREP ART house prayer DIR
 ‘Teiki passes through the place of the church.’ (C&G-To-97-11)

In noun phrases in which common full words and personal pronouns function as lexical head, *mai* and *atu* still have the same spatial deictic meaning as when used in a *demonstratio ad oculos*-situation. The usage of *mai* and *atu* is more complex with local nouns and body-part terms.

2.2.2. Directional particles in noun phrases with local nouns and body-part terms

Not all local nouns and body-part terms can occur with directional particles. The local noun *vaveka* ‘middle’ does not occur with directional particles at all. *Oto* ‘inside’ and *vaho* ‘outside’ only occur with directional particles when they denote places. As for body-part terms only *tua* ‘back’ and *a'o* ‘face, front’ can occur with *mai*. All other body-part terms are not attested or felicitous with directional particles.

Mai and *atu* frequently occur with those local nouns which express dimensional or directional spatial relations, such as local landmark nouns, ‘up’/‘down’- and ‘front’/‘back’-expressions.

Local landmark nouns can be combined with *mai* and *atu* when they are used on a small-scale as well as large-scale referential level. *'Uka* ‘upstream’ and *'a'o* ‘downstream’ rarely occur with directional particles. However, when *'uka* and *'a'o* are used to express UP/DOWN-relations and UNDER-, ON TOP OF- and ABOVE-relations they cannot only be modified by *mai* and *atu*, but also by *ihō* ‘downwards’ and *a'e/ake* ‘upwards’. *'A'o* ‘down, underside’ and *'uka* ‘up, top’ are the only local nouns which can be

modified by *ihō* ‘downwards’ and *a'e/ake* ‘upwards’ because the directional particles also express spatial relations on the vertical UP/DOWN-axis. Table 34 depicts the use of all four directional particles with local nouns:

Table 34. Co-occurrence of directional particles with local nouns

Local nouns	<i>mai</i>	<i>atu</i>	<i>ihō</i>	<i>a'e/ake</i>
<i>tai</i> ‘sea’	+	+	—	—
<i>uta</i> 1. ‘shore’, 2. ‘inland’	+	+	—	—
<i>ko</i> 1. ‘left or right side of valley’, 2. ‘side’	+	+	—	—
<i>kapai</i> ‘seaward’	+	+	—	—
<i>kauta</i> ‘inland, landward’	+	+	—	—
<i>kako</i> 1. ‘towards left or right side of valley’, 2. ‘towards any side’	+	+	—	—
<i>'uka</i> ‘up, top’	+	+	+	+
<i>'uka</i> ‘upstream’	+	+	—	—
<i>'a'o</i> ‘down, underside’	+	+	+	+
<i>'a'o</i> ‘downstream’	+	+	—	—
<i>mua</i> ‘front, first’	+	+	—	—
<i>mu'i</i> ‘behind’	+	+	—	—
<i>hope</i> ‘back, behind’	+	+	—	—

In the following discussion of the modification by directional particles I focus on *mai* and *atu* because they occur most frequently. The meaning contribution of *ihō* ‘downwards’ and *a'e/ake* ‘upwards’ will be discussed at the end of this subsection.

Mai and *atu* can occur in '*i*-', *ma*- and *mei*-marked locative constructions with local nouns. In the discussion below I will focus on the usage of *mai* and *atu* with '*i*-' and *ma*-marked local nouns in small-scale reference. *Mei*-marked local nouns will be discussed together with '*i*-marked local nouns because '*i*-' and *mei*-marked local nouns are constructionally similar and the meaning contribution of the directional particles is also similar or even the same. In *ma*-marked locative constructions the meaning contribution of *mai* and *atu* is quite different than in '*i*-' and *mei*-marked constructions (see this chapter, § 2.2.2.2).

2.2.2.1. *I-* and *mei*-marked construction types

I- and *mei*-marked local nouns modified by *mai* or *atu* do not take possessive attributes and they often function as predicates in non-verbal clauses:

- (6.77) *Te=na mou pou ma tai nei, 'i mu'i atu*
 ART=Dem PL/DL post PREP sea Dem LD behind DIR
 te='a pao='ia o te='a ko'oka.
 ART=Dem finish=Perf POSS ART=Dem trough
 ‘Those two posts are seaward close to me, the end of that trough is further behind.’ (FA-T/M-H-15: 106)
- (6.78) ***Mei tai mai t=o ia hiti='ia.***
 from sea hither ART=POSS 3.sg ascend=Perf
 ‘His/her ascend is from the sea region towards me/us.’ (E)

Mei-marked local nouns modified by *mai* and *atu* are mostly used for large-scale reference. There are only a few examples found in the *Farm Animals* data as (6.79) which describes the orientation and position of the horse in photo 17 (see appendix 1) with respect to the speaker and the local landmarks of the Marquesan valley:

- (6.79) *E tahi horave e heke mai nei mei uta mai,*
 NUM one horse TAM go.seaward hither Dem from inland hither
 ma mu'i o te='a tumu 'akau.
 PREP behind POSS ART=Dem trunc wood
 ‘One horse, (it) is coming down seaward from inland towards me, behind that tree.’ (FA-T/M-H-17: 006–7)

The construction type *mei* + local noun + *mai/atu* is similar to the one discussed above in section 2.2.1 with common full words, thus *mei...mai/atu* can be considered as a circumposition ('from....hither/thither') marking source and goal in the same noun phrase.

In fast and casual speech the preposition *'i* is often dropped:

- (6.80) *Ah, ko atu haka=hei me te='a horave haka=hei!*
 INTJ across thither CAUS=right with ART=Dem horse CAUS=right
 ‘Ah, (put it) further across, bring (it) into line with that horse, bring (it) into line.’ (FA-R/T-34oc: 24)

- (6.81) *Ka=mai,~ tai mai.* (FA-R/T-43oc: 014)
 carry=hither sea hither
 ‘Put (it) towards me,~(put it) seawards towards me.’
- (6.82) *Mu'i atu haka'ua te='a papua... .*
 behind thither again ART=Dem fence
 ‘That fence is again further behind... .’ (FA-T/M-H-15: 098)

The spatial meaning of *mai* and *atu* in '*i*- and *mei*-marked local noun noun phrases does not differ greatly from the meaning contribution of *mai* and *atu* in verbal phrases. *Mai* and *atu* also express ‘directional movement’ or ‘directional static location’, but only with respect to the speaker. The meaning of *mai* is the same as in verbal phrases, namely ‘towards the speaker, hither’; and its usage is, as in verbal phrases, strictly speaker-bound. *Atu*, on the other hand, has not retained the same meaning as when used as a modifier of verbals. It contrasts with *mai* meaning ‘further away in any direction except towards the speaker’ or, simply, ‘away from speaker’. Note that the meaning of *mai* and *atu* in local noun noun phrases is analysed from data collected in a *demonstratio ad oculos*-situation (e.g. the *Farm Animals* game).

The speaker-bound usage of *mai* in a *demonstratio ad oculos*-situation can be considered as a lexicalised perspective. A lexicalised perspective here means that the feature of speaker-boundedness is part of the lexical meaning of *mai*. This means that the speaker cannot transpose the deictic center to another reference point or speech participant. As a result of this the addressee always has to take the perspective of the speaker in order to understand the utterance correctly.⁴³⁸

In locative constructions with local landmark nouns the usage of *mai* and *atu* can be fairly complex because apart from taking the speaker’s perspective, the addressee also has to consider the correct directions towards the local landmark.

The complexities of the usage of *mai* and *atu* with the local landmark nouns *tai* ‘sea’ and *uta* ‘inland’ is illustrated in a mother-child-interaction taken from the *Farm Animals* data (see [6.83]). The gaze axis of mother and child (5;4)⁴³⁹ is orthogonal to the main SEA/INLAND-axis; the mother is seated closer to the landmark SEA than the child as demonstrated in figure 27:

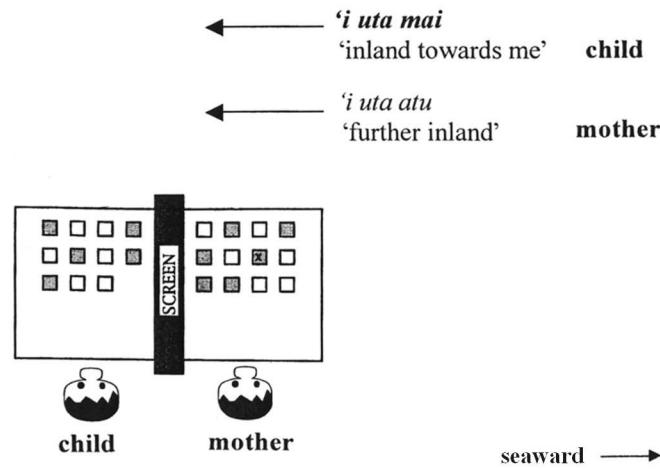


Figure 27. Uta atu ‘further inland’ (mother) = uta mai ‘inland towards me’ (child)

In the following interaction⁴⁴⁰ the mother (=M) instructs the child (=Ch) to place two toy trees. The placement of the trees is not to her satisfaction and she instructs the child to either move the trees ‘seaward towards herself’ or ‘inland away from herself’:

(6.83)

M: *I tai mai i tai mai i tai mai i tai!*
 LD sea hither LD sea hither LD sea hither LD sea
 ‘(Put it) seawards towards me, seawards towards me, seawards
 towards me, seawards!’

[Mother points to the seaward direction because the child does not seem to understand her instruction.]

M: *Titahi tuku ma tai!*
 other put PREP sea
 ‘Put the other (tree) seaward (of the other tree)!’

Ch: *Inei?*
 here
 ‘Here?’

M: *I uta atu!*
 LD inland further
 '(Put it) further inland!'

Ch: *'Inei?*
 here
 'Here?'

M: *I uta atu 'i uta atu!!*
 LD inland further LD inland further
 '(Put it) further inland further inland!!'
 [Child puts it further inland.]

The difficulty for the language-learning child in (6.83) is to take her mother's perspective in order to interpret *mai* and *atu* correctly. With respect to the child's own perspective the modification of *tai* 'sea' by *mai* 'hither' and *uta* 'inland' by *atu* 'thither' is somehow contradictory information: the speaker's utterance '*i tai mai*' is, from the child's perspective (i.e. the addressee's perceptive), '*i tai atu*', and '*i uta atu*' is '*i uta mai*'.

In the *Farm Animals* task younger children tend to interpret *mai* and *atu* always from their own, but not from the speaker's perspective. In fact, many children until age seven or eight have difficulties in understanding *mai* and *atu* in instructions correctly.⁴⁴¹

With respect to '*i tai mai/atu* 'sewards hither/thither' and '*i uta atu/mai* 'inland thither/hither' the perspective of speaker and addressee can coincide when they both gaze either towards the sea or the inland direction. This is for instance the case in (6.84) in which both players of a *Farm Animals* interaction are facing the sea. Photo 4 (see appendix 1) is described:

(6.84) *'Io titahi tumu 'akau e piha te keo 'io te tumu 'akau. Te upoko 'i uta~ me te horave e. I uta mai 'i vaveka vaveka, 'i uta mai e puaka.*
 Prep ART.indef trunc wood TAM cow ART bottom PREP ART trunc wood ART head LD inland like ART horse EMPH LD inland hither LD middle middle LD inland hither TAM pig
 'A cow is at the place of one (of the two) trees. The bottom is towards the tree. The head is inland, like the horse. Inland towards me, in the middle, inland towards me is a pig.' (FA-T/M-4: 6–9)

In this interaction '*i uta mai*' does not express that the pig has to be moved, but it simply describes the pig's location. However, *mai* encodes an element of directionality, though of static directionality meaning '(lying) towards the speaker'. Moreover, the meaning of *mai* in (6.84) has to be interpreted in relation to the other objects of the spatial configuration in photo 4 meaning that 'the pig is *closer to the speaker* than the other objects'. In (6.83), however, *mai* and *atu* clearly refer to a directional movement. Note that in (6.83) this construction type functions as a predicate, whereas in (6.84) the same construction type functions as a locative complement phrase. In my data I could observe that most locative constructions of this type functioning as predicates refer to a movement or change of location. However, when they function as complement phrases they indicate the location of the theme in relation to the other objects of the spatial configuration and the speaker. With respect to these two different syntactic functions '*i uta mai*' gets the following interpretation:

(6.85)

Predicate

<i>'i uta mai'</i>	\Rightarrow	'move x inland towards speaker'
--------------------	---------------	---------------------------------

(6.86)

Complement phrase

<i>'i uta mai'</i>	\Rightarrow	'x being inland towards speaker'
--------------------	---------------	----------------------------------

We can conclude that the difference in readings ('directional movement' vs. 'directional static location') is indicated by the syntactic functions of these locative constructions.

The modification of the local nouns *mua* 'front' and *mu'i* 'behind'⁴⁴² with *mai* and *atu* is not only dependent on the speaker, but also on the fact of whether the theme is inherently featured or not. For instance, if the theme has a FRONT/BACK-axis, the modification of *mua* and *mu'i* by *mai* and *atu* get the following interpretations:

(6.87)

<i>'i mua mai'</i>	\Rightarrow	'theme is moving/turned with its front side towards speaker'
<i>'i mu'i mai'</i>	\Rightarrow	'theme is moving/turned with its back side towards speaker'

- 'i mua atu ⇒ 'theme is moving/turned frontwards away from speaker'⁴⁴³
- 'i mu'i atu ⇒ 'theme is moving/turned backwards in any direction except towards speaker'

'I mua mai and 'i mu'i mai are often used to describe the orientation of the pig in photo 4 and 5 (see appendix 1)⁴⁴⁴ of the *Farm Animals* task:

Photo 4

- (6.88) 'A'o'e! e koko mai te upoko 'a hu'i te
 be.not TAM acrossward hither ART head TAM turn ART
 upoko 'inei 'io koe me he horave me te
 head here PREP 2.sg like ART horse and ART
 piha 'i mua mai.
 cow LD front hither
 'No! put the head acrossward towards me/us, turn the head here towards you like the horse and the cow, (turn it) in front towards me/us.' (FA-E/V-4)

Photo 5

- (6.89) 'I mu'i mai 'i mu'i mai 'ina te='a keo
 LD behind hither LD behind hither there ART=Dem bottom
 o te='a puaka i ti'ohi ai 'i te='a
 POSS ART=Dem pig TAM look.at ANA LD ART=Dem
 [te='a] [te='a] piha e ti'ohi a'a 'i te puaka.
 ART=Dem ART=Dem cow TAM look.at Dem LD ART pig
 '(Its) back is turned towards me, (its) back is turned towards me, there, that bottom of the pig is looking at that [that] [that] cow, (and) is looking at the pig.' (FA-Hak-5)

If the theme is an unfeatured object (e.g. a ball), the usage of 'i mua mai/atu and 'i mu'i mai/atu is dependent on how the direction of movement is conceptualised by the language user. The usage of *mai* and *atu* are then again dependent on whether the movement is directed towards the speaker or not.

Note that 'i mua mai/atu and 'i mu'i mai/atu can also be used irrespective of the speaker's position, in particular when several objects are aligned in a row. *Mai* and *atu* therefore do not express movement towards or away from the speaker. For some consultants 'i mua mai and 'i mua atu can both mean 'advance frontward'. Players of the *Farm Animals* game often used

this construction when describing the toy man in photo 8 which represents a typical alignment configuration (see appendix 1):

Photo 8

- (6.90) *Ee, i mua mai te 'enana me te puaka.*
 yes LD front DIR ART man and ART pig
 ‘Yes, the man and the pig are advancing in front.’
 (FA-T/M-H-8: 075)

Some instance before (6.90) was uttered, the same speaker described the position of the toy man as follows:

Photo 8

- (6.91) *I mua atu te 'enana, i mu'i mai te puaka.*
 LD front DIR ART man LD behind DIR ART pig
 ‘The man is (walking/advancing) in front, the pig is following
 (directly) behind.’ (FA-T/M-H-8: 51)

In this usage the meaning contribution of *mai* and *atu* in the locative construction *i mua mai/atu* is not really clear. They are probably lexical phrases meaning something like ‘advance’.

In an alignment configuration *mai* in *i mu'i mai* expresses that one entity is following another entity, also demonstrated in (6.91). *Mai* and *atu* in *i mu'i mai* and *i mu'i atu* mark the relative distance of the objects in an alignment configuration. *Atu* expresses, in contrast to *mai*, remoteness to the aligning configuration. The second pig in photo 8 of the *Farm Animals game* is therefore often described as in (6.92):

- (6.92) *'A, me he mea 'ina 'i mu'i atu titahi toa puaka a'a.* (FA-T/M-H-8: 074)
 EMPH like ART thing there LD behind DIR ART.other male pig Dem
 ‘Well, as if the other male pig is further behind.’

Note, however, that the combination of the local noun *mu'i* ‘behind’ and *mai* also seems to be a lexical phrase meaning ‘follow’.

In some occurrences with local landmark nouns, *atu* can also express remoteness as in (6.93):

- (6.93) *E tahi tumu 'akau tu='ia tu='ia 'i tai atu.*
 NUM one trunc wood stand=Perf stand=Perf LD sea thither
 ‘One tree, (it) is standing, (it) is standing further away seawards.’
 (FA-T/M-2: 004)

In (6.93) *atu* does not express ‘directional static location’ as in (6.84) because it is the first object of the spatial configuration to be described.

2.2.2.2. Ma-marked construction type

Mai and *atu* also occur in the *ma*-marked locative construction type with local nouns. In these *ma*-constructions local nouns can take possessive attributes and the constructions express that the theme is localised in an object region of the relatum. In these constructions *mai* and *atu* do not contribute any sense of directionality, but they only express relative distance of the theme to the relatum. *Mai* expresses proximity meaning ‘close to relatum’, whereas *atu* expresses non-proximity (=*atu*) meaning ‘further away from relatum’. The position within the noun phrase and the meaning of *mai* and *atu* is constant and we can speak of a distinct construction type:

(6.94)

<i>ma</i> – local noun – DIR (<i>mai/atu</i>) – possessive attribute
--

Ma-marked local nouns are often modified by *mai* and *atu* when three objects are involved in the spatial configuration. *Mai* can also be used when only two objects are involved. It is used in particular when the speaker wants to emphasize that the theme is close to the relatum, for instance, when an object is to be found close to the back of the house:

- (6.95) *Ena ma mu'i mai o te ha'e.*
 exist PREP behind DIR.prox POSS ART house
 ‘(It) is close to the back of the house.’ (E-To-99)

In this way *mai* ‘close to relatum’ can also modify the body-part terms *tua* ‘back’ and *a'o* ‘face, front’.

If *ma*-marked local nouns are modified by *atu* three objects are at least required for the spatial configuration. Only one of the three (or more) objects is the relatum; the other two objects are the objects to be localised. In

figure 28, for instance, the bowl is the relatum, and the pig and cow are the themes, both being seaward of the bowl:



Figure 28. *Mai* and *atu* in *ma*-possessive constructions

As the pig is closer to the relatum, speakers would refer to it as in (6.96):

- (6.96) *Ena te puaka ma tai mai o te pora.* (E-To-99)
 exist ART pig PREP sea DIR.prox POSS ART bowl
 'There is a pig seaward of the bowl (and close to it).'

The cow, on the other hand, is more distant to the relatum than the other theme and therefore *atu* is used:

- (6.97) *Ena te piha ma tai atu o te pora.*
 exist ART cow PREP sea DIR.dist POSS ART bowl
 'There is a cow seaward of the bowl (and further away than the other theme).' (E-To-99)

In (6.96) it is also felicitous not to modify *ma tai* with *mai*. However, *mai* is often used for configurations such as figure 28 in order to contrast the distance of both themes with respect to the relatum.

In *ma*-marked locative constructions with local nouns *mai* and *atu* only function as relative distance markers. They do not express any sense of directionality as in '*i*- and *mei*-marked constructions.

All *ma*-marked local nouns can be modified by *mai* and *atu* as demonstrated above. Note, however, that *ma mu'i atu* 'later on' is often used temporally referring to future events.

Table 35. Usage of *mai* and *atu* in locative constructions with local nouns

	directional movement	directional static location	proximity	remoteness
<i>Mai</i> in ' <i>i/mei</i> -constructions	+	+	+/- (only when ' <i>i</i> -marked)	-
<i>Atu</i> in ' <i>i/mei</i> -constructions	+	+	- (only when ' <i>i</i> -marked)	+/-
<i>Mai</i> in <i>ma</i> -constructions	-	-	+	-
<i>Atu</i> in <i>ma</i> -constructions	-	-	-	+

2.2.2.3. Kapai-, kauta- and kako-constructions

When *kapai* 'seaward', *kauta* 'landward' and *kako* 'acrossward, toward any side' are modified by the directional particles *mai* and *atu* they can only be preceded by the preposition *'i*. *I*-marked *kapai* 'seaward', *kauta* 'landward' and *kako* 'acrossward, toward any side' modified by *mai* and *atu* also express directional movement towards or away from the speaker:

- (6.98) ...*'i kapai atu koe, tuhia mai nei te kotaitai.*
 LD move.seaward DIR 2.sg point,gesture DIR Dem ART
 pile.of.coconut.leaves
 '... you move further seaward, show me the pile of coconut leaves.' (Lav-U/N: 248)

However, these three local nouns rarely occur with the preposition *'i*. This construction type only occurs in predicate function. *Kapai*, *kauta* and *kako* can also be preceded by the preposition *ma*:

- (6.100) *Ben, ana kapai atu mea iti, ma*
 INTJ a.little move.seaward DIR STV-P little PREP
kapai atu mea iti o te=na puaka.
 move.seaward DIR STV-P? small POSS ART=Dem pig
 ‘*Ben, move (it) a little further seaward, a little, (it) is a little farther seaward of that pig.*’ (RD-To/C-3: 010)

They need to occur in a *ma*-possessive construction in order to be modified by directional particles:

- (6.99)
- | | | |
|---------------------|---------------|-----------------------------------|
| <i>ma kapai o y</i> | \Rightarrow | ‘put (x) further seaward of y’ |
| <i>ma kauta o y</i> | \Rightarrow | ‘put (x) further inlandward of y’ |
| <i>ma kako o y</i> | \Rightarrow | ‘put (x) further acrossward of y’ |

In this construction type *mai* and *atu* have the same meaning as discussed above in section 2.2.2.2.

2.2.2.4. 'Uka 'up, top' and 'a'o 'down, underside' with directional particles

It was briefly mentioned above that '*uka* 'up, top' and '*a'o* 'down, underside' are the only local nouns which can occur with all four directional particles. Directional particles mostly occur as modifiers when '*uka*' and '*a'o*' occur in a *ma*-possessive construction. Note that the possessive attribute is often omitted.

When *ih*o 'downwards' and *a'e/ake* 'upwards' modify '*uka*' and '*a'o*' the construction expresses that the theme is in contact or not in contact with the 'under'- or 'upperside'-surface of the relatum:

- (6.100)
- | | | |
|--------------------|---------------|--|
| <i>ma 'a'o a'e</i> | \Rightarrow | ‘(x is) in contact with the underside of y’ |
| <i>ma 'a'o iho</i> | \Rightarrow | ‘(x is) not in contact with the underside of y’ |
| <i>ma 'uka a'e</i> | \Rightarrow | ‘(x is) not in contact with the upperside of y (=above)’ |
| <i>ma 'uka iho</i> | \Rightarrow | ‘(x is) in contact with the upperside of y’ |

Ma 'uka iho (lit. ‘on top downward of’) and *ma 'a'o a'e* (lit. ‘under upwards’) are often employed when speakers want to emphasize the fact that the theme is in contact with the ‘under’- or ‘upperside’-surface of the rela-

tum. Note that *ma 'uka a'e/ake* and *ma 'a'o iho* are, on the other hand, rarely employed.

Mai and *atu* seem to be used for the same configurations as *oho* and *a'e/ake*. For instance, *ma 'a'o* is modified by *mai* when the theme is in contact with the underside of the relatum. *Ma 'a'o atu* also expresses, like *ma 'a'o iho*, that the theme has to be moved further downwards in the ‘under’-region of the relatum. *Ma 'uka mai* is not employed for small-scale spatial arrays; *ma 'uka atu*, on the other hand can be employed in small-scale reference meaning ‘further above (supporting horizontal surface)’. *Mai* and *atu* are probably again a kind of relative distance markers: *mai* means ‘close to relatum (and probably in contact with the relatum)’, whereas *atu* means ‘further away from relatum’. The usage of *a'e/ake* ‘upwards’ and *oho* ‘downwards’ in small-scale reference are illustrated in figure 29:

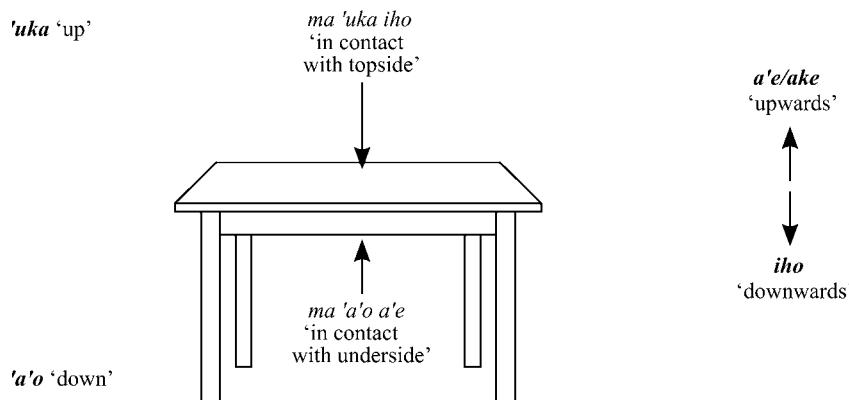


Figure 29. *Iho* and *a'e/ake* with *'uka* and *'a'o*

Ma 'uka mai/atu and *ma 'a'o mai/atu* can also be used for large-scale reference. In this referential level *mai* and *atu* express relative distance with respect to the speaker:

(6.101)

- ma 'uka mai* ⇒ ‘on top of the mountain close to speaker’
- ma 'uka atu* ⇒ ‘on top of the mountain further (away from speaker)’
- ma 'a'o mai* ⇒ ‘down by the shore close speaker’
- ma 'a'o atu* ⇒ ‘down by the shore further (away from speaker)’

When used in large-scale reference these *ma*-marked local nouns do not take possessive attributes because they denote place ('*uka* 'up in the mountains'). In these constructions *ma* contributes the meaning 'unspecific location' (see ch. 5, § 6.3.3.6.).

2.2.2.5. '*Oto* 'inside' and *vaho* 'outside' with directional particles

'*Oto* 'inside' and *vaho* 'outside' can be modified by *mai* and *atu*, in particular when '*oto*' and '*vaho*' refer to the inside and outside of a house. When '*oto* 'inside' refers to the inside of a house, *mai* and *atu* express movement towards and away from the speaker. The locative construction '*i oto mai*' does not only express that the movement is towards the speaker, but it also implies that the speaker is inside the house. '*I oto atu*' meaning 'further inside', on the other hand, does not imply that the speaker is inside the house. The local noun *vaho* is used in a similar way than '*oto*'. *Vaho* is in particular modified by *mai* and *atu* when the local noun refers to the outside of a house. '*I vaho atu*' therefore means 'further outside away from speaker', and '*i vaho mai*' expresses movement or direction towards speaker.

2.2.3. Summary

In noun phrases directional particles can occur with common full words, personal pronouns, local nouns and the body-part terms *tua* 'back' and *a'o* 'face, front'. When the directional particles *mai* and *atu* occur in noun phrases in which common full words and personal pronouns function as lexical head, they form a circumposition with the source preposition *mei* or the path preposition *ma*. Thus, the directional particles *mai* and *atu* do not modify the lexical head, but the circumposition marks the noun phrase with respect to directional movement between source and goal, or path (i.e. passage through a location) and goal.

The directional particles *mai* and *atu* frequently occur with local nouns. *Iho* 'downwards' and *a'e/ake* 'upwards' only modify the local nouns '*uka* 'up' and '*a'o* 'down''. Only in constructions with '*uka*' and '*a'o iho* 'downwards' and '*a'e/ake* 'upwards' are used spatially.

Mai and *atu* occur in '*i-*', *mei-* and *ma*-marked constructions types. In '*i-*' and *mei*-constructions the local nouns do not take possessive attributes and

these constructions often function as predicates of non-verbal clauses. The meaning of *mai* remains to be strictly speaker-bound, whereas *atu* expresses movement towards the addressee or a specific location. In *ma*-possessive constructions *mai* and *atu* do not express a directional movement, but they are used as markers of relative distance. Whereas *mai* expresses proximity, meaning ‘close to relatum’, *atu* expresses remoteness, meaning ‘further away from relatum’. Note that the expression of remoteness by *atu* has also been noted in temporal reference. In *ma*-possessive constructions *mai* and *atu* can only be used if at least three objects are involved in the spatial configuration.

The usage of *ihō* ‘downward’ and *a'e/ake* ‘upward’ with the local nouns ‘*uka* ‘up’ and ‘*a'o* ‘down’ is interesting because these two directional particles express whether or not there is CONTACT with the ‘topside’ or ‘underside’ of the relatum. Thus, speakers have devices to express these fine-grained differences in the spatial configuration of objects.

3. Demonstratives in locative constructions

The demonstratives *nei* ‘here’, *a'a* ‘there’ and *ana* ‘somewhere over there’ frequently occur in locative constructions with local nouns. Although Marquesan has a distinct form to express an addressee-*here*, namely *na* ‘close to addressee’, all my consultants rejected a modification of local nouns by the demonstrative *na*:

- (6.102) **i tai na*
 LD sea Dem.prox.add
 (‘in the direction of the sea close to you’)

Nei ‘here’ basically takes over the function of marking the addressee-*here* providing that the addressee is in the vicinity of the speaker. This can be often observed in the context of the *Farm Animals game* in which the players are seated next to each other:

- (6.103) *O te piha e inu a'a i te vai, ma tai o te='a papua, mea'a 'io he keke 'i mua nei.* (FA-T/M-H-15: 69–70)
 PRES ART cow TAM drink Dem DO ART water PREP sea
 POSS ART=Dem enclosure but PREP ART side LD
 front Dem.prox

'It is the cow which is drinking water, seaward of that enclosure,
but at the side in front close to me and you.'

Place names can only be modified by *nei* 'here'. There are no occurrences of *na* or *a'a* modifying place names.⁴⁴⁵ Place names which are modified by *nei* always indicate the place of the speaker at the time of utterance as in (6.104):

- (6.104) ... *ua tihetitahi gouverneur i 'Ua Pou nei*
 TAM arrive ART.indef cs.Fr.gouverneur LD 'U. P. here
 o Toby t=o ia ikoia. (Lav-P-7)
 PRES T. ART=POSS 3.sg name
 '... a *gouverneur* arrived **here** on '*Ua Pou*, *Toby* was his name.'

With respect to place names *nei* simply emphasizes the place of the speaker or narrator. In the next example taken from the legend of *Makai'anui*, only '*Ua Pou*', the place of the narrator⁴⁴⁶ at the time of utterance, is modified by *nei*. The place names of all other Marquesan islands mentioned in this text passage are simply not modified. In the legend we are told how Akau'i seeks his servant pig Makai'anui for help by calling him. The pig cannot instantly localise the call and puts his ear towards several different islands of the Marquesas in order to localise his master's calling:

- (6.105) *Tuku i Fatu Iva a i mei Hatu Iva, tuku i*
 put LD F. I. be.not TAM from H. I. put LD
 Tahuata a i mei Tahuata, u tuku i 'Ua Huka
 T. be.not TAM from T. TAM put LD 'U. H.
 'a i mei 'Ua Huka, *tuku=i ia mai t=o ia*
 be.not TAM from 'U. H. put=Perf hither ART=POSS 3.sg
 ihu i 'Ua Pou nei, u 'oko haka'ua ia te
 nose LD 'U. P. Dem.prox TAM hear again 3.sg ART
 '*eo mei 'Ua Pou.* (Mak-061-64)
 voice from 'U. P.
 '(He) put (his ear) towards Fatu Iva, it did not come from Hatu
 Iva, (he) put (it) towards Tahuata, (it) did not come from Tahuata,
 (he) put (it) towards 'Ua Huka, (it) did not come from 'Ua Huka,
 when (he) put his nose **here** towards 'Ua Pou, he heard the voice
 from 'Ua Pou again.'

Body-part terms are rarely modified by demonstratives. In my data there was only one occurrence of *kaokao* ‘side’ being modified by *a'a* ‘there’:

- (6.106) *I te kaokao [kaokao] a'a 'i titahi keke*
 LD ART side side Dem.there LD ART.other side
 ‘At the side over there, at the other side.’ (FA-T/M-H-14: 71)

Except (6.106) there are no other occurrences of *a'a* ‘there’ as a modifier of local nouns and body-part terms in locative constructions describing small-scale spatial arrays. *Nei* ‘here’, on the other hand, is frequently used as a modifying demonstrative in the description of small-scale spatial arrays. In small-scale reference, however, *nei* does not contrast with any other demonstrative forms. Here are a few examples found in the *Farm Animals* data:

- (6.107) *E inu a'a te piha 'io he pao='ia o*
 TAM drink Dem ART cow PREP ART finish=NOM POSS
te=na mou pou, 'i tai nei, mea'a 'i mua~ o.k.?
 ART=Dem PL/DL post LD sea Dem but LD front o.k.
 ‘The cow is drinking water at the end of those two posts,
 seawards close to me, but in front,~ ok?’ (FA-T/M-H-15: 71)

- (6.108) *Te 'oa='ia 'a'e haka=moe='ia mai 'i mua 'i*
 ART long=NOM be.not CAUS=lie=Perf DIR LD front LD
mua nei.
 front Dem.prox
 ‘The longside it is not laid down in front, in front close to me
 (and you).’ (FA-T/M-H-14: 29)

- (6.109) *Ee, 'i hope nei o='u.* (FA-Hak-5)
 yes LD behind Dem.prox POSS=1.sg
 ‘Yes, here behind me.’ (lit. ‘here behind of me’)

Nei ‘here’ and *a'a* ‘there’ only express a contrast of relative distance to the speaker in large-scale reference. For instance, the relative distance of the speaker to objects, events and other entities in a Marquesan valley are expressed by *i*-marked local landmark nouns modified by *nei* ‘here’ and *a'a* ‘there’. When the location is not precisely known or unspecific *ana* ‘somewhere over there’ is used:

(6.110)

- 'i tai *nei* ⇒ 'close to speaker in the direction of the sea'
'i tai *a'a* ⇒ 'over there in the direction of the sea'
'i tai *ana* ⇒ 'somewhere over there in the direction of the sea'

Apart from local landmark nouns, the local nouns '*oto* 'inside', *vaho* 'outside', '*a'o* 'down by the shore' and '*uka* 'up in the mountains' are often modified by demonstratives when they refer to places. These constructions are often *ma*-marked:

- (6.111) *I hea vai ai te kohe? – Ena ma 'oto ana.* (E-To-99)
LD where leave ANA ART knife exist PREP inside
somewhere.there
'Where did (you) leave the knife? – Somewhere inside (the house).'
- (6.112) *I sea Teiki? – (Ena) ma 'uka a'a.*
LD where T. exist PREP top.(of.mountain) Dem.dist
'Where is Teiki? – (He) is somewhere up there (in the mountains).' (E-Mo-99)

When these *ma*-marked local nouns, modified by demonstratives,⁴⁴⁷ refer to places they cannot take possessive attributes and the preposition *ma* contributes the meaning 'unspecific location'. Table 36 summarises how demonstratives are used in different contexts:

Table 36. Demonstratives in '*i*- and *ma*-marked locative constructions with local nouns

		<i>nei</i> +proximal	<i>a'a</i> –proximal	<i>ana</i> –proximal, +unspecific	possessive attribute
<i>I</i> -constructions	in	+	+	+	–
large-scale reference					
<i>Ma</i> -constructions	in	+	+	+	–
large-scale reference					
<i>I</i> -constructions	in	+	–	–	–/(+ ⁴⁴⁸)
small-scale reference					
<i>Ma</i> -constructions	in	+	–	–	+
small-scale reference					

Although the demonstratives *nei* and *a'a* are, like *mai* and *atu*, also deictic terms, *nei* and *a'a* are *positional deictic terms*⁴⁴⁹ which do not express any sense of directionality. Most spatial uses of *mai* and *atu*, however, express a directional sense regardless of whether they are used to refer to a movement or static location. Note, however, that *mai* and *atu* can also be used as relative distance markers, in particular when occurring in a *ma*-possessive construction with local nouns (see above). In these constructions *mai* and *atu* are not considered to be deictic terms because they simply express proximity or remoteness with respect to an object, but not with respect to one of the speech participants.

In *ma*-marked locative constructions *mai* ‘close to relatum’ and *nei* ‘close to speaker’ often contrast object regions in small-scale reference. For instance, the local noun *ko* ‘across, side’ is modified by *nei* and *mai* in order to specify which ‘across’-region of an object is referred to. In *ma*-constructions *mai* always makes reference to the relatum, whereas *nei* makes reference to the speaker:

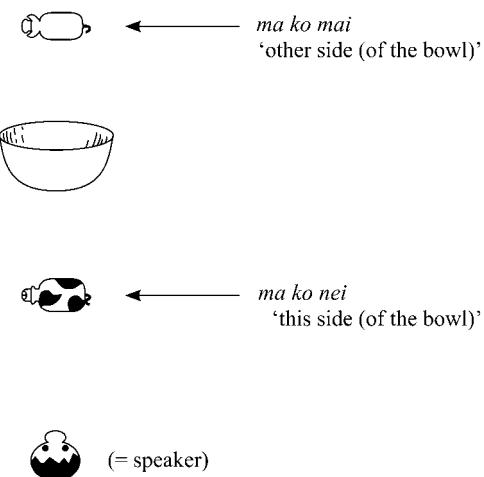


Figure 30. *Ma ko nei* versus *ma ko mai*

In the *Farm Animals* data I could find a few examples of *ma*-marked *ko* ‘across, side’ being used in that way. (6.113) describes the placement of the tree in photo 8 (see appendix 1) and (6.114) and (6.115) describe the placement of the horse in photo 5 and photo 2 (see appendix 1):

Photo 8

- (6.113) *To'o koe i te=na tumu 'akau tuku ma ko mai ma ko o te=nei puaka keke me te='a vehine.*⁴⁵⁰
 take 2.sg DO ART=Dem trunc wood put PREP across,side
mai DIR.close PREP side POSS ART=Dem pig side with
te='a ART=Dem woman
 ‘You take that tree, put (it) at the other side, at the other side of this pig (the) side with that woman.’ (FA-Hak-8)

Photo 5

- (6.114) ... *tuku te puaka 'inei=i 'i vaveka tuku te upoko*
 put ART pig here=EMPH LD middle put ART head
'i mua, ee pe'e=na pe'e=na~ te horave tuku ma
 LD front yes like=Dem like=Dem ART horse put PREP
ko nei o te sapin 'i'a. (FA-E/V-5: 9–10)
 across Dem.here POSS ART csFr.fir there
 ‘...put the pig here, in the middle, put the head towards the front, yes, like that like that~~ the horse, put (it) acrosswards, at this side of the *sapin*, there.’

Photo 2

- (6.115) *Tuku mai 'i te keke 'io koe~ ma ko nei*
 put DIR LD ART side PREP 2.sg PREP across Dem.prox
o te=nei piha. (FA-Hak-2)
 POSS ART=Dem cow
 ‘Put (it) down at the side where you are~ acrosswards of this cow (close to me).’

Note, however, that in '*i*-marked constructions *nei* and *mai* often do not contrast different object regions, but they can refer to the same region as in (6.116):

Photo 6

- (6.116) *Me he mea 'i kapo~ 'i mua nei 'i mua*
 like ART thing LD earlier.on LD front Dem.prox LD front
mai DIR.hither PREP front POSS 2.sg
 ‘Like earlier on~ in font here, in front towards me and you, in front of you.’

As for the local nouns *mua* ‘front’, *mu'i* ‘behind’ and *hope* ‘behind, hidden’ *nei* ‘close to speaker’ indicates in *ma*-constructions that the relatum can be the speaker, thus *ma mua nei* can mean ‘in front of the speaker’, and *ma mu'i nei* ‘behind the speaker’:

Photo 5

- (6.117) *Piha pukiki ma mua o te sapin ma mua 'io koe ma mua nei 'ina te upoko 'inei='i ! 'inei te upoko.* (FA-E/V-5: 6)
- cow red PREP front POSS ART csFR.fir PREP front PREP 2.sg PREP front Dem.prox there ART head here=EMPH here ART head
- ‘Red cow in front of the *sapin* in front where you are, in front of me and you there is the head here (!), the head is here.’

In (6.117) the speaker shifts the choice of relatum from the tree (=*sapin*) to herself and the addressee which is indicated by *nei* ‘here’. In (6.118) the choice of relatum is even more complicated because the speaker as well as another object are both serving as joint relata. (6.118) is a description of the trough’s location in photo 13 (see appendix 1):

Photo 13

- (6.118) *Ma tai o te='a papua mea'a 'umo'i ma tai e, ma mua nei ma mua nei mea'a 'a'e 'a ma mua toitoi e.*
- PREP sea POSS ART=Dem enclosure but PROHIB PREP sea EMPH PREP front Dem PREP front Dem but be.not EMPH PREP front real,genuine EMPH
- ‘(The trough) is seaward of that enclosure, but don’t put it (really) seaward (of it), (it) is in front close to me, in front close to me, but not really in front (of me).’ (FA-T/M-H-13: 52–53)

In (6.118) *ma mua nei* does not refer to the speaker’s inherent ‘front’-region, but only to the speaker’s proximal region which is expressed by *nei*. Referring to the speaker’s inherent/intrinsic front is, in fact, expressed by *ma mua toitoi* ‘really/genuinely in front (of the speaker)’ which the speaker of (6.118) explicitly denies. The meaning contribution of *toitoi* ‘real, genuine’ is further discussed below (see this chapter, § 4.1).

There are also a number of other examples in which *nei* in *ma mua nei* ‘in front here’ and *ma mu'i nei* ‘behind here’ does not indicate that the relatum is the speaker. In (6.119–120), for instance, *nei* simply expresses that

the theme is localised in the proximal region of the speaker (and addressee):

Photo 5

- (6.119) ... *i pe'au ai ia koe tuku mai te ko pukiki*
 TAM say ANA DO 2.sg put DIR ART side red
 ma mu'i nei! (FA-Hak-5)
 PREP behind Dem.prox
 ‘...(I) told you put the ass behind close to me and you.’

Photo 15

- (6.120) *ma tai o te papua 'umo'i 'i mu'i, 'i mua*
 PREP sea POSS ART enclosure PROHIB LD behind LD front
 nei o te papua, ma tai 'a.
 Dem.prox POSS ART enclosure PREP sea EMPH
 ‘(Put the trough) seaward of the enclosure, don’t (put it) in the
 back, at the front here of the fence, (but) seaward (of it)!’
 (FA-T/M-H-15: 29–30)

In constructions with local landmark nouns *nei* only expresses proximity to the speaker. (6.121) describes the location of the cow in photo 13:

Photo 13

- (6.121) ... *tuku te='a piha ma uta nei o te=na*
 put ART=Dem cow PREP inland Dem.prox POSS ART=Dem
 *penua.*⁴⁵¹ (FA-Hak-13: 019)
 through
 ‘... put that cow inland of that trough, close to me and you.’

Local noun constructions modified by *nei* sometimes contrast with other distance markers such as *atu* ‘further away’ as in (6.122):

Photo 15

- (6.122) *Pe'au au ia koe ma tai nei 'i mu'i atu*
 say 1.sg DO 2.sg PREP sea Dem.prox LD behind thither
 te='a pao='ia o te='a ko'oka.
 ART=Dem finish=Perf POSS ART=Dem trough
 ‘I told you seaward close to me (and you), further behind is the
 end of that trough.’ (FA-T/M-H-15: 105)

3.1. Summary

The demonstratives *nei* ‘here’, *a'a* ‘there’ and *ana* ‘somewhere over there’ can be used in locative constructions with local nouns, whereas the demonstrative *na* ‘close to addressee’ cannot. Place names can only be modified by *nei* ‘here’, and body-part terms are rarely modified by demonstratives.

Like *mai* and *atu* in *ma*-possessive constructions, the demonstratives *nei* ‘here’ and *a'a* ‘there’ are also markers of relative distance. The crucial difference, however, is that *nei* and *a'a* express relative distance with respect to the speaker, whereas *mai* and *atu* only express relative distance to the relatum (see this chapter, § 2.2.2.2).

When local nouns (e.g. *mua* ‘front’ and *mu'i* ‘behind’) in a *ma*-possessive construction are modified by *nei* ‘here’, it can indicate that the speaker is the relatum. However, *nei* need not necessarily indicate that the speaker is the relatum. It might simply express proximity to the speaker.

4. Other modifiers in locative constructions

Apart from directional particles and demonstratives a few other modifiers occur in Marquesan locative constructions:

(6.123)		
	<i>toitoi</i>	‘real, genuine’
	<i>'oa</i>	1. ‘long, far (away)’, 2. ‘EMPHATIC’
	<i>haka'ua</i>	‘again’, ⁴⁵²
	<i>'ina</i>	‘a little’

Toitoi ‘real, genuine’ and *'oa* ‘long, far away’ do not exclusively function as modifiers,⁴⁵³ but they also occur as lexical heads of verb and noun phrases and therefore can also be classified as belonging to the class of full words (see ch. 3, § 6.1.1.3.2). However, due to their function of modifying the meaning of local nouns in locative constructions they are treated as modifiers here. *Haka'ua* ‘again’ is a typical verbal modifier, and *'ina* ‘a little’ is a modifier of noun phrases as well as verbal phrases. Place names and all body-part terms, except *kaokao* ‘side’, are not attested with these four modifiers.

In all occurrences of my data the modifiers *toitoi* ‘real, genuine’ and *'oa* ‘far (away)’ are directly postpositioned to the lexical head (see [6.124–26]),

whereas *haka'ua* ‘again’ always follows a modifying directional particle, i.e. it is at the right periphery of the locative construction phrase⁴⁵⁴ (see [6.127]):

- (6.124) 'A'e ma ***mu'i*** ***toitoi*** o te tumu 'akau.
be.not PREP loc.n.-behind real,genuine POSS ART trunc wood
'It is not really behind the tree.' (FA-T/M-H-17: 131)
- (6.125) *Te='a pou pao='ia 'i tai 'oa, te='a*
ART=Dem post finish=Perf LD loc.n.-sea far.away ART=Dem
mou pou. (FA-T/M-H-15: 039)
PL/DL post
'Those two posts are far seawards, those two posts.'
- (6.126) *E tahi puaka 'ina ***mu'i*** 'oa atu e.*
NUM one pig a.little loc.n.-behind far DIR.further EMPH
'One pig is quite far behind.' (FA-T/M-H-8: 018)
- (6.127) ***Mu'i atu haka'ua te='a papua 'i te toitoi='ia.***
behind DIR again ART=Dem enclosure LD ART real=NOM
'That enclosure is again further behind, at it's real position/location.' (FA-T/M-H-15: 098)

Note that *haka'ua* in (6.127) does not modify the lexical head *mu'i*, but it modifies the lexical head as well as the directional particle. Moreover, *haka'ua* only occurs in locative constructions which function as predicates in non-verbal clauses.

The modifier '*ina*'⁴⁵⁵ ‘a little’ is always in prenuclear position to the lexical head (see also [6.126]):

- (6.128) *Titahi 'ina mua atu.* (FA-T/M-H-17: 158)
ART.other a.little front DIR
'The other (one) is a little further in the front.'

4.1. Meaning contribution of *toitoi* ‘real, genuine’

In my *Farm Animals* data *toitoi* is one of the most frequently occurring modifiers in locative constructions. *Toitoi* expresses that the theme is

'really' and 'genuinely' in a particular object region denoted by the lexical head of the locative construction (e.g *mua* 'front-region of object y').

The examples below are therefore exclusively taken from data of small-scale spatial configurations. I do not have sufficient data to say whether or not *toitoi* is also used as a modifier for spatial configurations in large-scale reference. I have never observed it in natural everyday conversations, and it is possible that this modifier is only used in small-scale reference. The meaning contribution of *toitoi* also suggests this assumption.

All local nouns and the body-part term *kaokao* 'side' can be modified by *toitoi*. With respect to the local nouns *mua* 'front', *mu'i* 'behind' and *hope* 'behind, hidden' the meaning contribution of *toitoi* 'real, genuine' varies with the object properties of the relatum, i.e. whether the relatum is featured or unfeatured.

1. Featured relatum with a FRONT/BACK-axis:

The modification of *mua* 'front', *mu'i* 'behind' and *hope* 'behind, hidden' by *toitoi* 'real, genuine' expresses that the speakers refers to the inherent/intrinsic FRONT or BACK of a relatum. Thus, *ma mua toitoi* means 'at its front' and *ma mu'i/hope toitoi* 'at its back'. The descriptions of photo 8 and 14 in the *Farm Animals* data illustrate this usage:

- (6.129) ... *te='a* '*enana* *ma* *mua* ***toitoi*** *o* *te* *puaka*.
 ART=Dem man PREP front real,genuine POSS ART pig
 '... that man (he) is at the pig's front (lit. 'really in front of the pig').' (FA-T/M-H-8: 033)

- (6.130) *Ma* *mu'i* *o* *te='a* '*enana* *e* '*ua* *puaka*.
 PREP behind POSS ART=Dem man NUM two pig
 ... *e* *tahi* *mu'i* ***toitoi*** *o* *te='a* '*enana*.
 NUM one behind real,genuine POSS ART=Dem man
 'Behind that man are two pigs ... one is at the man's back.'
 (FA-T/M-8: 002–003)

- (6.131) *Mea'a* *mo'i* *ma* *mua* ***toitoi*** *o* *te* *horave*
 but PROHIB PREP front real,genuine POSS ART horse
 ma *tai* *ma* *tai* *o* *te='a* *papua*.
 PREP sea PREP sea POSS ART=Dem enclosure
 'But don't (put it) at the horse's front, seaward, seaward of that enclosure.' (FA-T/M-H-13: 085–086)

- (6.132) *E ti'ohi nei 'io='u, 'i mua toitoi o='u*
 TAM look.at DEM.prox PREP=1.sg LD front real,genuine POSS=1.sg
 '(It) is looking at me, towards my front.' (FA-T/M-H-14: 058)

In configurations in which the speaker serves as relatum, *toitoi* emphasizes, in contrast to the demonstrative *nei*, the inherent ‘front’-region of the speaker as expressed in (6.133):

- (6.133) *Ma tai o te='a papua mea'a 'umo'i ma tai e, ma mua nei ma mua nei mea'a 'a'e 'a*
 PREP sea POSS ART=Dem enclosure but PROHIB PREP sea
emph. PREP front Dem PREP front Dem but be.not EMPH
ma mua toitoi e.
 PREP front real,genuine EMPH
 '(The trough) is seaward of that enclosure, but don't put it
 (really) seaward (of it), (it) is in front close to me, in front close to
 me, but not at *my* front.' (FA-T/M-H-13: 052–053)

However, there is only a subtle meaning difference between *nei* and *toitoi*. For instance, *ma mua nei* indicates that the speaker’s ‘front’-region also coincides with the speaker’s proximal region. *Ma mua toitoi*, on the other hand, only indicates the speaker’s inherent/intrinsic ‘front’-region. Thus, the region denoted by *ma mua nei* is vaster than the one denoted by *ma mua toitoi*. Moreover, *ma mua nei* is often used when the description of a spatial array has joint relata as in (6.133).

When the body-part term *kaokao* ‘side’ is modified by *toitoi*, the construction also refers to the intrinsic/inherent side of the relatum (see [6.134]). (6.134) describes the trough’s location in relation to the enclosure (=relatum) in photo 16 (see appendix 1):

Photo 16

- (6.134) *Tata'eka po haka=tu me te papua no te mea*
 close INTENS? CAUS=stand with ART enclosure for ART thing
te='a ko'oka 'a i kaokao toitoi o te
 ART=Dem trough be.not TAM side real,genuine POSS ART
papua. (FA-T/M-H-16: 045)
 enclosure
 '(It) is very close, position it with the enclosure because that
 trough, (it) is not really at the enclosure’s side.'

In particular with respect to the local nouns *mua* ‘front’, *mu'i* ‘behind’ and *hope* ‘behind, hidden’ *toittoi* can disambiguate between the relative and intrinsic frame of reference providing, however, that the relatum has an inherent FRONT/BACK-axis. There are only a few occurrences of *ma mua toittoi* and *ma mu'i toittoi* when the relatum is unfeatured.

2. Unfeatured relatum:

Trees are often treated as having no inherent features. This is, for instance, shown in the descriptions of photo 8 (see [6.135–36]) and 17 (see [6.137]). In (6.135–36) *ma mua toittoi* refers to the ‘near side’ of the relatum:

Photo 8

- (6.135) *Te='a koivi puaka ia haka=hei='ia t=o=ia*
 ART=Dem female pig TAM CAUS=right=PASS ART=POSS=3.sg
heke ma mua toittoi o te='a tumu 'akau
 go.seawards PREP front real POSS ART=Dem trunc wood
 ‘That sow if its seaward descent is corrected in front of that tree.’
 (FA-T/M-H-8: 019)

- (6.136) *Ma vahi ke ananu te puke puaka e heke*
 PREP place different always ART PL.pile pig TAM go.seaward
nei, ma mua toittoi o te='a tumu 'akau.
 Dem.prox PREP front real,genuine POSS ART=Dem trunc wood
 ‘The pigs are at a different place, (the) are descending seawards
 really in front of that tree.’ (FA-B/R-8: 098)

In (6.137) the horse’s location of photo 17 is described. Speakers of Marquesan can describe the horse’s location as being *ma mu'i* ‘behind’; this kind of reference is only possible under certain circumstances. *Ma mu'i toittoi*, however, refers to the far side of the tree:

Photo 17

- (6.137) *'A'e ma mu'i toittoi o te tumu 'akau.*
 be.not PREP behind real,genuine POSS ART trunc wood
 ‘It is not really behind the tree.’ (FA-T/M-H-17: 131)

Toittoi here probably indicates that the unfeatured relatum is conceived as a canonical face-to-face encounter with tree’s ‘front’-side being at the near side and its ‘back’-side being at the far side of the relatum (see also

chapter 7, section 3.1.2 for the body-part terms *tua* ‘back’ and *a'o* ‘face, front’ which have similar underlying conceptions).

Toitoi also frequently occurs with local landmark nouns in order to express that the theme is neatly positioned to the relatum. (6.138) describes the position of the cow’s head in photo 15, and (6.139) describes the location of the pig in photo 6:

Photo 15

- (6.138) *Te upoko o te piha ma tai toitoi o te='a papua, 'i 'oto o te ko'oka e.*
 ART head POSS ART cow PREP sea real,genuine POSS ART=Dem enclosure LD inside POSS ART trough EMPH
 ‘The head of the cow, (it) is really seaward of that enclosure, inside the trough!’ (FA-T/M-H-15: 049–50)

Photo 6

- (6.139) *I ti'ohi ai 'io koe mea'a mo'i 'afaro e='a 'ina tai~ ma uta toitoi 'io te'a ?=Dem a.little sea PREP inland really PREP ART=Dem mea tumu toa pusi pe'e='a.* (FA-Hak-6)
 thing trunc fir IwFr.-position like=Dem
 ‘(It) is looking at you, but don’t put it straight, (it) is a little seawards~ (it) is really inland at that thing tree~ position like that.’⁴⁵⁶

The modifier *toitoi* never co-occurs in the same locative construction with any of the modifiers listed in (6.123).

4.2. Meaning contribution of '*oa* 1. ‘far (away)’, 2. ‘EMPHATIC’

'Oa contributes two very different meanings in locative constructions so that one might be inclined to regard them as two different modifiers. There is also a difference in syntactic distribution and function: '*oa* ‘long, far away’ can also function like other full words (see above). '*Oa* ‘EMPHATIC’, on the other hand, only occurs in the function as a modifier. In locative constructions, however, '*oa* ‘far (away)’ and '*oa* ‘EMPHATIC’ both function as modifiers.

1. '*Oa* 'long, far away':

Lexical head of a verbal phrase (=state verbal)

- (6.140) *Mea 'oa te ha'a=pei='ia a te po'i...*.
 STV-P long ART CAUS=ready=Perf POSS ART people
 'The preparation of the people was long... . '(Kimitete 1990: 2)

Lexical head of a noun phrase or nominalised verbal clause:

- (6.141) *Hm, te 'oa='ia o te ko'oka 'io au?*
 INTJ ART long=NOM POSS ART trough PREP 1.sg
 'Hm, the longside of the trough towards me?'
 (FA-T/M-H-13: 090)

Modifier in a locative construction:

- (6.142) *Pao, to'o koe i titahi puaka tuku koe 'i hope 'oa.* (FA-Hak-8)
 finish take 2.sg DO ART.indef pig put 2.sg LD behind
 far
 '(When) finished, you take a pig, you put (it) far behind.'

2. '*Oa* 'EMPHATIC':

Verbal modifier

- (6.143) *Te 'enana e, e pehea 'oa te pe'au i te='a mea...?*
 ART man EMPH TAM how EMPH ART say DO
 ART=Dem thing
 'The man, how *then* do (you) say it...?' (lit. '...the saying of that
 thing is how then') (FA-T/M-H-8: 033)

Nominal modifier

- (6.144) *O ai 'oa?* (Dordillon 1931: 285)
 PRES who EMPH
 'Who is it *then*?'

- (6.145) *Te piha hu'i='ia atu te upoko~. -'I hea 'oa ? - I tai.* (FA-Hak-13)
 ART cow turn=PASS DIR ART head LD where EMPH
 LD sea
 'The cow, the head is turned to~. – Whither then? – Sewards.'

Modifier in locative constructions

- (6.146) *Tuku mai te='a puaka 'i mua 'oa nei.*
 put DIR ART=Dem pig LD front EMPH here
 'Put that pig here in front then.' (FA-Hak-5)

In (6.146) '*oa*' clearly does not modify the local noun *mua* 'front' with respect to distance, meaning 'far in front', because in the same locative construction the speaker-proximal demonstrative *nei* also modifies the lexical head *mua*. If '*oa*' would also modify the lexical head with respect to distance in the sense of 'far', then the locative phrase has contradictory information concerning the specification of distance. Thus '*oa*' can only have the function as an emphatic particle. In locative constructions both containing '*oa*' and *nei* 'here', '*oa*' is thus an emphatic particle also shown in (6.147–48):

Photo 8

- (6.147) *E tuku mai ma uta 'oa nei.*⁴⁵⁷ (FA-Hak-8)
 TAM put DIR PREP inland EMPH Dem.prox
 'Put (the man) down inland close to me then.'

Photo 15

- (6.148) *Ma tai o te='a papua, mea'a 'io he keke
 PREP sea POSS ART=Dem enclosure but PREP ART side
 'i mua nei, o=ia 'i mua 'oa nei.*
 LD front Dem.prox PRES=Dem LD front EMPH Dem.prox
 'Seaward of that enclosure, but at the front side here, that is
 indeed in front here.' (the speaker makes a gesture to the 'front'-
 region she is referring to) (FA-T/M-H-15: 069–70)

However, if '*oa*' is followed by the directional particles *mai* 'hither' and *atu* 'thither', '*oa*' contributes the meaning 'far'. (6.149) and (6.150) are descriptions of photo 8:

Photo 8

- (6.149) *E tahi puaka ma mu'i, koivi, e tahi puaka
 NUM one pig PREP behind female NUM one pig
 'ina mu'i 'oa atu e.* (FA-T/M-H-8)
 a.little behind far DIR.thither EMPH
 'One pig is behind, female, one pig is a little far behind.'

- (6.150) *'I mua te 'enana, 'i mu'i ma mu'i te koivi*⁴⁵⁸
 LD front ART man LD behind PREP behind ART female
ma mu'i 'oa mai [te] titahi a'a.
 PREP behind far DIR.follow ART other Dem
 ‘The man is in front, behind, behind the female, the other one is following far behind.’ (FA-B/R-8: 095)

In both examples (see [6.149–50]) the location of the same pig is described. The reason why *mu'i* ‘behind’ is modified by *atu* in (6.149) and by *mai* in (6.150), on the other hand, is due to the locative construction type, the meaning contribution of *mai* and *atu* and the spatial configuration. *Mai* and *atu* in *'ina*-constructions (see [6.149]) have a directional reading, thus a particle like *'oa* could only contribute the emphatic meaning when co-occurring with *mai* ‘hither’. In *'ina*-constructions with *atu* ‘further away’, however, *'oa* clearly is a distance marker in which both particles express remoteness.

The co-occurrence of *mai* and *'oa* in (6.150) seems at first hand a little contradictory because *mai* in *ma*-constructions is a relative distance marker meaning ‘close to relatum’. In (6.150), however, *mai* contributes a different meaning, namely ‘follow’. This particular meaning of *mai* is only used when the spatial configuration is an alignment configuration, and this is the case in photo 8. Objects which follow the first object in an alignment configuration are often expressed by *mu'i mai* ‘follow behind’. In this way *'oa* as a distance marker is compatible with *mai* ‘follow’. In (6.150) *'oa* therefore simply marks the distance between the first and second pig. *Mu'i mai* is a lexical phrase⁴⁵⁹ which seems to allow the modifier *'oa* ‘far’ between lexical head and *mai*. The preposition *ma* indicates that the first and the second pig stand in an (explicit) spatial relation.

'Oa ‘far (away)’ can be used in small-scale as well as large-scale reference. The fact that *'oa* can be used in both scales of reference indicates that the expression of remoteness is only relative, i.e. there is no metrical measure of distance.

However, in large-scale reference *'oa* ‘far’ expresses a kind of remoteness which is beyond the field of vision of the speech participants. For instance, *'i uta 'oa* means ‘far inland, in the bush/mountains, not in the valley anymore’. In small-scale reference, a phrase like *'i uta 'oa* has to be understood in relation to all the objects involved in a spatial configuration. *'I uta 'oa* would simply mean ‘quite far inland (in relation to the other objects)’:

Photo 15

- (6.151) *'Io he 'ua o te pou 'io he keke
 PREP ART two POSS ART post PREP ART side
 'io he keke pao='ia 'i uta e- 'I uta 'oa?*
 PREP ART side finish=Perf LD inland EMPH LD inland far
 'At the second post at the side, the side which ends inland – Far inland?' (FA-T/M-H-15:015–17)

A phrase like *'i uta 'oa* can be modified by *atu* meaning ‘even further than far inland’. Note that such a phrase is also commonly used in large-scale reference. According to my consultants a phrase like *'i uta 'oa atu* is an expression of ultimate distance. Note that *'i*-marked *uta 'oa atu* has to be distinguished from *'ina* modified *uta 'oa atu*. The latter construction type does not express ultimate distance due to the meaning contribution of *'ina* ‘a little’ (see [6.149]).

4.3. *'Ina ‘a little’-constructions*

The prenuclear modifier *'ina* ‘a little’ is only attested in locative constructions in which local nouns function as lexical head. Local nouns modified by *'ina* do not occur with prepositions, but they always occur with *mai* ‘hither’ or *atu* ‘thither’:

Photo 13

- (6.152) *Te='a piha 'a i inu='ia 'i vaveka 'ina ko
 ART=Dem cow be.not TAM drink=Perf LD middle a.little across
 atu~ ok.
 DIR ok*
 ‘That cow does not drink in the middle, a little further across ~ ok.’ (FA-T/M-H-13: 062)

Photo 15

- (6.153) *Te 'ua o te pou 'i mua 'i'a te [te]
 ART two POSS ART post LD ront there ART ART
 haka=moe='ia atu i t=o=ia keo,
 CAUS=lie=Perf DIR DO ART=POSS=3.sg bottom
 'ina tai maiaea. (FA-T/M-H-15)
 a.little sea DIR PART*
 ‘The second post in front, there is the [the] positioning of its bottom, a little closer seawards towards me, isn’t it.’

Photo 8

- (6.154) *Me he mea ho'i hua heke='ia anaiho e tahi o 'atou mea'a 'ina mu'i 'oa atu te='a~ titahi puaka a'a.*
 like ART thing indeed ART.ana descend=Perf only NUM
 one POSS 3.pl but a.little behind far DIR
 ART=Dem ART.other pig Dem
 ‘As if they are indeed going down in one (group), but that~ the other pig is a little further behind.’ (FA-T/M-H-8: 072–073)

All my consultants rejected *'ina* ‘a little’-constructions if they were not modified by directional particles as well:

- (6.155) **'ina tai/ uta etc.*
 a.little sea/ inland
 ('a little sea(ward)')

'Ina-phrases therefore show the following construction pattern:

- (6.156)
 'ina – local noun – ('oa)-mai/atu

The lexical meanings of the local landmark nouns *tai* ‘sea’, *uta* ‘inland’ etc. are, unlike *kapai* ‘seaward’ and *kauta* ‘inlandward’, not inherently directional and therefore need a directional particle in *'ina*-constructions in order to get a directional reading. Moreover, the crucial element, the locational-directional preposition *'i* is lacking in *'ina*-constructions which mark local landmark nouns such as *tai* ‘sea’ and *uta* ‘inland’ with respect to location or goal/direction, and thus the modifications by directional particles.

There are seemingly a number of locative constructions with a prepositional *'ina*, but without a modifying directional particle. In these examples *'ina* seems to function as an existential verbal meaning ‘be there’, but not as a modifier in the meaning of ‘a little’ (see [6.157–58]):

Photo 9

- (6.157) *Te keke me uta o te='a ko'oka e tata'eka po 'ina vaveka o te mea o te='a tumu 'akau.*
 ART side with inland POSS ART=Dem trough TAM close
 INTENS be.there middle POSS ART thing POSS ART=Dem trunc
 wood

'The inland side if that trough, it is very close, it is there (at the) middle of the thing, of that tree.' (FA-T/M-H-9)

Photo 14

- (6.158) *Mo'i 'i mu'i, ma tai 'ina keke 'i mua nei
 PROHIB LD behind PREP sea be.there side LD front Dem
 hua [hua] ko'oka.* (FA-T/M-H-14)
 ART ART trough
 'Don't (put it) behind, seaward (of it), that [that] trough is there
 (at the) side here in front.'

Moreover, *'ina* in (6.157–58) cannot be the modifier meaning 'a little' because local nouns which are modified by *'ina* 'a little' cannot take possessive attributes. *'Ina*-constructions only occurs with those local nouns which can refer to a directional movement. Most *'ina*-constructions function as predicates.

4.4. Summary

Toitoi 'real, genuine', *'oa* 1. 'long, 2. EMPHATIC', *haka'ua* 'again' and the diminutive *'ina* occur in locative constructions. These modifiers also occur in constructions with common full words and verbals.

Toitoi often disambiguates between a relative and intrinsic frame of spatial reference. Whereas a construction like *ma mua o te puaka* 'in front of the pig' can be ambiguous either meaning 'in front of the pig (from the speaker's perspective)' or 'at the pig's frontside', modification by *toitoi* 'real, genuine' indicates that the locative construction is used within the intrinsic frame of spatial reference.

'Oa can indicate a greater distance between two objects, but it can also be used as an emphatic marker. Those two meaning differences mostly occur in distinct construction types. When used as an emphatic marker, *'oa* mostly co-occurs with *nei* 'here'. In *'ina*-constructions *'oa* expresses distance, whereas in *ma*-possessive constructions *'oa* functions as an emphatic particle.

The diminutive *'ina* 'a little' in locative constructions is only attested with local nouns. When modified by *'ina*, which is always preposed to the lexical head, the local noun is always postpositioned by the directional particle *mai* or *atu*. *'Ina*-constructions are lexical phrases which are often used in predicative function.

5. Expressing different degrees of distance in locative constructions

Figure 31 and 32 depict the distance scale in large-scale and small-scale reference, illustrated with the local landmark noun *tai* ‘sea’.

1. Large-scale reference:

<i>'i tai nei</i>	\Rightarrow	<i>'i tai a'a</i>	\Rightarrow	<i>'i tai</i>	\Rightarrow	<i>'ina tai 'oa</i>	\Rightarrow	<i>'i tai 'oa</i>	\Rightarrow	<i>'i tai 'oa atu</i>
(+ visible)		(+ visible)		(-/+ visible)		(- visible)		(- visible)		(- visible)

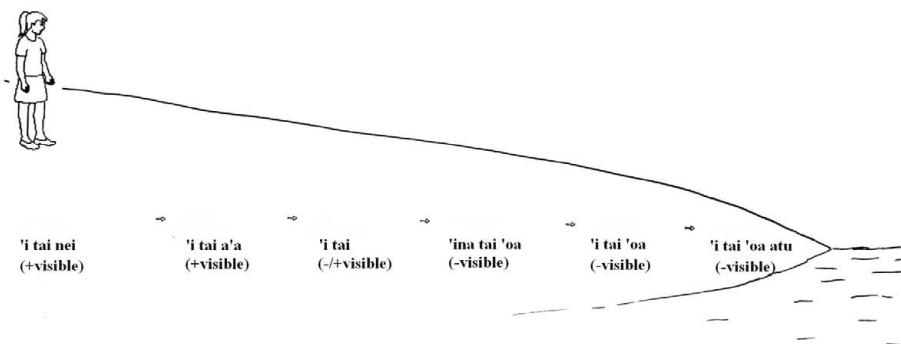


Figure 31. Distance scale in a valley

Apart from the phrase *'i tai a'a* ‘sewards over there’, the same scale of distance applies for small-scale reference. However, if the locative constructions are marked by the preposition *ma*, the scale of distance is expressed by different modifiers (see below). *Mai* ‘close to relatum’ and *atu* ‘further away from relatum’ are used instead of *nei* ‘here’ and *a'a* ‘there’:

2. Small-scale reference (=table-top space):

<i>ma tai/ma tai mai</i>	\Rightarrow	<i>ma tai atu</i>	\Rightarrow	<i>ma tai atu haka'ua</i>	\Rightarrow	<i>ma tai 'oa</i>
(1. theme)		(2. theme)		(3. theme)		(4. theme)

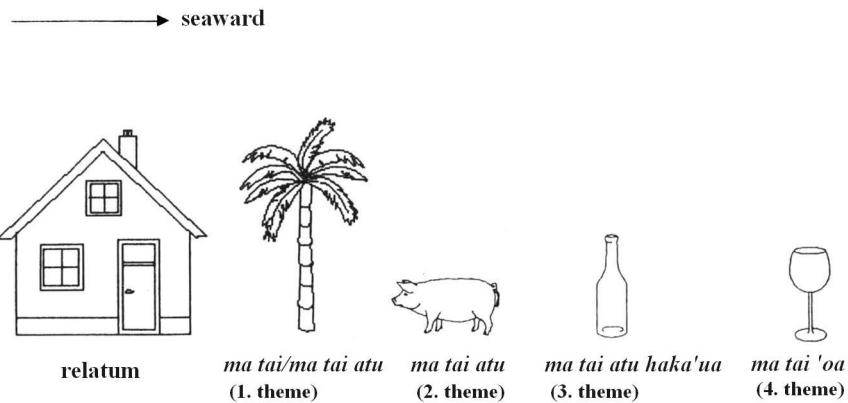


Figure 32. Distance scale in small-scale reference (=table-top space)

Ma-marked local nouns are rarely modified by '*oa*'. In small-scale reference the local nouns '*oto* 'inside', '*vaveka* 'middle, between', '*vaho* 'outside', '*uka* 'top, up' and '*a'o* 'down, underside' are not modified by '*oa*. However, when *vaho*, *uka* and '*a'o refer to places, they can be modified by '*oa* 'far'.*

Chapter 7

Usage of locative constructions in large-scale and small-scale reference

1. Introductory remarks

In this chapter I want to discuss the various uses of locative constructions in large-scale and small-scale reference. I will begin with a description of some locative constructions in large-scale reference, before turning to spatial configurations on the small-scale level which includes a discussion of topological relations and the usage of locative constructions in the various frames of spatial reference.

In the subsection describing so-called topological relations (see this chapter, § 3.5) I focus in particular on how CONTAINMENT- and HANGING-relations are expressed in N-MQA. I observed considerable differences between age groups and I therefore present the data with respect to three different age groups. This will also demonstrate how rapidly linguistic encodings of spatial relations have changed within the time span of two to three generations.

In chapter 5 and 6 I also discussed how locative constructions are used, but the data was only described in relation to the semantic and syntactic interaction between the lexical head and other units of a construction. In this chapter I present the usage of locative constructions with respect to current psycholinguistic theories of language and space research (e.g. frames of spatial reference). A clear distinction between large-scale and small-scale reference is made because the three major classes of ‘spatial lexemes’, i.e. place names, local nouns and body-part terms, can be used on both scales.

2. Large-scale reference

The following local landmark nouns, local nouns and body-part term are used on a large-scale referential level:

Local landmark nouns and other local nouns:

(7.1)

<i>tai</i>	'sea'
<i>uta</i>	1. 'inland', 2. 'shore, land'
<i>ko</i>	'left or right side of valley'
<i>'uka</i>	1. 'up', 2. 'upstream'
<i>'a'o</i>	1. 'down', 2. 'downstream'
<i>'oto</i>	1. 'inside', 2. 'bay'
<i>vaho</i>	1. 'outside', 2. 'ocean'

Body-part term:

<i>tua</i>	1. 'back', 2. 'other side (invisible)'
------------	--

Place names are, of course, also used in large-scale reference. They are not listed here because their class is extensive. The local nouns *mua* 'front', *mu'i* 'behind', *hope* 'behind, hidden' and *vaveka* 'middle, between' are not used in large-scale reference.

When the local nouns listed in (7.1) are used in large-scale reference, they refer to places of the local environment and therefore are (normally⁴⁶⁰) not constructed with possessive attributes. They can be marked by the prepositions *i*, *ma* and *mei* and they are often modified by demonstratives. When referring to dynamic configurations they can also be modified by directional particles (see ch. 6, § 2.2.2.1).

The description of the usage of locative constructions in large-scale reference is mainly divided in two parts. The first part describes the usage of those locative constructions which refer to (more sporadic) places within the local environment (section 2.1). These locatives are not used within an absolute frame of reference, i.e. they are not used as directionals like *tai* 'sea' and *uta* 'inland'. The second part describes the usage of those locatives which are used in an absolute frame of reference (section 2.2). In large-scale reference there are two distinct 'systems of spatial orientation' used in the '*Ua Pou* vernacular, namely one which refers to places within a valley (e.g. the 'sea'-place, the 'inland'-place [section 2.2.1]), and one which is used for navigation on sea (section 2.2.2).

2.1. Places on land and on sea

2.1.1. 'Oto 'bay' and vaho 'ocean'

The local nouns listed in (7.1) are polysemous. Only the second meaning of '*oto*' and '*vaho*' is used in large-scale reference. The usage of '*oto*' in the meaning of 'bay' is a metaphorical use of the basic meaning of 'inside', and likewise the usage of '*vaho*' 'ocean'. These uses are of a metaphorical nature because the relationship between island and ocean is viewed as a relationship of containment ('*oto* 'bay=inside ⇒ part of the island') vs. non-containment (*vaho* 'ocean=outside ⇒ not part of the island'). '*Oto* 'bay', '*vaho* 'ocean', '*uka* 'upstream' and '*a'o* 'downstream' are particularly used for places and navigation on sea when e.g. localising fish banks or indicating a travelling direction (Lavondès 1983: 38).

'*I*-marking of '*oto* 'bay' and '*vaho* 'outside' express location or goal and '*mei*-marking source:

- (7.2) *Ua kau 'i 'oto 'io he henua, u haka='oko i te 'i'i o te au mei 'oto: 'a'e he mea, ua mate te au o Pukoka. Atahi 'a tau 'i 'oto.*
 TAM swim LD bay PREP ART land TAM CAUS=hear DO ART force POSS ART current from bay be.not ART thing TAM dead ART current POSS P. then TAM arrive LD bay
 '(He) swam towards the bay, towards the land, he listened to the force of the sea current from (inside) the bay: it was not there anymore, the sea current of Pukoka was dead. Then (he) arrived at the bay.' (Lav-U/N: 279–280)
- (7.3) *Ia tihe te au, noa atu ua tata te au 'i uta, ua toi te au 'i vaho 'i te moana.*
 TAM arrive ART current although TAM approach ART current LD inland TAM pull ART current LD outside,ocean LD ART ocean
 'When the current arrived, although the current was approaching inland, the sea current was pulling it outside, to the ocean again.'
 (Lav-U/N: 277)
- (7.4) *'A'e tihe, ua toi te au o Pukoka 'i vaho.*
 be.not arrive TAM pull ART current POSS P. LD ocean
 '(He) did not arrive, the sea current of Pukoka pulled (him) onto the ocean.' (Lav-U/N: 272)

- (7.5) *U pe'au Tua'aveni me Tua'aveno: " 'A hoe te vaka
 TAM say T. and T. TAM row ART canoe
 'i vaho." (Lav-T/H: 250)*
 LD outside
 'Tua'aveni and Tua'aveno said: "Row the canoe onto the ocean."

2.1.2. 'Uka 'up' and 'a'o 'down'

'Uka and 'a'o are also polysemous local nouns (see ch. 5, § 6.3.2). However, unlike 'oto and vaho they can be used in both meanings on the large-scale as well as on the small-scale referential level. In the meaning of 'up' and 'down' 'uka and 'a'o can refer to places within the local environment of a valley. 'I-marked'uka often refers to places in the upper part of the valley or to a place in the mountains. Likewise, 'i-marked 'a'o 'down' refers to the lower part of a valley or to the place by the shore or sea. Thus, 'i-marked 'a'o and 'uka are used instead of 'i-marked tai 'sea' or uta 'inland':

- (7.8) *Ua tihe 'io he ava 'i 'uka. (Lav-T/H: 091)*
 TAM arrive PREP ART passage LD up
 '(He) arrived at the passage up in the mountains.'
- (7.9) *U pe'au Tua'aveni 'i t=o ia hoa: " 'A koe e
 TAM say T. LD ART=POSS 3.sg friend be.not 2.sg TAM
 hiti 'i uta?" (Lav-T/H: 321)*
 go.up LD inland
 'Tua'aveni said to his friend: "Isn't it you who is going up inland?"
- (7.10) *U a'ahi Hina ia Te'akimauuii tihe 'i 'a'o.
 TAM accompany H. DO T. arrive LD down
 'Hina accompanied Te'akimauuii and (they) arrived below (=by the sea).' (Lav-U: 183)*
- (7.11) *U pe'au ia ia: " Mea meita'i, e tu'u tama,
 TAM say DO 3.sg STV-P good VOC my child
 e heke koe 'i tai 'io t=o hoa 'io Hekei."
 TAM go.down 2.sg LD sea PREP ART=POSS friend PREP H.
 '(He) said to him: "It's good my child, descend seawards to your friend to Hekei.'" (Lav-T/H: 177)*

'I'uka ‘up in the mountains’ and *'i 'a'o* ‘down by the shore’ are not lexicalised meanings of *'uka* and *'a'o*, but they are readings which are derived by contextual factors, linguistic and extra-linguistic alike. Not all usages of *i*-marked *'uka* and *'a'o* refer to the ‘mountain’ or the ‘shore’ place. In (7.13) *'i 'a'o* cannot mean ‘by the shore’ because it is very unlikely to cut grass by the shore. *'Uka* and *'a'o* always have to be interpreted relative to the deictic center which can be the speaker or protagonist of a narrative, meaning ‘further down below from where I am’:

- (7.12) *Ua uku i 'a'o 'io he vai ...*
 TAM dive LD down PREP ART water
 ‘(He) dived to the bottom of the water...’ (Lav-U/N: 244)

- (7.13) *Mea 'oa u pe'au Hina i te vahana: "O'io'i e iho taua i 'a'o i te 'eita vave'e."*
 STV-P long Perf say H. LD ART husband tomorrow TAM go.down 1.dl.incl LD down LD ART grass weed,cut
 ‘After a long time Hina said to the husband: “Tomorrow we both are going down in order to cut the grass.”’ (Lav-U: 205)

I-marked *'a'o* often co-occurs with the motion verbal *ihō* ‘go down’ (see [7.13]). *Ihō* which also functions as a directional particle referring to downward movement on the vertical axis, cannot occur with the local landmark noun *tai* ‘sea’ (**ihō i tai* ‘go down seawards’). The motion verbals *heke* ‘descend’ and *hiti* ‘ascend’, on the other hand, can co-occur with *'uka* ‘up’ (*hiti i 'uka* ‘ascend up’) and *'a'o* ‘down’ (*heke i 'a'o* ‘descend down’), but they typically occur with the local landmark nouns *tai* ‘sea’ (*heke i tai* ‘descend seawards’) and *uta* ‘inland’ (*hiti i uta* ‘ascend inland’).⁴⁶¹

When the local nouns used in large-scale reference are marked by the preposition *ma* the locative construction often expresses ‘unspecific location’:

- (7.14a) *T=o 'atou vaka o te='a po'i mei te='a keke ma 'a'o mai ana te avai, ...* (Nar-Hak-N-1)
 ART=POSS 3.pl canoe POSS ART=Dem people from ART=Dem side PREP down DIR Dem ART leave
 ‘Their canoe of those people from that side, they left (their canoe) somewhere below here.’ (lit. ‘... the leaving was somewhere down here’)

- (7.14b) *I hea Teiki? – Ena ma 'uka a'a.* (E-Mo-99)
 LD where T. exist PREP up Dem
 ‘Where is Teiki? – (He) is somewhere up there.’

Some occurrences of *ma*-marking indicate that the place is a vast or large area (see [7.15]):

- (7.15a) *Mea nui te mako ma 'uka a'a.* (E-Mo-98)
 STV-P many ART mango PREP up Dem.there
 ‘There are many mangos all along upper-region there.’

The same usage can be observed with *ma*-marked local landmark nouns:

- (7.15b) *'A'e he manu haka'ua ma tai nei.* (Lav-U: 154)
 be.not ART bird again PREP sea Dem.here
 ‘There are no birds anymore all along the seaward-region.

2.1.3. The body-part term *tua* ‘back’

The body-part term *tua* ‘back’ is occasionally used to refer to a place. In this occurrence *tua* is used without an article and is marked by the prepositions *i* or *ma*:

- (7.16) *I tihe ai t=o ia ma'akau i te hana i tupu i na po 'omua i tua mai i Hatihe'u.*
 TAM arrive ANA ART=POSS 3.sg thought LD ART work TAM happen LD ART.PL day once LD back DIR LD H.
 ‘His thoughts arrives at the events which took place once upon a time at the other side of the island at Hatihe'u.’ (lit. ‘... at back hither⁴⁶² ...’) (Kim-4)

The reason why the body-part term *tua* ‘back’ does not occur with an article in these constructions might be due to the fact that it refers to a place. *Tua* ‘back’ often refers to places which are invisible to other people, such as the ocean, a bay invisible from the point of the speech participants, or to the other side of the mountain in a particular valley. Note that in (7.17–18a) *i* expresses that ‘the other side of the mountain’ is the goal, whereas *ma* expresses unspecific location in (7.18b) in the sense of ‘along the back of the mountain’:

- (7.17) *E he'e au 'i te avaika 'i tua.* (E-Ta-99)
 TAM go 1.sg LD ART fishing LD back
 'I am going fishing out to the ocean⁴⁶³/to a place which you cannot see from where we are now.'
- (7.18a) *E he'e au 'i te 'ehi vahi 'i tua.* (E-Ti-99)
 TAM go 1.sg LD ART coconut break LD back
 'I am going to do copra at the other side of the mountain.'
- (7.18b) *Ua vahi au i te 'ehi ma tua* (E-Ti-99)
 TAM break 1.sg DO ART coconut Prep back
 'I went to do copra all along the other side of the mountain.'

Using *tua* for places which cannot be visually perceived is in fact a metaphorical use of the body-part term *tua* 'back, spine'. This semantic derivation of the meaning of 'invisible location' comes from the notion of our own body: the back is what we cannot see and therefore invisible and hidden.

2.1.4. Summary

In the previous subsections it was shown how the local nouns '*oto* 'inside'', *vaho* 'outside', '*uka* 'up' and '*a'o* 'down' and the body-part term *tua* 'back' are used to refer to places on LAND and on SEA. The local nouns *vaho* 'outside' and '*oto* 'inside' are used to refer to places on SEA. '*I vaho* 'on the ocean' or '*i oto* 'in the bay' are metaphorical uses of the local nouns *vaho* 'outside' and '*oto* 'inside' because the contrast between OCEAN and BAY is conceived as a relationship of CONTAINMENT vs. NON-CONTAINMENT.

The local nouns '*uka* 'up' and '*a'o* 'down' are often used to refer to places in the upper or lower part of a valley. However, it was shown that 'upper part of valley, in the mountains' or 'lower part of valley, by the sea' are not lexicalised meanings of '*uka*' and '*a'o*', but they are derived by linguistic and extra-linguistic contextual factors.

The body-part term *tua* 'back' is occasionally used to refer to locations which are invisible for the speaker. The usage of *tua* 'back' to refer to an 'invisible location' comes from the notion of our own body because the back is normally that part of the body which we cannot see. In many languages (e.g. German, English),⁴⁶⁴ locatives expressing the 'back'-region of

an object are often associated with being ‘invisible’ or ‘hidden’ (see ch. 4, § 5). Thus, speakers of different languages have similar spatial conceptions which have probably evolved independently from each other.

2.2. Systems of spatial orientation in large-scale reference

The 'Ua Pou vernacular has two distinct reference systems for spatial orientation within their environment. The usage of one system is limited to the boundaries of a single valley (see this chapter, § 2.2.1), whereas the other system is used for navigation around the island, on sea and for interisland navigation (Lavondès 1983; see this chapter, § 2.2.2). Both orientation systems serve as a cognitive overhead for the absolute system(s) of the 'Ua Pou vernacular.

The within-valley-system is based on the most salient features of the local environment, namely on the contrast between SEA and LAND. In Oceanic languages one often finds 'grammaticalised forms' for SEA and LAND which “are the most striking examples of non-universal locative adpositions” in Oceania (Bowden 1992: 57). According to Bowden these locatives are used because they serve crucially important functions in the daily lives of a speech community’ (Bowden 1992: 57). Being situated in the vast Pacific ocean, it is therefore no surprise that not only the LAND, but also the SEA play a crucial role in their daily lives of Marquesans because the SEA is one of the main sources of their daily diet and the most common way of travelling from one location to another.

In section 2.2.1 it is described in detail how the within-valley-system is used. Two aspects are interesting with respect to the within-valley-system: the word for LAND is polysemous, and the word for SEA has quite different morphosyntactic properties than the other local landmark nouns used in this system. Moreover, it will also be shown that this system is only based on one real landmark, namely the SEA.

The second system of orientation is used for navigation on sea (see this chapter, § 2.2.2). Contrary to Lavondès (1983) who analyses this system in the 'Ua Pou vernacular as being based on prevailing trade winds which correspond to a cardinal EAST/WEST-axis, my data and research suggest that the system is based on local and equatorial sea currents and that this system can be classified as a local landmark-based system.

2.2.1. Spatial orientation within a valley

Within a valley speakers of Marquesan use a system of two fixed axes. The within-valley-system has one main axis, namely the SEA/INLAND-axis, and one orthogonal axis to the main axis which is lexically undifferentiated and labelled at both ends of its coordinate by *ko* ‘left or right side of a valley’. I will gloss *ko* ‘left or right side of a valley’ henceforth as ‘across’:⁴⁶⁵

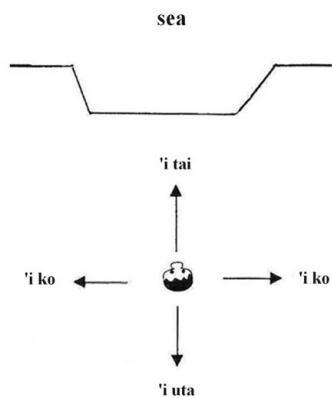


Figure 33. Orientation axes in a Marquesan valley

In large-scale reference, the left or right side of a valley is often differentiated by modifying ‘*i ko*’ with the demonstratives *nei* ‘here’ and *a'a* ‘there’:

‘*i ko nei* ‘side of the valley where the speaker is’
 ‘*i ko a'a* ‘other side of the valley’.⁴⁶⁶

The within-valley-system is a local landmark-based system whose axes (i.e. SEA/INLAND- and ACROSS-axes) do not maintain a fixed direction outside the local valley. Thus they are fundamentally different from cardinal direction systems⁴⁶⁷ because the direction of the SEA/INLAND-axis constantly changes when one circumnavigates the island:

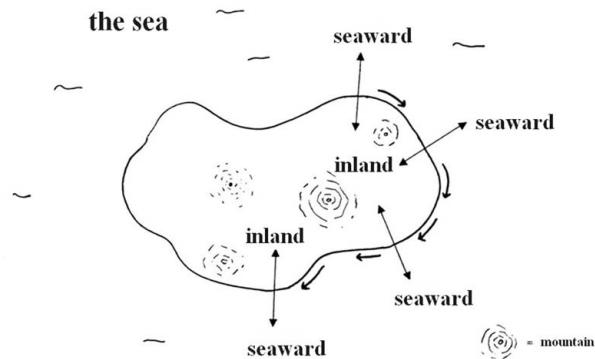


Figure 34. Non-cardinal SEA/INLAND-axis around an island

The within-valley-system can be used as long as the topographical contrast between the SEA and the LAND exists. This system should be fallible outside its local territory, i.e. when speakers are deprived of this SEA/LAND-contrast when living on a mainland and distant from the sea (Levinson 1992: 15).

Any Marquesan valley is partitioned into four quadrants or regions, namely a 'sea'-region, an 'inland'-region and two 'across'-regions:

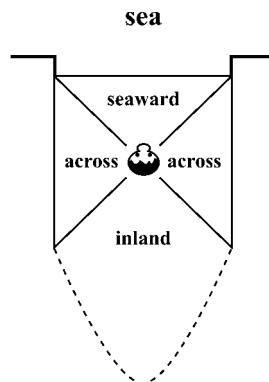


Figure 35. Quadrants within a valley

These quadrants or regions are considered to be places and when referring to these places *tai* 'sea', *uta* 'inland' and *ko* 'across' can be marked by

i, ma, mei and occasionally by presentative *o* (e.g. *o tai te'a* ‘that is the sea-region’).⁴⁶⁸

Although we seemingly have two salient landmarks, namely SEA and LAND, the Marquesan within-valley-system is only based on one real landmark, namely the SEA. This is reflected in the language system in two ways: 1) the local landmark noun *tai* ‘sea’ can be distinguished from *uta* and *ko* on the basis of a number of morphosyntactic properties, and 2) the local landmark nouns *uta* and *ko* do not denote real landmarks, but regions or quadrants of a valley which have been derived by ‘imposing a geometrical order on the environment’.⁴⁶⁹ The etymology of *ko* suggests that *ko* does not designate a local landmark (see this chapter, § 3.3). The different uses of *uta* show that *uta* is polysemous meaning ‘inland’ as well as ‘shore’. The etymology of *uta* in Polynesian languages suggests that its primary meaning was probably ‘shore, land’ (Clark 1976: 55). Although Clark glosses PPN *‘*uta*’ as ‘shore’ as well as ‘inland’ we can assume that the primary meaning of *uta* was ‘shore’ and not ‘inland’ and that the directional meaning of ‘inland’ is derived from the primary meaning of ‘shore’ by a process of semantic narrowing when these absolute systems were first evolving. Other researchers (see Lavondès 1983: 37) have suggested that N-MQA *uta* means ‘mountain-side’, thus being based on the landmark MOUNTAIN. Due to the Marquesan topography there are good reasons to believe that the gloss ‘mountain-side’ is not appropriate. A typical Marquesan valley is surrounded by mountains and therefore the ‘across’-regions can also be characterised as ‘mountain-side’. Moreover, the Marquesas islands do not have one central mountain, but rather consist of several high mountains (e.g. ‘Ua Pou island) or mountain ridges (e.g. Fatu Iva). *Uta* in the meaning of ‘inland’ does not denote a real landmark, but only the ‘inland’-region of a valley which is somehow derived in relation to the real landmark SEA by being the opposing region to the ‘sea’-region. Although we have to say that *uta* ‘inland’ does not denote a real landmark, the ‘inland’-region is, however, perceptually salient because the land steeply rises from the shore towards the interior of the island and therefore it can be easily conceptualised as a distinct region from the ‘sea’-region. We can at most say that the ‘inland’-region functions like a quasi-landmark, i.e. it is a perceptually salient region of Marquesan valleys, but the etymology of the locative does not suggest that *uta* ‘inland’ denotes a real landmark.

In the following I show how *tai* ‘sea’ is distinguished from *uta* and *ko* by its morphosyntactic properties. This is followed by a description of the different uses of *uta*. In large-scale reference *tai* ‘sea’ often shows the same

morphosyntactic properties as common full words. *Tai* ‘sea’ can occur with an article and it can also be marked by prepositions other than the locative case-markers *i*, *ma* and *mei*. For instance, *tai* occurs frequently with the preposition *'io*, and occasionally with *no*:

- (7.19) *Ia oko nui te koea o te tuehine ua*
 TAM strong very ART crazyness POSS ART sister TAM
hano haka=mate ia ia 'io he tai. (Lav-E: 123)
 go CAUS=dead DO 3.sg PREP ART sea
 ‘When the crazyness of the sister became too strong, (he) went and killed her on the sea.’
- (7.20) *Ua topa te vaka o Hekei 'io he tai.*
 TAM fall ART canoe POSS H. PREP ART sea
 ‘Hekei’s canoe was let onto the sea.’ (Lav-T/H: 132)
- (7.21) *Ua rere hua vehine, 'io he tai te ka'o='ia*
 TAM flee,escape ART woman PREP ART sea ART disappear=Perf
atu. (Lav-U: 192)
 DIR
 ‘That woman escaped, the disappearance was on the sea.’
- (7.22) *I titahi 'a, u pe'au Hekei ia Tuohe:“ E hoa,*
 LD ART day TAM say H. DO T. VOC friend
'a'e koe e hei no he tai, e iko a mo'i t=o
 be.not 2.sg TAM right for ART sea TAM name girl ART=POSS
koe, 'a hua koe 'i uta.” (Lav-T/H: 013)
 2.sg TAM return 2.sg LD land,inland
 ‘One day, Hekei said to Tuohe:“My friend, you are not made for the sea, you have a girl’s name, go back to the land.”’

In other occurrences it can also occur as the ‘possessor’ of noun phrases (see [7.23]), in noun incorporated constructions (see [7.24]) and as a subject noun phrase in clauses with state verbals (see [7.25]):

- (7.23) *I te va'a='ia 'i tai, 'i te taha o te tai.*
 LD ART wake.up=Perf LD sea LD ART walk POSS ART sea
 ‘When (he) woke up by the sea, on the beach.’
 (lit. ‘... on the walking of the sea’) (Lav-U: 066)

- (7.24) *E he'e au 'i te tai kau-kau.* (E-Ti-97)
 TAM go 1.sg LD ART sea RED-swim
 'I am going swimming in the sea.' (lit. '...to the sea-swimming')
- (7.25) *Ua mate te tai.*
 TAM dead ART sea
 'The sea is calm.'

Like other common full words *tai* occurs in compound constructions such as *tahatai* 'beach', *pa'atai*⁴⁷⁰ 'salt', *tai heke* 'tide out' (lit. 'sea descend'), *tai hiti* 'tide in' (lit. 'sea ascend'), *ka'u tai* 'wave' (lit. 'debris sea') etc.. When *tai* is used as a common full word it can also mean 'salt water':

- (7.26) *Kavohi te ika me te tai.* (E-Ma-98)
 mix ART fish with ART salt.water
 'Mix the fish with salt water.'

Due to the morphosyntactic properties in the above occurrences of *tai* 'sea', *tai* is difficult to classify because it shares the morphosyntactic properties with local nouns as well as common full words. *Tai* 'sea, salt water' is therefore an example of a mixed word class classification sharing properties with local nouns as well as common full words.

The other two local landmark nouns of the within-valley-system, i.e. *uta* 'land, inland' and *ko* 'left or right side of valley' cannot be used in the same way as *tai* even when they are used in large-scale reference to denote a place:⁴⁷¹

- (7.27a) *Ena te ha'e *'io he uta.*
 exist ART house PREP ART inland
 ('There is a house at the inland region'.)
- (7.27b) *Ena te ha'e *'io he ko.*
 exist ART house PREP ART across
 ('There is a house at the across region')

Instead speakers of Marquesan say:

- (7.28) *Ena te ha'e 'i uta/ 'i ko.*
 exist ART house LD inland LD across
 'There is a house at the inland/across-region.'
- (7.29) *'I uta t=o 'aua noho.* (Lav-U/N: 116)
 LD inland ART=POSS 3.dl stay, live
 'They lived inland.' (lit. 'their stay is inland')

There is however a difference between '*i*-' and '*io*-marked *tai* 'sea'. '*I*-marked *tai* refers to the 'sea'-region or 'sea'-quadrant of a valley (which also includes the area close to the sea, i.e. the beach and the land close to the beach, but also the landmark SEA), whereas '*io*-marked *tai* can only refer to the landmark SEA. In other words: '*io* is used when the theme is in contact with the landmark or within its physical boundaries. Thus, (7.30a) means that there is a canoe in the 'sea'-region which could refer to the beach or to the area close to the sea, whereas (7.30b) can only get the interpretation that the canoe is in contact with the actual landmark SEA (i.e. being literally on sea), but not in the area close to the sea (e.g. on the beach):

- (7.30a) *Ena te vaka 'i tai.*
 exist ART canoe LD sea
 'The is a canoe in the sea-region. (e.g. on the beach)'
- (7.30b) *Ena te vaka 'io he tai.*
 exist ART canoe PREP ART sea
 'There is a canoe on the sea.'

Some consultants said that '*i*-marked *tai* could only refer to the region around the landmark SEA (i.e. the beach and its surroundings), but not to the sea itself. When one is actually in a canoe on sea and '*i*-marked *tai* is used, it refers to a direction ('go further seawards'), but not a place of the landmark SEA. For this reference, the speaker would have to use '*io*-marking.

We can conclude the following from this linguistic evidence: *uta* and *ko* do not denote real landmarks, whereas *tai* does. '*I*-marked *tai*, *uta* and *ko* refer to the regions or quadrants of a valley:

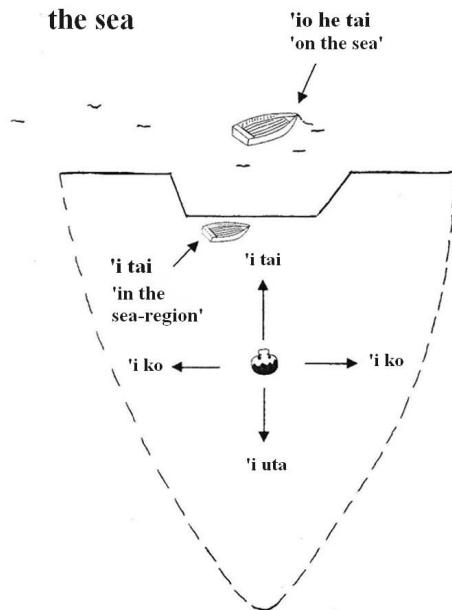


Figure 36. ‘Sea’-quadrant vs. landmark SEA

Table 37. *I*- and *io*-marking with local landmark nouns

	<i>tai</i> ‘sea’	<i>uta</i> ‘inland’	<i>ko</i> ‘across’
‘i-marking	+	+	+
	(‘sea-quadrant’)	(‘inland-quadrant’)	(‘across-quadrant’)
‘io-marking	+	–	–
	(landmark SEA)		

In large-scale reference *uta* is polysemous. It can refer to the ‘inland’-quadrant (=opposite region to the ‘sea’-region) as well as to the land or shore of the island regardless of the (fixed) direction of the ‘inland’-region or quadrant. For instance, when you are swimming in a bay, you can indicate your precise swimming direction by saying:

- (7.31a) *E kau nei au i uta/ i tai/ i ko.* (E-Ti-99)
 TAM swim Dem 1.sg LD inland LD sea LD left or right side of valley
 ‘I am swimming inland/ seaward/ towards the left or right side of the valley.’

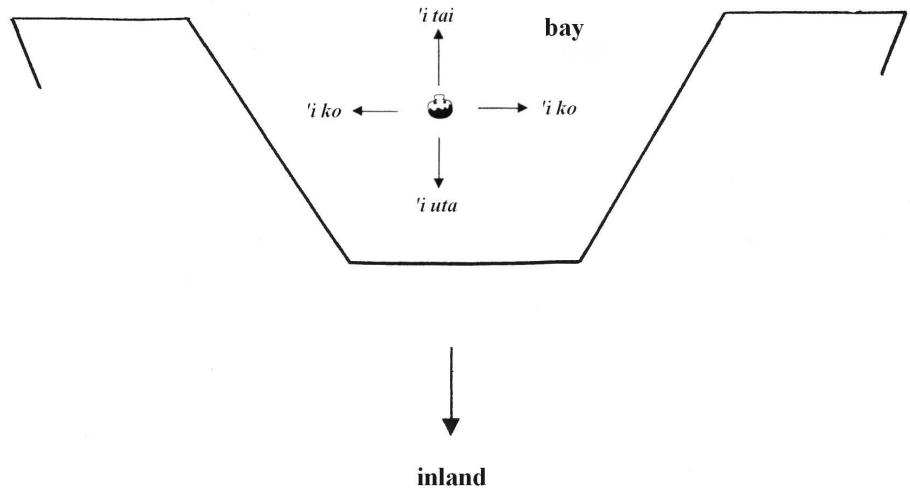


Figure 37. Swimming directions in a bay

But once you intend to swim ashore you would have to say

- (7.31b) *E kau nei au i uta.* (E-To-99)
 TAM swim Dem 1.sg LD land,ashore
 'I am swimming ashore.'

regardless of whether your swimming direction is in '*i uta-*' or '*i ko-*' direction.

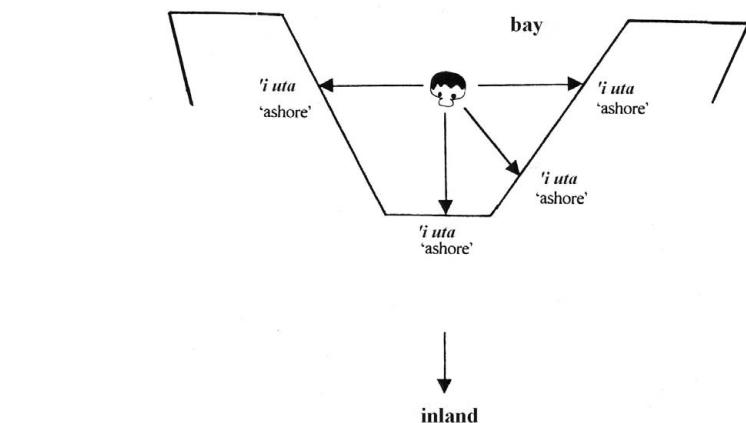


Figure 38. Swimming ashore

In other words: if the motion event is telic, i.e. if you intend to swim ashore, speakers use '*i*-marked *uta* even though you might be actually swimming in ACROSS-direction. We can conclude from this that *uta* has two meanings, namely 'shore'⁴⁷² and 'inland' of which the latter is probably the derived meaning. In the meaning of 'shore' *uta* can be regarded as denoting a real landmark which is contrasting to the landmark SEA, namely LAND. In the within-valley-system *uta* 'inland' (and also *ko* 'across') simply denotes a region in the valley which has been assigned by speakers when partitioning the valley into different quadrants.

Polynesian and Oceanic languages⁴⁷³ often have a word for 'inland' due to the fact that many Oceanic cultures are island populations. Some researchers attribute to these words a purely directional meaning⁴⁷⁴ (Hill 1997: 107). So, could we also interpret *uta* 'inland' as a directional in that *uta* 'inland' simply expresses the opposite direction to the landmark SEA? As for Marquesan, I will give linguistic evidence that *uta* can indeed mean 'inland'-region, and that constructions with *uta* get a directional reading when used in small-scale reference and that this is due to the abstraction of the scale of reference and not the lexical meaning of *uta*.

There is linguistic evidence that in the minds of the speakers *uta* can indeed mean 'inland'-region like *tai* can refer to the 'sea'-region: speakers refer to people living close to the landmark SEA as the sea-people, and to those who live further inland as the inland-people. Thus, there is a clear category of either belonging to the sea-people or the inland-people. Linguistically this is expressed by a lexicalised possessor construction. In this construction the general article *t-* and the inalienable possessive preposition *o* precede the local nouns *uta* and *tai*:

- (7.32) *O au t=o tai, e 'enana mana='ia.*
 PRES 1.sg ART=POSS sea TAM man powerful=Perf
 'I belong to the sea-people which are powerful man.'
 (Lav-T/H: 014)

- (7.33) *Te ture 'omua~ 'umo'i t=o uta heke 'i tai,*
 ART law once PROHIB ART=POSS inland descend LD sea
'umo'i t=o tai hiti 'i uta, ia hiti t=o
 PROHIB ART=POSS sea ascend LD inland TAM ascend ART=POSS
tai 'i uta kai te='a po'i mei uta ... t=o uta
 sea LD inland eat ART=Dem people from inland ART=POSS inland
ia tihe 'i tai ua kai t=o~ t=o tai.
 TAM arrive LD sea TAM eat ART=POSS ART=POSS sea

'The law in earlier times, the inland people were not allowed to descend to the sea-region, the sea people were not allowed to go up inland, if the sea people went up inland, the people from inland ate (them)... when the inland people arrived at the sea-region, the sea people ate (them).' (Conv-Fa-K71A)

The same kind of lexicalised possessor construction can also be found in Hawai'ian, though it seems to be more productive also occurring with other local nouns (see Elbert and Pukui 1979; Cook 1998).

The *to tai/to uta*-construction is a metonymical usage of the local landmark nouns in that they do not denote the places, but the people occupying these places. When location-denoting nominals are used metonymically, there is a constructional difference between place names and local landmark nouns. Place names can simply take the general article *te* (e.g. *te Hakama'i'i* 'the Hakama'i'i people')⁴⁷⁵ as well as the lexicalised possessor construction, whereas local landmark nouns can only occur in the possessor construction as shown in (7.32) and (7.33).

Referring to people by identifying them as either being sea-people or inland-people is evidence that in the mind of the speakers there is a regional division of the valley into a 'sea'-region and an 'inland'-region which is clearly illustrated in (7.33). Moreover, the 'sea'-region and the 'inland'-region have perceptually distinct salient features: the 'inland'-region being the upper part of a valley, and 'sea'-region the lower part of a valley, thus both regions are distinguished as belonging to either end of a slope.

The local noun *ko* 'left or right side of a valley' cannot be used metonymically to refer to the people living at the 'across'-regions, i.e. speakers do not use **to ko* to refer to the 'across-people'. People living at the 'across'-regions are either *to tai* 'sea-people' or *to uta* 'inland-people'. It is, however, not entirely clear where the exact boundary between the 'sea'-region and the 'inland'-region is. This probably varies from valley to valley. The geographical constitution of a valley could play a role: the part of the valley which is close to the sea and less steep is often conceptualised as the 'sea'-region whereas the steeper part of the valley is identified as the 'inland'-region.

Movement towards one of the quadrants is expressed by a set of motion verbals. There are three motion verbals which are associated with the SEA/INLAND- and ACROSS-axes, namely

- (7.34) *heke* 1. ‘descend, go down’, 2. ‘go seaward’
hiti 1. ‘ascend, go up’, 2. ‘go inland’
taha 1. ‘walk’, 2. ‘go across’

These verbals are not only verbals of motion which indicate movement along a certain path (i.e. *heke* ‘go down slope’ and *hiti* ‘go up slope’), but they are in fact also truly directional expressions: *heke* meaning ‘go seaward’, *hiti* ‘go inland’ and *taha* ‘go across’ (see in particular section 3.1.3).

However, *hiti* ‘ascend’ and *heke* ‘descend’ can be used for UP- or DOWN-movement on any slope regardless of whether the movement is in the direction of ‘sea’-, ‘inland’- or ‘across’-quadrants or not. This is for instance the case when going up or down the ‘across’-quadrant: in many Marquesan valleys the land does not only steeply rise towards the interior of the island, but also towards the ‘across’-quadrants. When speakers use *hiti* ‘go up’ and *heke* for UP- and DOWN-movement on the ‘across’-slopes, the goal cannot be expressed by ‘*i*-marked *ko* ‘across’, but has to be expressed by ‘*i*-marked *'uka* ‘up’ or ‘*a'o* ‘down’:

- (7.35a) **E hiti nei au 'i ko.* (E-Ta-98)
TAM ascend Dem 1.sg LD across
(*‘I am going up to the across-region’)

- (7.35b) *E hiti nei au 'i 'uka.* (E-Ta-98)
TAM ascend Dem 1.sg LD up
‘I am ascending up.’

Likewise, *hiti* ‘ascend’ cannot co-occur with ‘*i tai* ‘seaward’, and *heke* ‘descend’ cannot co-occur with ‘*i uta* ‘inland’, even when the slope of the valley might be ascending towards the sea, or descending towards the ‘inland’-area:

- (7.36a) **E heke nei au 'i uta.* (E-Ta-98)
TAM descend Dem 1.sg LD inland
(*‘I am going down inland’)

- (7.36b) **E hiti nei au 'i tai.* (E-Ta-98)
TAM ascend Dem 1.sg LD sea
(*‘I am going up seaward’)

A rich occurrence of *hiti* ‘ascend’ and *heke* ‘descend’ can be found in narratives and legends in which movement within a valley is expressed, i.e. on a large-scale level. *Hiti* and *heke* can occur without the expression of a Goal noun phrase:

- (7.37) *U pe'au te hoa: " 'A po-ponihō'o 'a mai 'a hi-hiti.*" (Lav-U/N: 016)
 TAM say ART other TAM RED-hurry.up TAM come TAM
 RED-go.up
 ‘The other one said:“Hurry up, come, (and) go up.”’
- (7.38) *U he-heke hua mou pakahio.* (Lav-U: 016)
 TAM RED-go.down ART PL/DL old.woman
 ‘These two old women went down.’

More frequently they occur with a goal noun phrase, but not necessarily with ‘*i*-marked *uta* ‘inland’ or *tai* ‘sea’:¹⁷⁶

- (7.39) *U hi-hiti na pakahio 'io te ha'e.*
 TAM RED-go.up ART.pl/dl old woman PREP ART house
 ‘The two old women went up to the house.’ (Lav-U: 086)
- (7.40) *I heke ai te kaka'a 'i te puta ha'e o hua mou pakahio,*
 TAM go.down ANA ART gecko LD ART hole house POSS ART
 PL/DL old.woman
 ‘When the gecko went down to the entrance of the house of the two old women,’ (Lav-U/N: 026)

One question which might now arise is whether or not the motion verbals in (7.34) express directionality in large-scale reference, in particular in those occurrences which do not express a goal noun phrase. As already elaborated in chapter 4, section 12, the expression of directionality is ambiguous on the large-scale referential level and the non-mentioning of a goal does not necessarily imply that the utterance gets a directional reading, as illustrated in (7.41):

- (7.41) *U pe'au te motua: " 'A hiti! " Ua hiti Te'akimauuii
 TAM say ART father TAM go.up TAM go.up T.
 tīhe 'i te tumu o te mouka.*
 arrive LD ART trunc POSS ART high.mountain

'The father said: "Go up!" Te'akimauiui went up (and) arrived at the foot of the high mountain.' (Lav-U: 155–156)

In other occurrences a directional reading rather than a destinative one is preferred:

- (7.42) *E aha'a 'a hiti anaiho taua ia avei atu me*
 well TAM go.inland just 1.dl.incl TAM meet DIR with
te hua'a. (Lav-H: 035)
 ART relatives,family
 'Well, if we two are just going inland then we will meet relatives.'

However, in some cases it is evident that the usage of *hiti* or *heke* is determined by the goal and not by the walking direction towards a particular quadrant (see ch. 4, § 12). For instance, if a person wants to go to the next village or valley s/he has to overcome a mountain ridge, i.e. s/he has to go up and down before reaching the goal because villages are situated by the coast. When Marquesans travel over land from one location to another they often use *heke* 'go down' instead of *hiti* 'go up'. Thus the choice of motion verbal is determined by the goal of the movement. The following example illustrates this usage. In (7.43) the speaker is in the neighbouring village of Anaho, namely in Hatihe'u, and in order to express that someone is going to Anaho, she uses the verbal *heke* 'descend', although one first has to go up to pass the mountain ridge before going down again:

- (7.43) *Pe'au 'oe ia Teiki: "Oo o au makimaki au e*
 say 2.sg DO T. INTJ PRES 1.sg desire 1.sg TAM
heke 'i Anaho." (K4B-T5: 12)
 descend LD A.
 'You say to Teiki: "Oh I want to go down to Anaho."

The usage of *hiti* and *heke* when navigating on sea (see this chapter, § 2.2.2) is also determined by the goal and not the actual travelling direction (see below).

Taha 'go across' is rarely used on a large-scale level.⁴⁷⁷ The rare occurrences of *taha* is probably due to the fact that the 'across'-regions are neither salient landmarks nor culturally important places.⁴⁷⁸ Although speaker occasionally refer to the 'across'-regions of a valley by using 'i-marked *ko*, the most important places within a valley remain to be the 'sea'- and 'inland'-regions. This is clearly evidenced in the fact that expressions refer-

ring to the ‘across’-quadrants are less frequently used than expressions referring to the ‘sea’- and ‘inland’-quadrants.

I will now turn to the system of spatial orientation which is used outside a valley, i.e. when navigating around and between islands on sea. This system is based on sea currents.

2.2.2. *Spatial orientation on sea*

For navigation on sea speakers of the 'Ua Pou vernacular systematically use the following local nouns and motion verbals:

Local nouns	Motion verbals
'uka 'up'	hiti 'go up'
'a'o 'down'	heke 'go down'

According to Lavondès (1983: 38) the ‘up’/‘down’-expressions which are used for navigation on sea are based on the prevailing east-southeast trade wind *Alizé*⁴⁷⁹ in the eastern part of the Pacific, blowing between 30° N (northern hemisphere) and 30° S (southern hemisphere). Due to the *Alizé* blowing constantly all year round from roughly eastern to western direction, Lavondès therefore assumes that the direction of the wind corresponds to a cardinal EAST/WEST-axis:

Il existe donc un autre système, valable pour l'ensemble de l'île et les déplacements maritimes. Le système comporte un axe orienté Est/Ouest et définissant deux directions, la direction Est appelée '*i 'uka* : «le haut», la direction Ouest appelée '*i 'a'o*: «le bas». L'axe perpendiculaire au précédent n'est pas nommé et il n'existe pas à ma connaissance de terme correspondant à '*i ko*. ... Quand une pirogue navigue vers l'Est, elle doit en effet remonter l'*alizé*. Naviguer vers l'Ouest est considéré en revanche comme aisé. (Lavondès 1983: 38) [There exists another system which is used (for orientation) around the whole island as well as for maritime travel. The system consists of an East/West-axis defined by two directions, the East direction is called '*i 'uka* 'up', the West direction is called '*i 'a'o* 'down'. A perpendicular axis was not named and to my knowledge there is no term which corresponds to '*i ko* When a canoe navigates towards the East, it has to go up against the *Alizé*. Navigation towards the West is considered, on the other hand, as easy.]

Lavondès describes *i 'uka* and *i 'a'o* as cardinal direction terms: thus, when one goes against the wind one is going UP (= *i 'uka*) which corresponds to eastern direction, and when one is going with the wind one is going DOWN (= *i 'a'o*) in western direction. With respect to interisland travel on sea this would mean the following: if you are going from the island of 'Ua Pou in the north-western part of the archipelago to the island of Hiva 'Oa in the south-eastern part you are going UP (= *i 'uka*), and when you are going from Hiva 'Oa to one of the three north-western islands you are going DOWN (= *i 'a'o*). *I 'uka* and *i 'a'o* are basically used in this way when navigating between the two island groups of the Marquesan archipelago:

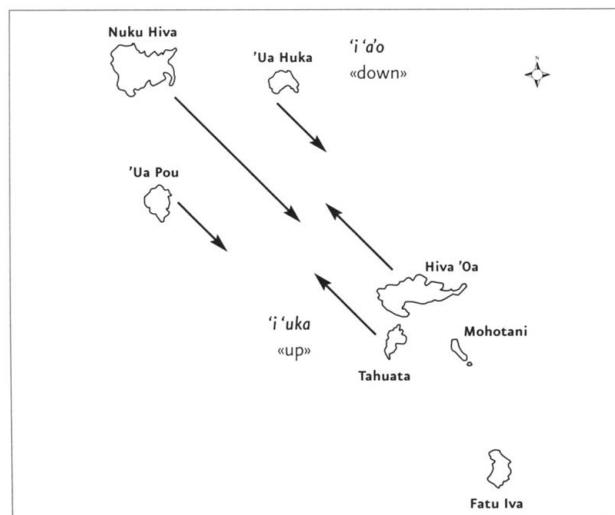


Figure 39. Interisland navigation between northern and southern group

- (7.44) *i 'uka* ‘up’ ⇒ ‘in direction of the southern group’ (Hiva ‘Oa, Tahuata, Fatu Iva)
i 'a'o ‘down’ ⇒ ‘in direction of the northern group’ (Nuku Hiva, ‘Ua Pou, ‘Ua Huka)

I 'uka and *i 'a'o* are always composed with the motion verbs *hiti* ‘ascend’ and *heke* ‘descend’:

- (7.45) *hiti i 'uka* ‘ascend UP’ (‘go up east’ [Lavondès 1983])
heke i 'a'o ‘descend DOWN’ (‘go down west’ [Lavondès 1983])

According to Lavondès the '*a'o/uka*-axis' is used for orientation on the whole island as well as for maritime travel. Lavondès gives examples for navigation between the islands or island groups (=interisland navigation), but he is not explicit of what he means by orientation on the whole island. He is not say whether this system is generally applied for inter- as well as intra-island navigation (i.e. navigation around one island) or not.

Although I could observe the same usage of '*i uka*' and '*i a'o*' for interisland navigation (see [7.44]), the usage of '*i uka*' and '*i a'o*' for navigation around the island of 'Ua Pou is not at all consistent with an EAST/WEST-axis based on prevailing winds. If '*i uka/i a'o*' indeed reflect a cardinal EAST/WEST-axis the usage of '*i uka*' should be constant with the south-eastern direction and '*i a'o*' with the north-western direction. However, this is not the case. The usage of '*i uka* 'up'' and '*i a'o* 'down'' for navigation around the island is based on equatorial sea currents as well as local sea currents. This was pointed out to me by several consultants. An equatorial sea current is coming from the north-east of the Equator and passes the Marquesan archipelago in south-western direction (Lewis 1994: 142).

The equatorial current which comes from the north-eastern island of 'Ua Huka is called *au heke* 'descending current' and passes the island of 'Ua Pou in south-western direction:

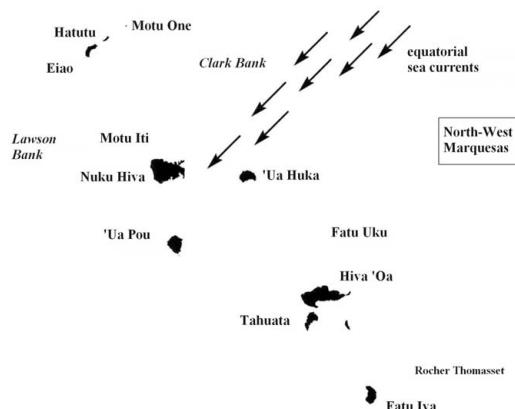


Figure 40. Passing equatorial sea currents (North-West Marquesas)

I'uka and *i'a'o* are used in the following way around the island of 'Ua Pou. When one goes from the northern village of Hakahau to all the valleys on the western part of the island (i.e. Hakahetau, Ha'akuti, Hakama'i'i and Hakata'o) one is going with the equatorial current (*au heke* 'descending [or eastern] current'). Thus speakers use *heke i'a'o* 'descend down'. Likewise when one is going from the villages on the western part to the northern village Hakahau one would use *hiti i'uka* 'ascend up'.

heke i a'o 'descend downstream'

Hakahetau/Ha'akuti/Hakama'i'i/Hakata'o ⇒ **Hakahau**
(= source) (= goal):

hiti i uka ‘ascend upstream’

'Upstream' therefore means that one is going '*against the sea current*', and 'downstream' means that one is going '*with the sea current flow*'.

The usage of *i 'uka* ‘upstream’ and *i 'a'o* ‘downstream’ is very consistent with respect to the principal village Hakahau towards the western part of the island and seems to be more or less based on the equatorial sea current coming from the north-east. However, local sea currents around the coast do not always flow in the same direction as the main equatorial sea currents. Thus the sea currents around the coast can change their directions, in particular when the land masses are prominently set off the island (see figure 41 below). This is for instance the case at mount *Heruru* which is situated at the west coast right by the valley of *Ha'akuti*. At this point the direction of the current flow along the coast changes to the opposite direction. This is due to a local current coming from south-west and flowing up to mount Heruru. It is at this point where the local current from the south-west joins the equatorial current from the north-east (see arrows in figure 41).⁴⁸⁰ Thus we have two different sea currents flowing in opposite directions and meeting at mount Heruru.

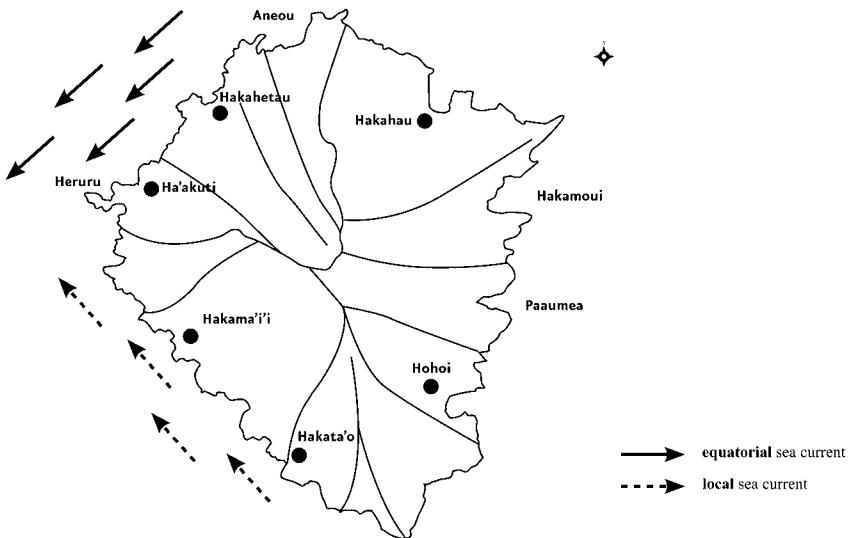


Figure 41. Equatorial and local sea currents around 'Ua Pou island

This change of sea current and flowing direction is also reflected in the usage of *i 'uka* ‘upstream’ and *i 'a'o* ‘downstream’. The crucial geographical point is therefore the valley of Ha'akuti which is right next to mount Heruru. In order to go from Hakahau and Hakahetau to Ha'akuti one is going DOWN. However, in order to go from Ha'akuti to Hakata'o one is going UP (and not DOWN) because the flowing direction of sea current has changed at mount Heruru.⁴⁸¹ If one travels from Ha'akuti to Hakahetau which is north of Ha'akuti, one is also going UP. So, from the valley of Ha'akuti one is traveling in northern (Hakahau, Hakahetau) as well as southern direction (Hakata'o) UP. In other words: the same construction, *hiti i 'uka* ‘ascend upstream’, is used for two opposite travelling directions when the valley of Ha'akuti is the source location:

Hakahau/Hakahetau (= source: ‘north of’) ⇒ *Ha'akuti* (= goal)

heke i 'a'o ‘descend downstream’

Ha'akuti (= source: ‘north of’) ⇒ *Hakata'o* (= goal)

hiti i 'uka ‘ascend upstream’

Ha'akuti (= source: ‘south of’) ⇒ *Hakahetau, Hakahau* (= goal)

hiti i 'uka ‘ascend upstream’

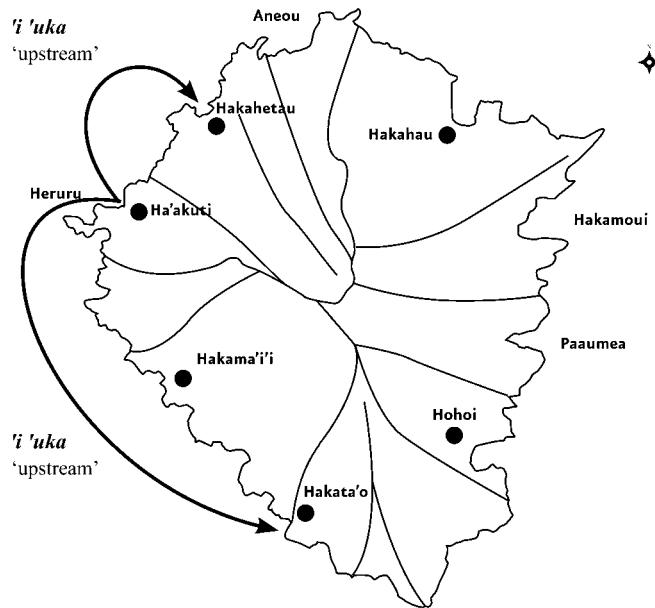


Figure 42. ‘Upstream’ from Ha’akuti

Although speakers of the 'Ua Pou vernacular seem to adopt their usage of *'i 'uka* ‘upstream’ and *'i 'a'o* ‘downstream’ to the actual flow of the sea currents, not all uses, however, correspond to the natural flow of the currents. In order to go from Ha’akuti to the valley of Hakama’i’i one actually goes against the sea current, thus ‘upstream’, but speakers express the travelling direction from Ha’akuti to Hakama’i’i as *heke 'i 'a'o* ‘going downstream’, although they are going against the flow of the sea current:

Ha'akuti (= source) ⇒ *Hakama'i'i* (= goal)
heke 'i 'a'o ‘descend downstream’

The travelling direction from Hakama’i’i to Ha’akuti is, on the other hand, adapted to the actual flow of the sea current, i.e. with the flow of the sea current, thus one is ‘going downstream’ to Ha’akuti:

Hakama'i'i (= source) ⇒ *Ha'akuti* (= goal)
heke 'i 'a'o ‘descend downstream’

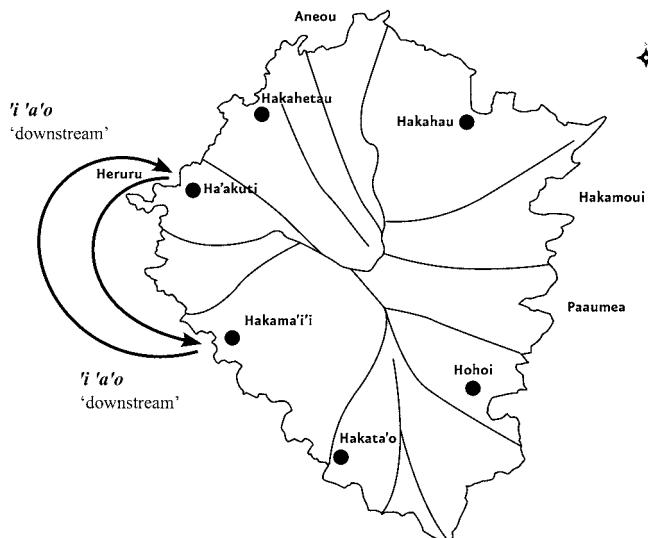


Figure 43. ‘Downstream’ to and from Ha’akuti

However, when travelling from Hakama’i’i to Hakahetau and Hakahau which are north of Ha’akuti, but in the same travelling direction as Ha’akuti (see figure 43 above), speakers use *hiti i’uka* ‘ascend upstream’ because after mount Heruru, right by the valley of Ha’akuti, the equatorial sea current from the north-east becomes dominant:

Hakama’i’i (= source) \Rightarrow *Hakahetau* (= goal)
hiti i’uka ‘ascend upstream’

Note that the use of *hiti i’uka* and *heke i’ao* in this system seems to be often determined by the goal. As for the travelling direction from Hakahau in the north to Hakama’i’i and Hakata’o in the south-west the choice of locative construction is, however, not determined by the goal because speakers use *i’ao*. If the goal would be the determining factor speakers should use *i’uka* instead because after mount Heruru, at Ha’akuti, the current changes (see figure 41). It is possibly that the dominance of equatorial sea currents over local sea currents play a role in the choice of locative.

The usage of *i’ao* ‘downstream’ when going from Ha’akuti to Hakama’i’i is in a way contradictory to my previous analysis,⁴⁸² but practicable from the point of view of the speakers of Ha’akuti. *I’uka* and *i’ao*

are also used to distinguish places of fish banks and as Marquesans mostly go fishing along the coast to either side of their valley, they need to distinguish those places linguistically. In the case of *Ha'akuti* where either side of the valley is objectively ‘upstream’, they simply distinguish both places by using the ‘upstream’ and ‘downstream’ names, whereas ‘upstream’ is the place in the direction of the more dominant equatorial north-eastern current. This is a simple, but necessary convention in language use because they need to distinguish opposing directions in order to be able to orientate themselves in their environment. The people of *Ha'akuti* only use UPSTREAM/DOWNSTREAM-system in large-scale reference to indicate a direction, a goal or ‘upstream’ or ‘downstream’ places along the coast. It is not attested that people use this system for small-scale reference when they are located in *Ha'akuti*.⁴⁸³

As for the usage of '*i 'uka* ‘upstream’ and '*i 'a'o* ‘downstream’ on the eastern part of the island, I had contradictory information of my consultants. Some claimed that one has to use *taha* when going from *Hakahau* in the north to *Hakamo'ui*, *Pa'aumea* and *Hoho'i* at the eastern side of the island. However, the majority of consultants say that one has use *hiti* '*i 'uka* ‘ascend upstream’. Apparently the equatorial north-eastern current coming from '*Ua Huka* is diverted at *Motu Mokohe* in the north-east of '*Ua Pou* and a local current coming from the opposite direction becomes dominant along the eastern coast, thus the usage of *hiti* '*i 'uka* ‘ascend upstream’.⁴⁸⁴ As for the inhabited valley of *Hoho'i* I have, unfortunately, less data and therefore do not precisely know how the UPSTREAM/DOWNSTREAM-system is used with respect to this valley.

We can conclude from this that the usage of '*i 'uka* and '*i 'a'o* for navigation around the island is based on sea currents and that this UPSTREAM/DOWNSTREAM-system is not a cardinal system, but functions like a local landmark-based system because the usage of '*i 'uka* and '*i 'a'o' change when the flow of the sea currents change.*

It is not entirely clear whether the '*uka*/*'a'o*-system for interisland navigation (see [7.44]), is based on the prevailing east-southeast trade winds, as proposed by Lavondès (1983), or whether the usage of '*uka* and '*'a'o* is based on the flowing direction of sea currents. I had somehow contradictory information of my consultants concerning the usage of ‘up’/‘down’-expression for interisland navigation.⁴⁸⁵

At the present stage it is not precisely known how the sea currents flow between the islands and the two major island groups.⁴⁸⁶ We know, however, that there are sea currents coming from the south-eastern part of the archi-

pelago flowing to the northern part and furthermore it is said that sea currents principally follow prevailing winds (Lewis 1994: 316). Thus there are probably two major sea currents⁴⁸⁷ at work when navigating within the Marquesan archipelago and speakers seem to have adopted their language use to these geophysical phenomena for orientational purposes.

The crucial and interesting aspect about these systems is that speakers adopt their language use to the environment when the geophysical phenomena are culturally important to their speakers (i.e. for navigation purposes), but speakers also seem to systematise their language use sensibly when nature fails to provide them with an environmental contrast, as shown in the case of the flow of sea currents at the valley of Ha'akuti.

2.2.3. Summary

Speakers of the 'Ua Pou vernacular make use of two systems for spatial orientation in their environment. One system is used for spatial orientation within a valley, the other is used for navigation around 'Ua Pou island as well as for interisland navigation within the Marquesan archipelago. It was shown that both systems are so-called local landmark-based systems. Both systems are used in large-scale as well as small-scale reference (see below, absolute frame of reference).

The within-valley-system has one main axis based on the contrast between SEA and LAND, and one orthogonal axis to the main axis which is lexically undifferentiated, which was denominated as ACROSS. However, speakers have various means to differentiate both ends of the undifferentiated ACROSS-axis.

It was proposed that the landmark SEA is the only real landmark upon which the within-valley-system is based. This is reflected in the language systems in two ways. The local landmark noun *tai* 'sea' is distinguished from *uta* 'inland' and *ko* 'across' on a number of different morphosyntactic properties. Moreover, the local landmark noun *tai* denotes a real landmark as well as a valley quadrant, whereas *uta* 'inland' and *ko* 'across' only denote valley quadrants.

Furthermore, it was shown that *uta* is polysemous, meaning 'inland' as well as 'ashore'. In order to interpret *i*-marked *uta* as 'ashore' the motion event has to be telic. In an atelic motion event *i*-marked *uta* always has the meaning of 'inland'. It was also discussed whether *uta* only denotes a direction (the inland-direction as opposed to the SEA) and not a place. *Uta*

'inland' and *tai* 'sea' can both occur in a lexicalised possessor construction which metonymically refer to the people who inhabit these places. This was counted as evidence that *uta* indeed denotes a place, namely that of a valley quadrant. The usage of *ko* is much more restricted. *Ko* can denote a valley quadrant, but it cannot be used metonymically to refer to the people inhabiting that region. Movement towards one of the valley quadrants is expressed by a set of motion verbals. Apart from expressing movement towards the 'sea'- or 'inland'-quadrant, *hiti* 'ascend' and *heke* 'descend' can also refer to UP- and DOWN-movement on a slope.

For navigation on sea speakers use '*uka* (lit. 'up') and '*a'o* (lit. 'down') and the corresponding motions verbals *hiti* (lit. 'go up') and *heke* (lit. 'go down'). Contrary to Lavondès' analysis (1983), who analysed the Marquesan 'up'/'down'-expressions for navigation on sea as being based on a prevailing east-southeast trade wind, I showed that these expressions are based on equatorial as well as local sea currents. Lavondès who assumes that the southeast trade winds corresponds to a cardinal EAST/WEST-axis, and that the 'up'/'down'-expressions are used like cardinal direction terms. The usage of '*uka*' and '*a'o*' show that these terms do not constantly refer to the eastern or western direction, but their usage is adopted to the flow of the sea currents. On 'Ua Pou island the flow of the sea currents changes around the island, and so does the usage of '*uka*' and '*a'o*'.

3. Small-scale reference

3.1. Frames of spatial reference

In this subsection I discuss how the various locative constructions are used with respect to frames of spatial reference. All three frames of spatial reference are employed in N-MQA, though with a preference for the absolute frame of reference.⁴⁸⁸

Some locative constructions with local nouns and body-part terms can be used across two frames of spatial reference, i.e. they are ambiguous over two frames of reference. This is for instance the case with locative constructions used in the intrinsic as well relative frame of spatial reference, an ambiguity often observed in languages.⁴⁸⁹

With respect to the absolute FoR I will only discuss those uses which describe spatial relations on the horizontal plane. Spatial relations on the

absolute vertical UP/DOWN-axis have already been discussed in chapter 5, section 6.3.3.6. to some detail.⁴⁹⁰

The following table gives an overview of the meaning and occurrences of locatives across the different frames of spatial reference:⁴⁹¹

Table 38. Meaning and occurrence of locatives across frames of spatial reference

Locative	Intrinsic FoR	Relative FoR	Absolute FoR
1. Local nouns			
<i>mua</i>	'frontside'	'first, front'	—
<i>mu'i</i>	'backside'	'last, behind'	—
<i>hope</i>	'backside'	'behind'	—
2. Local landmark nouns			
<i>tai</i>	—	—	'sea'
<i>kapai</i>	—	—	'seaward'
<i>uta</i>	—	—	1. 'inland', 2. 'shore'
<i>kauta</i>	—	—	'inlandward'
<i>ko</i>	'side'	—	'across'
<i>kako</i>	'sideward'	—	'acrossward'
<i>'uka</i>	—	—	'upstream'
<i>'a'o</i>	—	—	'downstream'
3. Body-part terms			
<i>a'o</i>	'faceside'	'front'	'sea-region'
<i>tua</i>	'backside, spine' (vertical extension)	'back'	'inland-region'
<i>kaokao</i>	'side, flanck'	'side'	—
<i>keo</i>	'backside' (horizontal extension)	—	—
<i>'ima a'e</i>	'left hand'	—	'left side of valley'
<i>'ima oko</i>	'right hand'	—	'right side of valley'
4. Place names			
	—	—	+

The full word *keke* 'side, part' cannot be classified with respect to the three major classes of spatial lexemes (=local nouns, body-part terms and place names). Although *keke* is used as the lexical head in a certain type of locative construction (see ch. 5, § 6.4), *keke* does not specify a location as

such and always needs to be modified in order to refer to a specific location (e.g. *i te keke me tai* ‘at the side with sea’). When a *keke*-construction contains a local landmark noun or place name as attributive noun phrase, we consider the construction to be used in the absolute frame of reference.

3.1.1. Intrinsic frame of reference

The local nouns *mua* ‘first, front’, *mu'i* ‘last, behind’ and *hope* ‘behind’ are more frequently used in the intrinsic frame of reference than the body-part terms *a'o* ‘face’, *tua* ‘back, spine’, *keo* ‘bottom’ and *kaokao* ‘side’. In the context of the space games in which a great number of toy animals are used, *a'o* ‘face’ and *tua* ‘back, spine’ rarely occur. In general, *a'o* ‘face’ does not frequently occur in locative constructions, and the low frequency of *tua* in the intrinsic frame of reference is due to the fact that *tua* normally refers to the ‘back/spine’-region and not the ‘bottom’-region of a toy animal (see [7.47] and see below for explanation):

Photo 7

- (7.46) *T=o ia mata 'io Foro, mea'a te upoko ma 'uka*
 ART=POSS 3.sg face PREP F. but ART head PREP top
 o te tua o te koivi puaka.
 POSS ART back POSS ART female pig
 ‘Its face is towards Foro, but the head is above the back of the sow.’ (FA-B/R-7: 016–017)

In a locative construction the meaning of *tua* remains to be ‘back, spine’, thus

- (7.47) *Ena te 'enana ma te tua o te puaka.*
 exist ART man PREP ART back,spine POSS ART pig
 ‘There is a man (sitting) at the back spine of the pig.’ (E-Ta-99)

would not mean that the man is localised at the pig’s ‘bottom’-side, but that he is actually sitting on the pig’s back.⁴⁹² Instead speaker use *keo* ‘bottom’ in order to refer to the ‘bottom’- or ‘back/spine’-region:

- (7.48) *Ena te 'enana ma te keo o te puaka.* (E-Ta-99)
 exist ART man PREP ART bottom POSS ART pig
 ‘There is a man behind the pig.’ (lit. ‘...at the pig’s bottom’).

Locative constructions with *keo* ‘bottom’ and *tua* ‘back, spine’ can both be used to refer to the ‘back’-region of objects with a FRONT/BACK-axis. There is, however, a major difference in their usage which is adjusted to the orientation of the object’s main axis. *Keo* ‘bottom’ can only be used for objects whose main axis is horizontally extended such as vehicles, bikes, animals etc.:

- (7.49) *Ua heke ma te keo o te=na pere'o'o.*
 TAM go.seaward PREP ART bottom POSS ART=Dem car
 ‘(The toy man) went seawards behind the car.’ (lit. ‘... at the car’s bottom’) (RD-T/C-P3)

Tua, on the other hand, is generally used when the object’s main axis is vertically extended as in the case of humans, cupboards, fridges etc.:

- (7.50) *Ena te kio'e ma te tua o te puha vai='ia memau.*
 exist ART mouse,rat PREP ART back POSS ART box leave=PASS thing
 ‘There is a mouse at the back of the cupboard.’ (E-Am-98)

The usage of *keo* ‘bottom’ is much more restricted than that of *tua* ‘back, spine’: *keo* can only be used if the object has a salient horizontally extended main axis. *Tua*, on the other hand, is less restricted and can be used with objects which neither have a salient horizontal nor vertical main axis as in the case of a television or a (modern, western-style) house:

- (7.51) *Ena te kio'e ma te tua o te tere/*
 exist ART mouse,rat PREP ART back POSS ART TV
 **ma te keo o te tere.*
 PREP ART bottom POSS ART TV
 ‘There is a mouse at the back of the TV/ (*at the bottom of the TV).’

Interesting is the usage of *ma te tua* in order to refer the (inherent) ‘back’-region of a house: in former times the back part of the roof of traditionally built houses was extended down to the level of the house foundation, i.e. *paepae* (Candelot and Candelot 1987: 28–29). Thus, the back part of the roof was vertically extended, having a spine-like shape

The restriction in the usage of *keo* and *tua* are interesting because it clearly shows that the metaphorical extension of body-part terms to denote locations is conceptually linked to their source concept. Moreover, the assignment of a ‘back’-region is influenced by the *saliency* of the object’s parts: four-legged animals have a salient ‘bottom’, and, in analogy, objects with a horizontally extended main axis also have a ‘bottom’. As for humans, it is not the ‘bottom’ or ‘backside’, but rather the vertically extended spine which is the more salient body-part. *Tua* is therefore metaphorically extended to those objects which have a vertically extended main axis, whereas *keo* is metaphorically extended to objects with a salient backside (e.g. a car). The following table summarises the usage of *keo* and *tua* with different kinds of objects:

Table 39. Usage of *keo* ‘bottom’ and *tua* ‘back, spine’ in the intrinsic FoR

Type of object	<i>keo</i> ‘bottom, backside’	<i>tua</i> ‘back, spine’
With horizontally extended main axis	+	–
With vertically extended main axis	–	+
With no salient main axis	–	+

Whereas the body-part terms *tua* ‘back, spine’ and *keo* ‘bottom’ are rather restricted in their usage, the local nouns *mu'i* ‘back’ and *hope* ‘behind’ can be used for all objects having an inherent BACK. *Mu'i* and *hope* therefore occur more frequently in my data. This is also true for the local noun *mua* ‘front’. Speakers often use *mua* instead of the body-part term *a'o* ‘face’ in order to refer to an object’s inherent ‘front’:

Photo 13 (*Farm Animals* game)

- (7.52) *I inu ai ia i te vai pakeka=ia te paisa vai ma mua o ia.* (FA-B/R-13: 009–10)
 TAM drink ANA 3.sg DO ART water oppose=PASS ART
 lw.Fr.trough water PREP front POSS 3.sg
 ‘It is drinking water, the trough is positioned at (the cow’s) front.’

In the *Farm Animals* game the photos 4, 8 and 17 include spatial relations between objects which can be clearly expressed by employing the intrinsic frame of reference (see appendix 1 for photos). In the following I will give some examples of descriptions of photo 4 and 8 that illustrate how

these relations are expressed within the intrinsic frame of reference. Note, however, that not all players expressed these relations by using the intrinsic frame of reference. The spatial relations ‘tree behind cow’ and ‘tree behind horse’ of photo 4 were only expressed by one set of players (out of four) that used a locative construction with *mu'i* ‘back, behind’:

Photo 4

- (7.53) *Pao to'o koe te tumu toa ma mu'i o te keo piha.*
 be.finished take 2.sg ART trunc fir PREP back POSS ART
 bottom cow
 ‘(When you) are finished, take the fir tree (put it) behind the cow’s bottom.’ (FA-Hak-4)
- (7.54) *Ia pao to'o koe i te=na tumu toa ma mu'i o te=na keo horave.* (FA-Hak-4)
 TAM be.finished take 2.sg DO ART=Dem trunc fir
 PREP back POSS ART=Dem bottom horse
 ‘When (it) is finished, you take that fir tree (put it) at the back of that horse’s bottom.’

Note that (7.53–54) could have also been constructed with *ma te keo*. Interestingly the speaker uses *keo* in (7.53–54) as a body-part term in a compound construction. This compound construction with *keo* probably has the purpose of indicating that the locative construction with *mu'i* ‘back’ has to be interpreted within the intrinsic frame of reference. It was already pointed out in other parts of the study that speakers have a number of linguistic means to express that a locative construction is used within the intrinsic frame of reference:⁴⁹³ for instance when the lexical head of the locative construction is marked by *i* instead of *ma* (see ch. 5, § 6.3.3.1, and [7.56]), or when modifying the local noun with *toitoi* ‘real, genuine’ (see ch. 6, § 4.1). Spatial configurations in photo 8 of the *Farm Animals* game are expressed in the intrinsic frame of reference:

Photo 8

- (7.55) *Ma mu'i o te='a 'enana e 'ua puaka.*
 PREP back POSS ART=Dem man NUM two pig
E tahi kaokao~ e tahi mu'i toitoi o
 NUM one side NUM one back real,genuine POSS

te='a 'enana.

ART=Dem man

‘There are two pigs behind that man. One (at the) side~~ one is really behind that man.’ (FA-T/M-8: 002–003)

- (7.56) *Ee 'ina mamao 'i mu'i o titahi koivi puaka.*
 yes a.little distant LD back POSS ART.indef female pig
 ‘Yes, a little distant at the back of the other sow.’ (FA-B/R-8: 021)

- (7.57) *I mua te 'enana, ma hope te koivi puaka, 'ina*
 LD front ART man PREP behind ART female pig a.little
mu'i 'oa atu titahi puaka. (FA-T/M-H-8: 003–005)
 back far DIR ART.indef pig
 ‘The man is in front, the sow is behind, a little further behind is the other pig.’

It is not clear whether '*i mua* in (7.57) really means ‘in front (of the pig)’ or not. It is also possible that '*i mua* here means ‘first in a row’ because speakers often conceptualise objects in a row as an alignment configuration (see this chapter, § 3.4).

The body-part terms '*ima a'e* ‘left hand’ and '*ima oko* ‘right hand’ are mostly used when they refer to the speakers own ‘left’- or ‘right’-region, i.e. they are used in a “purely intrinsic way” (Levinson 1996). ‘Left’- and ‘right’-constructions in N-MQA are only used when the speaker functions as relatum. '*Ima a'e* ‘left hand’- and '*ima oko* ‘right hand’-constructions cannot be used with objects (e.g. ‘left’ or ‘right’-side of a car) and thus these constructions are not used to assign a ‘left’- or ‘right side’-region to an object. In other words: ‘left’- and ‘right’-constructions are not used within the relative frame of reference, i.e. they are not used projectively. In N-MQA, '*ima a'e* ‘left hand’ and '*ima oko* ‘right hand’ can, however, be used to refer to objects which are in the left or right field of vision of the speaker. In the context of the space games the Director often divides the objects on the photo stimuli as being at the left and right (hand) side in relation to his or her own body. In the following examples the gaze of the players is directed towards the sea:

Photo 15

- (7.58) *E va'e te piha e inu a'a i te vai, te*
 TAM have.habit ART cow TAM drink Dem DO ART water ART

- keo~ i te keke tuaivi keke tuaivi 'ima a'e.*
 bottom LD ART side mountain side mountain hand left
 ‘The cow has the habit of drinking water, the bottom is towards the mountain side left hand mountain side.’ (FA-T/M-15: 043)

Photo 8

- (7.59) *E tahi 'enana e taha a'a i te keke 'ima oko~ 'ima a'e 'ima a'e e keke 'ima a'e.*
 NUM one man TAM go.across Dem LD ART side hand right
 hand left hand left TAM side hand left
 ‘One man is going across at the right hand side~ left hand left hand, is at the left hand side.’ (FA-T/M-8: 001)

Photo 9

- (7.60) *Ehh, e 'ua piha e tahi piha i keke 'ima oko 'io te tumu 'akau, tata'eka me te tumu 'akau.*
 INTJ NUM two cow NUM one cow LD side hand right PREP ART trunc wood close with ART trunc wood
 ‘Ehh, (there are) two cows, one cow is at the right hand side at the tree, close to the tree.’ (FA-T/M-9: 005)

Locative constructions with '*ima oko*' and '*ima a'e*' in (7.57–60) do not assign an object region to a relatum object, but they are partitioned regions of the visual field of the speaker which is also evident in the type of construction they are used in, namely in the *keke*-construction type.

Lavondès (1983) has observed that speakers of Marquesan do not use ‘left’- and ‘right’-terms although these terms exist. Lavondès’ judgement is probably based on his fieldwork experience in the 1960s and 1970s. It is true that the majority of speakers does not use ‘left’ and ‘right’ terms. However, in the context of the space games some players used them extensively, whereas other players did not use them at all. There is a slight tendency among younger speakers to employ '*ima a'e*' and '*ima oko*'-constructions more often than older speakers and it could be an effect and consequence of French schooling with French teachers. However, there are also a few older speakers (40+) which use ‘left’ and ‘right’-constructions. In fact, one of my oldest consultants who is very fluent in French used these constructions extensively. All in all, it is difficult to evaluate in which way contact with the French language plays a role in the increasing use of ‘left’ and ‘right’-constructions for the descriptions of spatial configurations.

When referring to the inherent sides of an object, speakers also often use the body-part term *kaokao* 'side, flack' and sometimes *ko* 'side'.

Marquesan is a language which designate names for object parts on the basis of asymmetrical body axes (see ch. 4, § 6.1) and the coordinates are polar: when speakers identify a 'front'-region on the basis of the inherent properties of an object they can instantly infer where the 'back'-region is (see ch. 4, § 9.2.1).

How 'front'- and 'back'-regions are assigned is in particular interesting with objects which are oddly featured such as the triangle enclosure in photo 13 (see *Farm Animals* photos, appendix 1). In the following example (see [7.61]) the 'front'- and 'back'-regions are expressed by the local nouns *mua* 'front' and *mu'i* 'back', whereas the inherent 'front'-part of the triangle is expressed by *a'o* 'face' (see below):

Photo 13

(7.61)

D: ..., *mea'a te='a papua i te kanea='ia me he ve*
 but ART=Dem enclosure LD? ART construct=Perf like ART V
 e, mea'a 'i mua nei te mea, te [te] haka=ve='ia
 EMPH but LD front here ART thing ART ART like=V=NOM
 'a'e 'i mu'i 'i mu'i 'i mu'i te tore rui aea
 be.not LD back LD back LD back ART fence.part big EMPH
 e tahi tore rui 'i mu'i te='a papua.
 NUM one fence.part big LD back ART=Dem enclosure
 '..., but that enclosure, make it like a V, but the thing is here in front
 (=of me), the the tip is not behind; the big fence part is behind
 behind, one big fence part is at the back.'

M: *Ee*

yes

'Yes.'

D: *Haka=moe='ia mai ai 'i mua nei 'i'a te*
 CAUS-lie.down=PASS DIR ANA LD front here there ART
 haka=pihi='ia te haka=pao='ia i t=o ia mea
 CAUS-stick=NOM ART CAUS-finish=NOM DO ART=POSS 3.sg thing
 t=o=ia papua~ aea.
 ART=POSS=3.sg fence EMPH
 'It should be laid toward us, in front here, there is the sticking
 together, the finishing of the thing, the fence.'

M: *I mua te*
 LD front ART
 'In front is the'

D: *Ee, i mua ho'i te a'o o te='a papua 'i mua*
 yes LD front indeed ART face POSS ART=Dem enclosure LD front
 'Yes, in front is indeed the face of the fence, in front.'
 (FA-T/M-H-13: 13–17)

It has to be noted at this point that the local nouns *mua* 'front', *mu'i* 'back' and *hope* 'behind' only denote object regions, but not object parts. *Mua*, *mu'i* and *hope* are principally location-denoting nominals which refer to object regions, but not concrete object parts: *mua* in example (7.62) has to be interpreted as the 'front'-region of the door, but not the 'front'-part of the door:

(7.62) *Ma mua o te avaputa o te='a ha'e o*
 PREP front POSS ART door POSS ART=Dem house POSS
Tahia.
 T.
 'In front of the door of Tahia's house.' (E-Ma-99)

There is however one noticeable exception: the 'front' of a canoe is referred to as *te mua o te vaka* 'the front of the canoe'. Bearing in mind that *mua* also means 'first', the 'front' of the canoe can also be interpreted as that part of canoe which goes first.

Moreover, it has to be mentioned at this point that speakers assign in particular the body-part term *a'o* 'face' to object parts (see [7.63–64]) which would not be conceptualised as an object part by speakers of other languages such as German or English:

(7.63) *Ah ma mua o te a'o o te='a tumu 'akau*
 INTJ PREP front POSS ART face POSS ART=Dem trunc wood
i'a te='a koivi puaka. (FA-T/M-H-8: 021)
 there ART=Dem female pig
 'Ah, in front of the face of the tree, there is that sow.'

Photo 16

(7.64) *Te a'o 'io koe te a'o ihoa o te='a ko'oka*
 ART face PREP 2.sg ART face indeed POSS ART=Dem trough

'io koe, mea'a...

PREP 2.sg but

'The face is towards you, the real face of that trough is towards you, but' (FA-T/M-H-16: 053)

It is not known how conventionalised this usage of *a'o* for trees and troughs is within the Marquesan speech community. In languages like English and German, trees and troughs are often regarded as non-featured or weakly featured objects which do not have 'faces' (see Hill 1982).

However, examples (7.63–64) are interesting because the 'front'-side of a tree or trough seems to be the side which faces the speaker or language user. It has been discussed in chapter 4, section 4.3 that these kinds of assignment of body-part terms to object parts are conceptually based on a canonical face-to-face encounter.⁴⁹⁴

This concept of a canonical face-to-face encounter (=facing strategy) is also applied when *a'o* 'face' and *tua* 'back' are used within the relative frame of reference which is discussed in the following.

3.1.2. Relative frame of reference

N-MQA mainly uses locative constructions which express FRONT/BACK-relations on the transversal axis. I will therefore mainly deal with the usage of the body-part terms *a'o* 'face' and *tua* 'back' and the local nouns *mua* 'first, front', *mu'i* 'last, back' and *hope* 'behind'.

The lateral (horizontal) axis is only weakly specified. Speakers often use the body-part term *kaokao* 'side' to refer to the 'side'-regions of an object. These 'side'-regions are from the point of view of the language user perceptually the lateral sides of an object. For instance, in examples (7.59–60) the position of toy animals in relation to a tree is described which is 'at the side' from the speaker's viewpoint:

Photo 9

- (7.65) *Ena e tahi piha ma [ma] te kaokao o te='a tumu 'akau aea.* (FA-T/M-H-9: 022)
 exist NUM one cow PREP PREP ART side POSS ART=Dem
 trunc wood PART
 'There is one cow at the side of that tree, isn't it.'

Photo 17

- (7.66) *Pe'au au ma te kaokao o te tumu 'akau.*
 say 1.sg PREP ART side POSS ART trunc wood
 'I said at the side of the tree.' (FA-T/M-H-17: 065)

Note that some consultants use *kaokao* for any side of an object due to its unspecific lexical meaning of 'side'. It is therefore difficult to say whether *kaokao* is really used within the relative system or not.

As already mentioned in section 3.1.1 '*ima oko* 'right hand' and '*ima a'e* 'left hand' are normally not used in the relative frame of reference. There was only one occurrence which could be classified as a relative usage (see ch. 5, § 6.2.3.3). Note that in this usage the *keke*-construction is marked by *ma* and it occurs with a possessive attribute:

Photo 1

- (7.67) *Ma te keke 'ima oko o te tumu 'akau e*
 PREP ART side hand right POSS ART trunc wood TAM
tahi isorave.
 one horse
 'At the right hand side of the tree is one horse.' (FA-T/M-1: 003)

Although N-MQA has a linguistic construction type to use 'left'- and 'right'-expressions in a relative frame of reference (*ma*-possessive construction), speakers of Marquesan however hardly ever employ these constructions in a relative frame of reference. It is possible that they have not yet developed the full conceptual structure which underlies fully-fledged FRONT/BACK/LEFT/RIGHT-systems as e.g. in German or English (e.g. in a canonical face-to-face encounter knowing that 'the speaker's 'right' is 'left' from the point of view of the addressee' etc.).

When speakers of Marquesan use the body-part terms *a'o* 'face' and *tua* 'back' in the relative frame of reference they employ the facing strategy of of which the assignment of an object region is conceptually based on a canonical face-to-face encounter.⁴⁹⁵ Thus, speakers always use *ma te tua* 'at the back' when the theme is localised at the far side of the relatum, and *ma te a'o* 'at the front' when localised at the near side of the relatum:

- (7.68) *O te piha ma te tua o te tumu 'akau, e*
 TOP ART cow PREP ART back POSS ART trunc wood TAM
taha 'i keke 'ima a'e. (FA-T/M-2: 048)
 go.across LD side hand left

'It is the cow which is at the back of the tree, (it) is going across towards the left hand side.'

Photo 6

- (7.69) *Te piha te piha pukiki ma te tua o te te
ART cow ART cow red PREP ART back POSS ART
te='a tumu toa me uta, me'a'i ti'ohi ai 'i
ART=Dem trunc fir with inland but TAM look ANA LD
uta.
inland*

'The cow, the red cow is at the back of that inland tree, but (it) is looking inland.' (FA-Hak-6)

Photo 9

- (7.70) *'Ina mu'i e 'a'e ho'i 'a i he'e ma te tua
a.little back EMPH be,not really be.not TAM go PREP ART back
o te tumu 'akau ma uta~ 'ina
POSS ART trunc wood PREP inland there
'(The cow) is a little at the back, not really, (it) does not go at the back of the tree, (it is) inland (of the tree)~ there.
(FA-T/M-H-9: 025–026)*

Locative constructions with *a'o* 'face, front' were not used in the space games. In placement tasks, however, my consultants placed objects consistently at the near side of the relatum when instructed to put the theme *ma te a'o* 'at the front' and they consistently placed the theme at the far side when instructed by *ma te tua* 'at the back'.⁴⁹⁶

Unlike the *ma te a'o/ma te tua*-system, the usage of the local nouns *mua* 'front', *mu'i* 'back' and *hope* 'behind', is not very stable, i.e. we can observe that speakers use the facing as well as the aligning strategy. The majority⁴⁹⁷ of my consultants in elicitations (i.e. placements tasks, see the methodology part in ch. 2) employ an aligning strategy when using *mua* 'front' and *mu'i* 'back': *mua*-region is at the far side, whereas *mu'i*-region is at the near side of the relatum. Only two consultants consistently employed the facing strategy when using the local nouns *mua* and *mu'i*:

Table 40. Facing and aligning strategies in the relative frame of reference

	Facing strategy (canonical vis- à-vis encounter)	Aligning strategy
Body-part terms	+	-
Local nouns	+ (20%)	+ (80%)

Like speakers of Hausa, most of my consultants⁴⁹⁸ which use the aligning strategy switch to the facing strategy when the theme is occluded by the relatum (e.g. a bottle, an upright book). Small relata which do not occlude the theme are always assigned a ‘front’-region at the far side.

The following dialogue nicely illustrates that constructions with *tua* ‘back’ and *mu'i* ‘behind, last’ quite obviously refer to distinct object regions:

Photo 17

(7.71)

D: 'A'e ia ma te ***tua*** o te tumu 'akau e, te horave
be.not 3.sg PREP ART back POSS ART trunc wood EMPH ART horse
{ma} ma ***mu'i*** o te tumu 'akau 'a'e ma te
PREP PREP behind,last POSS ART trunc wood be.not PREP ART
tua
back

‘It is not at the back of the tree, the horse is behind the tree, not at the back.’

M: ***Ma mu'i ou ma te tua?***
PREP behind,last csFr.or PREP ART back
‘Behind *ou* at the back?’

D: 'A'o'e, ma ***mu'i***, me koe ana ma ***mu'i*** o
be.not PREP behind,last with 2.sg DUR PREP behind,last POSS
te tapu. (FA-T/M-H-17: 021–024)
ART table
‘No, it is behind, where you are at the back (part) of the table.’

Note that the last *mu'i*-construction does not refer to an object region, but it is a partitioned region of the table-top space on which the game was played. Moreover, *mu'i* ‘last, behind’ in (7.71) refers to the ‘back’-region of an alignment configuration. For the addressee (=Matcher) it was difficult to interpret *mua-* and *mu'i*-constructions because there are potentially three

distinct object regions of *mua* and *mu'i* respectively with unfeatured relata. In (7.71) the Director (=D) therefore contrasts the referentially unequivocal *tua* with *mu'i* in order to exclude possible *mu'i*-regions.

Mua and *mu'i* can often be interpreted as meaning ‘first’ and ‘last’ in an alignment configuration⁴⁹⁹ and one might even be inclined to interpret the uses of *mua* and *mu'i* in the relative frame of reference as meaning ‘first’ and ‘last’, depending on how the speaker marks the beginning (=*mua*) and the end of a sequence of objects (=*mu'i*). However, we do not have clear evidence that the uses of *mua* and *mu'i*, as described in this subsection, really mean ‘first’ and ‘last’. When *mua* and *mu'i* are used in the intrinsic frame of reference (see this chapter, § 3.1.1) they refer to the inherent ‘frontside’- or ‘backside’-region of an object and therefore mean ‘front’ and ‘back’ and not ‘first’ and ‘last’. Retracing the real meaning of *mua* and *mu'i* is therefore problematic. However, the meanings ‘front’ and ‘first’, and ‘back’ and ‘last’ are related: in motion the first part of an object with a FRONT/BACK-axis is mostly its frontside. For instance, the frontside of a car is the first part of the object which moves along a path.

According to my consultants the local noun *hope* ‘behind’ is used in S-MQA. However, it can often be observed in N-MQA and it might have entered into N-MQA through increasing interisland communication. *Hope* is often used interchangeably with *mu'i*:

- (7.72) ... *ma hope o te='a tumu 'akau 'i te keke me tai,*
 PREP behind POSS ART=Dem trunc wood LD ART side with sea
ena e tahi piha, te keo 'i⁵⁰⁰ mu'i toitoi o
 exist NUM one cow ART bottom LD back real POSS
te='a tumu 'akau.
 ART=Dem trunc wood
 ‘... behind that tree at the side with sea, there is one cow, the bottom
 is really behind that tree.’ (FA-T/M-H-6)

The usage of *hope* with speakers of N-MQA can be interpreted as a sign of on-going dialect levelling which can also be observed with a number of other lexical items. However, some consultants say that *hope*-constructions differ from *mu'i*-constructions because *hope* refer to the ‘far side’-region of the relatum, and they connotate with *hope* that an object is ‘hidden’ or ‘not visible’.

In the data of the *Farm Animals* game, however, there were not many configurations which were expressed within the relative frame of reference. If so, *mua* ‘front’ and *mu'i* ‘back, behind’ were surprisingly more often

expressed by employing the facing instead of the preferred aligning strategy. The position of the cow in photo 6 is often expressed by a *mu'i*-construction. This is not surprising because the cow is indeed partly occluded by the tree (see [7.72]). Likewise the relation between the cow and the tree in photo 5:

Photo 5

- (7.73) *Piha pukiki ma mua o te sapin ma mua*
 cow red PREP front POSS ART csFr.fir PREP front
 'io koe ma mua nei(FA-E/Va-5)
 PREP 2.sg PREP front here
 ‘A red cow is in front the *sapin*, in front, where you are, in front
 here... .’

We can conclude that a relative system has only partially developed by expressing FRONT/BACK-relations, despite the fact that N-MQA has the lexical means as well as the construction types to express ‘left’ and ‘right’. In the case of the body-part terms *a'o* ‘face, front’ and *tua* ‘back’ there is clear evidence that the concept of a canonical face-to-face encounter has been extended to their usage in the relative frame of reference. A fully developed relative system is not needed because speakers of Marquesan have the option to use an absolute system by means of which the speaker can avoid well-known complexities such as perspective-taking when using ‘left’- and ‘right’-expressions.

3.1.3. Absolute frame of reference

In large-scale reference N-MQA has two systems of spatial orientation⁵⁰² which can be combined on a small-scale referential level: speakers can use the SEA/INLAND-axis in combination with the UP-STREAM/DOWNSTREAM-axis. However, this depends on the location of the speaker on 'Ua Pou island (see below). Nevertheless there is a system which can be used in all valleys of 'Ua Pou island. This system is based on the within-valley-system described in section 2.2.1.

On a small-scale level (e.g. within a house or on a table-top space) speakers of Marquesan constantly express the orientation and location of objects by using the ‘sea/inland/across’-expressions. For instance, if there are two light switches in a room, speakers could distinguish the two switches by referring to the one as the ‘inland’-switch and to the other as

the ‘seaward’-switch. In the space games objects are frequently distinguished by referring to them as the ‘inland’- or ‘seaward’-object x. In those occurrences constructions with the local landmark nouns function as attributes:

- (7.74) *Ua taha 'i ko~ 'io te~ ma mua o te=na pou me uta o te=na pakatea me tai aea.*
 TAM go.across LD across PREP ART front front POSS ART=Dem post with inland POSS ART=Dem bridge with sea EMPH
 ‘(He) walked across~ at the ~ in front of that inland post of the seaward bridge, isn’t it.’ (RD-T/C-P3: 014)
- (7.75) *Ta=pi'i koe 'io te='a tumu 'akau me uta.*
 CAUS=stick 2.sg PREP ART=Dem trunc wood with inland
 ‘You stick it at the inland tree.’ (FA-B/R-5: 013)
- (7.76) *'Io te='a tumu 'akau 'i tai, keke me 'ua Teiki ma ko.*
 PREP ART=Dem trunc wood LD sea side with couple T.
 PREP across
 ‘At the seaward tree, side where Teiki and his wife live, acrossward.’ (FA-B/R-6: 19–20)

The local noun *ko* ‘across (i.e. left or right side of valley)’, however, is not used for the distinctions of two objects simply because *ko* is undifferentiated with respect to directions. This is different for the reference to the orientation of an object (i.e. the orientation of its inherent object parts): speakers frequently use '*i*-marked *tai* ‘sea’, *uta* ‘inland’ and *ko* ‘across’:

Photo 15

- (7.77) *Te keo 'i tai, te keo o te horave 'i tai te upoko 'i uta.*
 ART bottom LD sea ART bottom POSS ART horse LD sea ART head LD inland
 ‘The bottom is seawards, the bottom of the horse is seawards. The head is inland.’ (FA-T/M-15: 014–015)

Photo 14

- (7.78) *E tahi kokeo nihinihi 'i ko e tahi kokeo nihinihi*
 NUM one post pointed LD across NUM one post pointed

'i tai e tahi kokeo nihinihi 'i uta.
 LD sea NUM one post pointed LD inland
 'One edge (of the enclosure) is across, one edge is seawards, one edge is inland.' (FA-B/R-14: 004)

Speakers often localise a single, static object by taking one of the valley quadrants as reference point (e.g. 'sea'-quadrant, 'inland'-quadrant etc.). These static localisations are expressed by *'i*-marked *tai*, *uta* or *ko*. *'I*-marked local landmark nouns indicate that the localised object does not stand in an explicit relation to another object, i.e. there is no explicit relatum.⁵⁰² In these cases the quadrants serve as (implicit) relatum:

- (7.79) *Ena e tahi putei 'i tai.* (E-Ti-97)
 exist NUM one bottle LD sea
 'There is one bottle seaward.'

Sentences like (7.79) can be uttered when the speaker localises an object which lies in the direction of the landmark SEA on a table-top space. These utterances are truly directional because *'i tai* neither expresses the goal nor the place of the 'sea'-quadrant or region (see ch. 4, § 12). The truly directional nature of these references becomes even more evident when the speaker rotates, for instance, a 180° degrees around the object. The location of the object remains the same, but the description of the bottle's location changes because the bottle would now be localised as being 'inland':

- (7.80) *Ena e tahi putei 'i uta.* (E-Ti-97)
 exist NUM one bottle LD inland
 'There is one bottle inland.'

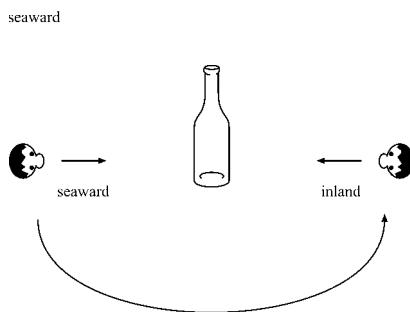


Figure 44. 180° degree rotation around theme without explicit relatum

The description simply changes because after rotating the speaker visually perceives a different landmark or quadrant⁵⁰³ which is then chosen as implicit relatum (i.e. the ‘inland’-area).

In the context of the space games, players often used ‘*i*-marked local landmark nouns although the thems was part of a complex spatial configuration:

Photo 5 (direction of gaze: ACROSS)

- (7.81) *Titahi tumu 'aka 'i uta titahi tumu 'akau 'i tai, 'a'e tutuki 'aua.*
 ART.indef trunc wood LD inland ART.indef trunc wood LD sea be.not meet.touch 3.dl
 ‘One tree is inland, one tree is seaward, they do not touch.’
 (FA-B/R-5: 002–4)

Photo 2 (direction of gaze: SEAWARD)

- (7.82) *E tahi tumu 'akau tu='ia tu='ia 'i tai atu.*
 NUM one trunc wood stand=Perf stand=Perf LD sea DIR
 ‘One tree is put up put up further at the sea-side (of the table/array).’ (FA-T/M-2: 004)

These references on a small-scale referential level also reveal the truly directional character of ‘*i*-marked *uta* ‘inland’ and *tai* ‘sea’: an object can be localised as seaward when it lies in relation to other objects further in the direction of the landmark SEA. Thus, the direction ‘seaward’ or ‘inland’ is only to be understood relatively⁵⁰⁴ to other objects of a configuration. If one object is localised as being ‘seaward’, another object which lies in the opposite direction can be localised as being ‘inland’ (see [7.81]), regardless of where the speaker is positioned (see ch. 4, § 9.2.3).

The way ‘*i*-marked *tai* ‘sea’ and *uta* ‘inland’ are used clearly shows that we have a linguistic system of directional oppositions, a characteristic feature of truly directional systems (see ch. 4, § 12). We can say that two points are involved in references like (7.79–82), namely the localised object (=theme) and the quadrant (=implicit relatum). When local landmark nouns occur in a *ma*-possessive construction, three parameters are involved, namely the localised object (=theme), an explicit relatum and a landmark or quadrant:

Photo 2

- (7.83) *E tahi piha ma tai o te tumu 'akau.*
 NUM one cow PREP sea POSS ART trunc wood
 ‘There is one cow seaward of the tree.’ (FA-T/M-2: 008)

The *ma*-possessive construction in (7.83) specifies an object region of the explicit relatum (=the tree) and this object region is assigned via a secondary reference point, namely the landmark SEA. *Ma*-possessive constructions with local landmark nouns are therefore three-point-localisations. *I*-marked local landmark nouns are two-point-localisations.⁵⁰⁵

The two (absolute) axes, i.e. the SEA/INLAND-axis and ACROSS-axis can be combined when referring to the location and orientation of an object at the same time. In (7.84) the location of the cow is expressed in relation to the landmark SEA by using a *ma*-possessive construction; the orientation of the cow’s ‘front’-side is expressed by using the motion verbs *taha* ‘go across’.

Photo 2 (direction of gaze: SEAWARD)

- (7.84) *Te piha e taha ma tai e taha ma~ ma tai o te horave 'i keke 'ima a'e.* (FA-T/M-2: 014)
 ART cow TAM go.across PREP sea TAM go.across PREP PREP
 sea POSS ART horse LD side hand left
 ‘The cow, (it) is going across seaward (it) is going across seaward
 of the horse towards the left hand side.’

Note that the speaker uses the motion verbal *taha*, although the configuration is static. The usage of motion verbs in this way is to indicate the possible walking direction of the cow (see below for further details).

As already mentioned above, the usage of the local noun *ko* does not specify whether the speaker refers to the left or right side of a valley. For this reason one can often observe that speakers specify directions towards the left or right side of a valley by using

1. *ad hoc* landmarks (e.g objects, persons, buildings),
2. geographic landmarks (i.e. place names of neighbouring valleys or villages).

Ad hoc landmarks

- (7.85) *Te upoko 'io he tuaivi 'i te keke tuaivi. te*
 ART head PREP ART mountain LD ART side mountain ART

keo i te keke uapu.
bottom LD ART side road

‘The head is towards the mountain at the mountain-side, the bottom is towards the road side.’ (FA-T/M-3: 004)

Note that *tuaivi* ‘mountain’ always refers to the mountains of the left or right side of a valley, but not to the ‘inland’-mountains.

- (7.86) ... *hu'i atu 'io te='a vahi me te tere*
turn thither PREP ART=Dem place with ART television
me te pou=tere i 'uka. (FA-B/R-10: 018)
with ART post=TV(satellite) LD up
‘...turn (it) towards that place with the TV, with the satellite on top (of the mountain)’.

- (7.87) *E tahi kokeo nihinihi i te keke tuaivi i ko*
NUM one post pointed LD ART side mountain LD across
'io 'ua Teiki e tahi kokeo nihinihi i tai e
PREP couple T. NUM one post pointed LD sea NUM
tahi kokeo nihinihi 'io taua
one post pointed PREP 1.dl.incl.
‘One post is at the mountain side across towards Teiki’s place, one post is seawards, one post is towards us two.’ (FA-B/R-10: 009)

Geographic landmarks (=place names)

- (7.88) ... *'a hu'i te ko pukiki i ko 'io te='a vehine*
TAM turn ART side red LD across PREP ART=Dem woman
i Pata'a. (FA-Hak-9)
LD P.
‘... turn the bottom across towards that woman towards Pata'a.’

- (7.89) *Ua hu'i te a'o i Aneou e.* (RD-T/C-P3: 011)
TAM turn ART face LD A. EMPH
‘The face is turned towards Aneou.’

- (7.90) *Ma mua, ma ko keke me Aneou, taha ana'u koe*
PREP front PREP across side with A. go.across constantly 2.sg
ma 'ina.
PREP there
‘In front, across side with Aneou, you go constantly across along there.’ (RD-T/C-P3: 043)

Which geographic landmarks are chosen depends on the location of the speakers, i.e. in which valley they are located. In the valleys on the western coast speakers frequently use the place name of Hakahau which lies in the north-east of the island, thus not in line with the ACROSS-direction. The reason why Hakahau is frequently used might be due to its cultural significance on the island as being the principal valley with important administrative functions, a hospital, higher schooling and education, various specialised shops (clothing, electrical articles, food, video) etc..

When the motion verbs *hiti*, *heke* and *taha* are used on the small-scale level they are considered as truly directional expressions because the motion event is atelic and the verbals refer to movement on a flat horizontal plane. Thus, they do not refer to movement on a ascending or descending path:

- (7.91) *hiti* ‘go inland’
heke ‘go seaward’
taha ‘go across’

In the data of the *Route Description* task which reflects movement on a small-scale level, it can often be observed that these motion verbals occur on their own, i.e. without further specifying the moving direction by composing the clause with noun phrases containing the local landmark nouns *tai*, *uta* or *ko*:

- (7.92) *Ua hiti koe ma 'i'a~ma kaokao o te=nei pou~*
TAM go.inland 2.sg PREP there PREP side POSS ART=Dem post
'i~ me tai, me koe ana e, ma te kaokao o
LD with sea with 2.sg DUR EMPH PREP ART side POSS
te=na pou, hiti ana'u, hiti ana'u ma
ART=Dem post go.inland constantly go.inland constantly PREP
te kaokao e.
ART side EMPH
‘You go inland along there~ at (the) side of this post~ at~ with sea,
where you are, at the side of that post, go constantly inland go
constantly inland at the side.’ (RD-T/C-P3: 031–032)

- (7.93) ***Heke ana'u 'afaro 'io te=na pou.*** (RD-T/C-P3: 025)
go.seaward constantly straight PREP ART post
‘Go constantly straight seawards towards that post.’

- (7.94) **Taha** ana'e koe ma vaveka o te=na papua.
 go.across simply 2.sg PREP middle POSS ART=Dem enclosure
 'You simply go across through the middle of that enclosure.'
 (RD-T/C-P3: 002)
- (7.95) **U taha ana'u tihē 'i te kaokao o te pora.**
 TAM go.across constantly arrive LD ART side POSS ART bowl
 'Go constanly across (until you) arrive at the side of the bowl.'
 (RD-T/C-P3: 078)

Locative constructions with local landmark nouns are mostly used when verbals other than *hiti*, *heke* and *taha* are used because motion verbals like *he'e* 'go' or *piko* 'turn, bend' are unspecific with respect to a particular direction:

- (7.96) **Ua piko 'i tai mei 'io te pou.** (RD-T/C-P3: 050)
 TAM bend LD sea from PREP ART post
 '(The toy man) is taking a curve towards the sea from the post.'

On the small-scale level *hiti*, *heke* and *taha* can only be used when the movement clearly coincides with SEA/INLAND- or ACROSS-axes or directions. In static configurations, as for instance in the *Farm Animals* game, the orientation of an object can also be expressed by the motion verbals *hiti*, *heke* or *taha*. This has been called prospect path (Talmy 1996), i.e. indicating the possible moving direction of the object:

- (7.97) **T=a='u horave heke atu 'i tai.**
 ART=POSS=1.sg horse go.seawards DIR LD sea
 'My horse, (it) is going towards the sea.' (FA-T/M-H-17: 222)

Three factors allow us to argue that the lexical meanings of *hiti* and *heke* and *taha* are truely directional when used in the absolute frame of reference. The verbals can be used

1. without further specification of a direction by a locative noun phrase
 (e.g. '*i tai* 'seaward');
2. on a flat horizontal plane.

And they can only be used on a small-scale level when

3. the moving direction coincides with one of the absolute axes.

The directional meanings of *hiti* ‘go inland’ and *heke* ‘go seaward’ are derived from the ‘slope’ meaning *hiti* ‘ascend’ and *heke* ‘descend’ mainly through the abstraction of the ‘slope’-like SEA/INLAND-axis of a large-scale onto a small-scale level. Unlike these motion verbals, the lexical meanings of the corresponding local landmark nouns are not truly directional: when *tai* ‘sea’ and *uta* ‘inland’ are used on a small-scale level *tai* always refers to the landmark SEA, and *uta* to the ‘inland’-quadrant. Locative constructions with *tai* and *uta* only get a directional reading because they are used on a small-scale referential level. Moreover, there are only two construction types which indicate that a local landmark noun is used within the absolute system, namely the *ma*-possessive construction type and the *keke*-construction:

- (7.98) *Te horave ma tai o te tumu 'akau ti'ohi='ia atu 'i tai.*
 ART horse PREP sea POSS ART trunc wood look.at=Perf DIR LD sea
 ‘The horse, (it) is seaward of the tree, looking seawards.’
 (FA-B/R-18:012–13)
- (7.99) *Ma uta o te=nei mou tumu 'akau e tahi piha.*
 PREP inland POSS ART=Dem DL trunc wood NUM one cow
 ‘One cow is inland of these two tree.’ (FA-T/M-3: 003)
- (7.100) *Na koe i pe'au ma uta o te tumu 'akau. – 'A'o'e, ma ko o te tumu 'akau. 'i keke 'ima a'e e piha.*
 TOP 2.sg TAM say PREP inland POSS ART trunc wood LD side hand left TAM cow
 ‘It is you who said inland of the tree. – No, acrossward of the tree, at the left hand side is the cow.’ (FA-T/M-5: 016–017)
- (7.101) *E inu a'a te koivi piha i te vai te keke me tai te koivi piha 'i tai 'i te keke me tai o*
 TAM drink Dem ART female cow DO ART water ART side with sea ART female cow LD sea LD ART side with sea POSS

te paisa.
ART lwFr.trough

‘The cow is drinking water (at) the side with sea, the cow is seawards at the sea-side of the trough.’ (FA-B/R-9: 003)

‘*I*- and *mei*-marked local landmark nouns do not indicate whether the construction gets a directional or locational reading. In large-scale reference, ‘*i*-marked *tai* can refer to the direction of the landmark SEA as well as its place (= ‘sea’-region):

- (7.102) *i tai*
LD sea
1. the ‘sea’-region (=place)
2. seaward (=direction)

Whether an ‘*i*-marked local landmark noun gets a directional reading or not, can be disambiguated by the scale of reference. We can summarise at this point that all locative construction types with local landmark nouns which are used on a small-scale referential level always get a directional reading. *Ma*-possessive constructions with local landmark nouns (see [7.98–101]) always get a directional reading because this construction type can only be used in small-scale reference. Local landmark nouns therefore only express directionality when used

1. in a *ma*-possessive construction, or
2. on a small scale referential level (in the case of ‘*i*- and *mei*-marking).

It has to be emphasized here that it is not the lexical meaning of *tai* which expresses directionality, but the construction type or the scale of reference. The lexical meaning of *tai* always remains to be ‘sea’, regardless of the scale of reference. In the case of the *ma*-possessive construction it is the construction type which derives the directional reading and not the lexical meaning of its head (i.e. the local landmark noun).

This however is different with the set of motion verbs (see [7.91]): when used on a small-scale level in the absolute frame of reference *heke* does not mean ‘descend’, but ‘go seaward’.

In languages which use ‘up’/‘down’-expressions in the absolute frame of reference⁵⁰⁶ the meanings of these ‘up’/‘down’-expressions are indeed inherently directional, quite similar to the Marquesan motion verbs *hiti*

and *heke* which are also derived from a ‘slope’ meaning, namely ‘ascend’ and ‘descend’.

The terms ‘*uka*’ and ‘*a'o*’ in the meaning of ‘upstream’ and ‘downstream’ correspond to the UPSTREAM/DOWNSTREAM-axis described in section 2.2.2. This axis is based on the flow of the sea currents around the island of ‘Ua Pou. The UPSTREAM/DOWNSTREAM-axis is only used in those valleys of ‘Ua Pou island where the UPSTREAM/DOWNSTREAM-axis coincides with the ACROSS-axis (e.g. at Hakahetau, Hakama’i'i and Ha-kata’o, see figures 41–43).

Thus, speakers use the UPSTREAM/DOWNSTREAM-axis in combination with the SEA/INLAND-axis:

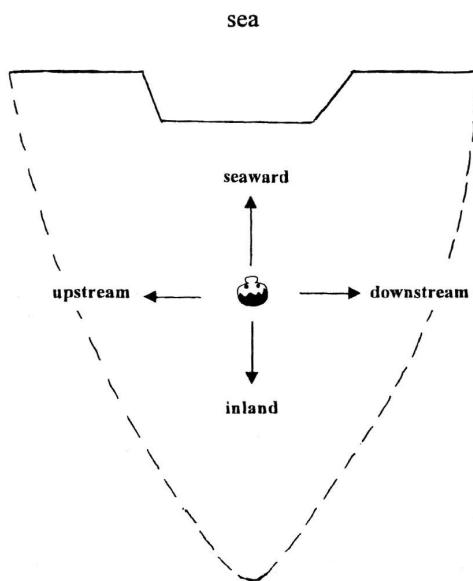


Figure 45. SEA/INLAND-axis combined with UPSTREAM/DOWNSTREAM-axis

When the speaker is positioned in the valley of Hakama’i'i (see figures 42–43) an object is localised as ‘downstream’ when it is lying in the direction of Ha'akuti, and it is localised as ‘upstream’ when lying in the direction of Hakata’o.

‘*Uka*’ ‘upstream’ and ‘*a'o*’ ‘downstream’ are also used in the *ma*-possessive construction, i.e. *uka* ‘upstream’ and *a'o* ‘downstream’ can specify an object region (see [7.95–96]). In the following interaction be-

tween a mother and her 4-year-old child, both players are facing ACROSS towards the valley of Hakata'o. The mother frequently instructs her son to put an object 'upstream' of another object. Note that *ma 'uka* does not refer to the 'up'-region of the relatum (e.g. its topside), but clearly means 'upstream of x':

- (7.103) *I uta atu, ma 'uka o te 'enana, ma 'uka.*
 LD inland DIR PREP upstream POSS ART man PREP upstream
 '(Put it) further inland, upstream of the man, upstream.'
 (*'on top of the man') (FA-Am/P-K22B)

- (7.104) *Ee, pe'e=na. to'o te tumu 'akau, tuku ma 'uka*
 yes, like=Dem take ART trunc wood put PREP upstream
o t=o koe vaevae. (FA-Am/P-K22B)
 POSS ART=POSS 2.sg RED-foot
 'Yes, like that. Take the tree, put (it) upstream of your feet.'
 (*on top of your feet).

'Uka 'upstream' and 'a'o 'downstream' are not frequently used within the absolute frame of reference. One can observe this usage in the speech of people living in the valleys of Hakama'i'i and Hakahetau. I have neither observed this usage of 'upstream'- and 'downstream'-constructions in the speech of Ha'akuti nor Hakahau speakers, both valleys where the natural contrast of sea currents to the left or right side of the valley does not exist (see this chapter, § 2.2.2).

Finally a rather marginal usage of the body-part terms *a'o* 'face', *tua* 'back' *ima a'e* 'left hand' and *ima oko* 'right hand' in the absolute frame of reference shall be mentioned here. Some consultants claim that these body-part terms refer to the four quadrants within a valley:

(7.105)			
	Body-part		Local Landmark or Quadrant
<i>a'o</i>	'face'	⇒	'sea'
<i>tua</i>	'back'	⇒	'inland'
<i>ima a'e</i>	'left hand'	⇒	'left side of valley'
<i>ima oko</i>	'right hand'	⇒	'right side of valley'

The speaker of the following utterance is positioned in Hakama'i'i and his gaze of direction is ACROSS in the direction of Hakata'o:

- (7.106) ...'a *hu'i ana koe i te ko pukiki 'i tumu toa~*
 TAM turn CONT 2.sg DO ART side red LD trunc fir
 te=na upoko hu'i koe 'i 'ima a'e 'i Hakata'o
 ART=Dem head turn 2.sg LD hand left LD H.
 '... you are turning the bottom towards tree~ that head, you turn
 (it) left towards Hakata'o.'

The usage of '*ima a'e* 'left hand' in (7.106) is clearly not due to the speaker's own left side because his left-hand side is in 'inland' direction:

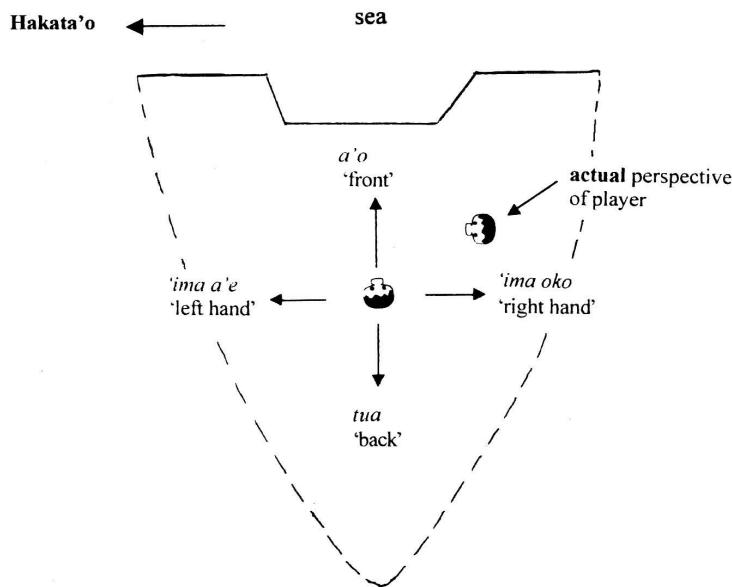


Figure 46. Direction of gaze of player with respect to valley quadrants

From the point of view of a canonical observer facing the sea, the 'left hand side' of the valley of Hakama'i'i is towards Hakata'o. Due to the speaker's position and direction of gaze in the space game, we can conclude that *ima a'e* in (7.106) is indeed used within the absolute frame of reference. This assumption is based on two observations:

1. '*Ima a'e* 'left hand' is not used in relation to the speaker's own body.
2. The direction he refers to in (7.106) coincides with the 'left side of the valley' (from the point of view of a *canonical observer*).

The usage of the body-part terms *a'o* 'face', *tua* 'back', '*ima a'e*' 'left hand' and '*ima oko*' 'right hand' in the absolute frame of reference is marginal. Three of my main consultants, however, affirmed that they can be used in that way, i.e. these body-part terms can refer to the 'sea'-, 'inland'- or 'across'-quadrants of a valley.

The metaphorical extension of Marquesan body-part terms to the quadrants of a valley shows that the usage of an absolute system can be based on the concept of a canonical observer who anchors his canonical gaze on the one and only real landmark within the valley: the SEA. The body-part terms are metaphorically extended to the specific regions or quadrants of a valley. This extension is based on a canonical perspective and direction of gaze of the language user: the 'front'-part of a canonical observer is therefore identified with the 'sea'-region, and the 'back'-part with the 'inland'-region etc..⁵⁰⁷

According to Klein (1994) absolute systems are generally based on this concept of a canonical observer and that these systems can be considered as a subjective restructuring of the objective basic space:

Das kann man sich verdeutlichen, wenn man sich das 'absolute System' als jenen Sonderfall des Körpersymmetrie-Systems vorstellt, bei dem *immer* die Perspektive eines kanonischen Beobachters, nie die des aktuellen Beobachters, die Orientierung vorgibt. Maßgeblich ist nicht die *aktuelle* Perspektive des Sprechers oder Hörers zum Zeitpunkt der Kommunikation, sondern die Perspektive eines kanonischen Beobachters, der immer dorthin schaut, wo (zu einer bestimmten Jahreszeit) die Sonne aufgeht. (Klein 1994: 180) [One can illustrate it by imagining the 'absolute system' as a special case of the asymmetrical body coordinates of which the perspective of a canonical observer *always* determines the orientation, but never an actual observer as such. Important is not the *actual* perspective of the speaker or addressee at the moment of communication, but the perspective of a canonical observer who always looks into the direction where the sun rises (at a particular season of the year)]

According to Klein (1994) three aspects are therefore crucial:

1. Absolute systems are a special case of the asymmetrical body coordinates;
2. Absolute systems are based on a frozen, but not on the actual perspective of the language user;
3. Absolute systems only require *one* anchor point (or landmark) in order to evolve.

There is evidence that Klein's assumptions about absolute systems are correct. We know from the analysis of the SEA/INLAND/ACROSS-system that there is only one anchor point or real landmark involved in the system. Secondly, the usage of '*ima a'e*' 'left hand' in (7.106) has shown that absolute systems are based on a 'frozen' and not on the actual perspective of the language user. And thirdly, if absolute systems are indeed a special case of the asymmetrical body coordinates, then we can also explain why we generally find a geometrical order of two coordinates in absolute systems, quite in line with human body coordinates.

Absolute systems are often characterised as being non-egocentric systems in which the language user does not play a role at all (Brown and Levinson 1993; Levinson 1996; Wassmann and Dasen 1998). Although the *actual* perspective and position of the language user is irrelevant when localising one object in relation to another one⁵⁰⁸ (Klein 1994), the importance of the language user's role becomes apparent when studying the acquisition of such an absolute system. When using an absolute system one has to be able to keep track of one own's current position at all times and *in all places*, i.e. in *familiar* and *unfamiliar surroundings*. This seems to be a difficult task for children learning an absolute system because they easily get disorientated in unfamiliar surroundings (Cablitz 2002). Thus, children have difficulties in locating their own current body position in relation to the landmarks or quadrants on which an absolute system is based.⁵⁰⁹ These difficulties are in particular observed with children under six years of age. Over 6-year-olds also make interesting references when their direction of gaze is suddenly changed in the course of the space games or when they are inside an unfamiliar house: they always refer to the direction which coincides with their own direction of gaze as 'seaward', regardless of the quadrant towards which their gaze is directed. This might indicate that their 'seaward' reference is based on the concept of a canonical observer who is facing the sea. Children who are disoriented might use this frozen perspective of a canonical observer as a strategy to anchor their coordinates. For instance, if the child anchors his or her 'seaward' direction at the right hand side of the valley, i.e. at the 'across'-quadrant, then the 'inland'-quadrant is referred to as 'across' etc.. Note that, unlike adults, six- or seven-year-old children do not normally shift all coordinates systematically around.⁵¹⁰

3.1.4. Summary

Speakers of Marquesan employ all three frames of spatial reference with a preference for the absolute frame of reference (see also below). The local nouns *mua* ‘front, first’, *mu’i* ‘behind, last’ and *hope* ‘behind’ and the body-part terms *tua* ‘back’ and *a’o* ‘face, front’ are used in locative constructions which are ambiguous across the intrinsic and the relative frame of spatial reference. This ambiguity of ‘front’/‘back’-expressions in the intrinsic and relative frames of spatial reference is a well-known ambiguity which has been documented for a number of languages (see Miller and Johnson-Laird 1976; Hill 1982; Ehrich 1985; Levinson 1996).

Within the intrinsic frame of reference there is an interesting distribution of usages of the body-part terms *tua* ‘back, spine’ and *keo* ‘bottom’. *Tua* is preferably used with objects whose main orientation axis is vertically extended. *Keo*, on the other hand, is used with objects whose main axis is horizontally extended, as in the case of vehicles. This distributional difference in the usage of *tua* and *keo* to denote a ‘behind’-region shows that the metaphorical extension of body-part terms to denote locations is linked to their source concept. The different usages of *tua* and *keo* show moreover that the extension of Marquesan body-part terms is not only based on the human model in its canonical vertical position, but also on the model of a four-legged animal body whose main orientational axis is horizontally extended. However, such usages of body-part terms have been reported for other languages such as African and Mesoamerican languages (Heine 1989; de León 1992).

When speakers use *tua* ‘back’ and *a’o* ‘face, front’ in the relative frame of reference, they always employ the facing strategy which is conceptually based on a canonical face-to-face encounter. As for the local nouns *mua* ‘front, first’, *mu’i* ‘behind, last’ and *hope* ‘behind’ speakers employ the facing as well as the aligning strategy with a clear preference for the latter. Like speakers of the African language Hausa, speakers of Marquesan switch from an aligning to a facing strategy when the theme is occluded by the relatum. Furthermore, I discussed whether *mua* and *mu’i* really mean ‘front’ and ‘back’ or rather ‘first’ and ‘last’. This remains an open question. However, I proposed that ‘front’ and ‘first’ and ‘back’ and ‘last’ are probably related meanings.

The two systems of spatial orientation, i.e. the within-valley-system and the system for navigation on sea, are also used in small-scale reference. This frame of spatial reference has been called the absolute frame of refer-

ence. For instance, objects on a table-top space are distinguished with respect to the SEA/INLAND- and ACROSS-axes. The ACROSS-axis expressed by the local noun *ko* does not specify whether the speaker refers to the left or right side of a valley. Speakers therefore often use place names or descriptions, which refer to *ad hoc* landmarks, in order to differentiate between the left or right side of a valley. In some valleys of 'Ua Pou island, e.g. at Hakama'i'i, the left or right side of the valley are distinguished by the UPSTREAM/ DOWNSTREAM-axis which is based on the flow of the sea currents around the island (see this chapter, § 2.2.2). Thus, two objects can be distinguished from each other by referring to the one as the ‘upstream’ object and another as the ‘downstream’ object. Like *tai* ‘sea’, *uta* ‘inland’ and *ko* ‘left or right side of valley’, *uka* ‘upstream’ and ‘*a'o* ‘downstream’ can occur in a *ma*-possessive construction. Like *tai*, *uta* and *ko*, ‘*uka* ‘upstream’ and ‘*a'o* ‘downstream’ have become grammaticalised markers of location in that they are used to specify object regions.

There is a marginal use of the body-part terms *a'o* ‘face, front’, *tua* ‘back’, ‘*ima a'e* ‘left hand’ and ‘*ima oko* ‘right hand’ to refer to the ‘sea’-, ‘inland’- and ‘across’-quadrants of a valley. The usage of body-part terms in this way reveals that absolute systems might be based on the concept of a canonical observer. Absolute systems are therefore based on a frozen perspective of the language user. This also explains why the actual perspective of the language user never plays a role in absolute systems. Moreover, it also shows that absolute systems can evolve from only one anchor point which is undoubtedly the case in the Marquesan SEA/INLAND/ ACROSS-system.

3.2. Preferred frame of spatial reference

It was briefly mentioned above that the absolute system seems to be the preferred frame of spatial reference, in particular when the relata are unfeatured objects. Photos 3, 5 and 8 represent spatial configurations in which the chosen relata (trees, enclosures and troughs) are objects with weakly featured axes. The following examples describe spatial relations of photo 3, 5 and 8 by two different sets of players with varying directions of gaze:

Photo 3

Local landmark (direction of gaze: SEWARD)

- (7.107) *Ma uta o te=nei mou tumu 'akau e tahi piha.*
 PREP inland POSS ART=Dem DL trunc wood NUM one cow
 'One cow is inland of these two trees.' (FA-T/M-3: 003)

Ad hoc landmark (direction of gaze: ACROSS)

- (7.108) *Te='a mou tumu 'akau ta=pi'i koe ia 'aua 'i te keke me 'ua Toti.*
 ART=Dem DL trunc wood CAUS=stick 2.sg DO 3.dl LD ART side with couple T.
 'Those two tress you stick theme together at the side where Toti and his wife live.' (FA-B/R-3:001)

Orientation of object (direction of gaze: ACROSS)

- (7.109) ... *ti'ohi='ia atu 'i te mouka, 'i tai te keo,*
 look.at=PASS? DIR LD ART high.mountain LD sea ART bottom
'i uta te mata o te koivi piha. (FA-B/R-3: 001)
 LD inland ART face POSS ART female cow
 '... (it) was looked at the high mountain, the bottom is seawards, the face of the cow is inland.'

Photo 5

Local landmark (direction of gaze: SEWARD)

- (7.110) *E 'ua tumu 'akau, ma uta o te='a tumu 'akau e isorave~, keke tuaivi keke 'ima oko,*
 NUM two trunc wood PREP inland POSS ART=Dem trunc wood TAM horse side mountain side hand right
ma uta ma uta nei e isorave.
 PREP inland PREP inland Dem TAM horse
 'Two tress. Inland of that tree is a horse~ smountain side right hand side, inland inland close to me is a horse.' (FA-T/M-3)

Ad hoc landmark and local landmark (direction of gaze: ACROSS)

- (7.111) *'Io te='a tumu 'akau 'i tai, keke me 'ua Toti*
 PREP ART=Dem trunc wood LD sea side with couple T.
ma ko, tutuki i te koivi piha, ma ko o
 PREP across meet,touch DO ART female cow PREP across POSS
te=na tumu 'akau.
 ART=Dem trunc wood

'At the seaward tree at the side where Toti lives, acrossward, (it) meets a cow, acrossward of that tree.' (FA-B/R-5)

Photo 8

Local landmark (direction of gaze: SEAWARD)

- (7.112) *Ee ma tai o te='a 'enana me te='a puaka, e keke me tai e tahi tumu 'akau.*
 yes PREP sea POSS ART=Dem man with ART=Dem pig
 TAM side with sea NUM one trunc wood
 'Yes, seaward of that man and that pig, at the side with sea is one tree.' (FA-T/M-3)

The following examples uses a temporal expression in order to indicate the location of the tree in photo 8:

- (7.113) *E 'ua puaka~ tuku hua tumu 'akau me he mea 'i kapo~ 'a'e taui.*
 NUM two pig put ART trunc wood like ART thing LD
 earlier.on be.not IwTah.change
 'Two pigs~ put that tree like (the one) earlier on~ it hasn't changed.'(FA-B/R-8: 1)

The absolute frame of reference is often preferred when the spatial relation could have been expressed within the intrinsic frame of reference, i.e. when the relatum is sufficiently featured, i.e. when the object has a FRONT/BACK-axis. The following two examples (7.114–115) are taken from the same set of players as in (7.107–113) and the Director describes the position of the two trees in photo 4 which are unequivocally positioned at the cow's and horse's backsides. However, the Director prefers to describe the trees' positions with respect to local and *ad hoc* landmarks:

Photo 4

Local landmark and *ad hoc* landmark

- (7.114) *E 'ua tumu 'akau 'i tua.⁵¹¹ Mea ana mamao te hoa me te hoa. E keke tuaivi~ ma uta o te tumu 'akau e tahi isorave. Te keo 'io te keke me te tumu 'akau, te upoko 'i uta.*
 NUM two trunc wood LD sea STV-P a.little distant ART one
 with ART other TAM side mountain PREP inland POSS ART
 trunc wood NUM one horse ART bottom PREP ART side
 with ART trunc wood ART head LD inland

'Two trees are seawards. the one is a little distant from the other, is at the mountain side~ inland of the tree is one horse. The bottom is towards the side with the tree, the head is inland.' (FA-T/M-4: 001–005)

Ad hoc landmark and local landmark (direction of gaze: ACROSS)

- (7.115) *E tuku koe i te='a tumu 'akau 'i te keke me 'ua Teiki 'umo'i haka-pipi'i~ hei pu te mamao te hoa me te hoa~ t=o 'aua kao hu'i='ia atu 'io Teiki, ...* (FA-B/R-4)
- TAM put 2.sg DO ART=Dem trunc wood LD ART side
with couple T. PROHIB CAUS=stick right just ART distant
ART one with ART other ART=POSS 3.dl branch turn=PASS DIR
PREP T.

'You put that tree at the side where Teiki lives, don't stick it together~ the distance between the one and the other is just right~ their branches are turned towards Teiki,'

Photo 6

- (7.116) *Ma te kaokao ma te keke te keke o te keo o te puaka ma tai e piha.* (FA-T/M-6)
- PREP ART side PREP ART side ART side POSS ART bottom POSS ART pig PREP sea TAM cow
- 'At the side, at the side the side of the bottom of the pig, seaward (of the pig) is a cow.'

Photo 8

- (7.117) *E tahi ana mamao {mu'} mu'i mai, ee ma tai o te='a 'enana me te='a puaka.*
- NUM one a.little distant lapse last DIR yes PREP sea POSS ART=Dem man and ART=Dem pig
- 'One (pig) is a little distant following behind, yes, seaward of that man and that pig.' (FA-T/M-8)

The above examples are quite representative for spatial descriptions made in the *Farm Animals* game. It should have become evident that speakers of Marquesan prefer the absolute frame of reference although they have the linguistic means of expressing spatial relations in the relative and intrinsic frames of reference. It is in a way surprising that speakers even prefer the absolute over the intrinsic frame of reference because the intrinsic is often thought to be "rather fundamental in spatial description" (Lev-

inson 1996: 142). The following table summarises the occurrence of unfeatured and featured relata in the absolute frame of reference. When occurring with these relata *tai* ‘sea’, *uta* ‘inland’ and *ko* ‘across’ occur in a *ma*-possessive construction. The data of three sets of players of the *Farm Animals* game are analysed:

Table 41. Featured and unfeatured relata used in the absolute frame of reference

Relata in a <i>ma</i> -possessive construction	<i>tai</i> ‘sea’	<i>uta</i> ‘inland’	<i>ko</i> ‘across’
Unfeatured relata (e.g. tree, trough)	19	16	–
Featured relata with FRONT/BACK-axis (e.g. horse, car)	4	2	1

The different frames of spatial reference can be combined in the same utterance. In the following utterances the absolute frame of reference is combined with the relative (see [7.118]) and intrinsic frames of spatial reference (see [7.119]):

Absolute and relative FoRs

- (7.118) *E heke nei titahi 'enana ma mua o*
 TAM go.seaward Dem ART.indef man PREP front POSS
te='a tumu 'akau me titahi koivi puaka.
 ART=Dem trunc wood with ART.indef female pig
 ‘A man is going seaward in front of that tree with a sow.’
 (FA-T/M-H-8)

Absolute and intrinsic FoRs

- (7.119) *E tahi piha ma tai o te tumu 'akau, e*
 NUM one cow PREP sea POSS ART trunc wood TAM
taha 'i te keke 'ima a'e. (FA-T/M-2)
 go.across LD ART side hand left
 ‘One cow is seaward of the tree, (it) is going across towards the left hand side.’

Locative constructions used in the absolute frame of reference are also often combined with deictic information such as demonstratives and directional particles as already discussed in detail in chapter 6, sections 2.2.2 and 3.

3.3. Polysemy of the local noun *ko*

The etymology of N-MQA *ko* is not clear. The local noun *ko* is not only used within the intrinsic and absolute frame of spatial reference, but also as a deictic expression. In the intrinsic frame of reference *ko* is basically used to refer to the ‘side’-region of an object which is assigned on the basis of an object’s inherent sides. In the absolute frame of reference *ko* means ‘left or right side of valley (=across)’. We can assume that *ko* in the intrinsic and absolute frames of spatial reference are probably cognate.

When speakers of the 'Ua Pou vernacular use *ko* as a deictic expression it simply means ‘there’ (see ch. 3, § 4.3.4). *Ko* ‘there’ is only used in a *demonstratio ad oculos*-situation and is mostly accompanied by a pointing gesture. *Ko* ‘there’ can be used to refer to any location and direction in the line of sight of the speaker, thus *ko* ‘there’ can be used to refer to a location which lies in the direction of the ‘sea’- or ‘inland’-region and not necessarily in the direction of the left or right side of the valley.

The question is whether *ko* ‘there’ and *ko* ‘side, across’ are cognate or not. For Proto Polynesian Clark glosses PPN **koo* as ‘there’, i.e. as a deictic expression (1976: 55). There are two ways to interpret the different meanings and uses of *ko* in the 'Ua Pou vernacular:

1. *Ko* ‘there’ and *ko* ‘side, across’ are not cognate and have developed independently from each other, thus are homonyms.
2. *Ko* ‘there’ and *ko* ‘side, across’ are cognate and the meaning ‘side, across’ has derived from the deictic local noun *ko* ‘there’ through a process of semantic narrowing.

These two hypotheses cannot be evaluated because I do not have sufficient data to confirm the one or the other hypothesis. At the present state of the data we have to assume that *ko* ‘there’ and *ko* ‘side, across’ are homonyms.

Although the etymology is problematic, *ko* ‘there’ and *ko* ‘side, across’ can be distinguished: *ko* ‘there’ does not occur with a preposition and is frequently modified by the demonstratives *nei* ‘here’ *a'a* ‘there’ (*ko nei* ‘there close to me’ and *ko a'a* ‘over there’). *I*-marked *ko* always refers to the left or right side of a valley, i.e. *i*-marked *ko* is used exclusively in the absolute frame of reference. When *ko* is prefixed by the directional affix *ka-* it can refer to a movement towards the left or right side of the valley, but *kako* can also refer to movement into any direction:

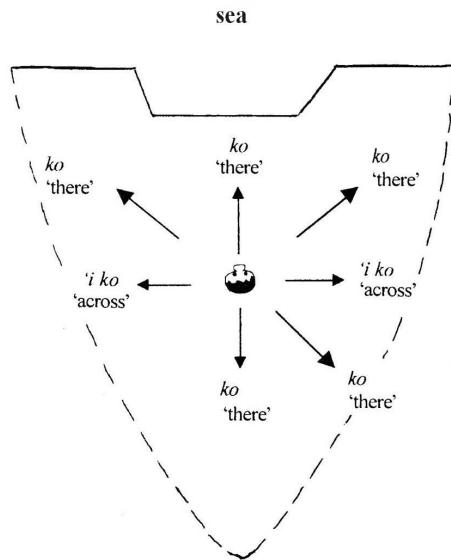


Figure 47. *Ko* 'there' vs. *i ko* 'left or right side of valley (=across)'

In a *ma*-possessive construction *ko* can refer to several distinct object regions:

1. 'acrossward of object x' (=absolute frame of reference)
2. 'at the side of object x' (=intrinsic frame of reference)

Apart from these two uses, *ko* can also refer to 'near side' and 'far side' of an object. The 'near side' of an object is distinguished from the far side in that *ma*-marked *ko* is modified by the proximal demonstrative *nei* 'close to speaker': *ma ko nei* 'near side' vs. *ma ko* 'far side':

3. 'at near/far side of object x in the direction of gaze of the language user'

This usage of *ko* is dependent on the viewpoint of the speaker. If speakers change their position the 'far side'- or 'near side'-region of the relatum changes too.

The latter usage of *ma*-marked *ko* can be increasingly observed with younger speakers of Marquesan. In a placement task⁵¹² all speakers under 25 years interpreted *ma ko* as being at the 'far side of the relatum'. The oldest

age group (50+), on the other hand, always placed the theme ‘acrossward of the relatum’ i.e. interpreted *ma ko* within the absolute frame of reference. As for speakers inbetween the youngest and oldest age group (25–50 years) they interpreted *ma ko* as ‘acrossward of object x’ as well as ‘far side of object x’. This depended on how the relatum was positioned in relation to the consultant. If the relatum was placed right in front of the consultant, they had a preference to place the theme at the ‘far side of the relatum’. If the relatum, on the other hand, was not right in line with their gaze, they placed the theme ‘acrossward of the relatum’, i.e. employed the absolute frame of reference. Not surprisingly the difficulty of comprehending locative constructions with the polysemous *ko* is often commented upon by my consultants (see following dialogue):

(7.120)

M: *I he kaokao te mua,⁵¹³ ma ko o te tumu 'akau*
 LD ART side ART front PREP side POSS ART trunc wood
 ‘At the side is the front, at the side of the tree.’

D: *E ho'i ma ko 'i hea='ia te ma ko ma ko*
 TAM indeed PREP side LD where=Perf ART PREP side PREP side
ma ko ma ko?
 PREP side PREP side
 ‘*Ma ko* indeed, where is the *ma ko*, *ma ko ma ko ma ko*?’

M: *Ça dépend mehemea pe'au anake koe mehemea ma ko*
 csFr.Dem csFr.depend if(real.) say MOD 2.sg if(real.) PREP side
 ‘*Ça dépend* if you say, if *ma ko*’

D: *Pehea='ia t=o koe positionner?*
 how=Perf ART=POSS 2.sg csFr.position
 ‘How have you *positionner* (it)?’ (lit. ‘how is your positioning’)

It seems, however, that speakers increasingly choose the viewpoint-dependent interpretation of *ma*-marked *ko* (‘near/far side of relatum’). The viewpoint interpretation is probably preferred because it is more reliable and the speaker does not need to orientate him- or herself in the local environment. Moreover, when using *ma*-marked *ko* in the absolute frame of reference the addressee has to choose between two possible object regions because the two ‘across’-regions of an object are not distinguished. However, when using the viewpoint interpretation the reference is unequivocal,

namely by modifying *ma*-marked *ko* with *nei* ('near side') or not ('far side').

3.4. Difficult classifications

In this subsection I will briefly discuss two systematic uses of locative constructions which can not be classified with respect to frames of spatial reference. This concerns the local nouns *mua* 'first, front' and *mu'i* 'last, back' and *'uka* 'up' and *'a'o* 'down'. With respect to *mua* and *mu'i* it will explain why one could assign the meaning 'first' and 'last'.

Apart from being used in the relative and intrinsic frames of spatial reference, *mua* 'first, front' and *mu'i* 'last, back' are frequently used in alignment configurations. As for alignment configurations there are at least three objects involved in order to form a row or an alignment configuration. This is for instance the case in photo 17 of the *Farm Animals* game:

Photo 17

- (7.121) *E tahi tumu 'akau 'io titahi tohua, hm, e heke nei titahi piha ma mua o te='a tumu 'akau, hu'i atu te mata 'i mua e.*
 NUM one trunc wood PREP ART court.yard INTJ TAM go seawards
 Dem ART cow PREP front POSS ART=Dem trunc wood
 turn DIR ART face LD front EMPH
 'One tree on a courtyard, hm, a cow is going seawards in front of that tree, turn the face to (the) front.' (FA-T/M-H-17)

- (7.122) *E tahi horave e heke mai nei mei uta mai, ma mu'i o te='a tumu 'akau~~ e vivini ana koe?*
 NUM one horse TAM go seawards DIR Dem from inland hither
 PREP back POSS ART=Dem trunc wood TAM understand
 CONT 2.sg
 'One horse, (it) is coming seawards, coming from inland, behind the tree~ do you understand?' (FA-T/M-H-17)

As illustrated in (7.121–122) *mua* and *mu'i* occur in *ma*-possessive constructions which indicate that speakers regard these constructions as specifying an object region. In both examples the relatum clearly is the tree which is a weakly featured object. The 'front'- or 'back'-region is neither

assigned on the basis of inherent properties of the relatum nor does the relative position of the language user play a role.⁵¹⁴ One might ask how the ‘front’- and ‘back’-region in (7.121–122) are assigned to the relatum. As such references only occur when at least three objects are involved, the explicitly mentioned relatum (i.e. the tree in [7.121–122]) together with another object form an alignment configuration which will specify the ‘front’- and ‘back’-regions. Important is that all three objects form a row or alignment. Due to these requirements we can therefore say that the most appropriate gloss for *mua* and *mu'i* is probably ‘first’ and ‘last’. The first or last object in the alignment configuration needs to have an inherent FRONT/BACK-axis such as the horse or cow in photo 17. The orientation of the FRONT/BACK-axis of the first or last object also determine the assignment of the ‘front’- and ‘back’-regions of the relatum.⁵¹⁵ If we look at photo 17, the tree’s *mua*-region therefore corresponds to the cow’s position and the tree’s *mu'i*-region to the horse’s position.

When recording the *Farm Animals* game with the players of the utterances (7.121–122), the players were facing ACROSS, and the left hand side of the players corresponded to the seaward direction, and the right hand side to the inland direction. It was therefore possible that *mua* was used due to the seaward direction, and *mu'i* due to the inland direction.

I have tested this with my consultants by confronting them with these types of alignment configurations in various directions which did not coincide with the SEA/INLAND- or ACROSS-axes. I placed two objects in front of my consultants, an unfeatured object (e.g. a tree or a ball), and a second object had an inherent FRONT/BACK-axis (e.g. a car or toy pig), and then asked the consultant to place a third object either *ma mua* or *ma mu'i*. The orientational axis of the second object always deviated from the consultant’s viewpoint or direction of gaze. Seven out of eight consultants placed the third object in the way described above, namely formed an alignment configuration.

Whether or not the first or last object need to have an inherent FRONT/BACK-axis or not, was also tested by confronting my consultants with two unfeatured objects. Indeed the configuration was not regarded as an alignment configuration anymore: most consultants interpreted my *ma mua* ‘in front (of)’ and *ma mu'i* ‘in back (of)’ instructions within the relative frame of reference, i.e. they placed the third object at the near or far side of the relatum.

This alignment configuration is in fact a three-point-localisation because a second reference point is involved to assign an object region, namely the

inherent orientation of the first or last object in the alignment configuration. Thus the assignment of an object region is similar to relative and absolute systems in which an object region is also assigned via a secondary reference point.⁵¹⁶

Finally, I would like to point out uses of '*uka* 'up'' and '*a'o* 'down'' which express spatial relations on a horizontal plane (and not on the vertical axis): '*uka* 'up'' is used when the theme is further away from the speaker than the relatum, and '*a'o* 'down'' is used when the theme is closer to the speaker than the relatum. This usage of '*uka*' and '*a'o*' is influenced by how speakers visually perceive the configuration: if the theme is further away from the speaker than the relatum, then the theme is perceived to be 'higher' or UP, and vice versa, if the theme is closer to the relatum it is perceived to be 'lower' as the relatum, and thus DOWN (see also ch. 4, § 5).

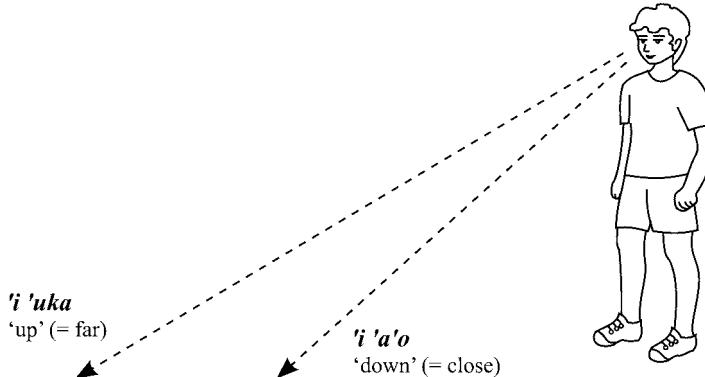


Figure 48. '*Uka* 'up' (=far) and '*a'o* 'down' (=close)

I have observed this kind of reference only in the speech of older children aged 10 to 14 years; adults do not use '*uka* 'up'' and '*a'o* 'down'' in this way. Interestingly, these uses of '*uka*' and '*a'o*' can be found in various locative construction types, in particular in the *ma*-possessive construction type:

(7.123)	<i>To'o</i>	<i>koe</i>	<i>te</i>	<i>horave</i>	<i>e</i>	<i>horave</i>	<i>te</i>	<i>horave</i>
	take	2.sg	ART	horse	TAM	horse	ART	horse
	<i>tuku</i>	<i>koe</i>	<i>ma</i>	<i>'a'o</i>	<i>nei</i>	<i>o</i>	<i>te='a</i>	<i>rine</i>
	put	2.sg	PREP	down	Dem	POSS	ART=Dem	lwFr.line

te='a rine.
ART=Dem lwFr.line

'You take the horse, is a horse, the horse, you put it below of that line that line (the side which is closer to me).' (FA-R/T-K34)

- (7.124) *Ee, ma 'uka he rine ma 'uka he rine.*
yes PREP up ART lwFr.line PREP up ART lwFr.line
'Yes, above the line, above the line.' (FA-R/T-K34)
- (7.125) *Piha pukiki tuku ma 'a'o o te=na mea.*
cow red put PREP down POSS ART=Dem thing
'Red cow put (it) at the side of that thing which is closer to me (*under that thing).' (FA-R/T-K34)
- (7.126) *Tuku 'uka atu te='a mea te='a mea mea marron.*
put up DIR ART=Dem thing ART=Dem thing thing csFr.brown
'Put it further away that thing that thing *marron* thing.'
- (7.127) *'Uka atu keke me ko nei ko nei~ 'ina 'uka atu~ ok.*
up DIR side with side here side here a.little up DIR ok
'Further above at this side this side~ a little further upwards~ ok.'
- (7.128) *To'o koe t=a koe papua tuku 'ina 'a'o ['a'o]
take 2.sg ART=POSS 2.sg enclosure put a.little down down
mai... .
DIR*
'You take your enclosure put (it) a little below towards me.'

At the present stage it is not known if such '*uka*/'*a'o*-uses might develop into a conventionalised system of spatial reference within the Marquesan speech community. At the present stage it seems to be an innovation of a group of older children which use it in a systematic manner with various different locative construction types. One might speculate why such a system might develop at all, and one of the possible answers might be insufficient linguistic transmission of their first language along with an early acquisition of a second language, namely French (see also below, section 3.5). It is however noticeable that visual perception seems to play a crucial role in the (re-)interpretation of the local nouns '*uka* 'up, further away from speaker' and '*a'o* 'down, closer to speaker'.

The influence of visual perception in the data of younger age groups can also be observed in the domain of topology, as discussed in the following subsection.

3.5. Topology

A great deal of how topological relations are expressed in N-MQA has already been discussed in detail with respect to the meaning contribution of locative prepositions '*i*' and '*ma*' to the local nouns '*uka* 'up'', '*a'o* 'down'', '*oto* 'inside'', '*vaho* 'outside'' and '*vaveka* 'middle' (see ch. 5, § 6.3.3.6 and § 6.3.3.4). I will therefore only select a few stimuli of the *Topological Relations Picture Book* (see appendix 2). I am particularly interested in those themes which are not easily movable⁵¹⁷ and adhered, attached or tied to the relatum. This includes themes such as rain drops, smearable substances, writing, ribbons etc. as well as those themes which are so-called negative parts⁵¹⁸ of the relatum such as cracks and holes. In German and English negative parts are expressed by the preposition which is also used for containment- and inclusion-relations. This will also lead to a discussion of how containment is expressed in N-MQA.

In the focus of the discussion is the usage of the preposition '*io*' which is, in comparison with local nouns, semantically weakly specified. '*Io*' generally marks a relation as locative. The usage of '*io*' partly overlaps with the usage of some locative constructions with local nouns. However, there are also certain restrictions in the way '*io*' is used.

The data presented here was collected with various different age groups because I noticed an increasing use of general '*io*' among younger speakers. Apart from that the data show also other interesting changes with respect to the expression of topological relations. In this subsection I present the data of ten speakers of which:

1. three speakers are over 40 years (=age group 1);
2. four speakers are between 20 and 30 years (=age group 2);
3. three speakers are under 20 years (=age group 3).

The CARG⁵¹⁹ analysed the data of the *Topological Relations Picture Book* with respect to certain categories such as 'theme supported by horizontal surface', 'attachment', 'theme supported by hanging' etc. (see below). The most frequently discussed configurations in this subsection are

listed below the categories (see appendix 2 for corresponding line drawings):

1. Theme supported by horizontal surface
 - 'tablecloth on table (29)'
 - 'coiled hose on treestump (23)'
 - 'hose draped over treestump (43)'
2. Theme supported by hanging⁵²⁰
 - 'clothes on line (37)'
 - 'coat on hook (9)'
 - 'picture on wall (44)'
 - 'telephone on wall (25)'
 - 'earring in ear (69)'
 - 'pendant on chain (57)'
3. Adhesion
 - 'stamp on letter (3)'
4. Wet, powdery, or smearable substance on a surface
 - 'raindrops on window (48)'
 - 'butter on knife (12)'
5. Marks on surface
 - 'writing on T-shirt (68)'
6. 'Tied to'-relations
 - 'ballon on stick (20)'
 - 'ribbon around candle (4)'
7. Complete containment
 - 'dog in kennel (71)'
 - 'owl in tree (67)'
8. Partial containment
 - 'cork in bottle (62)'
 - 'dog in basket (46)'
 - 'cigarette in mouth (39)'

9. Odd containers

- ‘hole in towel (18)’
- ‘crack in cup (26)’
- ‘apples in tree (45)’

Note that in English and German all containment-relations (i.e. full, partial and ‘odd’ containment) are expressed by one and the same preposition, namely Ger. *in* ‘in, inside’ and Engl. *in*. In Marquesan the containment relations listed above cannot be unanimously expressed by one and the same construction or locative.

I. Age group 1 (over 40):

The preposition *'io* is in particular used for HANGING-, ATTACHMENT-, ADHESION- and CONTAINMENT-relations. HANGING-, ATTACHMENT- and ADHESION-relations can all be expressed by *i*-marked *'uka* ‘up’ (see ch. 5, § 6.3.3.6), except for the configuration ‘earring in ear’ which is most felicitously expressed by *'io*. *I*-marked *'uka*-utterances are mostly constructed with the existential verbal *ena*:

- (7.129) *Ena te ata 'i 'uka o te apapa.* (TRPB-To-44)
 exist ART picture LD up POSS ART wall
 ‘There is a picture on the wall.’

When *'io* is used for HANGING-, ATTACHMENT- and ADHESION-relations the elicited utterance was mostly constructed with a specific verbal which expresses the precise nature of the spatial relation between theme and relatum. Note that all constructions are passive constructions:

- (7.130) *Pati'a='ia te ata 'io he apapa.* (TRPB-Ta-44)
 hammer=PASS ART picture PREP ART wall
 ‘The picture was hammered on the wall.’
- (7.131) *Ve'o='ia te tape'a 'io he puaika.* (TRPB-Ta-69)
 pierce=PASS ART earring PREP ART ear
 ‘The earring is pierced into the ear.’
- (7.132) *Ta=pi'i='ia te timbre 'io he hamani.⁵²¹*
 CAUS=stick=PASS ART csFr.stamp PREP ART letter
 ‘The *timbre* was stuck onto the letter.’ (TRPB-Ta-3)

- (7.133) ***Humu***='ia te ahi 'io he pusi.
 tie.up=PASS ART band,ribbon PREP ART lwFr.candle
 'The ribbon is tied up on the candle.' (TRPB-Ti-4)
- (7.134) ***Tapa-tapa***='ia te ua 'io he koraise.⁵²²
 RED-press=PASS ART rain PREP ART window
 'The rain was pressed onto the window.' (TRPB-To-48)
- (7.135) ***Pine***='ia te kahu 'io he aho.
 lwFr.peg=PASS ART clothes PREP ART line
 'The clothes were pegged onto the line.' (TRPB-Ti-37)
- (7.136) ***Tau'eva***='ia te sako 'io he vahi tau'eva='ia kahu.
 hang=PASS ART lwFr.coat PREP ART place hang=PASS clothes
 'The coat is hung on the place (where) clothes are hung.'
 (TRPB-Ta-9)

Note that the hanging-relation in (7.136) can be expressed by using an '*i'uka*-possessive construction, or simply by using the verbal *ti'au* 'hook' without expressing an explicit relation between theme and relatum. In fact, in (7.138) the relatum is encoded in the verbal:

- (7.137) ***Tau'eva***='ia te kahu 'i 'uka o te *ti'au*.
 hang=PASS ART clothes LD up POSS ART hook
 'The coat is hung on the hook.' (TRPB-To-9)
- (7.138) ***Ti'au***='ia te kahu. (TRPB-To-9)
 hook=PASS ART clothes
 'The coat is hooked.'

'*Io* is rarely used when the theme is supported by a horizontal surface and it is unacceptable when the theme spatially extends the location of the relatum as in the case of 'tablecloth on table (29)' and 'hose draped over treestump (43)'. As for those two spatial configurations *ma*-marked '*uka* has to be used. It is difficult to say whether the preposition *ma* is used due to the horizontal supporting surface or whether '*uka* is marked by *ma* because the theme is spatially extended. The latter is probably the case because '*i*-marked '*uka* is not acceptable in those configurations (see ch. 5, § 6.3.3.6). Although *ma*-marked '*uka* is preferred when the theme is supported by a horizontal surface, '*i*-marked '*uka* is also acceptable, though '*i* is never the preferred preposition. Thus the inacceptability of '*i*-marked '*uka*

is an indication that *ma* expresses spatial extension of the theme. Interesting in this context is that '*io*' is mostly not acceptable when '*i*-marked '*uka*' is not acceptable. However, there are also configurations in which '*io*' is acceptable, but '*i*-marked '*uka*' is not and vice versa (e.g. 'earring in ear' and 'boat on water [11]' [*'*i* '*uka*'], 'man on roof [34]' [*'*io*']).

The semantically general location-marking preposition '*io*' is also often used when expressing a relation of CONTAINMENT and INCLUSION. CONTAINMENT is typically expressed by locative constructions with the local noun '*oto*' 'inside'. '*Io*' can be used for all configurations which are expressed by constructions with '*oto*', but '*oto*' cannot be used in all CONTAINMENT-configurations for which '*io*' can be used. '*Oto*' is used when the relatum is a container object. The location of the theme can be expressed by '*i*-marked '*oto*' when the theme is fully or partially contained at the 'inside'-region of the relatum:

- (7.139a) *Ena te puku 'i 'oto o te pora.*
 exist ART fruit LD inside POSS ART lwFr.bowl
 'There is an apple (lit. 'fruit') in the bowl.' (TRPB-Ta-2)
- (7.139b) *Ena te pake 'i 'oto o te kaka.*
 exist ART lw.Fr.parcel LD inside POSS ART bag
 'There is a parcel in the bag.' (TRPB-Ta-14)
- (7.140a) *Ena te peto 'i 'oto o t=o ia ha'e.*
 exist ART dog LD inside POSS ART=POSS 3.sg house
 'There is a dog inside its house.' (TRPB-Ta-71)
- (7.140b) *Ena te peto 'i 'oto o te kete.⁵²³* (TRPB-To-47)
 exist ART dog LD inside POSS ART basket
 'There is a dog in a basket.'

However, if the theme is localised at the opening of a container object as in 'cork in bottle (62)' and 'cigarette in mouth (39)' '*i* '*oto*' is not acceptable anymore. All consultants in this age group rejected '*i* '*oto*' because if one would express these configurations by '*i* '*oto*' it would mean that the theme is fully contained in the relatum. Instead, these two configurations have to be expressed by '*io*' or '*i* '*uka*'.

Moreover, '*oto*' is also rejected for configurations with odd containers such as 'hole in towel (18)', 'crack in cup (26)' and 'apples in tree (45)'. 'Apples in tree' seem to be rather conceptualised as a HANGING-relation

because all speakers of this group expressed it by '*i 'uka*' and '*io*'. As for 'hole in towel' '*io*' could be used, but all consultants of this group preferred a simple verbal (see [7.141]). '*Io*' was unanimously rejected for 'crack in cup'. Instead the relation 'crack in cup' is best expressed by a verbal (see [7.142]):

- (7.141) *Ua puta te tauera.*
 TAM hole ART l_wEngl.towel
 'The towel has got a hole (lit. '...is holed').'
- (7.142) *Ua poha te pora.*
 TAM be.broken ART cup
 'The cup is broken.'

So-called negative part themes are therefore preferably expressed by a verbal which indicates a *change of state* of the relatum. Note that the verbal needs to be marked by the inchoative marker *ua*.

As for CONTAINMENT-relations expressed by '*io*' no specific verbal is needed to specify the relationship between theme and relatum. Thus with container objects functioning as relata the *default*-interpretation of '*io*' is 'containment' or 'inclusion'. Whereas '*oto*' can only express 'containment' with container objects, '*io*' allows a broader range of CONTAINMENT-relations including PARTIAL INCLUSION as in the case of 'cork in bottle' and 'cigarette in mouth'. Although bottles and mouths are real containers we cannot speak of PARTIAL CONTAINMENT in those two configurations because the 'inside'-region of those containers are not involved.⁵²⁴ In the case of 'dog in basket' and 'flowers in vase'⁵²⁵ we can speak of PARTIAL CONTAINMENT because part of the theme is localised with respect to the 'inside'-region of the relatum.

II. Age group 2 (between 20 and 30):

Like age group 1, age group 2 also expresses most HANGING-relations by '*io*' as well as '*i*-marked '*uka*'. However, in age group 2 there are some noticeable changes with respect to the usage of '*io*' and '*i*-marked '*uka*' for HANGING-, ATTACHMENT- and ADHESION-relations. '*Io*' becomes more widely accepted, whereas '*i 'uka*' is more often rejected. The following table lists the configurations for which the usage of '*io*' and '*i 'uka*' diverge across age group 1 and 2:

Table 42. Use of locatives across different age groups

	Age group 2 (between 20–30)	Age group 1 (over 40)
‘pendant on chain (57)’	<i>'io</i> (* <i>'i 'uka</i>)	<i>'io, 'i 'uka</i>
‘raindrops on window (48)’	<i>'io, ma vaho, (*'i 'uka)</i>	<i>'io, 'i 'uka</i>
‘butter on knife (12)’	<i>'io (*'i 'uka)</i>	<i>'io, 'i/ma 'uka</i>
‘writing on T-shirt (68)’	<i>'io (*'i 'uka)</i>	<i>'io, 'i 'uka</i>
‘telephone on wall (25)’	<i>'io, ma te kaokao (*'i/ma 'uka)</i>	<i>'io, 'i 'uka (*ma 'uka)</i>
‘bandana around head (46)’	<i>'io (*'i/ma 'uka)</i>	<i>'io, 'i/ma 'uka</i>

Note that the oldest consultant of age group 2 (29 years) still accepted *'i 'uka* for ‘telephone on wall’ and ‘bandana around head’. The other three consultants rejected it as depicted in table 42.

As for the expression of containment there are also some noticeable changes in particular for those configurations with negative parts and PARTIAL CONTAINMENT-relations (i.e. ‘cork in bottle’ and ‘cigarette in mouth’). Some consultants accept *'i 'oto* ‘inside’ for the configuration ‘cork in bottle’, others reject it. All consultants rejected *'i 'oto* for ‘cigarette in mouth’ and thought *'io* to be the most felicitous locative. As for the negative part configurations the consultants did not spontaneously produce the elicited utterance with a verbal as in age group 1. *'Io* and *'i 'oto* were unanimously accepted for ‘hole in towel’. *'i 'oto* was rejected for ‘crack in cup’, but *'io* was generally accepted. However, all consultants preferred to express ‘crack in cup’ by *ma te kaokao* ‘at the side’. Moreover, all consultants produced *'i 'uka* and *'io* for ‘apples in tree’ and rejected *'i 'oto*:

Table 43. Expression of odd containment in age group 2

	<i>'i 'oto</i>	<i>'io</i>	other locative
‘cork in bottle’	+/-	?	<i>'i/ma 'uka</i>
‘cigarette in mouth’	-	+	-
‘apples in tree’	-	+	<i>'i 'uka</i>
‘hole in towel’	+	+	<i>ma 'uka, ma te kaokao</i>
‘crack in cup’	-	+	<i>ma te kaokao</i>

Apart from the above mentioned changes, it is also noticeable that this age group hardly constructs their utterances with specific verbals, even

when the configuration is expressed by the general '*io*'. All speakers of this group prefer the *ena*-construction plus locative noun phrase:

- (7.143) *Ena* 'i vaveka o te pusi. (TRPB-Jo-4)
 exist LD middle POSS ART lwFr.candle
 'There is (a ribbon) at the middle of the candle.'

- (7.144) *Ena* te pata 'io he kohe. (TRPB-Jo-12)
 exist ART butter PREP ART knife
 'There is butter on the knife.'

III. Age group 3 (under 20):

Unlike age group 2, age group 3 makes extensively use of specific verbals such as *tau'eva* 'hang', *tamau* 'attach', *tapi'i* 'stick', *humu* 'tie' etc.. These verbals are used with '*io*'-constructions as well as with local noun constructions (see [7.145b] and [7.146]):

- (7.145) *Ta=mau='ia* 'io te='a vai='ia 'oroma'i.
 CAUS=hold=PASS PREP ART=Dem leave=NOM T-shirt
 '(The coat) is attached on the hook.' (TRPB-Ma-9)

- (7.146) *Ta=mau='ia* ma 'uka o te pou 'akau.
 CAUS=hold=PASS PREP up POSS ART stick wood
 '(It) was attached on the wooden stick.' (TRPB-Ma-56)

In age group 3 the most noticeable changes are with respect to HANGING-relations. Whereas age group 1 and 2 generally expressed HANGING-relations by '*i uka*' and '*io*', age group 3 has a strong tendency to express HANGING-relations by *ma*-marked '*uka*'. In most cases it is often their first spontaneous utterance, although they also use '*i uka*' (see below). In many utterances they combine their *ma uka*-construction with a '*io*-noun phrase':

- (7.147) *Ta=mau='ia* 'io he mea~ **ma** 'uka he apapa
 CAUS=hold=PASS PREP ART thing PREP up ART wall
 sima. (TRPB-Ma-25)
 ciment
 '(The telephone) is attached at the thing~ on the wall.'

- (7.148) *Ta=mau='ia 'io he sima ma 'uka.*
 CAUS=hold=PASS PREP ART ciment PREP up
 '(The telephone) is attached at the wall, on (the wall).'
 (TRPB-Va-25)
- (7.149) *Ta=pi'i='ia ma 'uka o te apapa.*
 CAUS=stick=PASS PREP up POSS ART wall
 '(The hook) is stuck onto the wall.' (TRPB-Ma-50)

Thus the clear distinction between '*i*'- and *ma*-marked '*uka*' has disappeared, i.e. younger speakers do not seem to distinguish between SUPPORT BY HANGING (='*i* '*uka*) and SUPPORT BY HORIZONTAL SURFACE (=*ma* '*uka*) anymore. It seems as if the meaning of the preposition *ma* has acquired a rather general meaning, i.e. *ma* is in particular used to express the (explicit) relation between two objects (see [7.150–151]):

- (7.150) *Pavio ena 'i 'uka, mea'a ta=mau='ia ma 'uka
 flag exist LD up but CAUS=hold=PASS PREP up
 o te pou 'akau.* (TRPB-Ma-56)
 POSS ART stick wood
 'Flag, (it) is up, but (it) is attached onto the wooden stick.'
- (7.151) *Pine='ia 'i 'uka, ma 'uka o t=o ia aho.*
 peg=PASS LD up PREP up POSS ART=POSS 3.sg line
 '(The clothes) are pegged up, on the line.' (TRPB-Ma-37)

(7.150–151) reveal that the consultants seem to be somehow insecure with respect to the usage of '*i*' and *ma* in relation to '*uka*'. One consultant spontaneously produced *ma* '*uka*' for 'picture on wall (44)', but corrected herself by saying that it should be '*i* '*uka*' when the wall (=relatum) is not mentioned, and *ma* '*uka*' when the relatum is mentioned.

'Living creatures on a wall (52)' are either expressed by '*io*' or *ma* '*uka*', likewise 'leaf on twig (41)' and 'necklace on neck (51)'. All these configurations were typically expressed by '*i*'-marked '*uka*' or '*io*' in age group 1 and 2.

Table 44. Hanging-relations across different age groups

	Age group 1 (40+)	Age group 2 (20–30)	Age group 3 (under 20)
'picture on wall'	'i 'uka, 'io (*ma 'uka)	'i 'uka, 'io (*ma 'uka)	'i 'uka, ma 'uka
'telephone on wall'	'i 'uka, 'io (*ma 'uka)	'io, ma te kaokao (*'i/ma 'uka)	'io, ma 'uka
'clothes on line'	'i 'uka, 'io (*ma 'uka)	'i 'uka, 'io (*ma 'uka)	'io, 'i/ma 'uka
'hook on wall'	'i 'uka, 'io (*ma 'uka)	'i 'uka, 'io (*ma 'uka)	ma 'uka
'flag on stick'	'i 'uka, 'io (*ma 'uka)	'i 'uka, 'io (*ma 'uka)	'io, 'i/ma 'uka
'creatures on wall'	'i 'uka, 'io (*ma 'uka)	'i 'uka, 'io (*ma 'uka)	'io, ma 'uka

As for the expression of CONTAINMENT-relations the general tendency of age group 2 is also valid for age group 3. All three consultants spontaneously produced or allowed '*i 'oto*' for 'cork in bottle'. Moreover, they allow '*io*' and/or '*i 'oto*' for 'hole in towel', but do not accept '*i 'oto*' for 'crack in cup'. All consultants of this group spontaneously expressed this configuration with the verbal *poha* 'break, broken'. Unlike age group 2, this age group allowed '*i 'oto*' for 'cigarette in mouth' and 'apples in tree':

Table 45. Expression of 'odd' containment in age group 3

	'i 'oto	'io	other locative
'cork in bottle'	+	–	ma 'uka
'cigarette in mouth'	+	–	–
'apples in tree'	+	–	'i 'uka
'hole in towel'	+	+	ma 'uka
'crack in cup'	–	–	<i>poha</i> , ma te kaokao, ma 'uka

There is a noticeable change for the expression of 'partial inclusion' as in the case of 'cigarette in mouth'. Whereas age group 1 and 2 rejected '*i 'oto*' for 'cigarette in mouth', it was spontaneously accepted in age group 3. Likewise, '*i 'oto*' got generally accepted for 'cork in bottle', and there was a tendency to express 'apples in tree' by '*i 'oto*'. We can conclude from this that the lexical meaning of '*oto*' must have changed by extending its usage: whereas '*oto*' was exclusively used for FULL and PARTIAL CONTAINMENT with container objects, its use has been extended to INCLUSION-

relations.⁵²⁶ Moreover, it seems that the extended usage of *'i 'oto* for ‘apple in tree’ and ‘hole in towel’ is probably influenced by how speakers visually perceive the configurations. From the point of view of visual perception the apples are within the boundaries of the tree, and the hole is within the boundary of the towel, and thus *in* the tree and *in* the towel.

There are also a number of other changes in age group 2 and 3 with respect to the encoding of topological relations which are clearly influenced by visual perception. For instance, themes which are perceptually *below* the relatum such as ‘earring on ear (69)’, ‘pendant on chain (57)’, ‘shoe on foot (21)’ and ‘bandaid on foot (35)’ are often expressed by *i-* or *ma*-marked *'a'o* ‘down’. Themes which are at the center or perceptually in the middle of the relatum, such as in ‘ribbon on candle (4)’, ‘picture on stamp (28)’ and ‘papers on stick (22)’, are expressed by *i vaveka* ‘in the middle, between’. ‘Belt on waist’ and ‘telephone on wall’ are encoded as SIDE-relations by using a locative construction with *ma te kaokao* ‘at the side’.

Table 46. General comparison between age groups

	Age group 1 (over 40)	Age group 2 and 3 (between 15 and 30) ⁵²⁷
‘earring on ear (69)’	<i>'io</i>	<i>ma 'a'o</i> ‘under’
‘pendant on chain (57)’	<i>i 'uka, 'io</i>	<i>ma 'a'o</i>
‘shoe on foot (21)’	<i>'io</i>	<i>ma 'a'o</i>
‘bandaid on foot (35)’	<i>i 'uka, 'io</i>	<i>'i 'a'o</i> ‘down’
‘ribbon on candle (4)’	<i>humu'ia</i> ⁵²⁸ <i>i 'uka/ 'io</i>	<i>i vaveka</i> ‘in the middle’
‘picture on stamp (28)’	<i>i 'uka</i>	<i>i vaveka</i>
‘papers on stick (22)’	<i>ve'o'ia</i> ⁵²⁹ <i>i 'uka</i>	<i>i vaveka</i>
‘belt on waist (42)’	<i>taka</i> ⁵³⁰ <i>i/ma 'uka</i>	<i>ma te kaokao</i> ‘at the side’
‘telephone on wall (25)’	<i>'i 'uka, 'io</i>	<i>ma te kaokao</i>

- (7.152) *Ta=mau='ia ma 'a'o he puaika.*
 CAUS=hold=PASS PREP down ART ear
 ‘(The earring) is under the ear.’ (TRPB-Va-69)

- (7.153) *Ena te aisu ma 'a'o o te vae-vae.*
 exist ART shoe PREP down POSS ART RED-foot
 ‘There is a shoe under the foot.’ (TRPB-Jo-21)

- (7.154) *Ta=mau='ia 'io he ko'oi ena ma te kaokao*
 CAUS=hold=PASS PREP ART waist exist PREP ART side

o te ko'oi. (TRPB-Ma-42)
 POSS ART waist
 '(It) is attached to the waist, (it) is at the side of the waist.'

One can only speculate why we can observe this rapid linguistic change in encoding topological relations. One reason might be insufficient linguistic transmission during the process of first language acquisition; another reason might be the influence of their second language, namely French which is used in everyday communication along which Marquesan. Both factors can play a role and they can break up conventionalised patterns of linguistic encoding. And that is the moment when visual perception might play a crucial role: speakers rely on the visual representations of the spatial configurations because they have become insecure with respect to former linguistic conventionalisation patterns of their speech community. Moreover we can conclude that despite some differences between age group 2 and 3, both age groups have in common that the linguistic encoding of some spatial relations seems to be greatly influenced by visual perception.

The general preposition *'io* is acceptable in most HANGING-, ATTACHMENT-, ADHESION- and CONTAINMENT-relations across all age groups and it is therefore no surprise that in a situation of insufficient linguistic transmission in a bilingual speech community the use of *'io* has increased in the younger age groups of whom all speakers were exposed to French from age 3, i.e. during the crucial stage of the acquisition of their first language.

3.5.1. Summary

The previous subsection discussed how topological relations are expressed across three different age groups. The data show that N-MQA is undergoing rapid linguistic change in the expression of topological relations. In younger age groups (age groups 2 +3), the general location-marking preposition *'io* is increasingly preferred to the more complex locative constructions with local nouns. In locative constructions with the local noun *'uka* 'up' the distinction between *i-* and *ma*-marking is gradually disappearing in the youngest age group (under 20-year-olds). In the two youngest age groups spatial reference seems to be influenced by how a speaker might visually perceive a spatial configuration. This is most noticeable with respect to HANGING- and TIED TO-relations: whereas the oldest age group

(40+) expresses these configurations by '*i*-marked *'uka*, age groups 2 and 3 express these configuration with respect to the vertical UP/DOWN-axis: for instance, 'pendant on chain' and 'earring on ear' are visually perceived as below the relatum and therefore expressed by *ma* '*a'o* 'under'.

Noticeable changes can also be observed in how negative parts and PARTIAL CONTAINMENT is expressed. In the oldest age group (40+), the local noun '*oto* 'inside' is most felicitous with FULL CONTAINMENT-relations (e.g. 'apple in bowl'). The oldest age group rejected '*i* '*oto* 'inside' for PARTIAL CONTAINMENT (e.g. 'cork in bottle', 'cigarette in mouth') and negative parts (e.g. 'hole in towel'), whereas the younger age groups increasingly use '*i* '*oto* for these configurations. It was concluded that the local noun '*oto* 'inside' extended its usage from CONTAINMENT- to INCLUSION-relations. This seems to explain why '*i* '*oto* is used for 'apple in tree' and 'hole in towel' in the younger age groups. In the configurations 'apple in tree' and 'hole in towel' the themes are both perceived as being 'included' in the relatum, and thus '*i* '*oto* 'inside'. It is likely to assume that the extension of '*oto* from CONTAINMENT- to INCLUSION-relations is influenced by visual perception as well. It was proposed that younger speakers strongly rely on their visual representation of the spatial configuration because insufficient linguistic transmission of the Marquesan language has resulted in a lack of conventionalised patterns of linguistic encoding.

Chapter 8

Summary and conclusion

1. A general summary

The present study focused on the investigation of the linguistic encoding of space in the East-Polynesian language North(-West) Marquesan spoken on the northern part of the Marquesan archipelago in French Polynesia. The study was conducted in the context of a large research project on the conceptualisation and linguistic encoding of space in non-Indoeuropean languages at the Max Planck Institute for Psycholinguistics in Nijmegen (Netherlands).

This study is thought to be an in-depth study of spatial reference in one of the vernaculars of North Marquesan documenting an important and essential part of human behaviour and everyday communication, namely talking about locations. On the basis of a large data base of natural as well as elicited spoken language collected during three subsequent field trips to the Marquesas islands between 1997 and 1999, I analysed the formal (morphosyntactic) and semantic properties of all relevant lexical and grammatical units and constructions in North Marquesan, or more precisely in the 'Ua Pou vernacular.

The study consists of seven parts. In the introductory chapter a brief overview was given of why a study of space and spatial language is relevant for a number of behavioural and cognitive sciences and what the motivations are to study a less familiar non-Indoeuropean language. Such languages often manifest language- and culture-specific encodings of spatial relations giving principally counter-evidence to so-called universal theories about spatial conceptualisation. The introductory chapter further discussed the problems which are connected with the general claims made about the relationship between language and thought or human conceptualisation in language and space research. The present study did not intend to answer the question of whether or not linguistic differences (i.e. language- and culture-specific encoding of space) do really correspond to conceptual differences as claimed by a number of anthropologically oriented linguists working on

less familiar, non-Indoeuropean languages (Levinson 1992, 1996, 2003; Lucy 1992, 1994; Senft 1997; Nuyts and Pederson 1997, among others). It rather attempted to give an in-depth analysis of how space is linguistically encoded in the 'Ua Pou vernacular by focusing in particular on the great variety of culture- and language-specific ways of referring to space. The present study is basically descriptive by trying to capture all the different uses of spatial lexemes and locative constructions in different contexts and situations.

The second chapter describes the socio-linguistic background, the research methodology used for data collection and the genetic affiliation of North Marquesan. This also included a description of the complex dialectal situation on the Marquesas islands. The subsection methodology gave detailed accounts of which kinds of specific tasks were used for data collection (interactive tasks; elicitation etc.). The ethnographic description was in particular concerned with the complex bilingual situation in the Marquesan speech community. The description of the socio-linguistic background therefore focused on language endangerment by examining linguistic transmission, language attitudes and socialising practices, child-directed speech and the frequently observed phenomenon of French-Marquesan code-switching. It was shown that we have a complex linguistic situation on the Marquesas and that the present socio-linguistic situation greatly contributes to rapid linguistic change which was discussed in chapter 7 with some space data of three different age groups.

The third chapter consisted of a general description of the grammatical structures of the 'Ua Pou vernacular by focusing in particular on the problem of word classification. The analysis of morphosyntactic properties of word classes served as a basis for the analysis and classification of spatial lexemes used in the 'Ua Pou vernacular for spatial reference. The major motivation to proceed in this way was provided by Lucy (1994) who regard the formal classification of spatial language as a starting point for any study investigating the domain space in any language.

The fourth chapter provided the reader with the recent theoretical assumptions about the research domain language and space. This also included a discussion of the linguistic variety found across languages as well as some approaches of how to explain linguistic variety in the domain space.

The next three chapters represent the core of the empirical analysis of spatial reference in the 'Ua Pou vernacular analysing the form, meaning and use of various spatial lexemes and locative constructions. The analysis

is descriptive without an underlying theoretical framework. The description focused on noun phrase constructions, thus excluding the domain of spatial verbals (motion verbals, posture verbals etc.) from the analysis.

2. Some grammatical features of Marquesan

Marquesan is an accusative case-marking language. A number of grammatical features are distinct from Indo-European languages. As in many other Austronesian languages, Marquesan distinguishes between inalienable and alienable possessive constructions and it has an inclusive versus exclusive first person pronoun. Furthermore, there is no verb-noun-distinction nor can we identify a class of adjectives. The North Marquesan vernaculars also have no copular verbs. Information structuring is characterised by clause-chaining or complex nominalisations (Cablitz 2000). The speech is characterised by frequent passivisation of transitive verbs and in verbal clauses we can observe a high number of noun phrase ellipses (in particular of subject noun phrases).

There is no obligatory marking of tense on the verb. The use of tense-aspect-mood-particles (= TAM-particles) is restricted to certain lexical classes of verbals (e.g. state verbals, neuter verbals and common full words), i.e. not all verbal classes occur with the same TAM-particles. With respect to the traditionally defined categories of tense and aspect (Comrie 1985) this might speak for an aspectual system. In general, the traditionally defined categories of tense and aspect are difficult to apply for Marquesan. The problem most likely lies in the definition of the categories tense and aspect.

Basic simple clauses in Marquesan can be classified into verbal and non-verbal clauses. Verbal clauses express intransitive and transitive actions, processes and states of being. Non-verbal clauses express localisation in time and space, a relationship of identity (equational and classifying clauses [Lyons 1977]) and possession. Non-verbal clauses are not marked for tense, aspect or mood.

Marquesan is a left-headed language. The basic constituent order of verbal clauses is Predicate–Subject–Direct Object. Oblique objects and adjuncts follow the subject or direct object. Direct and oblique objects receive the same formal marking by the preposition *i* or its allomorph *ia*. Direct and oblique objects are simply distinguished by word order. A verb phrase does not contain any noun phrases. The lexical head of a verb phrase is marked

by TAM-particles in prenuclear position which are often omitted in casual speech and in clause-chaining constructions. Apart from TAM-particles, a verb phrase can contain pre- and postnuclear adverbial modifiers, modifying lexical words, directional particles, demonstratives, emphatic particles and an anaphoric particle. Negation is not part of the verb phrase because it is usually expressed by verbals which function as matrix verbals.

Noun phrases can be marked for number, specificity and definiteness by articles. Furthermore they can be marked by prepositions which indicate syntactic (e.g. object-marking) and semantic (e.g. location, source, goal, beneficiary, instrument) functions of noun phrases. The lexical head of noun phrases can be marked for plurality by several prenuclear collective nominals which all have distinct semantic features; the marking of plurality is however not obligatory in Marquesan.

The description of the grammatical structure in Marquesan (chapter 3) is also focused on the formal classification of words in general (see ch. 3, § 4), and of lexical words in particular. The most fundamental distinction in the lexicon are between lexical words (= full words), numerals, functional words (i.e. particles such as TAM-particles, prepositions, articles, modifier particles), proforms and interjections. In Marquesan, as in many other Polynesian languages, lexical words are difficult to classify because they are often multifunctional and there is no verbal and nominal morphology which would identify a word as being a verb or a noun. A lexical item can only be classified as ‘nominal’ or ‘verbal’ when it functions as the lexical head of a noun phrase or verb phrase respectively. For most full words (=lexical words) it is only the phrasal – and not the lexical – level which enables us to label a full word as a nominal or verbal. In order to make formal classifications the morphosyntactic structure of verbal and nominal phrases was analysed. The morphosyntactic properties of a lexical head are therefore the formal characteristics of a word which allow us to form subclasses of full words. Three of the five classes of full words which were identified which as nominals are in the focus of the analysis of locative constructions, namely local nouns, body-part terms and place names.

3. Linguistic encoding of space in Marquesan

The basic analysis of the morphosyntactic structure of a phrase was also applied in the analysis of the formal classes of spatial lexemes. It was pointed out by Bowden (1992) that locative concepts which are formally

encoded by adpositions in Indoeuropean languages do not find their semantic counterparts in the preposition of Oceanic languages. In Marquesan locative concepts are expressed by complex noun phrase constructions composed of several different 'units' or parts of speech which combine in varied and complex ways. The lexical head of these locative noun phrase constructions often conveys semantically the richest spatial information, but other parts in a construction (e.g. locative prepositions, modifiers, directional particles) semantically interact with the lexical head and often contribute crucial spatial information to its head (e.g. the contrasting use of the prepositions *'i* and *ma*). In the focus of the formal classification of spatial lexemes was the lexical head of these locative noun phrase constructions. On the basis of the morphosyntactic properties of the lexical head three major classes of spatial lexemes could be identified, namely local nouns, body-part terms and place names. When used for spatial localisation all three classes of spatial lexemes are full words which have purely nominal characteristics (see ch. 3, § 4.1), i.e. they do not occur as lexical heads of verb phrases. Apart from these three classes of location-denoting nominals, the locative constructions which have *keke* 'side', *hope* 'side, part' and *vahi* 'place' as their lexical head were analysed because they frequently occurred in discourse about space. They constitute their own small class as they occur in specific and partly distinct construction types and they share some morphosyntactic features with common full words. Finally, the simple locative marking of common full words was analysed for the purpose of comparing and contrasting two different ontological categories, namely full words denoting concrete things (e.g. humans, animals and movable objects) and full words denoting places or locations (local nouns, place names and body-part terms). It was shown that speakers of Marquesan are quite obviously sensitive to a "what"- and "where"-category in their language (to be further discussed below), a universal claim made by Landau and Jackendoff (1993).

It was shown for all locative construction types that *the particular morphosyntactic constructions are determined by the semantics of the lexical head*. It is demonstrated in detail how the meaning of the different parts of speech of a construction (preposition, lexical head and attribute) semantically interact with each other – i.e. why certain units are compatible or incompatible with each other – and how the meaning of the whole construction is composed. Apart from linguistic factors also extra-linguistic factors play a role in the meaning derivation of the whole construction. A particular emphasis was put on the extra-linguistic factor of *scale of reference*: the

distinction into small-scale reference (= table-top space) and large-scale reference (= vast locations or place in a particular environment [e.g. a valley]) was crucial in order to derive a particular reading (e.g. directional reading vs. destinative reading) and to distinguish between types of location. It was shown that a location in small-scale reference (e.g. an object region) differs from a location in large-scale reference (e.g. a geographical region or place [e.g. a village]). It was demonstrated throughout the present study that *different types of location* are expressed in *different locative constructions*. When referring to object regions speakers of Marquesan mostly use a *ma*-possessive construction and sometimes also '*i*-possessive constructions. The reference to geographical regions or places is usually expressed by a location-denoting nominal with '*i*', *ma*- or *mei*-prepositional marking, but without a possessive construction, except for the '*i*-possessive construction with local landmark nouns (to be discussed below). Partitioned regions are frequently expressed by a *keke*-construction.

Moreover, the distinction between large-scale and small-scale reference is crucial when studying languages which preferably employ absolute systems because local landmark expressions (e.g. sea, river, lagoon) are used for large-scale as well as small-scale spatial configurations. If we would not take the scale of reference into account we would not be able to disambiguate the meaning of a noun phrase such as '*i tai* 1. ‘seawards (directional)’, 2. ‘to the sea (destinative)’, 3. ‘by/at the sea (locational)’ because in Marquesan the semantic roles of location, goal and direction are not distinguished by different prepositions. A speaker would equally employ the construction '*i tai*' to refer to a crumb on someone’s cheek as well as when going to the region around the landmark SEA, i.e. to the beach. For this particular example there is no difference on the linguistic constructional level. The only difference is that one '*i tai*-construction refers to a location on a small-scale referential level (i.e. to a location of a crumb on someone’s cheek), whereas the other '*i tai*-construction refers to a vast region or location around the landmark SEA. There is obviously a big difference in the *size of the locations* to which the two '*i tai*-constructions refer, thus aspects of granularity are important in the analysis of spatial reference in Marquesan.

Apart from the semantic difference in the types of location, there can also be crucial differences on the linguistic constructional level with respect to the scale of reference. As already briefly mentioned above, this is for instance the case with the *ma*- and '*i*-possessive constructions which are – except for a very restricted usage of the latter – only employed for small-

scale spatial arrays. However, not all location-denoting nominals can occur in these two construction types. Place names do not occur in possessive constructions, and all local landmark nouns and the local noun '*a'o* 'down' can only occur in a *ma*-possessive construction when used for small-scale spatial arrays. Body-part terms and all other local nouns (*'uka* 'up', *'oto* 'inside', *vaho* 'outside', *vaveka* 'middle', *mua* 'first, front', *mu'i* 'behind, last' and *hope* 'behind, hidden') can occur in both construction types. The ability to occur in a particular construction type is simply determined by the semantics of the lexical head. When used for small-scale spatial arrays local nouns like *'oto* 'inside' and *mu'i* 'behind' are inherently relational locatives which denote inherent parts or regions of objects and therefore can take possessive attributes regardless of whether they are marked by the path/region-marking preposition *ma* or the simple location-marking preposition *'i*. Local landmark nouns (e.g. *tai* 'sea') and the local noun '*a'o* 'down, ground' are not inherently relational, but *place*-denoting locatives. Unlike *'oto* 'inside' and *mu'i* 'behind' they do not denote inherent parts or regions of objects, but remain to be denoting geographical regions or places. Only in a *ma*-possessive construction a local landmark noun like *tai* 'sea' gets the interpretation of 'seaward-region of object x'. It is the meaning of the *ma*-possessive construction and not the meaning of the lexical head which indicates the semantic location type of object region.

Moreover, it has been shown that in Marquesan the local landmark nouns *tai* 'sea', *uta* 'shore, inland', *ko* 'left or right side of valley (=across)', *'uka* 'upstream' and '*a'o* 'downstream' are not inherently directional nominals as proposed for other Austronesian languages in studies of spatial reference (see Senft 1997). These five local nouns remain to be place-denoting nominals in which the scale of reference or the construction type derives the directional reading; the lexical meaning of these local nouns is not inherently relational as such.

The place-denoting nature of these five local nouns also explains why the *'i*-marking is not compatible when they occur in a possessive construction in small-scale reference. Local landmark nouns do not allow possessive attributes when *'i*- or *mei*-marked because the semantics of these local nouns remain to be place-denoting regardless of whether there are used in small-scale or large-scale reference.

In Marquesan locative constructions a possessive attribute indicates that a location or *eigenort* of an entity (e.g. an object) is part of the location of another entity, thus that we are dealing with the semantic location type object region. The *'i*-marking indicates the location, goal or direction of an

entity. If the location-denoting nominal is inherently relational, i.e. denoting the location of an object part – which is by nature part of another location – then the '*i*-marking in a possessive construction is compatible because it is the lexical meaning which derives the meaning of ‘object region x of object y’. In the case of place-denoting nominals such as *tai* ‘sea’, the '*i*-marking can only mean 1. ‘at location of SEA’, 2. ‘towards location of SEA’ or 3. ‘in direction of location SEA’. Thus, the '*i*-marking of local landmark nouns in a possessive-construction is incompatible because the preposition *i* with a place-denoting nominal indicates the semantic location type ‘place’ and not ‘object region’. The linguistic behaviour of speakers of Marquesan also conforms to rules observed by psycholinguists (Miller and Johnson-Laird 1976), namely that there is an asymmetry between the location of themes and relata: the location of relata always has to be larger in size than the location of themes. Thus, if the specified location of the theme (e.g. '*i*-marked *tai* ‘location SEA’) is larger in size than the relatum (e.g. a bottle on a table), then the '*i*-marking has to be incompatible with the possessive construction. The preposition *ma*, on the other hand, seems to be just indicating ‘region’ regardless of which semantic location type we are dealing with, i.e. ‘place’ (e.g. *ma tai* ‘somewhere in the sea-region’) or ‘object region’ (e.g. *ma tai o te pora* ‘at the object region of the bowl which lies in the direction of the local landmark SEA denoted by the local landmark noun *tai*’). We can conclude from this that all parts of speech, i.e. possessive attribute, lexical head and preposition somehow compose the meaning of a locative construction and indicate a semantic location type.

The asymmetry of locations also explains why local landmark nouns can occur in an '*i*-possessive construction a) when used in large-scale reference, and b) when the relatum is expressed by a place name. Place names usually denote locations which are larger in size than locations denoted by local landmark nouns. It is therefore possible to say '*i tai o Hakahau* ‘the sea-region of Hakahau’ because the ‘sea’-region is one part of the whole valley of Hakahau.

In being both place-denoting nominals there are a number of similarities and intriguing differences between place names and local landmark nouns. Both classes of nominals can be used in large-scale as well as small-scale reference. On the large-scale reference both classes of nominals denote places in the local environment (i.e. in a valley or on the island); they can be marked by '*i*', *ma* or *mei*, but not by '*io*' and they usually do not occur with possessive attributes, except for the '*i*-possessive construction mentioned above. In small-scale reference, both classes of place-denoting

nominals are used to express the orientation of an object (e.g. the *pig's head* is facing *seawards/towards Hakahau*) or the moving direction of an object (e.g. in *Route Description* task). However, there are also a number of differences between place names and local landmark nouns. Place names do not take possessive attributes at all, and consequently cannot occur in a *ma*-possessive construction which would specify an object region. The incompatibility to take possessive attributes was explained by the fact that place names denote places which are absolute locations which need not be defined in relation to other locations. As being proper nouns place names hold a unique association between the name and the location bearing that name. As for local landmark nouns this is not the case. Local landmark nouns are more like kind-denoting nominals because local landmarks such as SEA, MOUNTAIN or BUSH are not absolute locations in that they hold a unique relationship between the name and the local landmark: local landmarks exist repeatedly and independently in several different environments (e.g. the 'sea'-region of Hakahau/Hakahetau/Ha'akuti etc.). However, within a particular environment – e.g. a valley – they become uniquely referring expressions (i.e. quasi-proper nouns) because from the point of view of a speaker of Marquesan there is only one place in a valley which can be associated with the 'sea'- or 'bush'-region etc.. That is why local landmark nouns share some properties and constructions with place names. The usage of landmark terms in Marquesan and the comparison to place names and kind-denoting nominals (= common full words) reflects Lyons' (1977) semantic definition of landmarks in that they hold an intermediate position between "being a first-order entity" and "being a place".

Quite generally, one of the intriguing findings in how speakers of Marquesan refer to space is that they mark a difference between a "what"- and "where"-category in their language. The three classes of location-denoting nominals – except the local noun *tai* 'sea' (see below) – can only be marked by the preposition *i*, whereas word classes denoting concrete entities such as objects and persons (i.e. common full words, personal pronouns, proper names of persons) have to be marked by *io*. Thus, speakers are obviously sensitive to the different ontological categories of things (or first-order entities [Lyons 1977]) and places or locations. Despite a clear distinction between a "what"- and "where"-category, there are two classes of nominals which represent interesting borderline cases between the two fundamental categories of "what" and "where". These two classes are body-part terms and landmark expressions.

As for the latter this ‘in-between’ category is not only clearly reflected when comparing local landmark nouns with place names, but also in the locative case-marking of those landmark expressions which do not belong to the class of local nouns such as *vao* ‘bush’, *ka'avai* ‘valley, river’ or *moana* ‘ocean’. These landmark expressions allow '*i*'- as well as '*io*'-marking with a preference for '*i*'-marking which might be an indication that these landmarks are more conceived like places than like first-order entities. The '*i*'- vs. '*io*'-marking is a quite pervasive characteristic with respect to the linguistic encoding of space in Marquesan. In the case of body-part terms the locative markers '*io*' and '*i*' also draw a clear line between the domain OBJECT and the domain SPACE.

On the basis of distinct morphosyntactic properties and syntactic functions three different denotational domains of Marquesan body-part terms have been identified which form three distinct subclasses of body-part terms, namely body-part terms denoting 1. body-parts (= domain OBJECT), 2. object parts (= domain OBJECT) and 3. locations/object regions (= domain SPACE). Body-part terms denoting body-parts and object parts can be marked by '*io*' whereas body-part terms denoting locations or object regions cannot. Thus, '*io*' marks the location of themes which are in contact with concrete entities and things, but '*io*'-marking is not felicitous when the theme is localised in an object region or location. The shift from the domain OBJECT to the domain SPACE is also reflected in a syntactic transition from being used as core arguments (= domain OBJECT) to being solely used as locative complement phrases and adjuncts (= domain SPACE). It is a kind of transition which is typically found in grammaticalisation processes of body-part terms (Bowden 1992; Heine 1989). The general conclusion we can draw from this is that the two domains OBJECT and SPACE are more or less divided with respect to syntactic functions and case-marking. In other words: it is clearly reflected in the syntax and case-marking of Marquesan that noun phrases which refer to locations are less individuated than noun phrases referring to concrete entities such as object parts, body-parts or persons.

A similar demarcation can be observed with the local landmark noun *tai* ‘sea’. *Tai* has been classified as belonging to the class of local nouns. However, *tai* shows all signs of a *mixed word classification* as it shares many morphosyntactic features with common full words as well as local nouns. When looking at all the different constructions and syntactic functions in which *tai* occurs, again we have to distinguish basically between two denotational domains, namely 1. *tai* denoting the actual landmark SEA and its

consistence, i.e. the sea water, and 2. *tai* denoting a location or place around the landmark SEA. With respect to the '*i*- vs. '*io*-marking of *tai* 'sea' there is a clear difference to what noun phrases refer to. Whereas '*i*-marked *tai* refers to the 'sea'-region around the landmark SEA which includes the beach and also the land close to the beach, but not the landmark SEA ('*i tai* 'at the sea-region'), '*io*-marked *tai* can only refer to the landmark SEA ('*io he tai* 'on the sea'). This '*i*/*io*-marking contrast of *tai* is interesting because we could argue that not only the location around the landmark SEA is a place, but also the landmark SEA itself. It was stated above that is not unusual for landmark expressions to be either marked by '*io* as well as '*i* indicating their ontologically indeterminate status of being a thing or a place. Whereas the '*io*- and '*i*-marking with those landmark expressions such as *ka'avai* 'river, valley' – not belonging to the class of local nouns – cannot always be predicted, it can however be predicted with *tai* because the two different markings denote two distinct locations, namely the landmark SEA versus the location around the landmark SEA with the latter being somehow derived from the former. The other two local landmark nouns *uta* 'inland' and *ko* 'left or right side of valley (= across)' also belonging to the class of local nouns cannot be marked by '*io*. The incompatibility of *uta* and *ko* with '*io* was regarded as evidence that *uta* 'inland' and *ko* 'left or right side of valley' are not real landmarks, but only quadrants or regions in a valley. This observation again supports the basic assumption of this study, namely that the particular morphosyntactic features of a locative construction are determined by the semantics of its lexical head. Landmarks such as the SEA are obviously more conceived like things than geographical regions such as 'inland' or 'left side of valley' or 'right side of valley'.

The difference in linguistically encoding the "what"- and "where"-category is somehow also reflected when location-denoting nominals are used metonymically to denote people occupying the places denoted by these nominals. There is constructionally a difference between those location-denoting nominals which have always been locatives such as place names and location-denoting nominals – in particular local nouns – which have derived from other lexical sources such as body-part terms, landmark expressions or verbal sources. Whereas local nouns have to occur in a lexicalised possessor construction in which the general article *t-* and the inalienable possessive preposition *o* precede the local noun, e.g. *to tai*⁵³¹ 'the sea-people', *to uka* 'the upstream-people', place names can simply take the general article *te*, e.g. *te 'Ua Pou* 'the 'Ua Pou people' or can also occur in

the possessor construction. This metonymical usage of local nouns in a lexicalised possessor construction seems to be more wide-spread among Polynesian languages as it can also be found e.g. in Hawaiian (Elbert and Pukui 1979).

The types of locative constructions we find in the 'Ua Pou vernacular cannot only be found in other Polynesian languages, but there is a structural similarity with locative constructions in some Indo-European languages such as Eng. *in front of* or Fr. *à gauche de* also consisting of a preposition, a local noun and a possessive attribute. Despite this obvious structural similarity between the Indo-European and Polynesian type of construction, Polynesian languages allow more modification (e.g. by directional particles, demonstratives) and variation (e.g. prepositional marking) within the same type of construction. When looking at Marquesan, there are three apparent differences between the Marquesan and the Indo-European type. The Indo-European type does not allow modification, there is no variation with respect to the case-marking prepositions and the attributive noun phrase expressing the relatum is only expressed by a possessive attribute. The Indo-European type can therefore be regarded as lexicalised phrases with fixed constructional elements. Its Polynesian and, in particular, Marquesan counterpart is also a construction, but its constructional slots leave room for variation. The Marquesan locative construction type allows a range of prepositions ('i, ma and mei) with distinct meaning contributions and three types of attributive noun phrase expressing the relatum (*o*-noun phrase, '*i*-noun phrase and *he*-noun phrase).

It is not unusual that we find more than one attributive noun phrase in locative constructions of Polynesian languages. In some Polynesian languages there are two types, one marked by the preposition PPN **i* and the other marked by the inalienable possessive preposition PPN **o* (Clark 1976). The *he*-attributive noun phrase in Marquesan is thought to have developed from the PPN **i*-NP. In particular older speakers use the '*i+he*'-construction for general localisation ('i he ha'e 'in, at the house', 'i he one 'on the sand/beach', 'i he ka'avai 'in/at the river' etc.), whereas younger speakers would use '*io*-marking for the same localisations.

With respect to the variation of the prepositional marking it is at present difficult to evaluate on the basis of existing Polynesian grammars whether they contribute distinct subtle meanings to the lexical head of a construction in similar complex ways. The most varied and complex meanings are contributed by the path preposition *ma*. The systematic and distinct uses of the preposition *ma* seems to be rather unusual for Polynesian languages.

Although existing grammars of Polynesian languages often mention a path preposition, no detailed information is given with respect to the uses of the respective path prepositions, and thus it is difficult to compare this aspect of Polynesian locative constructions.

For Marquesan, we can observe that the different instantiations of the path preposition *ma* ('concrete path', 'movement along a concrete path', 'unspecific location', 'spatial extension of theme', 'plurality' etc.) occur, in one way or another, in locative constructions of all the three major classes of spatial lexemes, i.e. place names, body-part terms and local nouns. With place names *ma* only contributes the most basic meaning, namely 'concrete path'. When *ma* marks body-part terms we have several different instantiations of path, namely 'concrete path', 'unspecific location' and 'spatial extensions of theme' as well as 'object region'. The widest range of path-instantiations can be observed in locative constructions with '*oto*' and '*vaho*'.

There is an interesting difference between the *ma*-marking of '*oto* 'inside'', '*vaho* 'outside' and '*vaveka* 'middle' and those local nouns used in the intrinsic, relative and absolute frames of spatial reference (e.g. *mua* 'front', *mu'i* 'behind', *tai* 'sea', *uta* 'inland'). When the latter are marked by *ma* and occur in a possessive construction, this seems to only mean 'region' of an object (e.g. *ena te pora ma tai o te putei* 'there is the bowl seaward of the bottle'). Thus, whereas the *ma*-possessive construction with local landmark nouns only specifies an object region, the preposition *ma* contributes other, more concrete meanings of path to '*oto*', '*vaho*' and '*vaveka*' such as 'movement (along a path)', 'unspecific location', 'spatial extension of theme', and 'plurality'.

It was emphasized several times that the reason why speakers use *ma* is also due to the nature of either the theme or the relatum. In dynamic configurations the local nouns '*oto* 'inside'', '*vaho* 'outside' and '*vaveka* 'middle'' are marked by *ma* because the region in which the moving theme is localised is clearly a path. However, the nature of the relatum must have some kind of inherent spatial extension in order to specify a path-like region in which the theme is localised (cf. Engl. *along the forest* vs. *??*along the street light*). In static configurations the usage of *ma* is clearly due to the nature of the theme, namely its path-like shape. A path-like theme can consist of one object which has to be spatially extended, or the localised entity consists of several point-like objects (= plurality). We can conclude from this that the usage of Marquesan *ma* confirms Talmy's (1983) observation that languages use the same linguistic means for the description of

the location of spatially extended themes (in static localisation) and point-like themes moving along a path (= dynamic localisation).

In Marquesan, the most important contrast of prepositional marking is that between *ma* and *i*. Interesting in this respect are particularly the subtle meaning differences between *i*- and *ma*-marked *'uka* ‘up’ in a possessive construction. In a possessive construction *i*- and *ma*-marked *'uka* both specify an object region. The different prepositional marking of *i* and *ma* indicate which object regions are specified. Whereas *ma*-marking specifies ABOVE- and SUPPORTING SURFACE-relations, *i*-marking principally specifies HANGING-relations. However, when the theme is spatially extended in a typical HANGING-relation or adheres along the lateral surface of the relatum, speakers use *ma*. In this case *ma* does not indicate an object region, but it is used because of the path-like shape of the theme. Quite generally speakers of Marquesan are quite sensitive to the nature of the theme: when its nature (shape, number) or state of being (movement as opposed to static location) is in some way related to the notion of path (spatial extension, plurality, movement along a path etc.) the lexical head of a construction is marked by *ma*. This is in particular the case with those local nouns where a contrast between *i*- and *ma*-marking exists, namely *'uka* ‘up’, *'oto* ‘inside’, *vaho* ‘outside’ and to some extent *vaveka* ‘middle’. It seems as if that with those local nouns *i*-marking expresses that the spatial relation between theme and relatum is ‘unmarked’ (i.e. a static point-like theme), whereas *ma*-marking expresses more ‘marked’ spatial relations in which the interaction of the theme with the relatum is characterised by a path-like nature.

With respect to the prepositional marking we have to mention here that the source preposition *mei* can mark *ma*-marked as well as *io*-marked noun phrases. *Mei*-marking of *ma*-marked constructions mostly occurs with those location-denoting nominals which are not inherently relational nominals such as *tai* ‘sea’, *uta* ‘inland’, *'a'o* ‘down, ground’. In fact, *mei*-marked local landmark nouns cannot co-occur with possessive attributes. Inherently relational local nouns such as *mua* ‘front’ and *'oto* ‘inside’, on the other hand, can be directly marked by the source preposition *mei* when they occur in a possessive construction because they denote inherent parts or regions of objects (*mua* → ‘front-region of object y’, *'oto* → ‘inside-region of object y’ etc.). Local nouns such as *tai* ‘sea’, *uta* ‘inland’, *'a'o* ‘down, ground’ remain place-denoting nominals which show some semantic similarity with place names in that they basically denote places (= large-scale locations) and not object regions. They need to occur in a *ma*-possessive

construction in order to mark the source of an object region (e.g. ‘move object x from the seaward region of the bottle’). Again, this shows that the semantics of the lexical head largely determines the morphosyntactic structure of a locative construction.

The prepositional marking is only one example of how complex and subtle the meaning contributions of different particles or units of a construction are to local nouns. Other particles such as demonstratives, directional particles and other modifiers also interact with the lexical head – mostly local nouns – in complex ways adding crucial spatial information to specify a particular kind of location. Whereas demonstratives and the directional particles *mai* and *atu* often add deictic information with respect to the position of the position of the speech participants to the localised objects or with respect to the speaker-addressee communicative space, other modifiers – often in combination with demonstratives and directional particles – can express different degrees of distance.

The directional particles *a'e/ake* ‘upwards’ and *ihō* ‘downwards’ having lost their primary spatial meaning in verbal phrases, occur nonetheless in locative constructions with *'uka* ‘up’ and *'a'o* ‘down’. *Ma*-marked *'uka*- and *'a'o*-constructions are as such indeterminate with respect to contact between theme and relatum referring to the ‘topside’- (*ma 'uka*), ‘above’- (*ma 'uka*) and ‘under’-region (*ma 'a'o*) of objects. In ABOVE-relations the theme is not in contact with the surface (e.g. *cloud above mountain*). Other languages such as German or English make a lexical distinction between these two types of configurations (Ger. *Tasse auf dem Tisch* ‘cup on table’ vs. *Wolke über dem Berg* ‘cloud above mountain’). However, in Marquesan one can also distinguish these two types of configurations by modifying the local nouns with *a'e/ake* ‘upwards’ and *ihō* ‘downwards’, *ma 'uka ihō* ‘in contact with topside’ literally meaning ‘in upper-region⁵³² downwards’, and likewise *ma 'a'o ake* ‘in contact with underside’ literally meaning ‘down upwards’. In fact, it shows that these kinds of meaning derivations are often a complex interplay between several parts of speech of a locative construction: the prepositional marking specifies the object region, whereas the directional particle indicates whether there is contact or not.⁵³³

The analysis of locative constructions in Marquesan have therefore contributed to the on-going discussion in the literature of how spatial information is encoded in different parts of speech on a noun phrase level. At some instances this discussion was further enhanced in which way (motion/directional) verbals take their part in the meaning derivation of locative noun phrase constructions on the whole, thus demonstrating the linguistic

and semantic encoding of space in Marquesan on a compositional semantics level in general. On the one hand, I tried to understand and trace the decomposed meanings of the different parts of speech (e.g. prepositions, local nouns, particles) in a locative construction (lexical semantics), and, on the other hand, I analysed the semantic interaction of the different parts of speech of a construction on the whole (compositional semantics) on a descriptive level. Keeping these two domains (i.e. lexical vs. compositional semantics) apart, we can see that different semantic models are valid for different word classes (i.e. prepositions vs. nominals). In other words: prepositions have to be described with a different semantic model than nominals.

As for Marquesan we can state that prepositions have an invariant abstract meaning (e.g. *ma* meaning path). The different ‘meanings’ of a preposition can be regarded as different instantiations of this abstract invariant meaning (as for *ma* ‘route’, ‘movement along a path/route’, ‘unspecific location’, ‘spatial extension’, ‘plurality’, ‘vaster region’), thus basically following Nüse’s (1999) analysis of German spatial prepositions. Nüse’s model who opposes Klein’s (1991) and Bierwisch’s (1988) idea that different meanings of the same preposition come about by derivation rules (on a pragmatic-conceptual as well as linguistic level [in particular Klein]), is based on the idea that different meaning derivations of a preposition are greatly due to the nature of the relatum as well as the theme. Different classes of themes and relata trigger different instantiations of an abstract meaning. That the theme plays an important part in the different meaning derivations of a preposition – i.e. triggering different object regions – was exemplified in examples such as *die Schrift auf dem Wegweiser* (= SIDE SURFACE) versus *der Vogel auf dem Wegweiser* (= UPPER SURFACE) in which the relatum is the same, but the theme is varied. It was shown throughout this study that the nature of the theme – often its path-like nature or path-related interaction with the relatum – explained the *ma*-marking in many constructions.

As for the analysis of nominals (in particular local nouns and body-part terms) Klein’s model (1991) is more appropriate which suggests that lexical items have a basic primary meaning which can derive other (secondary) meanings by certain derivation rules (see ch. 4, § 4.3). In Klein’s model lexical items – in his discussion spatial prepositions – are basically polysemous. In our discussion of spatial lexemes, in particular that of local nouns and body-part terms, we can clearly support Klein’s model. With respect to Bowden’s and Lichtenberk’s definitions of polysemy and heterosemy it can

be clearly stated that local nouns as well as body-part terms are truly polysemous in nature because the different meanings belong to the same grammatical category. Body-part terms pose in some way an interesting challenge to this view. With respect to the class of body-part terms it was demonstrated that the differing formal properties are due to the meaning of a body-part term, or in other words that the semantics of the lexical head determines the morphosyntactic structure of the construction. There is a small set of body-part terms used in three denotational domains, namely denoting 1. body-parts, 2. object parts and 3. object regions (= locations). It was argued that these different denotational domains do not form separate classes, but that this small set of body-part terms is polysemous and that the different formal properties (or construction types) occur when a body-part term denotes a particular domain.

It is often argued in the literature that body-part terms which develop into locatives have undergone a grammaticalisation process from a lexical to a grammatical item (often becoming so-called adpositions), and that the normal process is to regard the grammaticalised item (in our case the body-part term) as a different grammatical category than the source item. With respect to the small set of Marquesan body-part terms used as locatives we can clearly identify typical processes of grammaticalisation. Semantically there is a categorial shift from the domain OBJECT to the domain SPACE, thus denoting a different ontological category than the source item (places versus things). This categorial shift from OBJECT to SPACE is also reflected in the syntactic functions: whereas body-part terms used as locatives can only function as complement phrases and adjuncts, the same body-part terms denoting body-parts and object parts can function as core arguments as well as complement phrases and adjuncts. Semantically and syntactically we can speak of grammaticalisation, but we cannot argue that these body-part terms belong to a different grammatical class than body-part terms denoting body-part and object parts. Body-part terms used as locatives have not changed their form and they occur, like body-part terms denoting body-parts and object parts, as lexical heads of noun phrase constructions. The only difference is that they are used in different construction types.

Such an analysis also does justice to the way the Marquesan lexicon is structured. Lexical words are often polysemous and not pre-categorised on the lexical level as we have seen in the discussion of the problem of verb-noun-distinction. It is the constructional, or rather the syntactic phrase level (i.e. the nominal or verbal phrase) with the different formal (or morphosyntactic) properties which let us speak of a word being a verbal or a nominal.

It does not only identify a word as being the lexical head of a verb or noun phrase, but also its meaning. Or rather the meaning determines the formal properties of a phrase.

My analysis has shown overall that the problem of classification of lexical words in the non-spatial domain is related to the classification of spatial lexemes. The problem of word classification, in particular that of verb-noun-distinction, is a phenomenon which can be found in a number of Polynesian languages, if not all (Broschart 1991; Mosel and Hovdhaugen 1992; Vonèn 2000; Mosel 2002). Thus, my analysis of locative constructions and word classes in Marquesan have demonstrated an important aspect of Polynesian grammar and it has also shown that traditionally defined word classes (such as noun, verb, adjective etc.) are difficult to apply for Polynesian languages.

4. Semantic encoding of space in Marquesan

It was shown that the semantic structuring of space in the 'Ua Pou vernacular of the Marquesan archipelago has culture-specific as well as components and concepts also to be found in other, unrelated languages. According to Klein (1990, 1991, 1994) every language structures space with respect to universal and culture-specific components. As for the universal component Klein assumes a kind of basic space which consists of two fundamental structures, namely a topological and a dimensional structure (see ch. 4, § 2). As for Marquesan these two universal structures can be depicted with respect to the major classes of spatial lexemes (local nouns, body-part terms and place names) and spatial systems (i.e. intrinsic, relative and absolute) in the following diagram:

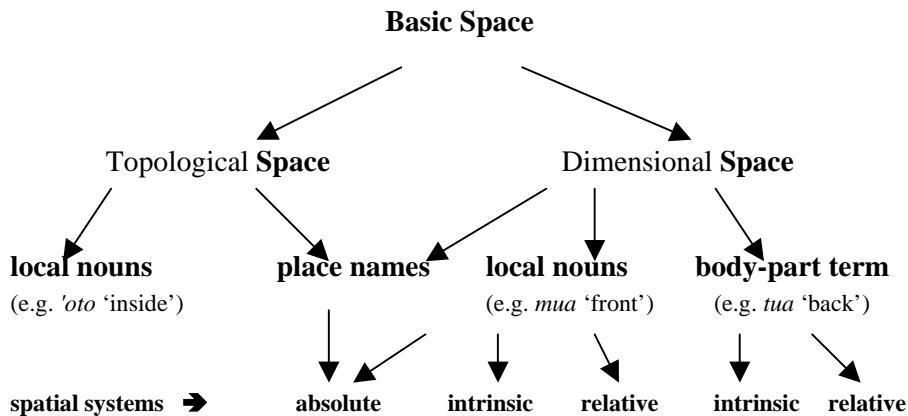


Figure 49.

There are a number of aspects which are quite similar to other languages. Speakers of Marquesan express concepts such as CONTAINMENT vs. NON-CONTAINMENT and other so-called topological concepts such as HANGING- and SUPPORTING SURFACE-relations; they also use 'front'/'back'-expressions quite similar to how they are used in the African language Hausa. Like a number of African (Heine 1989), Mesoamerican (de León and Levinson 1992) and Oceanic (Bowden 1992) languages body-part terms are an extremely important source for the grammaticalisation into locatives. As also shown for a Mesoamerican language (de León 1992), in Marquesan the metaphorical extensions of the body-part terms to denote locations are conceptually linked to their source concept. There is a significant difference in their usage with respect to the object's main orientation axis (i.e. having a vertically or horizontally extended main axis). In the case of body-part terms it was pointed out for a number of languages that the metaphorical extensions are therefore based on analogy and saliency. According to Bowden (1992: 30) our body and the relationship between the different parts of the body play an important role to play in the way people conceive spatial relationships, and that space itself is, in fact, based on metaphor. However, other nominal sources such as landmark expressions have an important role to play as well. Like in a number of other Oceanic languages landmark expressions for SEA and LAND occur in grammaticalised constructions or forms which are according to Bowden (1992) the most striking examples of non-universal locatives in Oceania.

This is probably also the most striking difference between speakers of German, English or French and speakers of Marquesan or other Oceanic languages. Whereas a speaker of English might occasionally use the terms ‘seawards’ and ‘inland’ to express a contrast of places at a coastal region, speakers of Marquesan use these terms constantly, even when they want to localise a crumb on someone’s cheek, distinguish two mangos on a tree or describe the spatial relation between two objects on a table (e.g. *The bottle is seaward of the plate*). The usage of an absolute system on a small-scale level (i.e. a table-top space) require quite a different sense of orientation, i.e. the specification of their orientation axes: speakers who preferably use absolute systems do not solely organise their space in relation to their own body – such as speakers of English or French would do by using expressions such as ‘front’, ‘back’, ‘left’ or ‘right’ – but in relation to their body as well as their environment. In order to be able to use an absolute system outside as well as inside a house, speakers have to constantly keep track of their own current position in relation to the fixed landmarks of the system at all times and in all places, i.e. in familiar and unfamiliar surroundings alike. This means that they need an acute sense of orientation when they move their body around in their environment. For speakers who preferably use relative systems they need to be less attuned to their environment – which does not mean that they are – because they always carry their (bodily) orientation axes with them.

Neither the one nor the other are more ‘easy’ or more ‘difficult’ to acquire; both systems, the relative and the absolute one, pose quite different learning problems for children. As for Marquesan children it was shown that younger children (until age 8 or 9) have difficulties in localising their own current position in relation to the fixed local landmarks, in particular when they are in an unfamiliar surrounding. To overcome disorientation they use perceptual clues from the environment to infer where the fixed local landmarks are. It was suggested that they do not constantly keep track of their own current position when they move their body around in the environment (Cablitz 2002). The question of how they carry such an absolute system (i.e. their knowledge of where the local landmarks are) inside a house, in particular into an unfamiliar surrounding is still an open one, i.e. little is known about these developmental patterns.

Speakers of Marquesan basically use two absolute systems for spatial orientation in the local environment (= large-scale reference) as well as for reference to objects on a table-top space (= small-scale reference). Both systems are local landmark-based systems (as opposed to cardinal direction

systems). One system is limited to the boundaries of a single valley (being based on the environmental contrast of SEA and LAND), whereas the other system is mainly used for navigation on sea, around an island as well as for interisland navigation. According to my research and data the navigation system is based on local as well as equatorial sea currents. My analysis is in a way contrary to that of Lavondès (1983) who analyses the system as being based on prevailing trade winds which correspond to a cardinal EAST/WEST-axis. Although the navigation system is mainly used for traveling directions on sea, in some valleys of 'Ua Pou where the research of the present study was undertaken, the navigation system is also used for the description of small-scale spatial configurations.

The within-valley-system consists of two orthogonal axes: one main SEA/INLAND-axis and an axis orthogonal to the main axis which is lexically undifferentiated on both ends of its coordinate, labeled as ACROSS. Although we seemingly have two salient landmarks, namely the SEA and the LAND, the Marquesan within-valley-system is only based on one real landmark, namely the SEA. There is also linguistic evidence support this argument. Whereas the landmark expression for SEA, i.e. the local noun *tai*, behaves in many ways like other landmark expressions such as *ka'avai* 'river, valley' and *tuaivi* 'mountain' in that it can be, for instance, marked by '*io*', the other local nouns of the within-valley-system *uta* 'inland' and *ko* 'across or left or right side of valley' can only be marked by '*i*'. This might be an indication that speakers of Marquesan conceive the 'across'- and the 'inland'-areas as regions or locations, but not as landmarks. Note that all locational-denoting nominals, except *tai* 'sea', can only be marked by '*i*', but not by '*io*'. This difference between '*i*'- and '*io*'-marking was said to mark the difference between the two ontological categories of THINGS (= '*io*'-marking) and PLACES (= '*i*'-marking).

The navigation system only consists of one axis. This is not really surprising because the navigation system and the within-valley-system are used for different purposes: whereas the within-valley-system is frequently used for the description of spatial relations between objects on a table-top space which require at least four spatial descriptors corresponding to the four (horizontal) sides or axes of an object, the navigation system is mainly used for indicating traveling directions or places (e.g. fish banks) on sea, i.e. in large-scale environment. When the 'upstream/downstream'-terms of the navigation system are used for small-scale spatial descriptions, the UPSTREAM/DOWNSTREAM-axis has to coincide with the ACROSS-axis of a Marquesan valley (see ch. 7, § 3.1.3).

At this point it has to be mentioned that speakers of Marquesan become increasingly insecure of how to use '*uka* 'up, upstream' and '*a'o* 'down, downstream'. Some speakers nowadays refer to the northern group as '*i uka*' and to the southern group as '*i a'o*' probably influenced by the western concepts of UP being 'north' and DOWN being 'south'. In a situation of increasing language loss and intense language contact with a second language where the indigenous language is only partly or insufficiently transmitted, it is not surprising that these culture-specific concepts attached to the language are overridden by new concepts of the dominant language and culture. Also the rapid and profound linguistic change from one generation to the next documented for the domain space in chapter 7, section 3.5, is a testimony of the influence of the French language over the indigenous Marquesan vernaculars.

Finally, I would like to pay some attention to three locatives which denote places in a larger environment, but which are not part of an absolute system, thus they are not used like *tai* or *uta* in a directional sense. These locatives, namely *tua* 'invisible location', *oto* 'bay' and *vaho* 'ocean' are of interest here because it contributes to a further understanding of spatial conceptualisations in Oceania. *Tua*, *oto* and *vaho* in the meaning of 'invisible location', 'bay' and 'ocean' are metaphorical extensions which have derived from the (first or) basic meaning of these lexical items. The usage of *oto* 'bay' is a metaphorical use of the basic meaning of 'inside'; likewise is *vaho* 'ocean' a metaphorical extension of the basic meaning of 'outside'. These uses are of a metaphorical nature because the relationship between the island and the ocean is viewed as a relationship of CONTAINMENT ('*oto* 'bay' = 'inside' → 'part of island') versus NON-CONTAINMENT (*vaho* 'ocean' = 'outside' → 'not part of island').

Metaphorical uses of local nouns and body-part terms are very common in many Polynesian languages. In Pukapukan, for example, the form *loto* is likewise used for 'land' and 'lake' or 'lagoon' (Bowden 1992: 57). Moreover, in Rarotongan, Pukapukan and Tahitian the body-part term 'back' denotes the ocean or those parts of the sea which are not visible from an island (cf. Marquesan, see below). The usage of the body-part term 'back' in Pukapukan seems to be quite complex as it also used to refer to parts of the atoll such as the reef. Like the back or spine of a human body the reef is the protecting element of an atoll island.

However, different environments also expose the speakers to different situations in which these terms can be used, and thus these specific situations also derive different meanings. This shall be briefly discussed with

respect to the Marquesan body-part term *tua* ‘back, spine’. Unlike the Pukapukan atoll islands, the Marquesas islands are characterised by high volcanic mountains with steep cliffs and basically no coral reef formation around the islands. Thus, the meaning of ‘reef’ for *tua* in the sense of ‘protecting element’ cannot apply. The semantic derivation of the meaning of Marquesan *tua* ‘invisible location’ (e.g. a location on the ocean not being perceived from an island) comes from the notion of our own body: the back or spine is the part of the body we cannot see, and therefore hidden and invisible.

However, from brief comparisons with other Pacific peoples and Polynesian cultures in similar but distinct environments we could see that the same or similar source concepts (e.g. the body-part term for ‘back, spine’) adopted meanings which were attuned to their particular environments. The semantic and linguistic variety is not only a matter of how we subjectively categorise the world, but it is also attuned of how we can sensibly make use of our linguistic resources to tackle a basic human need: orientation in space.

Appendix

1. Farm Animals game:⁵³⁴ photo-object matching task
(© Language and Cognition Group, Max Planck Institute for Psycholinguistics, Nijmegen)

Photo 1



Photo 2



Photo 3

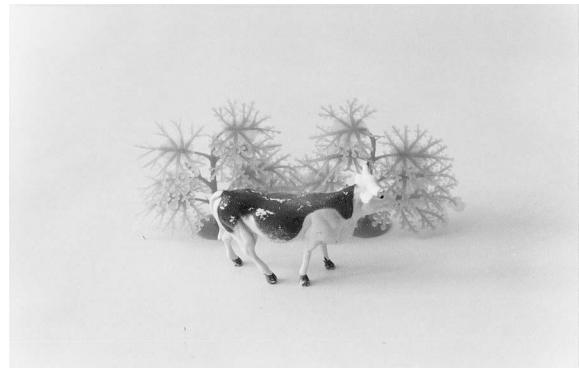


Photo 4

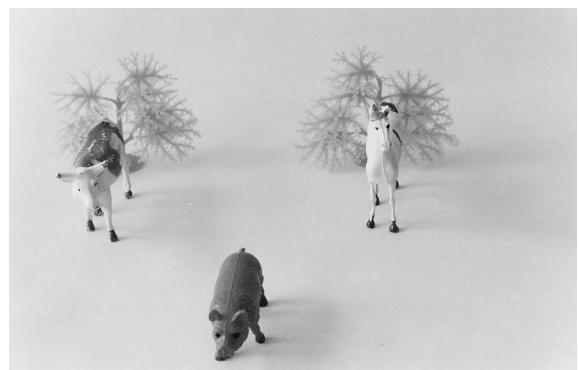


Photo 5

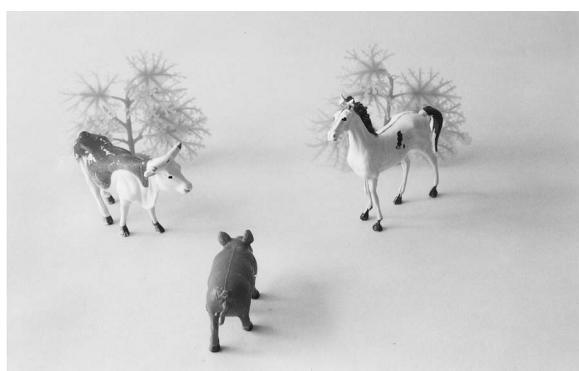


Photo 6



Photo 7



Photo 8



Photo 9



Photo 10

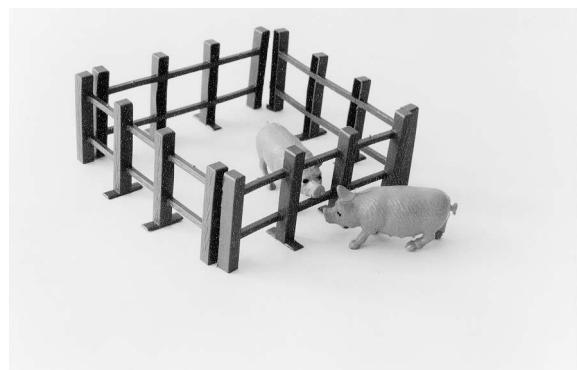


Photo 13

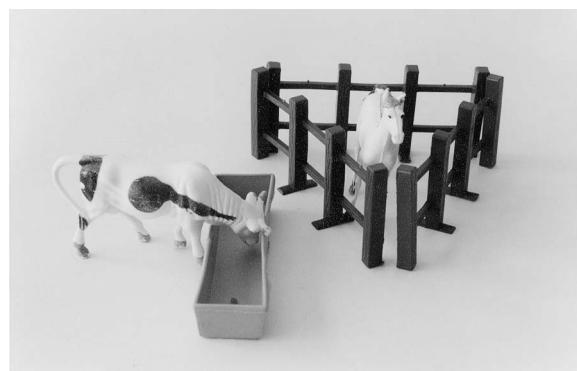


Photo 14

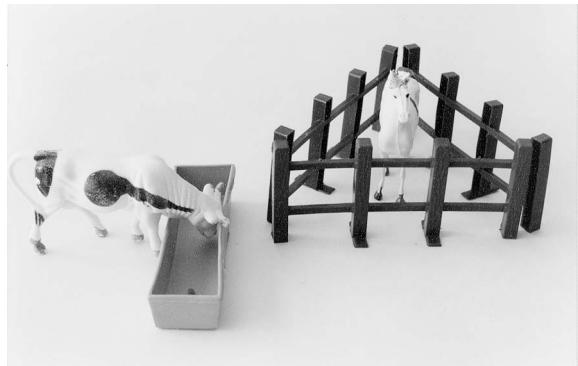


Photo 15

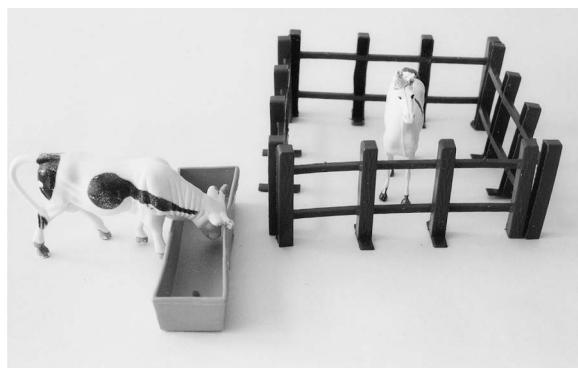


Photo 16



Photo 17

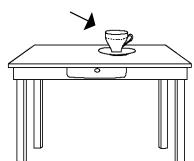


Photo 18



2. Topological Relations Picture Book (see ch. 2, § 3.2.2.2)
© Language and Cognition Group, Max Planck Institute for Psycholinguistics, Nijmegen)

1



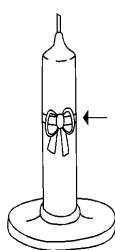
2



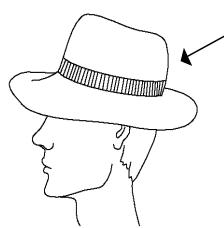
3



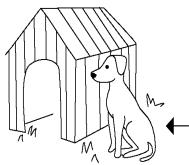
4



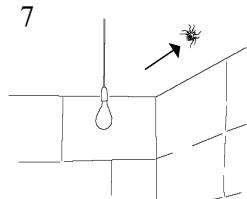
5



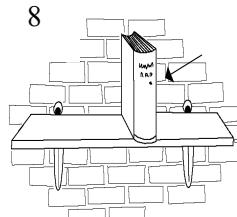
6



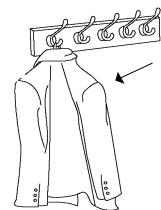
7



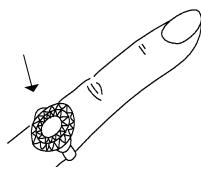
8



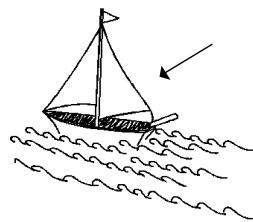
9



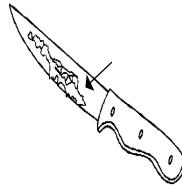
10

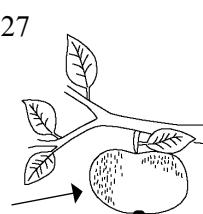
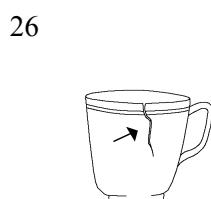
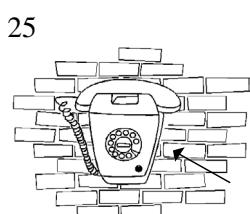
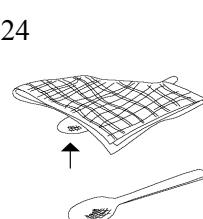
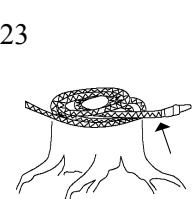
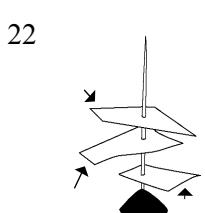
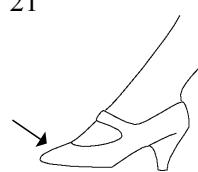
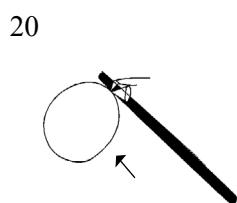
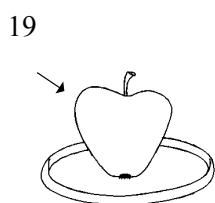
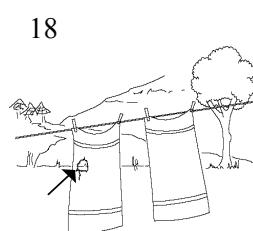
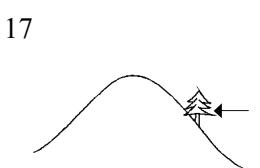
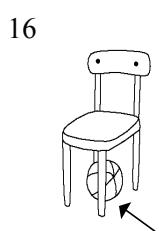
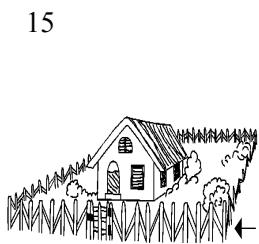
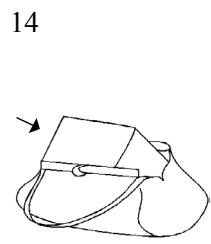
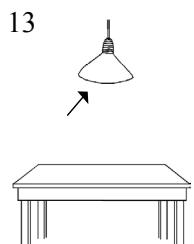


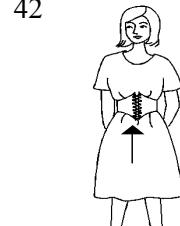
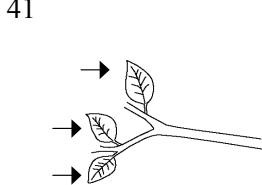
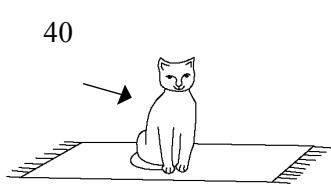
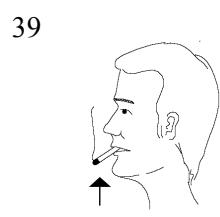
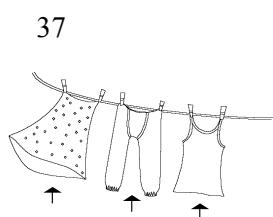
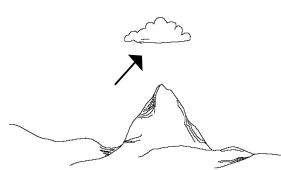
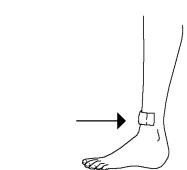
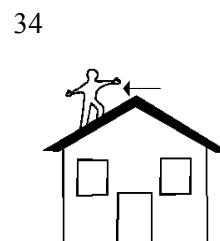
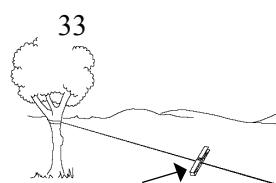
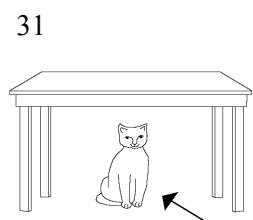
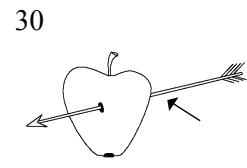
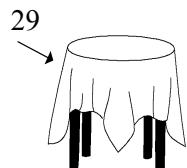
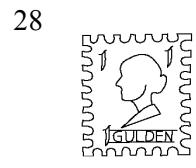
11



12



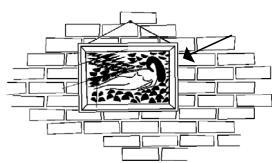




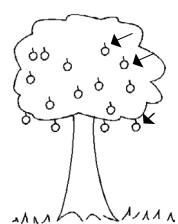
43



44



45



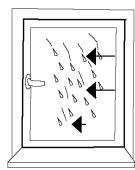
46



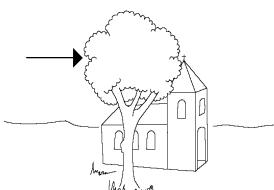
47



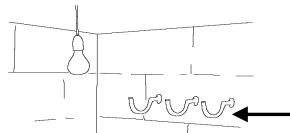
48



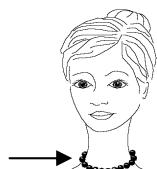
49



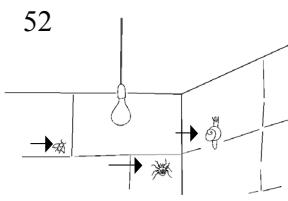
50



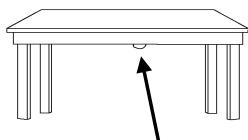
51



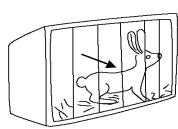
52



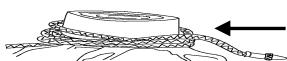
53



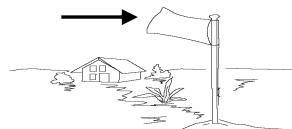
54



55



56

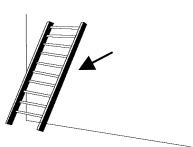


57

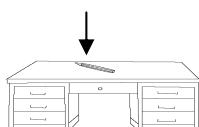


608 Appendix

58



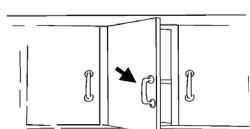
59



60



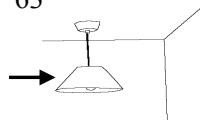
61



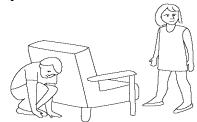
62



63



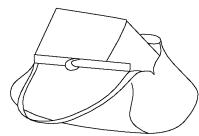
64



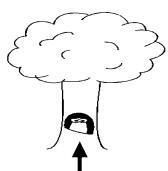
65



66



67



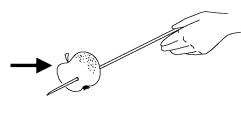
68



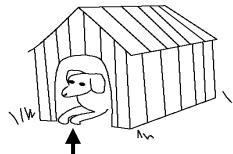
69



70



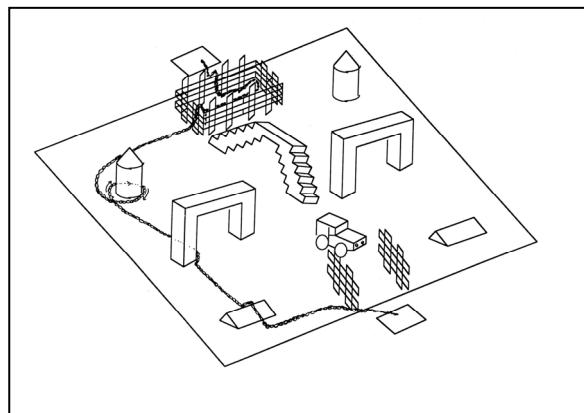
71



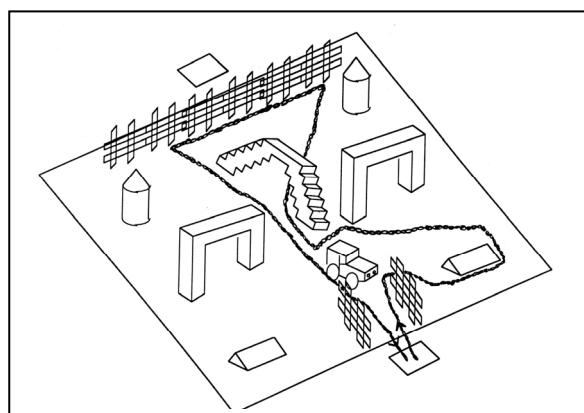
3. Route Description task

(© Language and Cognition Group, Max Planck Institute for Psycholinguistics, Nijmegen)

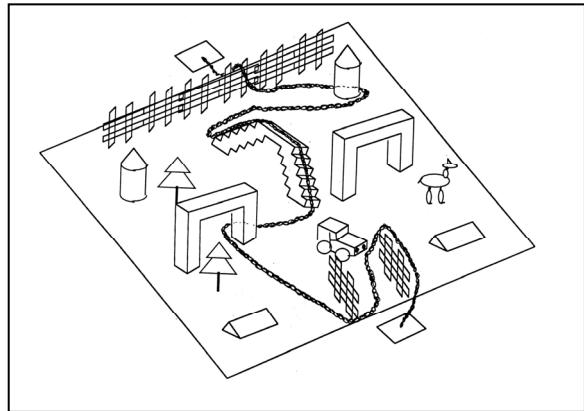
Path 1



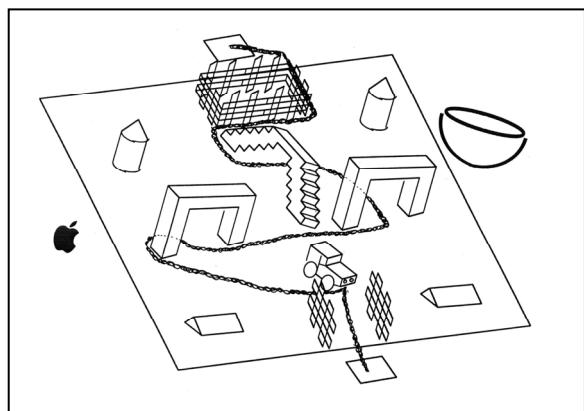
Path 2



Path 3

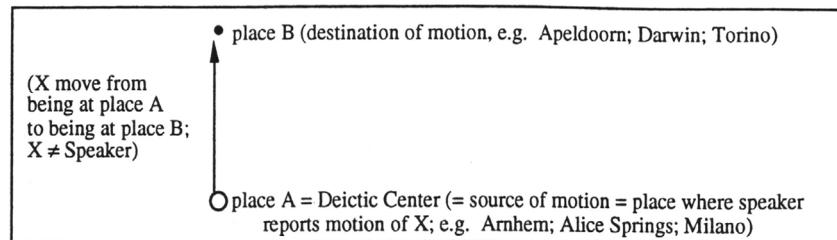


Path 4

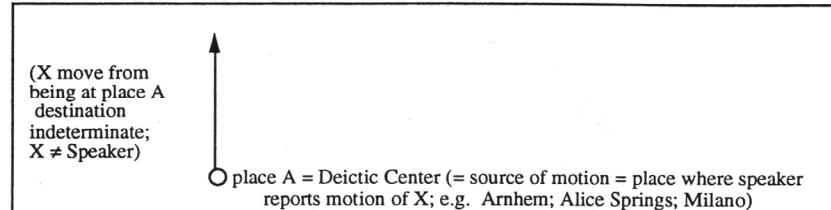


4. Scenes of *Come & Go*-Questionnaire (Wilkins & Hill 1993)

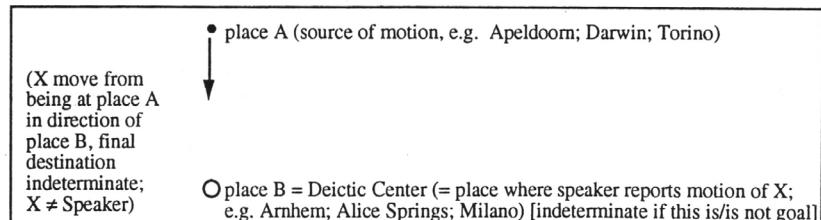
Scene 1



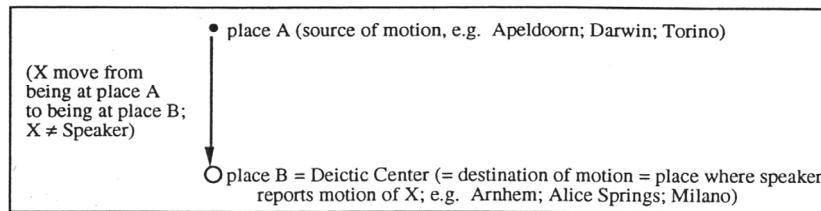
Scene 2



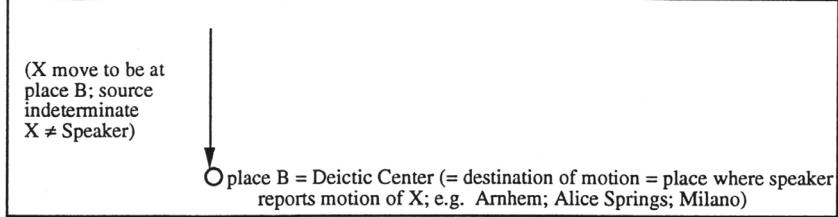
Scene 3



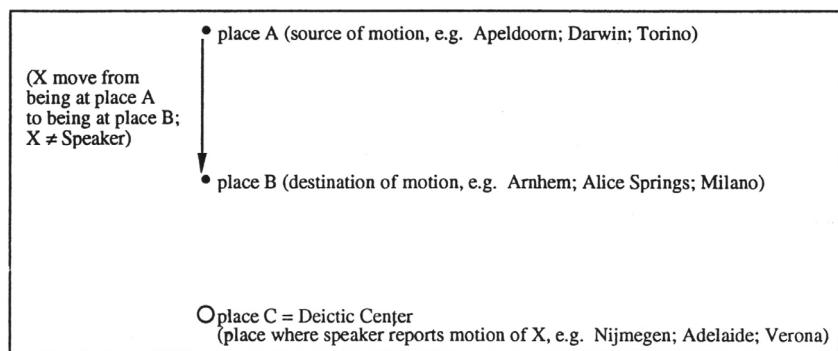
Scene 4



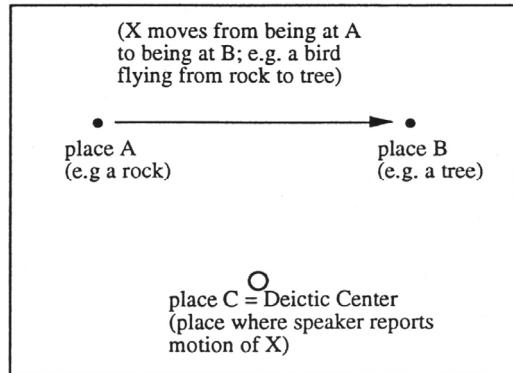
Scene 5



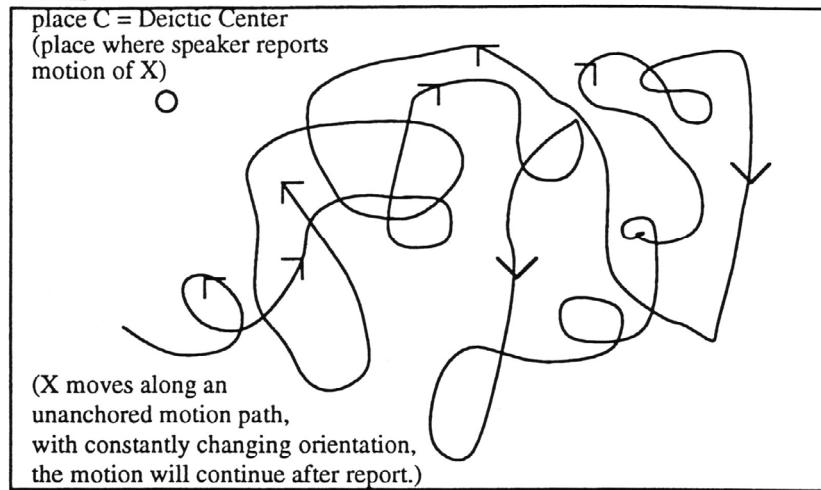
Scene 6



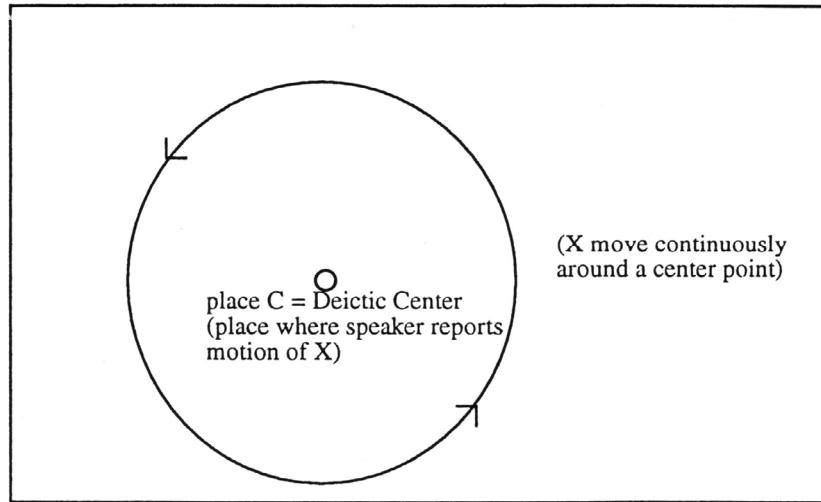
Scene 7



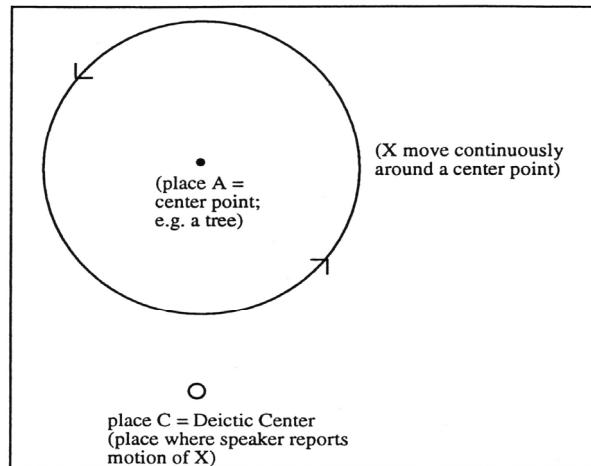
Scene 8



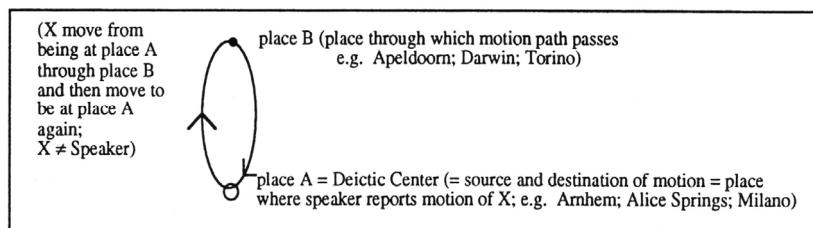
Scene 9



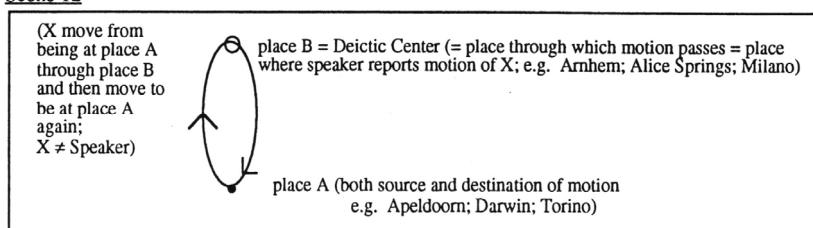
Scene 10



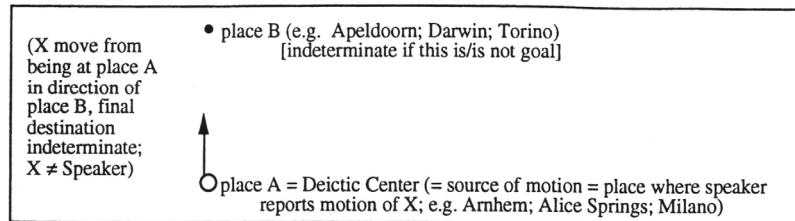
Scene 11



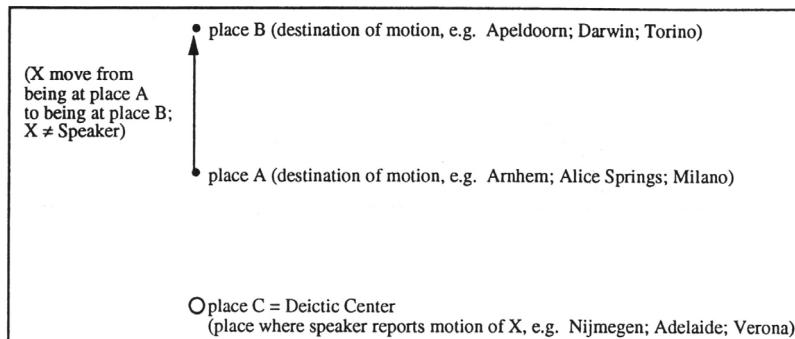
Scene 12



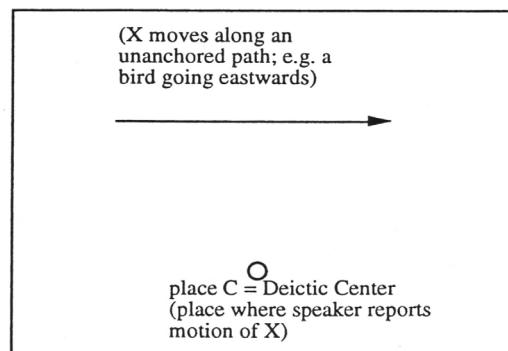
Scene 13



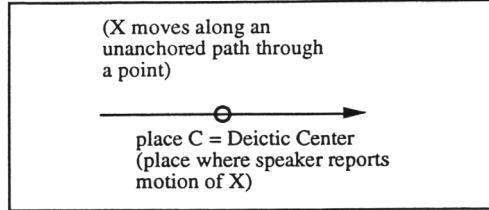
Scene 14



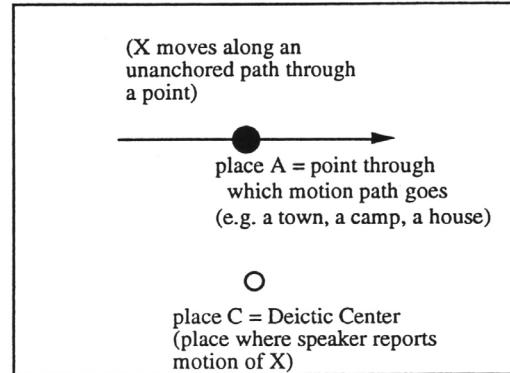
Scene 15



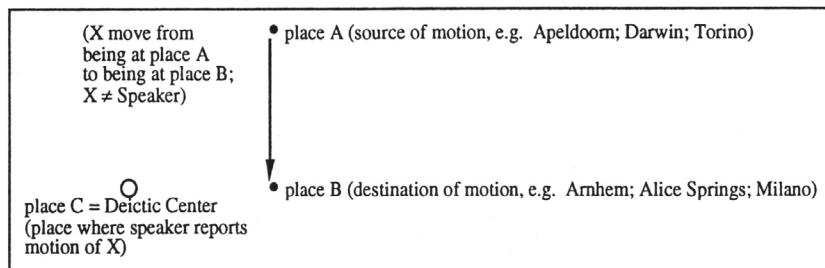
Scene 16



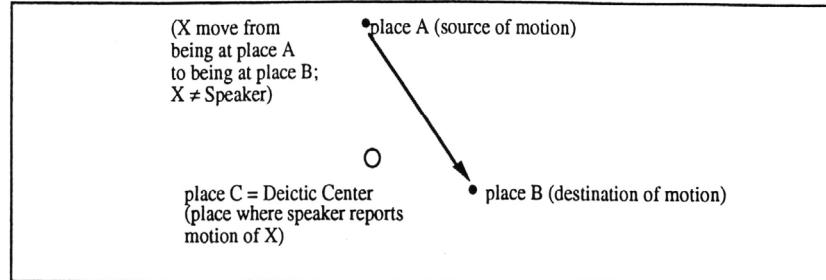
Scene 17



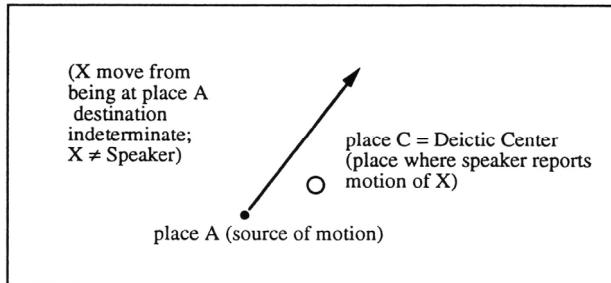
Scene 18



Scene 19



Scene 20



Notes

1. The term grammaticalised or grammaticalisation is used in a very general sense, namely when open-class lexical items become to be used as small closed-class lexical items which are (almost exclusively) used to express specific semantic domains such as spatial and temporal relations.
2. In the case of the landmark expressions discussed in this study, this means that grammaticalised landmark expressions are, in contrast to other, non-grammaticalised landmark expressions, restricted with regard to the use of prepositions, modifiers and other formal markers of noun phrases.
3. See in particular chapters 3, 5, 6 and 7.
4. French Polynesia is one of France's TOMs (=*territoire d'outre mer*) which have politically a relatively autonomous status from the mother country.
5. For a map of the Pacific, see above.
6. INSEE=Institut National de la Statistique et des Études Economiques de la Polynésie française.
7. In the nineteenth century, precisely between 1865–66, around 1000 Chinese working immigrants came to French Polynesia to work on a cotton wool plantation (see Stanley 1993: 59). Most of the people of Chinese origin are acculturated into Polynesian society and have learned the local languages (French, Tahitian, Marquesan); in 1964 they acquired French citizenship. On Tahiti Mandarin Chinese is still spoken, in particular by older people of Chinese origin, but not acquired by children as a first language anymore. On the Marquesas, however, I have never encountered a local of Chinese origin who is a native speaker of Chinese. A great number of mixed marriages between Chinese and Polynesians have resulted in the emergence of a fourth ethnic group which are called *les demis* ‘the halves’. The term *les demis* is rather general including children of other mixed marriages between Polynesians and Europeans (see P. Draperi (1993) for a humorous description of the four ethnic groups: Polynesians, French or Europeans (Tah. *popa'a*), Chinese and *les demis*.
8. A number of children in Hakahau acquire Marquesan as a second language at around age ten.
9. Reasons for this shift see below see ch. 2, § 1.3.
10. By 1920 the depopulation found its climax: about 2000 indigenous people could only be counted, according to some estimates a drop of 95% of the population in pre-European time (Riley 1996; Rollin 1974).
11. There were also Protestant schools, but no details are given in Lamaison (1996).

12. There are also loan words from other languages (e.g. N-MQA *kaput* ‘broken, demolished, exhausted’ < Ger. *kaputt* ‘broken, exhausted’), but they are rather rare and might have only entered into the language by contact with the vessels on which sailors were from various ethnic groups (see Drechsler 1999: 74).
13. There is an indigenous word for canoe, namely *vaka* and *teke'e*. *Hepe/isepe* only denotes bigger vessels.
14. Today in the minds of most speakers, these English loan words are not felt as being non-indigenous like many French loan words such as Marq. *kuea* ‘spoon’ (< Fr. *cuisse*). Marquesans often comment that *kuea* ‘spoon’ is not real Marquesan and that the real Marquesan word for *kuea* would be *puna* without being aware that *puna* is in fact an English loan word (< Engl. *spoon*).
15. Note that the work of the Tahitian Academy is much in the fashion of the *Académie Française*.
16. A Tahitian-French dictionary has just been published in August 1999 by *Fare Vana'a*.
17. Note that the socio-political measurements of the *ma'ohi* movement and the migration of many Marquesans to Tahiti also accounts for the relatively high number of Tahitian loan words in the Marquesan language.
18. For the problem of semi-bilingualism in French Polynesia see Tetahiotupa (2000).
19. see Teikiehu'upoko and Candelot (1987).
20. This actually raises the question what language or languages Marquesan children are currently acquiring.
21. E.g. French in the official sector (e.g. post office, hospital, institutions) and Marquesan in the private sector (e.g. on the playground, at home, with friends).
22. This attitude was in particular observed in the smaller valleys on 'Ua Pou island (i.e. Hakahetau, Ha'akuti and Hakama'i'i).
23. See also Tetahiotupa (2000: 96–106).
24. Note that young boys must have a certain age (6+) to engage in those activities with their fathers or male caretakers. Up to that age they are mostly surrounded by female caretakers and receive a considerable amount of French input. It can therefore often be observed that young males learn a variety of French as their first language and only start acquiring Marquesan as a second language at age six or later.
25. In particular when non-indigenous people are present (see Tetahiotupa 2000: 93).
26. Household does not mean here that three generations live under one roof. When young Marquesans start their own family, they often build a house next to the house of their parents or parents-in-law. I will consider the whole hous-

- ing complex as one household, because they interact intensely in their daily lives (eating and sleeping together etc.).
27. A is not the child D addresses, but A is a bystander of the interaction.
 28. Only a few speakers under the age of 50 were bilingual in Hakama'i'i and Ha'akuti.
 29. Again this cannot be generalised for all areas of the Marquesas. In the areas where a clear shift from Marquesan to French has taken place, grandparents address their adopted children in French. This is often done unconsciously. A child is addressed in French, even though that person might be in the middle of having a conversation in Marquesan. It is interesting to note that dogs and cats are also addressed in French. Maybe some Marquesans associate French with educating someone.
 30. Note that the situation described for the Marquesas is in fact characteristic throughout French Polynesia.
 31. As a convention in this study the parts of speech which are in French are not translated into English in the free translation part of an example in order to make the code-switched forms more prominent.
 32. E.g. belonging to the modern western world (see ch. 2, § 1.4).
 33. Older Marquesan children and adults often switch to French when they address younger children because they believe that younger children basically have a better comprehension of French than of Marquesan.
 34. A similar phenomenon is observed on Tahiti called *Franhitien*. However, the *Franhitien* cannot be characterised as French-Tahitian code-switching because it seems to have its own grammatical rules and linguistic characteristics (see Tetahiotupa 2000). *Franhitien* is particularly used and acquired by children and schoolteachers often use it as a means of communication when they fail to communicate their ideas in French as well as Tahitian.
 35. This refers to a so-called photo-object-matching task which was one of my methods of collecting spatial language (see below, ch. 2, § 3.2.2.1).
 36. D demonstrates via gesture which 'front'- and 'back'-regions are meant. The terms expressing FRONT and BEHIND in Marquesan can refer to several different object regions (see ch. 7, § 3.1.2 and § 3.4 for details).
 37. Here she refers to the video camera which is taping the interaction.
 38. Note that the number in parenthesis indicates the age of the children. The first number indicates the years and the second number after the semicolon indicates the months. Thus the child of utterance (2.13) is seven years and ten months.
 39. N-MQA *mea* 'thing' is often uttered when the speaker cannot think of the precise lexical item as a kind of lexical 'place holder'. It is therefore best translated as 'ehh' which often has a similar function in discourse than *mea* in N-MQA.

40. The nasalised vowel [ã] in the 2.sg finite present tense (indicative) form of Fr. *comprendre* [cõprã] ‘understand’ is in this utterance denasalised and reproduced as a long /e/ ([cõpre:]).
41. *Kokoi* is a reduplicated form of *koi* ‘run’.
42. See also Riley (1997).
43. The child is (3;2).
44. The latter example is interesting because *pua* means ‘flower’ and *pa* ‘close, enclosure’, thus *papua* means ‘enclosure flower -> garden, (flower) enclosure’. In the interactions two 4-year-olds often had a tendency to take a tree when the lexeme *papua* ‘enclosure’ was produced, probably linking *pua* ‘flower’ to tree.
45. The locative noun phrase '*i uta* ‘inland’ cannot occur as a complex noun phrase with a possessive construction (*'*i uta o te'a arbre*) when it refers to a small-sacle spatial array. If the local noun *uta* ‘inland’ is preceded by the preposition *ma*, a possessive construction is possible (*ma uta o te'a arbre* ‘inland of that *arbre*’); see in ch. 5 for a more detailed discussion and analysis.
46. See ch. 4, § 9.2.3 and ch. 7, § 3.1.3.
47. It is interesting to note that these routines are of cultural and social importance because possession gives authority and respect to the possessor: an object cannot be taken without the explicit permission of the possessor (Riley 1996).
48. Riley calls them *pe'au* (‘say’)-routine.
49. It is maybe interesting to note that Marquesan adults even used this prompting routine with me, probably because I am in the same situation of learning the language and culture.
50. The glottal stop is graphemically realised as an apostrophe: <'>.
51. MQA is an abbreviation which stands for the two Marquesan languages. It is used in particular when no distinction between N-MQA and S-MQA can be made.
52. It has been noted by Lavondès (1975), Lavondès and Randall (1978), Elbert (1982) and Clark (1999) that the vernacular of 'Ua Pou (=N-MQA) has retained PEP **r* in many cognates, but none of the authors give numerous examples. It is true that a lot of 'Ua Pou lexemes contain /r/, but they are not all derived historically from PEP **r* (see in particular Clark 1999 for a detailed analysis).
53. Hughes and Fischer (1998: xiv) criticize Green’s judgement because he does not say how he measures ‘mutual unintelligibility’. In fact, when many of my consultants had to judge for themselves the mutual intelligiblity of the two Marquesan languages they had quite divergent opinions about the matter. On the one extreme, some felt that it is easy to understand all other Marquesan vernaculars; on the other extreme, some speakers felt that each island has

such distinct linguistic features that the respective vernaculars of each island are not mutually intelligible. Whether a speaker judges another island vernacular to be intelligible or not is probably dependent on the amount of experience a speaker has had with another island vernacular. In general, it is felt that differences between N-MQA and S-MQA are large enough that mutual intelligibility is often not given.

54. See Hughes and Fischer (1998) for a more detailed presentation. I will only list those differences which are characteristic of the contemporary Marquesan languages.
55. Loan words are labelled as *Iw* (=loan word) before the identification of the respective language. E.g. if a loan word is from French the loan word will be labelled *IwFr* (=loan word French).
56. See Dordillon (1931: 98).
57. See Dordillon (1931: 230).
58. *Haka-* and *ha'a-* are causitive prefixes.
59. E.g. the former N-MQA form *okohu'u*, S-MQA *onohu'u* 'ten' is *onohu'u* in contemporary N-MQA (see also below).
60. N-MQA *anunu* 'always' has an allolexeme: *ana'u*. I.e. PCE **t* is sometimes replaced by a glottal stop (see Hughes and Fischer (1998: xix) for more examples).
61. The language of Taipivai valley is called Taipi by Green (1966). The locals call this language '*eo ava angi* (lit. 'language passage sky').
62. See Green (1966: 19).
63. See Green (1966: 19).
64. This black crab is called *toetoe* on the other Marquesan islands.
65. N-MQA -*ia*, S-MQA -*tia* and -*tina* (see Zewen 1987: 99).
66. Kinship terminology, body-parts, ancient number system, names for songs, winds, tribes etc..
67. Note that there is a collection of narratives and legends, collected by Lavondès (1964, 1966), at the documentation center 'IRD' (former 'OR-STOM') in Pape'ete (Tahiti, French Polynesia).
68. I obtained several *Frog Story* narratives which are based on a booklet of 24 pictures designed by Mercer Mayer. I basically followed the procedure of Slobin and Berman (1994). The data were collected with adults and children (ranging from age four to eleven). Narratives were also elicited by using films such as the *Chicken Film* (*Cognitive Anthropology Research Group*), *Tweedy* films and film clips from Charlie Chaplin's film *Modern Times* (selected by members of the *Cognitive Anthropology Research Group*).
69. Participant observation here means that I basically tried to participate in their daily lives as much as possible. This involved going to church on Sundays, going on boat trips and fishing, collecting mussels and shellfish, picking fruits in the inland gardens and doing copra, participating in food preparations, in-

teracting with children and in children's play, going to Protestant gatherings, dance rehearsals and festivals (*rare* (< Fr. *juillet* 'July') July festival, *quinze août* 'August 15th'), bingo sessions, sporting events (volleyball, football) and being invited to several *kaikais* 'meals' etc.. These activities did not only give me a good opportunity to understand their ways of living, but also a chance to grasp their language in various situations. I was able to learn the language fluently and therefore could make notes of expressions and phrases. This indirect way of data collection is a possibility to overcome the so-called "observer's paradox" (see Mosel 1984; Senft 1995b).

70. This group is now called *Language and Cognition Group* at Max Planck Institute for Psycholinguistics (Nijmegen, Netherlands).
71. Being a female researcher did probably close down certain roads in accessing cultural information as depicted in Senft (1995a: 598). It was however no problem for me to work with male consultants.
72. See Mosel (1984: 12–13) for similar methods.
73. See Ochs 1988.
74. The actions I modelled to my consultants were inspired by a proposal of M. Bowerman in Danziger (1993).
75. Reference objects are those objects against which another object is localised. I refer to them in the following chapters as relatum (see ch. 4, § 4.2).
76. See photo in appendix 1 which depicts two consultants of mine playing the *Farm Animals* game.
77. The term negative parts is a term used by Landau and Jackendoff (1993). More will be said about it in ch. 4, § 4.2.
78. The Caused Motion elicitation showed that N-MQA has a set of verbals which express motion transfer into a tight fit container (*kokomo*, e.g. 'put keys into lock') and motion transfer into a loose fit container (*hahao*, e.g. 'put s.th. into a sack'). Note that Korean has a similar set of verbs (see Choi and Bowerman 1991). This elicitation developed into the design of a Matching Game in which those two verbals very contrasted. In the Matching Game, an idea also based on M. Bowerman (see Danziger 1993: 42), two consultants were sitting on chairs back to back. I would model an action to one consultant. This consultant (=Director) had to explained the modelled action to the other consultant (=Matcher) who did not see the action I was modelling previously. The Matcher then had to perform the action on the basis of the Director's instruction or description.
79. Field notes are notes which are taken when I was observing their speech or when I was discussing constructions etc. on a more informal basis.
80. Note that I prefer the term 'noun phrase' to 'nominal phrase' although I use the term 'nominal' instead of 'noun' to refer to groups of words with particular morphosyntactic properties (for reasoning see ch. 3, § 4.1). The term 'noun phrase' refers to a syntactic function of a group of words.

81. /f/ in Tahitian is a reflex of PCE *f which was also retained by S-MQA. N-MQA has replaced PCE *f by /h/ (see above). S-MQA /f/ is often replaced by /h/ in N-MQA, especially by the older population. An older speaker of N-MQA would not call an island in the southern group *Fatu Iva*, but *Hatu Iva*.
82. Variation between glottal stop and creaky voice (=Mutu's lax glottal stop) can also be determined by the speech tempo: when words with a glottal stop are pronounced slowly they have the quality of the tense allophone; when the same lexemes are analysed in fast speech and occur in the neighbourhood of short vowels they tend to be the lax allophone, i.e. with creaky voice (see Mutu and Teìkitutoua 2002: 27).
83. TAM-particles are tense-aspect-mood-particles.
84. *O* is a preposition (and not a verbal particle) because it marks noun phrases (see *o te 'enana nei* in (3.2e)).
85. (3.5) represent how the Marquesan TAM-particles are glossed by Zewen (1987) and Mutu and Teìkitutoua (2002). The function of the TAM-particles has not been investigated yet in a satisfying way. Therefore the table in (3.5) lists the particles and the names and functions associated with them. There is a more detailed description of the N-MQA TAM-particles in this book in ch. 3, § 6.2.1.
86. *U* is a allomorphic variant of *ua*. It is however not really clear why there is this variation. The use of *u* instead of *ua* could be due to prosody and sentential intonation, but the matter needs further investigation.
87. Mutu and Teìkitutoua (2002: 50) also describes the (semantic) function of this particle as 'warning'. It often occurs when somebody wants to give a warning in the sense of 'do this... before...' .
88. It seems unlikely that *e...ana* is one verbal particle expressing continuous aspect. It is however true that *ana* in postverbal position often expresses continuous aspect. However, *ana* also occurs in postnominal or clause-final position which suggests that only *ana* on its own expresses continuous aspect and not the combination of the two particles *e+ana* as proposed by Mutu and Teìkitutoua (2002).
89. The particle *me* is neither mentioned by Zewen (1987) nor by Mutu and Teìkitutoua (2002).
90. The particle *ko'e* 'without' occasionally occur in postnuclear position of a verb phrase:
 e.g. *E aisu ko'e te='a 'enana*
 TAM shoe without ART=Dem ma
 'That man is barefooted.'
91. *He* is frequently used in locative constructions and has some localising function (see ch. 3, § 6.1.1.1).
92. *Na* is frequently used when there are only two referents (e.g. *na ko'oua* 'the two old men'). However *na* is also used when there two or more referents, thus the classification as a 'plural' article.

93. *Titahi* indicates that the speaker is familiar with the referent, but not the addressee.
94. According to Zewen (1987) this preposition has a preceding glottal stop, thus '*i*' or '*ia*'.
95. See ch. 3, § 4.1 for a definition of common full words.
96. See chapters five to eight for a more detailed analysis of the distinction between '*i*' and '*io*'. The preposition '*io*' is in many usages comparable to Fr. *chez* 'at place of x'.
97. Directional particles can only modify local nouns and some body-part terms (see ch. 6).
98. The corresponding verbal clause would be constructed with the existential verb *ena*. (3.15b) looks like a non-basic non-verbal clause. I classify it as a non-basic non-verbal clause because the constituent order Predicate–Subject is reversed. The constituent *ma mu'i o te tumu 'akau* 'behind the tree' cannot be the subject, but only the predicate of the clause.
99. Note that Zewen (1987) writes the object preposition *i* with a glottal stop. In my recordings I could not detect a glottal stop in the object preposition *i*.
100. My categorisation of word classes basically follows Mosel and Hovdhaugen's categorisation into word classes (1992: 71).
101. A bay on 'Ua Pou island.
102. See Mosel and Hovdhaugen 1992; Mosel 1992; Cablitz 2000 and chapter 3, § 6.1.2.2 for more details.
103. This refers to all articles listed above except the personal article *a* which only occurs with proper names of persons.
104. The lexical head of a nominalised verbal clause is formally nominal because it is the lexical head of a noun phrase.
105. Breakfast and supper is often accompanied with a bowl of coffee on the Marquesas.
106. Note that these occurrences are rare and do not represent typical usages of PN of places. Also, *kamo* 'steal, take away' -> *te enana kamo* 'the thief' etc.. Note that there are rare occurrences in which place names can function like common full words in that they occur as the lexical head of a verb phrase and are marked by the TAM-particle *e*. In these cases, place names are used metonymically, namely denoting the group of people occupying the location denoted by the place name (see also below):

'A'e au me he Hiva 'Oa, e 'Ua Pou au. (Lav-H: 31)

be.not 1.sg like ART H. O. TAM U. P. 1.sg

'I am not like the Hiva 'Oa people, I am an 'Ua Pou person/inhabitant.'
107. Sam. *isu mamafa* means 'heavy nose'.
108. The glosses 'back' and 'behind' can refer to the same object regions of a relatum. However, in Marquesan *ma te tua* 'at the back' and *ma mu'i* 'behind' can also refer to two distinct object regions (see ch. 7 for more details).
109. E.g. an ornithologist doing fieldwork on the Marquesas is called *Manu* 'Bird'.

110. Proper nouns of places will be called ‘place names’ henceforth.
111. There are a few lexicalised expressions with local nouns which have articles (e.g. *io he ‘oto tai* ‘in water puddles on the rocks by the sea’).
112. See also for Hawai’ian (Elbert and Pukui 1979; Cook 1998).
113. The same particle *a* also occurs in Maori before proper names of persons, place names and local nouns and is called ‘personal article’ (Bauer 1997: 142).
114. *Pahio* ‘grandma’ is probably a contracted form of *pakahio* ‘old woman’.
115. I refer here to common full words when they are used as the lexical head of a noun phrase.
116. Only with *kaokao* ‘flank,side’.
117. Note that all verbals have the potential to be nominalised and therefore become the head of an noun phrase (see above).
118. Note that the morphosyntactic properties are our crucial classifying criteria in this grammatical sketch.
119. The semantic roles of *consumer-consumee* are similar to *agent-undergoer* as there is one who performs an action whereas another is affected by that action.
120. A recipient is the place or person who receives the transferred entity.
121. See also Margetts (1999) for Saliba.
122. The terminology A, S and O is adopted from Dixon (1994). “S” refers to intransitive subject, “A” to transitive subject and “O” to the transitive object (Dixon 1994: 6–8).
123. See ch. 3, § 6.2.1 for a more description of TAM-particles.
124. However, speakers of Marquesan can express that a certain state of a person or thing can be localised in the future by using the existential verb *ena* ‘exist’.
125. The particle *mea* is probably cognate with *mea* ‘thing’. There are occurrences in which *mea* is preceded by TAM-particle *e* when *mea* occurs together with state intransitives, e.g. in a legend by Kimitete (1990: 2):
- E mea ve'ave'a i hua 'a.*
 TAM thing warm LD ART.same day
 ‘That same day it was warm.’
- In this occurrence the state intransitive *ve'ave'a* ‘warm’ modifies *mea* ‘thing’. Occurrences like these are rare. In my data there are no such occurrences with *mea*. In this study, *mea* is regarded as a verbal particle (see above). However, it is very likely that the construction with *mea*+state intransitive has historically developed in that way, i.e. TAM-particle *e+mea+state verbal*.
126. Zewen (1987) classifies the TAM-particle *'a* as an aspectual marker which expresses inchoativity.
127. According to Zewen (1987: 102) this suffix is a passive suffix which also has perfective meaning. However, I believe there are two homonymous suffixes - *'ia*, the one functioning as a passive suffix, the other as a suffix marking perfective aspect. This distinction is justified because intransitive verbs cannot be put into the passive voice.

128. Probably for semantic reasons, a few state verbals cannot occur with the inchoative/perfective TAM-particle *ua* such as *kanahau* ‘nice’, *momona* ‘delicious’, *po’otu* ‘beautiful’ as well as state verbals which express character traits such as *kaitua* ‘egoistic’, *makou* ‘jealous’, *ka’i’e* ‘pride, arrogant’ etc.. However, these verbals can occur with all other properties defined for the class of state verbals.
129. The list of verbals of this subclass (see below) is not exhaustive.
130. “(S)uch words ... are neuter in form, but passive in meaning; which correspond in meaning to the past participle passive of the European languages, but are not retraceable to any root” (Maunsell 1842: 50). See also Hooper (1984) for the discussion of the class of neuter verbs in Polynesian languages.
131. Note that N-MQA *mau* ‘catch, hold’ differs from Maori *mau* ‘catch’ because N-MQA *mau* only occurs in the intransitive frame (see below) and it forms with a few other verbals a small class which is distinct from the class of N-MQA neuter verbals listed in (3.61).
132. This sentence is drawn from a legend called Makai'anui. In the legend, a chief is said to have supernatural powers such as 'reviving' meat on meatless bones.
133. AStr = argument structure.
134. The symbol “Ø” means that it is not a valid definition for this class.
135. *Aia* is a presentative verbal which is in its meaning similar to Fr. *voilà*.
136. The verbal *pe’e-* never occurs on its own, but always with a demonstrative (e.g. *pe’enei* ‘like this’).
137. For the terminology see Mosel and Hovdhaugen (1992: 114); verbal pseudo-prepositions are verbals which look in their construction as if they would introduce a prepositional phrase, e.g. *me he manu* ‘(be) like a bird’.
138. The basic frame and terminology is adopted from Mosel and Hovdhaugen (1992).
139. This is probably cognate with the numeral *ua* ‘two’.
140. *-’u* is a clitic of the 1.sg form *au* and occurs after prepositions and determiners (*na’u* ‘for me’, *ta’u* ‘my’ etc.). The first singular clitic is used when the preceding vowel is an [a], as in the case of *na’u* ‘for me’. When the preceding vowel is an [o], the bound as well as the unbound form of the first singular personal pronoun can be used (e.g. *no’u* ‘for me’ and *no au* ‘for me’).
141. A deictic centre is the centre of attention or the zero-point of orientation in an actual speech situation (Bühler 1934). It can be a thing or person which is normally, but not necessarily the speaker (i.e. it can also be the protagonist in a narrative). However, in many occurrences the deictic centre is the here and now of the speaker or narrator. Bühler calls this essential and basic parameter of deixis *origo* (1934: 126).
142. *-ia* only occurs as a bound morpheme.
143. In this usage it is also used anaphorically meaning ‘a certain, the one being talked about’.

144. This is Bühler's terminology (1934: 126).
145. *Hepe* 'ship' is not a new referent at this point in the narrative.
146. It only occurs in combination with the deictic verbal *pe'e-* 'like' (*pe'ena* 'like that'); see ch. 3, § 4.3.6.
147. See also Mutu and Teikitutoua (2002: 68–70).
148. For the term time of utterance see in particular Klein (1991).
149. *I tai ana* means 'somewhere over there in direction to the sea'.
150. The particle *ana* is frequently used as a particle modifying verbals with respect to continuous aspect. It is however not clear whether this adverbial usage of *ana* is cognate with the demonstrative *ana* 'unspecific location' or whether the two forms are homonyms. In its temporal usage (=continuous aspect) *ana* also occurs as an adnominal with location-denoting nominals such as place names.
151. I only list the deictic local nouns for the 'Ua Pou vernacular here because there is considerable variation in form or dialectal variation across vernaculars. The other forms and lexemes are mentioned in a footnote.
152. '*apai* (Nuku Hiva), '*ako* ('Ua Huka); *hiva* is apparently used in S-MQA. Apart from being used as deictic local nouns meaning 'there', they can also be used to refer to (fixed) places within a valley, i.e. referring to 'the left or right side of a valley' (see Dordillon 1931; Le Cléac'h 1997). See ch. 7, § 3.3 for a discussion of the usage and meaning of *ko*.
153. '*Ei'a* 'there' has several different forms: *keina*, *keika*, *kei'a* and '*eina* (see Dordillon 1931; Le Cléac'h 1997). Neither Dordillon nor Le Cléac'h mention which forms are used on which islands. In the 'Ua Pou vernacular, the form '*ei'a* is used by the majority of speakers. Older speakers tend to use *keina*.
154. *Ei'a* is the only deictic local noun which can be used anaphorically.
155. E.g. Ger. *hier* 'here', *da* 'there' and *dort* 'there'; see literature discussing these deictics (Bühler 1934; Klein 1983; Ehrich 1982, 1983; Wunderlich 1982; Sichelschmidt 1989).
156. *ine-* seems to be a bound morpheme which indicates PAST, see below.
157. *Epo* and *kapo* both contain the stem *po* 'day, night'. The particle *e-* in *epo* can be analysed as the imperfective TAM-marker *e*; *ka-* in *kapo*, however, is more difficult to analyse. The prefix *ka-* in *kapo* could have been a TAM-particle at an earlier stage of Marquesan (see Gaussin 1853).
158. *Umaha* might be a compound in which one part of the compound is the interrogative proform *aha* 'what'. However, the other part is not transparent anymore. Furthermore, in order to ask the reason of something, speakers of N-MQA also use the locution *no/na te aha* 'why' (lit. 'for the what').
159. In the Marquesan society the proper names *Teiki* (male name) and *Tahia* (female name) are the most frequently used names and are often followed by additional name (e.g. *Tahia 'Ua*, *Tahia Titi Ku'a*).
160. LD=locational-directional/destinative.

161. A verbal interrogative clause has a verbal predicate (see also [3.141]). (3.142) and (3.143) are non-verbal interrogative clauses because their predicates are noun phrases.
162. For more details see Mutu and Teikitutoua (2002: 100–107) and ch. 3, § 4.3.8.
163. I.e. a locative, temporal or causal phrase.
164. Fr. *près* as a modifier is only attested in my child data (e.g. *kaokao près* ‘close at the side’). It is better to describe Fr. *près* ‘close’ as a code-switched form which is not yet totally integrated into the phonological system of Marquesan.
165. E.g. *mais* ‘but’, *ou* ‘or’, *en plus* ‘in addition’, *si* ‘if’ etc., see also ch. 2, § 1.4.
166. Emphatic *'a* could be cognate with the demonstrative *'a*.
167. The prefix *haka-* is used by speakers of the 'Ua Pou vernacular; *ha'a-* is generally used by speakers of all other Marquesan vernaculars. In the Nuku Hiva vernacular there are also occurrences of *haka-* (see Zewen 1987: 115; also attested in my own collected data on Nuku Hiva).
168. Causative agentive verbals – a term borrowed from Hooper (1996: 20) – require two participants in a verbal clause and therefore belong to the class of transitive verbals. For this kind of derivation in other Polynesian languages see Mosel and Hovdhaugen 1992; Hooper 1996; Bauer 1997; De Feu 1996; Peltzer 1996.
169. The argument structure of similitative verbs is intransitive.
170. The word ‘*enana* ‘man, human being’ can also deote things which are indigenous to the Marquesas: e.g. ‘*eo* ‘*enana* ‘Marquesan language’ (lit. ‘language/tongue of man’), *kaikai* ‘*enana* ‘Marquesan food’ (lit. ‘the food of man’).
171. *Puaha* ‘open up’ is often used with reference to a clarifying cloudy sky; it is also used for flowers which blossom. The word *tapuaha* ‘clear, clarified’ seems to be obsolete, but attested in Dordillon (1931).
172. Only combines with numerals and the interrogative pronoun *hia* ‘how many’. Word formations with the prefix *toko-/to'o-* can be found in several syntactic positions: as a determiner, and as the lexical head of a verb and noun phrase.
173. E.g. *ana* in *anamai* ‘suddenly’ does not seem to express continuous aspect. See Mutu and Teikitutoua (2002: 61) for further details of the difficulties in interpreting *ana-*.
174. The prefix *ana-* in (3.189) has combined with directional particles (e.g. *anaiho* ‘only’).
175. *Moeka* ‘bed’ is not attested in my data. Speakers of modern Marquesan use *oki* ‘bed’. *Moeka* ‘bed’ is listed in Dordillon (1931) and Le Cléac'h (1997).
176. With respect to nominalisations, there are two productive suffixes in S-MQA, namely *-na* (= N-MQA *-ka*) and *-tina* (Zewen 1987: 99). The suffix *-na* does not indicate the completion of the action, whereas the suffix *-tina* does: e.g. *tihe=na* ‘the fact that somebody is arriving’ vs. *tihe=tina* ‘the fact that some-

- body has arrived' (Zewen 1987: 100). S-MQA can express two distinct aspects in nominalisations.
177. Note that some occurrences of -'ia in nominalisations are however difficult to interpret as a perfective suffix. These will be glossed as 'NOM' (=nominalisation).
 178. In the examples of passivised transitive clauses, the verbals are without TAM-markers. TAM-markers in passive clauses are often omitted.
 179. See Hooper (1996: 5) for Tokelauan.
 180. There are also occurrences of action intransitives which are fully reduplicated (e.g. *tihu /tihutihu* 'jump downwards').
 181. On the Marquesas, many people make a fire in the afternoon/early evening in order to burn the leafage they collected during the day. This might explain which the reduplicated form of *ahi* 'fire' has the meaning of 'afternoon, early evening'.
 182. In many noun phrases plurality is marked by collective nominals such as *tau* 'general plural', *mou* 'plural for animates', *puke* 'pile' etc. (see ch. 3, § 6.1.1.3.1).
 183. The fully reduplicated form *katakata* 'smile' contrasts semantically with partially reduplicated *kakata* 'laugh (pl.)'.
 184. *Haka'iki* thus means literally 'make oneself small'; in other words: 'make oneself small before the people, i.e. to be a humble servant of people'.
 185. This noun phrase is the direct object of the lexical head *ha'apei* 'prepare'.
 186. A syntactic attribute is e.g. a possessive noun phrase, a possessive pronoun or relative clauses.
 187. There are two prepositions *e* in Marquesan which are homophones: agentive *e* and vocative *e*. For the vocative *e* see below.
 188. It is in fact sometimes difficult to distinguish locational-directional '*i*' from the object marker *i* which has no glottal stop. According to my consultants they are distinguished by a different phonetic quality and quantity (i.e. '*i* [with a glottal stop] is longer and more audible. It is possible that N-MQA locational-directional '*i*' goes back to PPN **ki* (see Clark 1976) and therefore I am motivated to write the locational-directional preposition with a glottal stop although the glottal stop might not always be clearly audible. In any case we can observe a gradual phonetic reduction of the glottal stop of the locational-directional preposition.
 189. In that respect, the preposition *ma* is similar to the French spatial locution *à travers* 'through, across' (see Schwarze 1989).
 190. See ch. 5, § 6.4 for details of the *keke-* and *hope-*construction type.
 191. The preposition '*io*' might have historically derived from the locational-directional preposition '*i*' and the inalienable possessive preposition *o*. Thus, '*io*' indicates at the location (or direction towards the location) **of** someone or something. I owe this observation to Ross Clark.

192. *Tuku i te 'ima* is an idiomatic expression which means ‘to give the permission to do s.th.’.
193. Actor emphatic constructions are specific syntactic constructions which emphasize the agent noun phrase (i.e. the subject noun phrase). The topicalised agent noun phrase can also be preceded by the presentative preposition *o* (see below).
194. *No* expresses more uncontrolled relations whereas *na* expresses more controlled ones (see examples above).
195. The term presentative is a term adopted from Mosel and Hovdhaugen (1992).
196. Directional particles mostly occur with verbal full words, but local nouns and body-part terms can also be modified by directional particles. The usage of directional particles with these two nominal classes is discussed in detail in ch. 6, § 2.2.2–2.2.2.5.
197. Dordillon (1931) also gives examples where *kahui* co-occurs with animal names. I have no occurrences of *kahui* with animal names in my data, nor have I observed it in the speech of my consultants.
198. Note that *ma'a* +FLOWER NAME does not denote a bunch of flowers. The construction *ma'a*+FLOWER NAME would denote an assemblage of flowers which grow in the garden or on any terrain, such as ‘*io he ma'a ha'a* ‘under the hibiscus bushes’ (see also Dordillon 1931: 245).
199. Mutu and Teikitutoua (2002: 54) also mentions two further prenuclear adverbial modifiers, namely *aate* ‘carefully, slowly’ and *tee* ‘negative diminutive’ which I have not attested in my data.
200. *Ihoa* ‘indeed’ and *pa'i* ‘really, indeed’ can also occur as the head of a verb phrase and therefore are full words. *Pa'i* is a loan word from Tahitian.
201. I refer to those lexical items which belong to the class of verbal full words except the class of common full words (see ch. 3, § 4.1). In this section the term ‘verbal’ refers to these lexical items.
202. I.e. with common full words; I am aware of the fact that the label ‘nominal’ is not the most appropriate label due to the basic problem of verb-noun-distinction in Marquesan. However, in this section I will refer to the modification by common full words as ‘nominal’ modification/construction for practical reasons.
203. See also Mosel and Hovdhaugen (1992: 294–305) for Samoan.
204. Many of the verbals in N-V constructions belong to the subclass of state verbals (e.g. *hauhau* ‘bad’, *te'e* ‘raw’).
205. The square brackets indicate the modified word.
206. Note that the modified word is in this case the patient or undergoer. In the other examples, the modified word is the agent or actor.
207. *Huke i te umu* is an ideomatic expression meaning ‘to take revenge’.

208. The missing of the direct object in the nominalised verbal clause might question whether *vava'o* 'call' is really transitive. However, in the same legend *vava'o* 'call' is clearly used transitively in verbal clauses:
- e.g. *E vava'o nei te hei ia au.* (Lav-T/H: 063)
 TAM call now ART garland DO 1.sg
 'The garland is calling me now.'
209. See also Mosel (1992: 277) for Samoan.
210. Comrie (1985: 36) defines absolute and relative tense as following. Absolute tense is "a tense which includes as part of its meaning the present moment as deictic centre; whereas relative tense ... refers to a tense which does not include as part of its meaning the present moment as deictic centre". Thus, absolute tense is always in relation to the time of utterance, whereas relative tense is the relation between events and actions within the discourse and not in relation to the time of utterance.
211. I believe that this is one of the crucial parameters for defining and understanding the Marquesan verbal particle system. However, for a clearer understanding of how temporal relations are expressed in Marquesan we still need a more thorough examination which cannot be done at this point.
212. Note that both narratives introduce their protagonists by saying where they were living, with whom they were living etc., but the use of TAM-particle is quite different (*ua* vs. *e*).
213. See (3.379) *na po kakiu* 'in the ancient times'.
214. 'Perspective of the narrative' here means the time span centred around transposed deictic centre or the protagonist's point of view etc..
215. Emphatic particles such as *eeeeeee* are iconic expressions which indicate that a route or journey is lengthy.
216. It occurs with experience verbs (*mea kite koe* 'you know', *mea have koe* 'you know/ have acquired' etc.), common full words and some verbs of activity (*mea hana koe* 'you work (hard) < you have a habit/state of working' etc.).
217. See Mutu and Teikitutoua (2002: 44–45) who discusses the choice of terminology between 'perfective' and 'perfect'.
218. Many of my consultants believe that *e* refers to (immediate) future events, i.e. events which have not happened at the time of utterance. Mutu and Teikitutoua (2002: 46–48) also glosses *e* as 'imperfective'.
219. It is possible that 'proximity' and 'distance' can also be understood as expressing psychological closeness and distance.
220. The protagonist Kanatete is on Hiva 'Oa island in the southern Marquesas; in this sequence Kanatete refers to Ta'enui who is on 'Ua Pou island which is in the northern Marquesas.
221. Note that (3.407–408) are utterances which have been elicited by modelling certain actions to my consultants. Thus, these are natural descriptions of how to express certain actions. Moreover, the TAM-particle '*a* cannot be inter-

- preted as the imperative '*a*' because my consultants described the actions after I performed them to my consultants.
222. *Tikis* are totem figures in Polynesian cultures which represent sacred ancestors. Symbols of *tikis* are also found in traditional tatoos and wood- and stone-carvings. The expression *patu'ia tiki* means 'tattooing'.
223. *Paepaes* are elevated stone platforms which served as a foundation for houses and public places.
224. The full word *hu'u* is mostly used as a verbal meaning 'to salt', e.g. '*a hu'u i te puaka nei* 'salt this pig!' (see Dordillon 1931: 179).
225. *Kave ve'ave'a* 'make hot' in (3.461) is also an example of a verb serialisation with *kave*.
226. This is the most likely interpretation for this sentence because it is later described in the narrative that the chief and his people thought to have surely killed the missionary.
227. Gosztonyi's two-volume edition is probably the most detailed discussion of all the different main streams in language and space research.
228. See Wunderlich (1982), Klein (1990, 1991, 1994), Schweizer (1985), Ehrich (1985) among others.
229. Note that already Kant claimed that space is basically egocentrically organised (Gosztonyi 1976).
230. See also Buhl (1996: 7–9) for a discussion of the so-called imagery debate which discusses whether mental representations are purely propositional (=informational) or also exist as spatial analogous images (see Kosslyn 1980; Marr 1982 etc.).
231. E.g. Clark (1973), Fodor (1975), Landau and Jackendoff (1993), Jackendoff (1996) among others.
232. These views were already common beliefs by Wilhelm von Humboldt in the nineteenth century, namely that language is the tool of thought and thinking happens in language.
233. E.g. mountains, lakes, rivers etc..
234. E.g. buildings, monuments, sculptures, roads, institutions etc..
235. Tolman (1948) was the first to introduce this term.
236. E.g. recognition and problem-solving tasks which do not involve the use of language (see Levinson 1996, 1997).
237. I will not go into the discussion of the terms sense and meaning. Following Lyons (1977) I will use these terms more or less interchangeably: the sense is the inherent meaning of a lexeme.
238. For the notions of denotation and extension in philosophical logic and semantics see the discussion in Lyons (1977: 206).
239. A referential domain is the domain which incorporates all possible entities (e.g. locations, persons, events).

240. For instance, one based on a body analogy of FRONT/BACK/LEFT/RIGHT (see ch. 4, § 6.1–6.2 for more details).
241. An entity can be an object, a person, an event. In my data, we are mainly dealing with objects and persons.
242. In other works on spatial reference and conceptualisation, theme and relatum are called “figure” and “ground” (Talmy 1983; Levinson 1996; Bowerman 1996) or “referent” and “relatum” (Levelt 1986) or LO (“zu lokalisierendes Objekt” [the object to localise]) and RO (“Referenzobjekt” [reference object]) (Herweg 1989).
243. See Miller and Johnson-Laird 1976; Talmy 1983; Landau and Jackendoff 1993.
244. See Senft (1997: 16–18) for a discussion of other challenges of universal claims about the properties of theme and relatum.
245. Ger. *eigenort* means lit. ‘proper location’.
246. Landau and Jackendoff (1993), Miller and Johnson-Laird (1976), among others, describe spatial relations as relations between objects and not locations.
247. This is the terminology of Wunderlich (1982: 6).
248. This is also true for states. If you say e.g. ‘It was cold in Nijmegen’ it could also be that it was cold outside of Nijmegen. Localising a state does not mean that this state is only true for the location it has been localised in. In other words: it is difficult to set the boundary for states (and sometimes also events). See Wunderlich (1990: 46) for criticism.
249. See v. Stutterheim (1990: 104) for similar examples.
250. Quantification and negation (e.g. Ger. *irgendwo* ‘somewhere’, *nirgends* ‘nowhere’ etc. as discussed in Klein (1990: 20) are not specific compositional problems of spatial reference, but are in fact a problem of reference in general.
251. E.g. *der Punkt liegt auf einer Geraden* ‘the dot is on a straight line’ (see Klein 1990, 1991, 1994 for more examples).
252. I.e. the conceptual structure of the referential domain and the meaning and compositional rules of spatial expressions.
253. See also other studies on spatial deixis (Klein 1978; Fillmore 1982; Hill 1982; Weissenborn and Klein 1982; Mosel 1982; Ehrich 1982, 1985; Denny 1985; among others).
254. See Wunderlich (1982; Herweg 1989; Klein 1991; Bierwisch 1988 among others).
255. According to Schultze-Berndt (2000) semantic knowledge is a subset of encyclopaedic knowledge because one might otherwise not be able to account for the lexicalisation of implicatures as discussed in König and Traugott (1988).

256. For dynamic localisation only those motion verbs are of interest which bring about a change of location of the theme (e.g. *roll*, *put*, *bring*). Motion verbs such as *flutter* or *shake* are excluded here.
257. According to Talmy (1985: 60) motion events are not only dynamic localisations which denote a change of location of the theme, but also those motion events which maintain a stationary location as in ‘The children jumped up and down’.
258. Note that I call causative positionals transfer verbals (see ch. 3, § 4.1.2.1).
259. Klein (1994: 178) calls amplification Ger. *Verstärkung* and reduction Ger. *Abschwächung*.
260. See Klein’s (1994) notions of amplification Ger. *Verstärkung* and reduction Ger. *Abschwächung*.
261. Note that the characteristic region is not regarded as something we can perceive (i.e. as percepts), but something which we conceptualise (i.e. as concepts) (see above).
262. The analyses can be much more complex than the one presented here. For a more detailed discussion the reader is referred to Klein (1990: 39–40).
263. See Heine (1989) for African languages, and de León (1992); Levinson (1994) and literature therein for Mesoamerican languages.
264. E.g. ‘house’ for IN, ‘sky’ or ‘roof’ for TOP, or ‘ground’ for BOTTOM; ‘doorway’ for FRONT etc.; Svorou (1994: 83).
265. See ch. 5, § 6.3, and in particular § 6.3.3.2.
266. Note that the term full body analogy (Ger. *volle Körperanalogie*) is a term used by Klein 1994.
267. Tzotzil and Tzeltal (see below) are two Mayan languages spoken in Chiapas, Mexico.
268. Other examples: a car has a ‘forehead’ (upper surface), ‘legs’ (wheels), ‘lips’ (edges), ‘ears’ (corners), ‘nose’ (front) and ‘buttocks’ (back) etc..
269. For a criticism see Klein (1990: 35–36) who discusses the meaning of Ger. *unter* ‘under’ which can have a functional meaning in its usage, namely that of PROTECTION (e.g. *unter der Haut war eine dicke Fettschicht* ‘there was a thick layer of fat under the skin’), but which is not its primary meaning.
270. SUPPORT BY HANGING means that it is not the relatum as such which prevents an object from falling, but a supporting element (e.g. a coat hanger or nail) which is connected with the relatum.
271. E.g. languages such as English, French, Dutch etc..
272. For a discussion of frame of reference see in particular Levinson (1996, 2003).
273. Note that speakers of German also use cardinal directions, i.e. the absolute system, but only when they refer to locations in large-scale space (e.g. Switzerland is north of Italy).

274. For reference on a wider large-scale or geographical space, speakers of German preferably use the cardinal direction terms *Norden/Süden/Westen/Osten*: e.g. *Das Einkaufszentrum ist nördlich von Hamburg* ‘The shopping centre is north of Hamburg’. Curiously, the spatial expression of the German intrinsic and relative system – *vor/hinter/rechts/links* – cannot be used for reference to the locations in large-scale spaces: e.g. ??**Das Einkaufszentrum ist vor Hamburg* ‘??The shopping centre is in front of Hamburg’.
275. Senft (2001) has found that the intrinsic frame of reference is preferred when Kilivila speakers refer to spatial relations between objects on a table-top space, but an *ad hoc*-absolute system is preferably used when speakers make reference to the orientation of objects (e.g. ‘the cow is facing towards the house’).
276. Hermann’s notion of *origo* is slightly different than that of Bühler (1934).
277. Note that Hermann collapses the third persons and object by calling them *drittbezogene Lokalisation* meaning that it is a localisation which neither involves speaker nor addressee.
278. These kind of utterances frequently occur in living room description (see Ehrich 1985) in which speaker and addressee do not share the *demonstratio ad oculos*-situation (e.g. explaining a living-room the addressee has not seen before). The same applies for route descriptions on the telephone. These references are what Bühler (1934) calls *Deixis am Phantasma*.
279. The figure corresponds to example (4.25).
280. Note however that it was not Hermann’s intention to develop a general psycholinguistic model of spatial reference. He only developed his model for the four German dimensional expressions mentioned above.
281. Cf. the frequently discussed case of churches (i.e. the ‘outside’- and ‘inside’- fronts and backs).
282. See Ehrich (1985) and Hill (1982). Ehrich calls *vor* ‘in front of’, *hinter* ‘in back of’ as secondary deictic terms.
283. In the literature relative systems are often referred to as the deictic perspective (see Hill 1982; Wunderlich 1982; Levelt 1984, 1989; Ehrich 1985; Miller and Johnson-Laird 1976).
284. Note that Levinson (1996: 142) calls this mapping operation “translation”.
285. Levinson (1996: 143) calls the mapping of the LEFT/RIGHT-axis a “reflection”: “To get the English system right, we might suppose that the coordinates of V should be *reflected* over the transverse plane, as if we wrote the coordinates of V on a sheet of acetate, flipped it over in front of V, and placed it on G.” (V=viewpoint or “language user”; G=ground or “relatum”).
286. Levinson (1996: 134) estimates that a third of all languages of the world preferably employ a so-called absolute system. Only a few languages have been researched so far and his estimate is therefore rather vague.

287. Guugu Yimidhirr, an Australian Aboriginal language, uses an absolute system of cardinal directions (Haviland 1979; Levinson 1997).
288. For a psychlinguistic model of absolute systems the term *origo* can be misleading because the term *origo* is always connected with the Bühlerian term *origo* which is identified with the speaker or ego (see ch. 4, § 4.3). Thus it is better to use the term origin with respect to absolute systems.
289. E.g. when islanders live on the mainland without having any obvious access to the sea.
290. See Brown and Levinson (1993), Levinson (1996), Wassmann and Dasen (1998).
291. Note however that the absolute system of Tzeltal is classified as a cardinal direction system which has derived from a local landmark, i.e. a slope in which the terms UPHILL and DOWNHILL constantly refer to the northern or southern direction (see Levinson 1996: 146).
292. See for instance ‘rising of sun (=east)’ and ‘setting of sun (=west)’ in Longgu (Hill 1997).
293. See also Cecil Brown’s article (1983) on the origin of cardinal direction terms.
294. Levinson (1996: 146) calls these systems “degenerate”.
295. See Landau and Jackendoff 1993; Miller and Johnson-Laird 1976; Lyons 1977; Wunderlich 1982; Klein 1990, 1991.
296. See Hirtle and Jonides 1985.
297. See Lynch 1960; Downs and Stea 1982; Kuipers 1978; Coucelis et al. 1987.
298. In Lynch’s (1960) terminology nodes and districts, and also landmarks.
299. The notion of *size* in language and space research is now often discussed with respect to ‘granularity issues in space’.
300. C.Brown 1983; Kaufmann 1989; Wunderlich and Herweg 1991; Jackendoff 1983; Landau and Jackendoff 1993; Levinson 1996; Bowden 1997; Adelaar 1997 among others.
301. Wunderlich and Herweg 1991; Kaufmann 1989; Bierwisch 1988.
302. The idea originates from Loebner’s phase quantor (1990) and Dowty’s BE-COME-operator (1979); see Wunderlich and Herweg (1991) for details.
303. See Wunderlich and Herweg’s (1991) Ger. ‘zeitunabhängiges Wegkonzept’.
304. Note that directional constructions as in examples (4.33–36) the source location has to be inferred from the context.
305. Lsc=large-scale reference.
306. Ssc=small-scale reference.
307. Senft (personal communication).
308. Bickel’s notion (1997) of goal computation is slightly different from my own. According to Bickel the different uses of Icelandic cardinal terms are based on different mapping operations. For instance, small-scale and large-scale reference are two distinct mapping operations. However, according to him small-

scale as well as large-scale reference are both based on goal computation (Bickel 1997: 24). What Bickel here means is that when speakers of Icelandic use cardinal terms in small-scale as well as large-scale reference they have to keep track of the position/direction of the landmarks to which these expressions refer.

309. Note that this refers in particular to how meanings of deictic expressions are derived through contextual knowledge of the speech situation. In this study deixis is only relevant when modification by so-called directional particles and demonstratives are discussed in chapter 6. According to Bühler (1934) the meaning derivation of deictic expressions constantly requires additional information from the context, such as the *origo* which is the zero-point of orientation of any deictic utterance. In many cases the *origo* coincides with the position of the speaker. Thus, the speech situation is crucial for the interpretation (or meaning derivation) of any deictic expression.
310. These constructions have been called “compound prepositions” or “complex prepositions” (see ch. 1, § 4). See Bowden (1992: 4) and Senft (1997: 18–19) for a detailed discussion of the problem of how to label these constructions.
311. For example the modification of the local noun by the directional particle *atu* in (5.1). For more examples see Bauer (1997) and Mosel and Hovdhaugen (1992). Examples of modification within the locative constructions are also described by Hyslop (1999) for the Oceanic language Ambae.
312. Deictic local nouns also belong to the domain of spatial reference. However, they will not be discussed in this chapter because my description of the spatial referential system of Marquesan does not focus on spatial deixis. The reader is referred back to the grammatical sketch (see ch. 3, § 4.3.4) where the uses of deictic local nouns have already been discussed to some extent. With respect to spatial deixis I will only discuss how demonstratives and directional particles can modify local nouns, and to some extent, body-part terms and place names (see below). For detailed discussions of spatial deixis and descriptions of spatial deictic systems, see Bühler (1934), Klein (1978); Weissenborn and Klein (1982); Fillmore (1982); Levinson (1983); Ehrich (1983, 1985); Denny (1985).
313. The term locative is used in two ways in this study. The term locative case is generally used in the literature to refer to the case marker marking an entity as ‘being *at* a certain location’ (Crystal 1997). When I use the term locative case I refer precisely to that kind of case-marking. In expressions such as locative construction, locative preposition etc. I use the term locative in line with Bowden (1992), namely to describe a functional category (see also above).
314. The meaning contribution of the preposition *ma* is more difficult to classify with respect to traditional semantic cases (see below, ch. 5, § 5).
315. See in particular Klein (1990: 17) for a discussion ‘compositional rules of spatial expressions’ within a clause.

316. Klein (1991) discusses similar examples of Ger. *auf* ‘on, on top of’ in that he attributes a basic meaning of ‘higher than’ to *auf*. ‘*Uka* in (5.8) can mean ‘higher than’ when one supposes that the vertical axes has been ‘switched’ in such a way that it coincides with the line of sight of the speaker: the picture is ‘higher than’ the wall with respect to the line of sight of the speaker. This is how Klein explains the different uses of Ger. *auf* (e.g. *der Vogel auf dem Ortsschild* ‘the bird on the post sign’ vs. *die Schrift auf dem Ortsschild* ‘the writing on the sign post’). For German spatial prepositions see in particular Bierwisch 1988; Herweg 1989; Klein 1990, 1991; Wunderlich and Herweg 1991; Nüse 1999, for French see Vandeloise 1986; Schwarze 1989; for English see Fillmore 1975; Herskovits 1986; and others.
317. See Bierwisch 1983, 1988; Ruhl 1989; Klein 1990, 1991; Wilkins and Hill 1995 and others.
318. PPN **o* -> N-MQA *o*.
319. This should not be translated ‘behind, at that horse’, despite the marking of the noun phrase referring to the relatum by the locational-directional preposition *i*.
320. Hakahau is a place name referring to the principal valley of 'Ua Pou island.
321. Local landmark expressions are those words which denote local landmarks. Some of these expressions belong to the class of local nouns such as *tai* ‘sea’, *uta* ‘inland, land’. I will call the local landmark expressions which belong to the class of local nouns *local landmark nouns*.
322. There are a few occurrences of independent *i*-marked noun phrases in my data having a common full word as their lexical head. In elicitation sessions all consultants rejected them or classified them as being “not good” Marquesan.
323. Note that *i* can also mark common full words (see ch. 5, § 6.5) and *io* can also occur with body-part terms (see ch. 5, § 6.2.2).
324. This means that *ma* in combination with the lexical head – in particular local nouns – marks an object region of a relatum in small-scale reference. For instance, *ma*-marked *mua* ‘front’ refers to the ‘front’-region of an object chosen as relatum (e.g. *ma mua o te puaka* ‘in front of the pig’).
325. Note that the body-part term *tua* ‘back’ is occasionally used in large-scale reference. However this usage is regarded as marginal and will be discussed in ch. 7, § 2.1.3).
326. The semantics of proper names are only considered in their naming function. However, many names have descriptive traits (e.g. they are often gender-specific) or they have an etymological meaning. These meanings are not discussed here because they are irrelevant for the use of proper names (see Lerner and Zimmermann 1991: 350).
327. In my terminology common full words (see ch. 3).

328. See Crowley (1982) for Paamese, Schütz (1985) for Fijian languages, Keesing (1985) for Kwaio.
329. Proper nouns are in general not closed word classes (see Kany 1992).
330. In ch. 6, § 2.2.1 example (6.75) shows this usage in connection with other circumpositions constructed with directional particles.
331. The order of mention reflects the preference in usage. Thus, in Hakama'i'i Hakahau is preferred to Ha'akuti, whereas in Ha'akuti Hakahetau is preferred to Hakahau.
332. The data samples of (5.34) were collected in Hakahau.
333. The marking of the glottal stop of the location-marking preposition '*i*' is not consistently marked in the source data (Kimitete 1990).
334. See also Svorou (1994), Heine, Claudi and Hünnemeyer (1991).
335. In his definition of heterosemy Bowden follows Lichtenberk (1991) and defines it as follows: "I use the term 'heterosemy' to refer to all cases of semantic relatedness between common morphological stems, no matter which grammatical categories they belong to, and no matter how they arise" (1992: 5).
336. Note that Engl. *front* is a loan word from Latin *frons* 'forehead' (see Svorou 1994: 90).
337. The body-part terms '*ima a'e* 'left hand' and '*ima oko* 'right hand' are not used to denote body-parts of animals.
338. See Le Cléac'h (1997: 174–177) for a detailed list of Marquesan body-part terms.
339. It is not entirely clear whether type-2-constructions can be marked by *mei* 'from' or not.
340. I only found a few occurrences in my data with an '*i*-marked body-part term in a type-1-construction (see [5.58] below).
341. FoR means spatial frame of reference.
342. In this usage *kaokao* means 'besides, next to'.
343. See ch. 4, § 9.2.1 and also Levinson (1992: 18).
344. *Keo* formerly 'coccyx, backside' (Dordillon 1931: 219). Dordillon gives examples which indicate that *keo* was often used to denote object parts (e.g. *keo o te hue* 'backside of bottle/container', *keo o te kohe* 'grip of the knife' etc.).
345. In the Marquesan-French dictionary of Dordillon (1931) who has documented the Marquesan languages of the mid-nineteenth century, the first gloss of *hope* is 'bottom, backside'. In his examples *hope* denoted a body-part being used in type-1- as well as type-3-constructions ('behind x'). In all occurrences listed by Dordillon *hope* is always determined by the article *te* (e.g. *ma te hope o te piha* 'at the cow's backside'). In contemporary Marquesan *hope* 'behind' occurs without an article (=*ma hope*) and is only used as a locative in the meaning of 'behind x'. The denotation of the body-part 'backside' or 'bottom' has been taken over by *keo*. For instance, in Dordillon (1931: 171) the non-verbal clause '*i te hope tu'u mate* 'my (dear) bottom hurts' (lit. 'my ill-

ness is at the backside') uses *hope* to denote a body-part. In contemporary Marquesan, however, 'my bottom hurts' has to be expressed by *mamae tu'u keo*, thus *keo* being used instead of *hope*. *Hope* in the function of denoting a body-part only lives on in lexicalised compound constructions such as *puha hope* 'backside thigh' which contrasts with *puha mua* 'frontside thigh'.

- 346. I.e. from object part to object region.
- 347. This idea is adopted from Cook (1998) who made an analysis of the case-marking of Hawaiian local nouns and place names.
- 348. My list does not include deictic local nouns (see ch. 3, § 4.3.4). It is not clear whether the deictic local noun *ko* 'there' is cognate with the local noun *ko* 'left or right side of valley, side'. The complexities of the usage of *ko* will be more thoroughly discussed in ch. 7, § 3.3.
- 349. This reconstructed PPN (=Proto Polynesian) form and all the following reconstructed forms are taken from Clark (1976: 55).
- 350. According to my consultants *hope* is used in S-MQA. However, it occurs frequently in my data and there seems to be subtle meaning differences between *hope* and *mu'i* (see ch. 7, § 3.1.2).
- 351. Although *hea* 'where' and its variant *sea* have been classified as a proform forming a semantic unit with other interrogative proforms (see ch. 3, § 4.3.7) it formally, i.e. from a point of view of its morphosyntactic properties, belongs to the class of local nouns. *Hea/sea* will not be discussed further in this chapter.
- 352. *Ko* 'left or right side of valley' is often glossed in my data as 'across' (see in particular ch. 7).
- 353. Note that I call these local nouns local landmark nouns. Apart from being used in the absolute frame of reference these local nouns also denote local landmarks, thus the term local landmark noun.
- 354. *Kako* is also used to indicate movement to any direction and not only to the left or right side of the valley, i.e. to fixed directions. This is probably due to the polysemous nature of *ko*.
- 355. In ch. 3, § 5.1 it was suggested that the prefix *ka-* in *kauta*, *kapai* etc. originates from the transfer verbal *kave* 'carry, take'.
- 356. Note that there were also consultants who used *kapai* for any direction, i.e. also for the inland-, across- etc. direction.
- 357. This sign +/- means that some members of that class can take the property in question, and others cannot. For instance, all local nouns, except *vaveka* 'middle, between', can combine with the directional particles *mai* and *atu*, and only the local nouns '*a'o* 'down, below' and '*uka* 'up, top' can combine with the directional particle *a'e/ake* 'upwards' and *ihō* 'downwards' (see ch. 6, § 2.2.2–2.2.2.5).

358. In Tongan “PREP+ART+local noun +common full word” seems to be a productive locative construction type (see Broschart 1997). According to Broschart Tongan local nouns function like ‘locative classifiers’.
359. See Heine, Claudi, and Hünnemeyer (1991: 39).
360. Metaphorical uses of local nouns and body-part terms are very common in many Polynesian languages (see Bowden 1992: 57).
361. I.e. when navigating on sea: going against the sea current, i.e. ‘upstream’ is as strenuous as if one is going ‘up’ (see ch. 7, § 2.2.2).
362. There is no explicit theme in this example. The players are having a metalinguistic discussion about which object region of the relatum the local noun *mua* ‘front’ refers to. Moreover, *mua* also occurs with an article which is unusual for a local noun. The reason why *mua* occurs with an article is due to the fact the *mua*-region is the topic of the conversation.
363. Note that I am only referring to those ‘*i*-constructions which occur in a possessive construction. There are also other ‘*i*-constructions with *mua* ‘front’, *mu'i* ‘behind’ and *hope* ‘behind, in back’, but they do not occur in a possessive construction. These ‘*i*-constructions are different because they are not specifying a ‘object region’, but a ‘partitioned region’ (see below).
364. This kind of spatial reference will be further discussed in connection with *keke-/hope-constructions* (see ch. 5, § 6.4).
365. (5.111) could also mean ‘by which means of transport’ and speakers could also answer to (5.111) *ma he poti* ‘by means of a boat’ (see Mutu and Teikitutoua 2002: 96).
366. See ch. 7, § 2.2.1 for other interpretations of ‘*i*-marked *uta*.
367. Note that the vaster region of the landmark SEA also includes the area close to the shore.
368. This meaning is also implied in the meaning of ‘vaster region of landmark x’ in the above examples because the localisation of the theme in a vast region is somehow unspecific.
369. ‘Puaiki’ is the name of the 4-year-old child. Note that the child’s name has been changed.
370. Note that the *Topological Relations Picture Book* was partly done with different consultants than with the ones represented in table 23.
371. The first number indicates the number of consultants using the *ma*-marking in that meaning. Thus, 8/8 means that eight out of eight consultants use the *ma*-marking in that meaning.
372. One gets a directional reading with verbals of perception (e.g. *e ti'ohi ia 'i vaho* ‘he is looking outside’).
373. In the legend from which the example is taken the protagonist addresses two rats, thus *ko'ua* refers to two rats.
374. See also photo 6 in the appendix 1.
375. See Klein (1991) for German ‘transfer verbals’ or ‘causative positionals’.

376. See also Nüse (1999) who has investigated the interplay of various classes of relata and themes in the meaning instantiation of German spatial prepositions.
377. Although a house is a container-like entity it is often conceptualised as a place and therefore as a territory or terrain of somebody.
378. See also ch. 4, § 4.4.
379. I.e. ‘movement along a concrete path’, ‘unspecific location’, ‘spatial extension of theme’, ‘plurality’ etc..
380. My observation is based on the elicited data of the *Topological Relations Picture Book*.
381. The configuration ‘cup on top of table’ implies contact of the theme with relatum.
382. The usage of Ger. *unter* ‘under’ only partly corresponds with UNDER-usages of N-MQA ‘a’o ‘down’. For instance, N-MQA ‘a’o is not used for expressions such as *der Kleister unter der Tapete* ‘the gooey stuff under the wallpaper’. In N-MQA such a configuration is expressed by *ma mu’i* ‘behind’. See Klein (1990 1991) and Nüse (1999) for a discussion of the German preposition *unter* ‘under’.
383. Note that the ground location or soil is in fact similar to a local landmark. It differs from other local landmarks like the SEA or MOUNTAIN in that the language user probably does not perceive the soil as being salient, but rather taking its existence for granted.
384. These uses are more thoroughly discussed in ch. 7, § 2.1.2.
385. Note that this is even metalinguistically elicited by the consultant himself (*he tohua i’ a’o* ‘the floor [of the house] is the ground’) in (5.177).
386. Note that there are differences across languages. In German, for instance, the perspective of the language user, i.e. subjective properties, play an important role in the usage of *oben* ‘up’ and *unten* ‘down’. Whether something is *oben* ‘up’ or *unten* ‘down’ depends on whether the object or entity to be localised is above or below the level of gaze of the language user (see Klein 1994: 173–174). As for German Klein concludes that often more subjective than objective properties (e.g. gravity) of space play a role in spatial reference. As for N-MQA ‘i’uka ‘up’ it does not seem to be the case.
387. Note that *i*-marked ‘uka is best translated as ‘up’, whereas *ma*-marked ‘uka denoting SUPPORTING HORIZONTAL SURFACES is best translated as ‘top’ (see the glosses below the examples).
388. Note that I was putting a pin in form of a duck on my T-shirt.
389. See also Nüse (1999) who discusses ‘ambiguous’ relata of this kind for German spatial prepositions.
390. Difference in height means that one surface is higher with respect to the absolute vertical axis.
391. I.e. there is no perceptually salient spatial extension of the surface.

392. Note that the configurations ‘stamp on letter’ and ‘bandaid on foot’ can also be expressed by *ma 'uka* (instead of *ma vaho*).
393. ‘Adhesion’ means that contact between theme and relatum is caused by a sticky material, and therefore adhesion contrasts with ‘attachment by human hand’.
394. Note that the usage *ma 'uka* for ADHESION-relations only have to be regarded as a tendency. There are consultants who would also use '*i*-marked *'uka*, in particular when the surface is clearly vertical (see [5.177]). (5.177) was in fact elicited by directly contrasting horizontal vs. vertical surfaces. In these cases, consultants spontaneously uttered *ma 'uka* for horizontal surface vs. '*i uka* for vertical surface.
395. Note that in the configuration ‘cloud above house’ one can refer to the cloud without mentioning an explicit relatum by simply using '*i*-marked *'uka*. In this case '*i uka* cannot take a possessive attribute or any other attributive noun phrases.
396. Note that ‘lamp above table’ could also be conceptualised as ‘lamp hanging from ceiling’ in which case *'uka* is marked by '*i* because it expresses a HANGING-relation. In this case the choice between the prepositions '*i* and *ma* is therefore dependent on the choice of relatum (i.e. ceiling or table).
397. Klein (1991: 97) describes the lexical meaning of Ger. *auf* as ‘higher than and in contact with’ and of *iiber* as ‘higher than and **not** in contact with’.
398. Surfaces which are not the ‘underside surfaces’ are the ‘upperside surfaces’ and the ‘vertical side surfaces’ of an object.
399. The drawing ‘cat under table’ is taken from the *Topological Relations Picture Book*, see appendix 2, drawing 31.
400. See Nüse (1999) who made these observations for Ger. *unter* ‘under’ and *an* ‘on, next to’.
401. For more details with respect to the modification of local nouns by directional particles (see ch. 6, § 2.2.2).
402. OR means ‘object region’.
403. Note that this only refers to locative constructions with possessive attributes.
404. It is not clear whether *ma* contributes an unspecific meaning or ‘extended period of time’.
405. Note that *hope* ‘part’ has to be clearly distinguished from the local noun *hope* ‘behind, hidden’. *Hope* ‘part, region’ and the local noun *hope* are however cognate (see below).
406. Note that in particular *keke*-constructions do not solely occur with a *me*-marked attributive noun phrase, but also with other attributes (see below).
407. In other occurrences *hope* ‘part, region’ also occurs as the lexical head of noun phrases in which it has the same morphosyntactic properties of common full words. This is briefly discussed in this subsection (see below).

408. *Keke* does not occur with the plural/dual article *na* in this type of locative construction. Moreover, there are also no occurrences with the article *hua* ‘the same’ attested in my data.
409. In the meaning of ‘other’ *titahi* seems be functioning more like a prenuclear attribute. It is not clear at this stage if *titahi* is functioning solely as an attribute or as an attribute and a determiner at the same time.
410. In many usages ‘*i titahi keke* refers to one of the ‘across’-regions of a valley. In these usages ‘*i titahi keke* ‘the other (‘across’)-side’ is contrasted with ‘*i tenei keke* ‘this (‘across’)-side’ which is the side closer to the speaker.
411. *Tuaivi* ‘mountain’ mostly refers to the mountains at the side of a valley (=‘across’-region).
412. This characterisation is only valid for those body-part terms used in locative constructions.
413. The modification of common full words by local nouns is rather unusual.
414. Note that *hope* can also occur as the lexical head of a verb phrase meaning ‘to half, cut in half’.
415. Nominal attributes refer here to either body-part terms, local nouns or common full words.
416. Like *paepae* ‘stone platform of houses’, *tohua* remains untranslated in the free translation tier because it is a culture-specific expression.
417. Note that *tai* also means ‘salt water’ and occurs in a few compound constructions (e.g. *pa'ata i* ‘salt’, *tai pi* ‘high tide’, *tai heke* ‘low tide’ etc.). Note that *pa'atai* literally means ‘piece sea’. In ancient times ‘crystallized blocks of salt’ formed by the sea were collected in the niches of the steep rocks by the sea.
418. *Mata* ‘face, eyes’ does not belong to the class of common full words but to the class of body-part terms. However, this example was presented in order to illustrated that ‘*io*-marking expresses that the source is some kind of container.
419. Note that this only holds for body-part terms in type-3-constructions.
420. See Hyslop (1999) has described as similar phenomenon for the Oceanic language Ambae: in locative constructions a non-egocentric, absolute frame is frequently combined with egocentric information (demonstratives and directional particles).
421. Clark (1976) has reconstructed five directional particles for PPN, namely **mai* ‘toward speaker’, **atu* ‘away from speaker’, **hake* ‘upward’, **hifo* ‘downward’ and **aŋe* ‘along’. Note that N-MQA *a'e* ‘left, lateral’ which only occurs in the body-part compound ‘*ima a'e* ‘left hand’ could be the form derived from PPN **aŋe* ‘along’ because some consultants explained the meaning of *a'e* in ‘*ima a'e* ‘left hand’ by making a lateral movement in horizontal direction with their hand. This hypothesis is more plausible than assuming that *a'e* ‘left’ is cognate with *a'e/ake* ‘upwards’.

422. For the usage of directional particles as reflexives and comparatives see Mutu and Teikitutoua (2002: 66–67) and Zewen (1987: 90).
423. Note that the second *mai* in (6.6b) is used as a directional particle modifying the verbal *he'e*. The verb phrase '*a he'e mai*' therefore literally means 'go towards me'. However, it is equally well translated as 'come'.
424. *Mai* is comparable to Ger. *nach* 'to' and *zu* 'to' in the sense that is a destination rather than a directional (see Klein 1991).
425. Bühler (1934) calls this speech situation *Deixis am Phantasma*.
426. This is also how Clark (1976) and other grammars of Polynesian languages usually gloss PPN **atu* (see Mosel and Hovdhaugen 1992; Hooper 1996; Bauer 1997; Besnier 2000; and others).
427. The examples are taken from a narrative, but they express direct speech between protagonists of the narrative. Although direct speech in narratives does not represent the *demonstration ad oculos* situation, it is however considered as an elementary speech situation. In direct speech of narratives *mai* and *atu* function in the same way as in a *demonstratio ad oculos* situation.
428. The elicitation session of the *Come & Go Questionnaire* was in a *demonstratio ad oculos*-situation.
429. Note that most consultants felt that the demonstratives *a'a* and *ana* are used because the theme is not directed towards the speaker, but passing in front of the speaker.
430. The usage of *atu* on the small-scale referential level need not be telic (see below).
431. See ch. 3, § 4.1.2.1, example (3.39).
432. See Bühler (1934), Klein (1978), Weissenborn and Klein (1982) and others.
433. See Fillmore (1997) for a discussion of the complexities of Engl. *come*. Unlike N-MQA *mai* 'hither, come', Engl. *come* can be used to refer to movement towards the addressee. See also Wilkins and Hill (1995) for a discussion of the 'basicness of COME and GO verbs' in two non-Indoeuropean languages.
434. A *hoaka* is an oval plate on which freshly cooked breadfruit and fermented breadfruit are usually mashed with a stone. The product is called *popoi*.
435. See also Mutu and Teikitutoua (2002: 67).
436. Note that Besnier (2000) and Hooper (2001) have described similar evidential uses of *mai* for Tuvaluan and Tokelauan. It has rarely been pointed out before in grammars of Polynesian languages that these uses of *mai* are to be interpreted as evidentials.
437. Note that motion verbals like *haka* 'dance' do not express directed motion and therefore *mai* and *atu* do not contribute a spatial sense.
438. Note that this is a rather unusual lexicalisation pattern for spatial deictic terms in Indoeuropean languages.
439. The child is 5 years and 4 months (=5;4) old.

440. Photo 6 (see appendix 1) is described.
441. Note that children by age five or six produce *mai* and *atu* in an adult-like manner because production of *mai* and *atu* requires them to take their own perspective. According to some developmental theories (e.g. Piagetian theory) the understanding of the child's own perspective first is a prerequisite in understanding somebody else's perspective.
442. *Hope* 'behind, hidden' is used like *mu'i* 'behind' and is therefore not separately mentioned here.
443. The movement referred to by '*i mua atu*' is only in the direction of gaze of the speaker.
444. In these photos the pig is facing with its front- or backside towards the player.
445. Note that in Tuvaluan, a Polynesian language of the Samoic Outlier subgroup (see Besnier 2000) the addressee proximal form of the demonstratives *naa* can modify place names (Besnier 2000: 408).
446. Note that this legend was recorded on 'Ua Pou island and narrated by Benjamin Teikitutoua.
447. Also *ma ko nei* 'somewhere across here, in the neighbourhood' or *ma uta a'a* 'somewhere inland over there' etc..
448. *I*-marked *mua* 'front', *mu'i* 'behind' and *hope* 'behind, hidden' can occur with possessive attributes.
449. This term is adopted from Ehrich (1991), cited from Vater (1991:48). Spatial deictic expressions such as *here* and *there* are positional deictic terms because they simply express a relative spatial position to the speaker, but they do not indicate whether the theme is localised *in front of*, *behind* or *left* or *right* of the speaker.
450. Note that the speaker is referring to me who is filming the interaction on the opposite side.
451. N-MQA *penua* 'trough' is a loan word from Fr. *baignoire* 'bath-tub'.
452. Note that *haka'ua* 'again' as a modifier in locative constructions will only be discussed in the beginning of this subsection because *haka'ua* is of minor importance in the locative construction and does not often occur in my data.
453. Note that '*oa* 'long' only occurs as a modifier in noun phrases, whereas *toitoi* 'real, genuine' occurs as a modifier in noun phrases as well as verb phrases (see ch. 3, § 6.1.1.3.2 and § 6.2.3).
454. Note that in verb phrases *haka'ua* 'again' always precedes directional particles (see above).
455. See ch. 3, § 6.1.1.3.1.
456. The speaker makes a gesture to demonstrate the precise position of the pig.
Note that the deictic verb *pe'e+Dem* 'like this/that' always requires gestures (see ch. 3, § 4.3.6).
457. Note that (6.147) describes the placement of the toy man in photo 8 (see appendix 1).

458. Note that in the locative construction *ma mu'i te koivi* ‘behind the female’ the inalienable possessive preposition *o* has been omitted, probably due to fast speech.
459. In *ma*-constructions the combination of *mu'i mai* literally means ‘behind close to relatum’. The meaning of ‘follow’ is probably in particular used for objects in an alignment configuration.\
460. There are however exceptions such as the ‘*i*-possessive construction with local landmark nouns (see ch. 5 and below).
461. See also examples (7.9) and (7.11).
462. I do not know the precise meaning contribution of the directional particle *mai* in this example.
463. *I tua* ‘on the ocean’ could be a loan from Tahitian (see *Fare Vana'a* (1999: 515). This usage of *i tua* ‘on the ocean’ can be observed with speakers who have a good command of Tahitian.
464. See Klein (1990, 1991) and Johnston (1988); Tanz (1980).
465. There are a number of languages which have one main axis, and a secondary undifferentiated axis which is orthogonal to the main axis. It has become a convention to gloss this axis as ACROSS (see Brown and Levinson 1993; Levinson 1996; Bickel 1997).
466. See also Lavondès (1983: 37).
467. E.g. north/south/east/west.
468. See ch.5, § 6.3.3.2.1.
469. It was suggested by anthropologists such as Leach (1976: 51) that humans impose a geometrical order on their environment and this is what we can observe in the case of the Marquesan ‘within-valley-system’.
470. *Pa'atai* literally means ‘piece sea’ (<*pa'a* ‘piece’); see also for Hawaiian: *pa'a kai* ‘salt < solid sea’ (Elbert and Pukui 1979: 124).
471. Note that in Hawaiian the ‘inland’ term *uka* can be used with an article to indicate the ‘inland’-area (-> *ka uka* ‘the inland-area’; see Elbert and Pukui 1979: 121).
472. *Uta* is also used in the meaning of ‘land’ when indicating that the travel route was over land and not over sea (*u he'e mai au ma uta* ‘I came over land’; see also ch. 5, § 6.3.3.2.1).
473. See Hill 1997; Bowden 1997; Mosel and Hovdhaugen 1992; Elbert and Pukui 1979; and others.
474. According to Hill (1997: 107) “(t)he term *longa* ‘inland’ is a direction and not a place”.
475. See also ch. 3, § 4.1.1.
476. I looked at five different narratives. In those narrative *hiti* occurred 16 times, and *heke* 23 times. *Hiti* co-occurred twice with ‘*i uta* ‘inland’ and four times without a Goal noun phrase. *Heke* occurred seven times with ‘*i tai*, and six times without a goal noun phrase.

477. There were no occurrences of *taha* in the narratives I examined.
478. Note that the ‘sea’- and ‘inland’-area are culturally important places because their everyday lives are centered around these places when going fishing, doing copra, going hunting or planting in their gardens which are often situated inland.
479. See Lewis (1994: 316).
480. The prominent land masses at mount Heruru divert the north-eastern equatorial sea current away from the coast.
481. One is no longer going with the current flow, but against the current flow and thus UP.
482. I.e. using *i 'uka* when going against the current, and *i 'a'o* when going with the current.
483. I do not have data which would confirm such a usage in small-scale reference.
On my last field trip I spent six weeks in the valley of Ha'akuti where I did a number of the interactive tasks and space games.
484. Travelling from the eastern valleys to Hakahau is referred to by *heke i 'a'o* ‘descend downstream’.
485. Travelling from 'Ua Pou to Nuku Hiva in the north-west, one is ‘descending down’ (*heke i 'a'o*), and when travelling back from Nuku Hiva to 'Ua Pou one is apparently just using the simple motion verbal *he'e* ‘go’. And when going from 'Ua Pou to 'Ua Huka one apparently has to use *taha* ‘walk, go across’. This is in fact puzzling because the equatorial sea current is coming from north-east, i.e. from the direction of 'Ua Huka island, and thus it should be *hiti* ‘go up’, and not *taha*.
486. No maps of sea currents exist for the Marquesan archipelago.
487. I.e. north-easterly equatorial current flowing in south-western direction and the east-south-eastern current flowing in north-western direction.
488. Note that this evaluation is based on my data alone. The preference of a frame of spatial reference, however, is dependent on the task as well as the context (see Senft 2001, Dasen, Mishra and Niraula to app.).
489. See for instance Ehrich (1985) for German.
490. Vertical UP/DOWN-relations represent an absolute frame of reference (Carlson-Radvansky and Irwin 1993; Levinson 1996).
491. Note that I have made a separate category for local landmark nouns. This does not mean that they form a subclass of their own.
492. As for humans it is possible to use *ma te tua* in order to refer to the ‘back’-region.
493. This is in particular true for the local nouns *mua*, *mu'i* and *hope*.
494. Note that we have called canonical encounters or canonical observers as ‘frozen *origo*’ transpositions (see ch. 4, § 4.3).
495. The same principle often applies when assigning *tua* and *a'o* to object parts (see previous section 3.1.1).

496. The unfeatured relata were varied (balls, cubes, bottles etc.) and they were always placed right in front of the consultant.
497. I.e. eight out of ten consultants.
498. Only one consultant persisted on the 'far side' of the relatum when using *mua* 'front'.
499. See ch. 7, § 3.4 for more details.
500. Note that the '*i*-marking is unusual when used in the relative frame of reference (see ch. 5, § 6.3.3.1).
501. I.e. the within-valley-system (see ch. 7, § 2.2.1) and the system for navigation on sea (see ch. 7, § 2.2.2).
502. This is different when local landmark nouns occur in a *ma*-possessive construction (see below).
503. Or some other perceptual clue which tells the speakers that their direction of gaze is towards one of the quadrants. This could be the wall inside a house in which the landmarks or quadrants cannot always be visually perceived.
504. Note that 'relatively' does **not** refer to the relative frame of reference, but 'relatively' is here used in its literal meaning (= 'in relation to').
505. See Hermann (1990) and ch. 4, § 9.1.
506. E.g. Tzeltal (Brown and Levinson 1993) and Belhare (Bickel 1997).
507. Note that in other Polynesian languages metaphorical uses of body-part terms are very common (Bowden 1992: 57). According to Bowden "it seems that the whole island serves as a reference point, and the island is conceived metaphorically as a person" (1992: 57). In the case of Marquesan body-part terms we can say that the valley is metaphorically conceived like a human body.
508. E.g. in a three-point-localisation: 'The bottle is inland of the plate'.
509. This observation is based on how children use the SEA/INLAND/ACROSS-system in familiar and unfamiliar surroundings. Whereas in familiar surroundings even quite young children (around age 4) can refer to the absolute quadrants without great difficulty, in unfamiliar surroundings this is no longer the case.
510. Adults shift all coordinates systematically around when disoriented. Note that disorientation rarely occurs in adults.
511. Note that some older speakers use '*i tua*' instead of '*i tai*' in order to refer to the seaward direction. This is a loan expression from Tahitian.
512. Note that in this placement task the direction of gaze of all consultants was either in direction of the 'sea'- or 'inland'-area. This was necessary because if the consultant would have gazed to one of the ACROSS-directions I would not have been able to distinguish between 'acrossward of object x' (=absolute frame of reference) and 'far side of object x'.
513. Note that the use of the article *te* before the local noun *mua* is generally not accepted by other consultants. This usage seems to be rather ideosyncratic.

The article is probably used in this context because both players have a metalinguistic discussion about the meaning of *mua* ‘front’.

- 514. Look at the discussion of the usage of the relative frame of reference (see ch. 4, § 9.2.2, and this chapter, § 3.1.2).
- 515. In photo 17 the tree (see appendix 1).
- 516. I.e. the viewpoint of the language user or a landmark.
- 517. Easily movable themes are for instance ‘a pen on a desk’, ‘an apple in a bowl’, ‘a ball under a chair’ etc..
- 518. See Landau and Jackendoff (1993: 222).
- 519. This is based on a so-called *Loclist* created by M. Bowerman and E. Pederson. Note that they call these categories “situation classes”.
- 520. Note that have conflated this category with a category called ‘Attached theme attached to/projecting from relatum’.
- 521. As for this configuration my consultants also used *'i 'uka* or *ma vaho* in combination with the verbal *tapi'i*.
- 522. N-MQA *koraise* ‘window’ could be a loan word from English *glass*.
- 523. Note that ‘dog in basket’ is culturally an unusual scene for speakers of Marquesan because dogs never stay in houses and do not have baskets to sleep in.
- 524. I do not consider the opening of a bottle or a mouth as being part of the inside-surface of a container. Thus, if themes are localised at the opening part of a container object it is better to speak of inclusion than of containment.
- 525. Note that this configuration was not included in the *Topological Relations Picture Book*. Speakers of Marquesan express this configuration by *'i 'oto*.
- 526. I have classified ‘cigarette in mouth’ and ‘cork in bottle’ rather as INCLUSION- than as CONTAINMENT-relations because the opening of a container (e.g. the bottle neck and the lips) is not part of the ‘inside’-region of a container.
- 527. At least two consultants produced the listed locative phrases.
- 528. N-MQA *humu* ‘tie to’.
- 529. N-MQA *ve'o* ‘pierce, spit’.
- 530. N-MQA *taka* ‘belt’.
- 531. In the *to tai*-construction *tai* clearly denotes the location around the landmark SEA and thus it constructionally behaves like other local nouns.
- 532. This includes the ‘topside’- and ‘above’-region.
- 533. Note that *ma 'uka a'e* ‘far above’ (lit. ‘in upper-region upwards’) clearly indicates non-contact.
- 534. Photo 11 and 12 have been excluded from the original set by the Language & Cognition group (MPI Nijmegen). The photos are numbered as given by the Language & Cognition group; consequently in the appendix 1 there is a gap of numbering between photo 10 and 13. For the purpose of comparison I stayed with the original numbering of photos.

References

- Adelaar, K. Alexander
1997 An exploration of directional systems in West Indonesia and Madagascar. In *Referring to Space. Studies in Austronesian and Papuan Languages*, Gunter Senft (ed.), 53–81. (Oxford Studies in Anthropological Linguistics.) Oxford: Clarendon Press.
- Baayen, Harald, and Eve Danziger
1993 *Max Planck Institute for Psycholinguistics. Annual Report 1993*. Nijmegen.
- Bailleul, Michel.
1996 Les îles Marquises, 1774–1929. In *Marquises*, Daniel Dubus, Jean-Pierre Duponchel, Aline Heitaa, Vetea Pugubet, and Patrick Tarroux (eds.), 147–154. (Centre Territorial de Recherche et de Documentation Pédagogiques.) Pirae: Édition Polyèdre Culture.
- Bauer, Winifred
1993 *Maori*. London: Routledge.
1997 *The Reed Reference Grammar of Maori*. Auckland: Reed Publishing.
- Besnier, Niko
2000 *Tuvaluan: a Polynesian language of the Central Pacific*. London: Routledge.
- Bickel, Balthasar
1997 Spatial cognition in deixis, cognition, and culture: where to orient oneself in Belhare. In *Language and Conceptualization*, Jan Nuyts, and Eric Pederson (eds.), 46–83. (Language, culture and cognition: 1.) Cambridge: Cambridge University Press.
- Bierwisch, Manfred
1983 Semantische und konzeptuelle Repräsentationen lexikalischer Einheiten. In *Untersuchungen zur Semantik*, Rudolf Ruzicka, and Werner Motsch (eds.), 61–100. (studia grammatica 22.) Berlin: Akademie-Verlag.
1988 On the grammar of local prepositions. In *Syntax, Semantik und Lexikon*, Manfred Bierwisch, Werner Motsch, and Ilse Zimmermann (eds.), 1–65. (studia grammatica 29.) Berlin: Akademie-Verlag.
- Biggs, Bruce
1973 *Let's learn Maori: a Guide to the Study of the Maori language*. 2d ed. Wellington: A. H. and A. W. Reed.

- Blanchard, Pierre
 1997 Libres propos techniques et simples sur quelques aspects actuels de la démographie de la Polynésie française. *Bulletin de la Société des Etudes Océaniennes* N° 273–274: 71–87.
- Bowden, John
 1992 *Behind the preposition – Grammaticalisation of locatives in Oceanic Language*. (Series B – 107.) Canberra: Pacific Linguistics.
 1997 The meanings of directionals in Taba. In *Referring to Space. Studies in Austronesian and Papuan Languages*, Gunter Senft (ed.), 251–268. (Oxford Studies in Anthropological Linguistics.) Oxford: Clarendon Press.
- Bowerman, Melissa
 1996 Learning how to structure space for language: a crosslinguistic perspective. In *Language and Space*, Paul Bloom, Mary Peterson, Lynn Nadel, and Merrill Garrett (eds.), 385–436. Cambridge Mass.: MIT Press.
- Broschart, Jürgen
 1991 Noun, verb and participation: a typology of the noun/verb-distinction. In *Partizipation: das sprachliche Erfassen von Sachverhalten*, Hansjakob Seiler, and Waldfried Premper (eds.), 65–137. Tübingen: Narr.
 1997 Locative classifiers in Tongan. In *Referring to Space. Studies in Austronesian and Papuan Languages*, Gunter Senft (ed.), 287–315. (Oxford Studies in Anthropological Linguistics.) Oxford: Clarendon Press.
- Brown, Cecil H.
 1983 Where do cardinal direction terms come from?. *Anthropological Linguistics*, 25: 121–161.
- Brown, Penelope, and Stephen C. Levinson
 1993 ‘Uphill’ and ‘downhill’ in Tzeltal. *Journal of Linguistic Anthropology*, 3 (1): 46–75.
 2000 Frames of spatial reference and their acquisition in Tenejapan Tzeltal. In *Culture, Thought, and Development*, Larry P. Nucci, Geoffrey Saxe, and Elliot Turiel (eds.), 167–197. Mahwah: Erlbaum.
- Brugman, Claudia, and Monica Macauley
 1986 Interacting semantic systems: Mixtec expressions of location. *Proceedings of the Berkeley Linguistics Society* 12: 315–327.
- Buhl, Heike M.
 1996 *Wissenserwerb und Raumreferenz – Ein sprachpsychologischer Zugang zur mentalen Repräsentation*. Tübingen: Niemeyer.

- Bühler, Karl
 1934 *Sprachtheorie*, Jena: Gustav Fischer.
- Buschmann, Johann Karl Eduard
 1843 *Aperçu de la langue des îles Marquises et de la langue tahitienne*. Berlin: C.G. Lüderitz.
- Bussmann, Hadumod
 1990 *Lexikon der Sprachwissenschaft*. 2d ed. Stuttgart: Kröner.
- Bybee, Joan L., and William Pagliuca
 1985 Cross-linguistic comparison and the development of grammatical meaning. In *Historical Semantics, Historical Word Formation*, Jacek Fisiak (ed.), 59–84. (Trends in Linguistics, Studies and Monographs 29.) Berlin: de Gruyter.
- Cablitz, Gabriele H.
 2000 Nominalisation of verbal clauses in Marquesan. In *Proceedings of AFLA 7: The 7th Meeting of the Austronesian Formal Linguistics Association*, Marian Klamer (ed.), 1–13. Amsterdam: Vrije Universiteit Amsterdam.
- 2002 The acquisition of an absolute system: Learning to talk about SPACE in Marquesan (Oceanic, French Polynesia), in *Proceedings of the 31st Stanford Child Language Research Forum – Space In Language: Location, Motion, Path, and Manner*, Eve Clark, online-publication: <http://cslipublications.stanford.edu/CLRF/2002/CLRF-2002-title.html>
- 2005 S'orienter aux Marquises: une analyse linguistique des références spatiales du Marquisien. In *L'Espace-Temps*, Bernard Rigo (ed.), 163–206. (LARSH 2.) Singapur: Éditions Au vent des îles.
- Candelot, Célestine, and Jean-Louis Candelot
 1987 La légende de l'upe Teakikutikuti. *Bulletin de l'association Motu Haka o te Henua Enana*, N°1: 24–29. Papeete: Haere Po No Tahiti.
- Carlson-Radvansky, Laura A., and David E. Irwin
 1993 Frames of reference in vision and language. Where is above? *Cognition* 46: 223–244.
- Choi, Soonja, and Melissa Bowerman
 1991 Learning to express motion events in English and Korean: the influence of language-specific lexicalization patterns. *Cognition* 41: 83–121.
- Chung, Sandra
 1973 The syntax of nominalisations in Polynesian. *Oceanic Linguistics* 12: 641–686.

- Clark, Herbert
- 1973 Space, time, semantics and the child. In *Cognitive Development and the Acquisition of Language*, Timothy E. Moore (ed.), 27–63. New York: Academic Press.
- Clark, Ross
- 1976 *Aspects of Proto-Polynesian Syntax*. (Te Reo Monograph.) Auckland: Linguistic Society of New Zealand.
- 1981 Inside and outside Polynesian nominalizations. In *Studies in Pacific Languages and Cultures in Honor of Bruce Biggs*, Jim Hollyman, and Andrew Pawley (eds.), 65–82. Auckland: Linguistic Society of New Zealand.
- 1999 Whence Marquesan /r/ ?. Presented at the *Fourth International Conference on Oceanic Linguistics*, Niue, July 1999.
- Comrie, Bernard
- 1985 *Tense*. Cambridge: Cambridge University Press.
- Cook, Kenneth W.
- 1998 The case-marking of Hawaiian locative nouns and place names. Paper presented at the *96th Annual meeting of the American Anthropological Association*, November 1997.
- Couclelis, H., Reginald G. Golledge, N. Gale, and William Tobler,
- 1995 Exploring the anchor-point hypothesis of spatial cognition. In *Urban Cognition*, Tommy Gärling (ed.), 37–60. (Readings in Environmental Psychology.) London: Academic Press.
- Crowley, Terry
- 1982 *The Paamese Language of Vanuatu*. (Series B–87.) Canberra: Pacific Linguistics.
- Cruse, D. Alan
- 1988 Word meaning and encyclopaedic knowledge. In *Understanding the Lexicon: Meaning, Sense and World Knowledge Lexical Semantics*, Werner Hüllen and Rainer Schulze (eds.), 73–84. Tübingen: Niemeyer.
- Crystal, David
- 1997 *A Dictionary of Linguistics and Phonetics*, 4th ed. Oxford: Blackwell
- Danziger, Eve (ed.)
- 1993 *Cognition and space kit. Version 1.0*. Nijmegen: Cognitive Anthropology Research Group, Max Planck Institute for Psycholinguistics.
- Danziger, Eve, and Deborah Hill (eds.)
- 1993 *Manual for the Space Stimuli Kit 1.2*, Nijmegen: Cognitive Anthropology Research Group, Max Planck Institute for Psycholinguistics.

- Dening, Greg
 1980 *Islands and Beaches: Discourse on a Silent Land: Marquesas 1774–1880*, Honolulu: University Press of Hawaii.
- Denny, J. Peter
 1985 Was ist universal am raumdeiktischen Lexikon. In *Sprache und Raum. Ein Arbeitsbuch für das Lehren von Forschung*, Harro Schweizer (ed.), 111–128. Stuttgart: Metzler
- Dixon, Robert M. W.
 1994 *Ergativity*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W., and Barry J. Blake (eds.)
 1979 *Handbook of Australian languages*, Amsterdam: John Benjamins.
- Dordillon, René Illfonse,
 1904 *Grammaire et Dictionnaire de la langue des îles Marquises*. Paris: Imprimerie Bélin Frères.
- 1931 *Grammaire et Dictionnaire de la langue des îles Marquises. Marquisien-Français*, Paris: Institut d’Ethnologie.
- Downs, Roger M., and David Stea
 1982 *Kognitive Karten: Die Welt in unseren Köpfen*. Stuttgart: UTB 1126.
- Draperi, Philippe
 1993 *O Taiti ou La Nef des Fous*. Papeete: Haere Po no Tahiti.
- Drechsler, Emanuel J.
 1999 Language contact in the early colonial Pacific – Evidence for a maritime Polynesian jargon or pidgin. In *Creole Genesis, Attitudes and Discourse – Studies Celebrating Charlene J. Sato*, John R. Rickford, and Suzanne Romaine (eds.), (offprint.) Amsterdam: John Benjamins.
- Du Feu, Veronica,
 1996 *Rapanui*. London/New York: Routledge.
- Ehrich, Veronika
 1982 *Da* and the system of spatial deixis in German. In *Here and There. Cross-linguistic Studies on Deixis and Demonstration* Jürgen Weissenborn, and Wolfgang Klein (eds.), 43–64. (Pragmatics and beyond: an interdisciplinary series of language studies: III: 2/3.) Amsterdam: John Benjamins.
- 1983 *Da im System der lokalen Demonstrativadverbien des Deutschen*. *Zeitschrift für Sprachwissenschaft* 2.2: 197–219.
- 1985 Zur Linguistik und Psycholinguistik der sekundären Raumdeixis. In *Sprache und Raum. Ein Arbeitsbuch für das Lehren von Forschung*, Harro Schweizer (ed.), 130–161. Stuttgart: Metzler.

- 1989 Die temporale Festlegung lokaler Referenz. In *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu Sprache und Raum*, Christoph Habel, Michael Herweg, and Klaus Rehkämper (eds.), 1–16. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.
- Ehrich, Veronika, and Charlotte Koster
- 1983 Discourse organization and sentence form: The structure of room descriptions in Dutch. *Discourse Processes* 6,2: 169–195.
- Elbert, Samuel H.
- 1975 The domain of place names in Hawai'i. In *Linguistics and Anthropology – in Honor of C. F. Voegelin*, M. Dale Kinkade, Kenneth L. Hale, and Oswald Werner (eds.), 137–182. Ghent: Peter de Ridder Press.
- 1982 Lexical diffusion in Polynesia and the Marquesan-Hawaiian Relationship. *The Journal of the Polynesian Society* 91: 499–517.
- Elbert, Samuel H., and Mary Kawena Pukui
- 1979 *Hawaiian Grammar*. Honolulu: University of Hawaii Press.
- Essegbey, James
- 1999 *Inherent Complement Verbs Revisited: Towards an Understanding of Argument Structure in Ewe*. (MPI Series in Psycholinguistics: 10.) Wageningen: Ponsen & Looijen bv.
- Fare Vana'a (Académie Tahitienne)
- 1999 *Dictionnaire Tahitian-Français*. Papeete: STP Multipress.
- Fillmore, Charles
- 1982 Towards a descriptive framework for spatial deixis. In *Speech, Place, and Action. Studies in Deixis and Related Topics*, Robert J. Jarvela, and Wolfgang Klein (eds.), 31–59. Chichester: Wiley.
- 1988 The mechanisms of “construction grammar”. In *Berkeley Linguistics Society: Proceedings of the fourteenth Annual Meeting: General Session and Parasession on Grammaticalization*, Shelley Axmaker, Annie Jaisser, and Helen Singmaster (eds.), 35–55. Berkeley: Berkeley Linguistics Society.
- 1997 *Lectures on Deixis*. (CSLI Lecture Notes: 65.) Stanford: CSLI.
- Finlayson, Rosalie, Karen Calteaux, and Carol Myers-Scotton
- 1998 Orderly mixing and accommodation in South African code-switching. *Journal of Sociolinguistics* 2/3: 395–420.
- Fodor, Jerry A.
- 1975 *The Language of Thought*. New York: Crowell.
- Friederici, Angela
- 1989 Raumreferenz unter extremen perzeptuellen Bedingungen: Perzeption, Repräsentation und sprachliche Abbildung. In *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu*

- Sprache und Raum, Christoph Habel, Michael Herweg, and Klaus Rehkämper (eds.), 17–36. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.
- Garrod, Simon, and Tony Sanford
 1989 Thematic subjecthood and cognitive constraints on discourse structure. In *Cognitive Aspects of Language Use*, Asa Kasher (ed.), 15–30. Amsterdam: North Holland.
- Gaussin, Pierre Louis Jean Baptiste
 1853 *Du Dialecte de Tahiti, de celui des îles Marquises*. Paris: Firmin Didot frères.
- Gladwin Thomas
 1970 *East is a big bird: navigation and logic on Puluwat Atoll*. Cambridge Mass.: Harvard University Press.
- Goldap, Christel
 1992 Morphology and semantics of Yucatec space relators. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikation* 45 (6): 612–625.
- Goldberg, Adele
 1995 *Constructions: a Construction Grammar Approach to Argument Structure*. Chicago: Chicago University Press.
- Goszonyi, Alexander
 1976 *Der Raum. Geschichte seiner Probleme in Philosophie und Wissenschaften*. Vol. 1 and 2. Freiburg [Breisgau]/München: Alber.
- Grabowski, Joachim
 1998 Ein psychologisch-anthropomorphologisches Modell der einheitlichen semantischen Beschreibung dimensionaler Präpositionen. In *Lexikalische Semantik aus kognitiver Sicht*, Petra Ludewig, and Bart Geurts (eds.), 11–40. (Tübinger Beiträge zur Linguistik: 439.) Tübingen: Narr.
- Gracia, Henri Mathias
 1843 *Lettres sur les îles Marquises*. Paris: Gaume frères.
- Green, Roger
 1966 Linguistic subgrouping within Polynesia: the implications for prehistoric settlement. *Journal of the Polynesian society* 75: 6–38.
- Gumperz, John J., and Stephen C. Levinson (eds.)
 1996 *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press.
- Habel, Christoph, Michael Herweg, and Klaus Rehkämper (eds.),
 1989 *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu Sprache und Raum*. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.

- Handy, E. S. Craighill
- 1923 *The Native Culture in the Marquesas.* (Bulletin 9.) Honolulu: Bernice P. Bishop Museum.
 - 1930 *Marquesan legends.* (Bulletin 69.) Honolulu: Bernice P. Bishop Museum.
- Handy, Willowdean C.
- 1922 *Tattooing in the Marquesas.* (Bulletin 1.) Honolulu: Bernice P. Bishop Museum.
- Haugen, Einar
- 1957 The semantics in Icelandic orientation. *Word* 13: 447–460, re-print in *Cognitive Anthropology*, Stephen A. Tyler (ed.) (1969/1987) New York: Holt, Rinehart and Winston/Waveland Press (Illinois).
- Haviland, John
- 1979 Guugu Yimidhirr. In *Handbook of Australian languages*, Robert M. W. Dixon, and Barry J. Blake (eds.), 27–180. Amsterdam: John Benjamins.
- Heine, Bernd
- 1989 Adpositions in African languages. *Linguistique Africaine*, 77–127.
- Heine, Bernd, Ulrike Claudi, and Friederike Hünnemeyer
- 1991 *Grammaticalization.* Chicago: Chicago University Press.
- Hermann, Theo
- 1990 Vor, hinter, rechts und links: Das 6-H-Modell. Psychologische Studien zum sprachlichen Lokalisieren. *Zeitschrift für Literaturwissenschaft und Linguistik*, 78: 117–140.
- Herskovits, Annette
- 1986 *Language and Spatial Cognition. An Interdisciplinary Study of the Prepositions in English.* Cambridge: Cambridge University Press.
- Herweg, Michael
- 1989 Ansätze zu einer semantischen Beschreibung topologischer Präpositionen. In *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu Sprache und Raum*, Christoph Habel, Michael Herweg, and Klaus Rehkämper (eds.), 99–127. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.
- Hill, Clifford
- 1982 Up/down, front/back, left/right. A contrastive study of Hausa and English. In *In Here and There. Cross-linguistic Studies on Deixis and Demonstration* Jürgen Weissenborn, and Wolfgang Klein (eds.), 13–42. (Pragmatics and beyond: an interdisciplinary series of language studies: III:2/3.) Amsterdam: John Benjamins.

- Hill, Deborah
- 1996 Distinguishing the notion of ‘place’ in an Oceanic language. In *The Construal of Space in Language and Thought*, Martin Pütz, and René Dirven (eds.), 307–328. (Cognitive linguistic research: 8.) Berlin: Mouton de Gruyter.
 - 1997 Finding your way in Longgu: Geographical refernece in a Solomon islands language. In *Referring to Space. Studies in Austronesian and Papuan Languages*, Gunter Senft (ed.), 101–126. (Oxford Studies in Anthropological Linguistics.) Oxford: Clarendon Press.
- Hirtle, Stephen C., and John Jonides
- 1985 Evidence of hierarchies in cognitive maps. *Memory and Cognition* 13: 208–217.
- Hooper, Robin
- 1984 Neuter verbs, stative aspect, and the expression of agency in Polynesian. *Journal of the Polynesian society*, 93: 339–351.
 - 1994 From directional to aspectual: the polysemy of *mai* and *atu* in Tokelauan. paper presented at seventh International Conference on Austronesian Linguistics, Leiden, 22–27 August 1994.
 - 1996 *Tokelauan*. München: Lincom Europa.
 - 2001 Deixis and aspect: The Tokelauan directional particles *mai* and *atu*. ms. University of Auckland.
- Hörmann, Hans
- 1978 *Meinen und Verstehen: Grundzüge einer psychologischen Semantik*. Frankfurt am Main: Suhrkamp.
- Hughes, H. G. A., and Stephen R. Fischer (eds.)
- 1998 *An essay toward a dictionary and grammar of the lesser-Australian language, according to the dialect used at the Marquesas (1799)*. Auckland: Linguistic Society of New Zealand.
- Hyslop, Catriona
- 1993 *Towards a typology of spatial deixis*. MA-thesis, Canberra: Australian National University.
- Jackendoff, Ray S.
- 1983 *Semantics and Cognition*. Cambridge Mass.: MIT Press.
 - 1996 The architecture of the linguistic-spatial interface. In *Language and Space*, Paul Bloom, Mary Peterson, Lynn Nadel, and Merrill Garrett (eds.), 1–30. Cambridge, Mass.: MIT Press.
- Johnston, Judith R.
- 1988 Children’s verbal representation of spatial location. In *Spatial Cognition: Brain Bases and Development*, Joan Stiles-Davis, Mark Kritchovsky, and Ursula Bellugi (eds.), 195–205. Hillsdale, NJ: Lawrence Erlbaum.

- Johnston, Judith R., and Dan I. Slobin
 1979 The development of locative expressions in English, Italian, Serbo-Croatian and Turkish. *Journal of child language* 6: 529–545.
- Kany, Werner
 1992 *Inoffizielle Personennamen – Bildung, Bedeutung und Funktion*. Tübingen: Niemeyer.
- Kaufmann, Ingrid
 1989 Direktionale Präpositionen. In *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu Sprache und Raum*, Christoph Habel, Michael Herweg, and Klaus Rehkämper (eds.), 128–149. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.
- Keesing, Roger M.
 1985 *Kwaio Grammar*. (Series B–88.) Canberra: Pacific Linguistics.
- Kellum-Ottino, Marimari
 1971 *Archéologie d'une vallée des îles Marquises: Évolution des structures de l'habitat à Hane, Ua Huka*. (N° 26.) Paris: Publication de la Société des Océanistes.
- Kimitete, Lucien
 1990 *Te Hakamanu – La Danse de l'Oiseau – Legende Marquisienne*. Papeete: Haere Po No Tahiti.
- Klein, Wolfgang
 1978 Wo ist hier? Präliminarien zu einer Untersuchung der lokalen Deixis. *Linguistische Berichte* 58: 18–40.
 1990 Überall und nirgendwo: Subjektive und objektive Momente in der Raumreferenz. *Zeitschrift für Literaturwissenschaft und Linguistik* 78: 9–42.
 1991 Raumausdrücke. *Linguistische Berichte* 132: 77–114.
 1994 Keine Känguruhs zur Linken – Über die Variabilität von Raumvorstellungen und ihren Ausdruck in der Sprache. In *Sprache und Kognition. Perspektiven moderner Sprachpsychologie*, Hans-Joachim Kornadt, Joachim Grabowski, and Roland Mangold-Allwin (eds.), 163–182. Heidelberg: Spektrum Akademischer Verlag.
- König, Ekkehard, and Elizabeth C. Traugott
 1988 Pragmatic strengthening and semantic change: The conventionalizing of conversational implicatures. In *Understanding the Lexicon. Meaning, Sense and World Knowledge in Lexical Semantics*, Werner Hüllen, and Rainer Schulze (eds.), 110–124. (Linguistische Arbeiten 210.) Tübingen: Niemeyer.
- Kosslyn, Stephen M.
 1980 *Image and Mind*. Cambridge: Harvard University Press.

- Kuipers, Benjamin
 1978 Modeling spatial knowledge. *Cognitive Science* 2: 129–53.
- Lakoff, George, and Mark Johnson
 1980 *Metaphors we live by*. Chicago: University of Chicago Press.
- Lamaison, Françoise
 1996 L'école des soeurs d'Atuona. In *Marquises*, Daniel Dubus, J-Pierre Duponchel, Aline Heitaa, Vetea Pugibet, and Patrick Tarroux (eds.), 168–186. (Centre Territorial de Recherche et de Documentation Pédagogiques.) Pirae: Édition Polyèdre Culture.
- Landau, Barbara
 1996 Multiple geometric representations of objects in languages and language learners. In *Language and Space*, Paul Bloom, Mary Peterson, Lynn Nadel, and Merrill Garrett (eds.), 317–364. Cambridge Mass.: MIT Press.
- Landau, Barbara, and Ray S. Jackendoff
 1993 “What” and “where” in spatial language and spatial cognition. *Behavioral and Brain Sciences* 16: 217–265.
- Lang, Ewald
 1990 Sprachkenntnis, Objektwissen und räumliches Schließen. *Zeitschrift für Literaturwissenschaft und Linguistik* 78: 59–97.
- Langacker, Ronald W.
 1990 *Concept, Image and Symbol: the Cognitive Basis of Grammar*. Berlin: Walter de Gruyter.
- Laporte, Jean
 1995 Toponymie des îles Marquises (Fenua Enata). *Bulletin de la Société des Etudes Océaniennes* 268: 2–31.
- Lavondès, Henri
 1983 Le vocabulaire marquisien de l'orientation dans l'espace. *L'Ethnographie* 79 (1): 35–42.
 1996 Récits et textes marquisiens. Histoire d'un homme de Hakamo'ui – Tekao no tiitahi 'enana 'i Hakamo'ui (traduction de S. Teikiehu'upoko). in: *Bulletin de la Société des Etudes Océaniennes*, 271: 13–20
- Lavondès, Henri, Gisbert Richard, and Bernard Salvat
 1973 Noms vernaculaires et usages traditionnels de quelques coquillages des Marquises. *Journal de la Société des Océanistes* 39: 121–137.
- Lavondès, Henri, and John E. Randall
 1978 Les noms des poissons marquisiens. *Journal de la Société des Océanistes* 34: 79–112.

- Leach, Edmund R.
- 1976 *Culture and Communication: the Logic by which Symbols are Connected: an Introduction to the Use of Structuralist Analysis in Social Anthropology*, Cambridge/New York: Cambridge University Press
- Le Cléac'h, Hervé, Mgr.
- 1996 L'évangélisation des îles Marquises. In *Marquises*, Daniel Dubus, J-Pierre Duponchel, Aline Heitaa, Vetea Pugibet, and Patrick Tarroux (eds.), 155–167. (Centre Territorial de Recherche et de Documentation Pédagogiques.) Pirae: Édition Polyèdre Culture.
- 1997 *Pona Tekao Tapapa'ia – Lexique Marquisien-Français*. Papeete: STP Multipress.
- de León, Lourdes
- 1991 Space games in Tzotzil: Creating a context for spatial reference. ms. Nimegen, Cognitive Anthropology Research Group working paper N° 4, MPI for Psycholinguistics.
- 1992 Body parts and location in Tzotzil: a case of grammaticalization. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikation* 45 (6): 570–589.
- 1994 Exploration in the acquisition of geocentric location by Tzotzil (Mayan) children. *Linguistics* 32: 857–884.
- de León, Lourdes, and Stephen C. Levinson
- 1992 Introduction – spatial description in Mesoamerican languages. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikation (special edition)* 45 (6): 527–529.
- Lerner, Jean-Yves., and Ede Zimmermann
- 1991 Eigennamen. In *Semantik: Ein internationales Handbuch der zeitgenössischen Forschung*, Armin von Stechow, and Dieter Wunderlich (eds.), 349–369. (Handbücher der Sprach- und Kommunikationswissenschaft: 6.) Berlin: de Gruyter.
- Levelt, Willem J.M.
- 1986 Zur sprachlichen Abbildung des Raumes: Deiktische und intrinsische Perspektive. In *Perspektiven auf Sprache. Interdisziplinäre Beiträge zum Gedenken an Hans Hörmann*, Hans-Georg Bosshardt (ed.), 187–211. Berlin: Walter de Gruyter.
- Levinson, Stephen C.
- 1983 *Pragmatics*. Cambridge: Cambridge University Press.
- 1992 Primer for the Field Investigation of Spatial Description and Conception. *Pragmatics* 2,1: 5–47.
- 1994 Vision, shape and linguistic description: Tzeltal body-part terminology and object description. *Linguistics* 32: 791–855.

- 1996 Frames of reference and Molyneux's question: Crosslinguistic evidence. In *Language and Space*, Paul Bloom, Mary Peterson, Lynn Nadel, and Merrill Garrett (eds.), 109–170. Cambridge Mass.: MIT Press.
- 1997 Language and cognition: The cognitive consequences of spatial description in Guugu Yimithirr. *Journal of Linguistic Anthropology* 7 (1): 98–131.
- 2003 *Space in Language and Cognition*. Cambridge: Cambridge University Press
- Lewis, David, and Derek Oulton (ed.)
- 1994 Reprint. *We, the Navigators: the Ancient Art of Landfinding in the Pacific*. 2d ed. Honolulu: University of Hawaii Press. Original edition, Honolulu: University of Hawaii Press, 1972.
- Lichtenberk, Frantisek
- 1991 Semantic change and heterosemy in grammaticalization. *Language* 67: 475–509.
- Lucy, John
- 1992 *Language diversity and thought: a reformulation of the linguistic relativity hypothesis*. Cambridge: Cambridge University Press.
- 1994 The role of semantic value in lexical comparison: motion and position roots in Yucatec Maya. *Linguistics* 32: 623–656.
- Lynch, Kenneth
- 1960 *The Image of the City*. Boston: MIT Press.
- Lyons, John
- 1967 A note on possessive, existential and locative sentences. *Foundations of language* 3: 390–96.
- 1977 *Semantics*. Vol. 1 and 2. Cambridge: Cambridge University Press.
- Lemaître, Yves
- 1995 *Lexique du Tahitien Contemporain – Tahitian-Français/Français-Tahitien*. 2d ed. Paris: Orstom éditions. Original edition, Paris: Orstom éditions, 1973.
- Marck, Jeffrey C.
- 1996 Eastern Polynesian subgrouping today. In *Oceanic Cultural History: Essays in Honor of Roger Green*, Janet Davidson, Geoffrey Irwin, Foss Leach, Andrew Pawley, and Dorothy Brown (eds.), 491–511. Wellington: New Zealand Journal of Archaeology.
- Marere, C.
- 1988 The Media Revolution. In: *French Polynesia: a book of selected readings*, Nancy J. Pollock, and Ron Crocombe (eds.), 255–258. Suva: Institute of Pacific Studies.

- Margetts, Anna
 1999 *Valence and Transitivity in Saliba, an Oceanic language of Papua New Guinea.* (MPI Series in Psycholinguistics: 12.) Wageningen: Ponsen & Looijen bv.
- Marr, David
 1982 *Vision: a Computational Investigation into the Human Representation and Processing of Visual Information.* New York: Free-man and Company.
- Maunsell, Robert
 1842 *Grammar of the New Zealand Language.* Auckland: W. C. Wilson.
- McKenzie, Robin
 1997 Downstream to here: Geographically determined spatial deictics in Aralle-Tabulahan (Sulawesi). In *Referring to Space. Studies in Austronesian and Papuan Languages*, Gunter Senft (ed.), 221–249. (Oxford Studies in Anthropological Linguistics.) Oxford: Clarendon Press.
- Miller, George A., and Philip N. Johnson-Laird
 1976 *Language and Perception.* Cambridge: Cambridge University Press.
- Mosel, Ulrike
 1982 Local deixis in Tolai. In *Here and There. Cross-linguistic Studies on Deixis and Demonstration*, Jürgen Weissenborn, and Wolfgang Klein (eds.), 111–132. (Pragmatics and beyond: an interdisciplinary series of language studies: III: 2/3.) Amsterdam: John Benjamins.
 1984 *Tolai Syntax and its Historical Development.* (Series B–92.) Canberra: Pacific Linguistics.
 1992 On nominalisation in Samoan. In *The language game: papers in memory of Donald C. Laycock*, Tom Dutton, Malcom Ross, and Darrell Tryon (eds.), Canberra: Pacific Linguistics.
 2004 Complex predicates and Juxtapositional Constructions. In *Complex Predicates in Oceanic languages - Studies in the Dynamics of Binding and Boundness*, Isabel Bril, and Françoise Ozanne-Rivierre (eds.), 263–296. (Empirical approaches to language typology: 29.) Berlin: Mouton de Gruyter.
 forthc. Polysemy and the classification of lexical words in Samoan. ms. Kiel: University of Kiel.
- Mosel, Ulrike, and Even Hovdhaugen
 1992 *Samoan Reference Grammar*, Oslo: Oxford University Press.
- Mutu, Margaret

- 1990 Aspects of the structure of the 'Ua Pou dialect of the Marquesan language. Ph.D. diss., Auckland, University of Auckland.
- Mutu, Margaret, and Ben Teikitutoua
 2002 *'Ua Pou – Aspects of a Marquesan Dialect.* (Pacific Linguistics: 533.) Canberra: Pacific Linguistics.
- Myers-Scotton, Carol
 1993a *Social Motivations for Code-switching: Evidence from Africa.* (Oxford studies in language contact.) Oxford: Clarendon Press.
 1993b *Duelling languages: Grammatical Structure in Codeswitching.* Oxford: Clarendon Press
- 1998a Structural uniformities vs. community differences in codeswitching. In *Codeswitching Worldwide*, Rodolfo Jacobson (ed.), 91–108. (Trends in Linguistics: studies and monographs: 106.) Berlin: Mouton de Gruyter.
- 1998b A way to dusty death: the matrix language turnover hypothesis. In *Endangered Languages: Language Loss and Community Response*, Lenore A. Grenoble, and Lindsay J. Whaley (eds.), 289–316. Cambridge: Cambridge University Press.
- Nüse, Ralf
 1999 General meanings for German *an*, *auf*, *in* and *unter*. Towards a (neo)classical semantics of topological prepositions. Ph.D. diss., Department of Linguistics, Humboldt-Universität zu Berlin.
- Nuyts, Jan
 1992 *Aspects of a Cognitive-Pragmatic Theory of Language.* Amsterdam: John Benjamins.
- Nuyts, Jan, and Eric Pederson (eds.)
 1997 *Language and Conceptualization.* (Language, culture and cognition: 1.) Cambridge: Cambridge University Press.
- Ochs, Elinor
 1988 *Culture and Language Development.* Cambridge: Cambridge University Press.
- O'Keefe, John
 1996 The spatial prepositions in English, vector grammar, and the cognitive map theory. In *Language and Space*, Paul Bloom, Mary Peterson, Lynn Nadel, and Merrill Garrett (eds.), 277–316. Cambridge Mass.: MIT Press.
- O'Keefe, John, and Lynn Nadel
 1978 *The Hippocampus as a Cognitive Map.* Oxford: Clarendon Press.
- Ottino, Pierre
 1997 Naissance d'une culture océanienne. *Bulletin de la Société des Etudes Océaniennes* 273–274: 3–22.
- Ozanne-Rivierre, Françoise

- 1987 L'expression linguistique de l'orientation dans l'espace: Quelques exemples océaniens. *Cahiers du LACITO* 2: 129–155. Paris: LACITO-CNRS.
- 1997 Spatial reference in New Caledonian languages. In *Referring to Space. Studies in Austronesian and Papuan Languages*, Gunter Senft (ed.), 83–100. (Oxford Studies in Anthropological Linguistics.) Oxford: Clarendon Press.
- Pawley, Andrew K.
- 1966 Internal relationships of Polynesian languages and dialects. *Journal of the Polynesian society* 75: 39–64.
- Pederson, Eric, and Arnoldus Roelofs (eds.)
- 1994 *Max Planck Institute for Psycholinguistics: Annual Report 1994*. Nijmegen: MPI for Psycholinguistics.
- Pederson, Eric, and Jan Nuyts
- 1997 Overview: on the relationship between language and conceptualization. In *Language and Conceptualization*, Jan Nuyts, and Eric Pederson (eds.), 1–12. (Language, culture and cognition: 1.) Cambridge: Cambridge University Press.
- Pederson, Eric, Eve Danziger, Stephen C. Levinson, Sotaro Kita, Gunter Senft, and David Wilkins
- 1997 Semantic typology and spatial conceptualization. *Language* 74: 557–589.
- Peltzer, Louise
- 1996 *Grammaire Descriptive du Tahitien*. Mayenne: Éditions Polycop.
- Piaget, Jean, and Bärbel Inhelder
- 1971 *The Child's Conception of Space*. 4th ed. London: Routledge and Kegan Paul. Original edition, London: Routledge and Kegan Paul, 1956.
- Pick, Herbert L., and Linda P. Acredolo (eds.)
- 1983 *Spatial Orientation: Theory, Research and Application*. New York: Plenum Press.
- Ray, Sidney Herbert
- 1926 *A Comparative Study of the Melanesian Island Languages*, Cambridge: Cambridge University Press.
- Riley, Kathleen C.
- 1996 Langue perdue ou gardée: changements idéologiques et linguistiques aux îles Marquises. *Bulletin de la Société des Etudes Océaniennes* 271: 58–67.
- 2001 The emergence of dialogic identities: transforming heteroglossia in the Marquesas. French Polynesia. Vol 1 and 2. (UMI Research Press.) Ph.D. diss., Graduate Faculty of Anthropology, University of New York.

- Rollin, Louis
- 1974 *Moeurs et Coûtumes des Anciens Maoris des Iles Marquises*. Papeete: Stepolde.
- Ross, Malcom, Andrew Pawley, and Meredith Osmond (eds.)
- 1998 *The lexicon of Proto Oceanic – The Culture and Environment of Ancestral Oceanic Society. I Material Culture*. (Series C–152.) Canberra: Pacific Linguistics.
- Ruhl, Charles
- 1989 *On Monosemy: a Study in Linguistic Semantics*. Albany: State University of New York Press.
- Ruzicka, Rudolf, and Werner Motsch (eds.)
- 1983 *Untersuchungen zur Semantik*. (studia grammatica 22.) Berlin: Akademie-Verlag.
- Schepping, Marie-Theres
- 1989 Bewegung und Wahrnehmung. In *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu Sprache und Raum*, Christoph Habel, Michael Herweg, and Klaus Rehkämper (eds.), 283–309. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.
- Schultze-Berndt, Eva
- 2000 *Simple and Complex verbs in Jaminjung. A Study of event categorisation in an Australian language*. (MPI Series in Psycholinguistics: 14.) Wageningen: Ponsen & Looijen bv.
- Schütz, Albert J..
- 1985 *The Fijian Language*. Honolulu: University of Hawaii Press.
- Schwarz, Monika
- 1992 *Einführung in die Kognitive Linguistik*. (UTB für Wissenschaft; 1636.) Tübingen: Franke Verlag.
- Schwarze, Christoph
- 1989 Polysemie als Prozedur, am Beispiel von frz. *à travers* und *chez*. In *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu Sprache und Raum*, Christoph Habel, Michael Herweg, and Klaus Rehkämper (eds.), 310–338. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.
- Senft, Gunter
- 1994 Ein Vorschlag, wie man standardisiert Daten zum Thema “Sprache, Kognition und Konzepte des Raumes” in verschiedenen Kulturen erheben kann. *Linguistische Berichte*, 154: 413–429.
- 1995a Fieldwork. In *Handbook of Pragmatics*, Jef Verschueren, Jan-Ola Östman, Jan Blommaert, and Chris Bulcaen (eds.), 595–601. Amsterdam: John Benjamins.

- 1995b Elicitation. In *Handbook of Pragmatics*, Jef Verschueren, Jan-Ola Östman, Jan Blommaert, and Chris Bulcaen (eds.), 577–581. Amsterdam: John Benjamins.
- 1997 (ed.) *Referring to Space. Studies in Austronesian and Papuan Languages*, (Oxford Studies in Anthropological Linguistics.) Oxford: Clarendon Press.
- 1998 Zeichenkonzeptionen in Ozeanien. In *Semiotics. A Handbook on Sign-Theoretic Foundations of Nature and Culture*, Roland Posner, Klaus Robering, and Thomas A. Sebeok (eds.), 1971–1976. Vol. 2. Berlin: Walter de Gruyter.
- 2001 Frames of spatial reference in Kilivila. *Studies in Language* 25: 521–555.
- Sichelschmidt, Lorenz
- 1989 Wo *Hier Dort* ist – primär- und sekundärdeiktische Raumreferenz. In *Raumkonzepte in Verstehensprozessen. Interdisziplinäre Beiträge zu Sprache und Raum*, Christoph Habel, Michael Herweg, and Klaus Rehkämper (eds.), 339–359. (Linguistische Arbeiten: 233.) Tübingen: Niemeyer.
- Slobin, Dan I., and Ruth Berman
- 1994 *Relating Events in Narrative: a Cross-linguistic Developmental Study*. Hove: Erlbaum.
- Stanley, David
- 1993 *Das Tahiti-Polynesien Handbuch*. Bremen: Verlag Gisela E. Walther.
- Stiles-Davis, Joan, Mark Kritchovsky, and Ursula Bellugi (eds.)
- 1988 *Spatial Cognition: Brain Bases and Development*. Hillsdale, NJ: Erlbaum.
- von Stutterheim, Christiane
- 1990 Einige Probleme bei der Beschreibung von Lokalisationen. *Zeitschrift für Literaturwissenschaft und Linguistik*, 78: 98–112.
- Suggs, Robert C.
- 1997 Le calendrier lunaire marquisien. *Bulletin de la Société des Etudes Océaniennes* 273–274: 105–121.
- Svorou, Sotaria
- 1986 On the evolutionary paths of locative expressions. In *Proceedings of the twelfth Annual Meeting of the Berkeley Linguistics Society*, Vassiliki Nikiforidou, Mary VanClay, Mary Niepokuj, and Deborah Feder (eds.), 515–527. Berkeley CA: Berkeley Linguistic Society.
- 1994 *The Grammar of Space*. Amsterdam: John Benjamins.

- Talmy, Leonard
- 1983 How Language Structures Space. In *Spatial Orientation: Theory, Research and Application*, Herbert L. Pick, and Linda P. Acredolo (eds.), 225–320. New York: Plenum Press.
 - 1996 Fictive motion in language and “ception”. In *Language and Space*, Paul Bloom, Mary Peterson, Lynn Nadel, and Merrill Garrett (eds.), 211–276. Cambridge Mass.: MIT Press.
- Tanz, Christine
- 1980 *Studies in the Acquisition of Deictic Terms*. Cambridge: Cambridge University Press.
- Teikiehu'upoko, George, and Jean-Louis Candelot
- 1987 *Bulletin de l'association – Motu Haka o te Henua 'Enana*, Papeete: Haere Po No Tahiti.
- Tetahiotupa, Edgar
- 2000 Bilinguisme et scolarisation en Polynésie française. Vol. 1, 2. and 3. Ph.D. diss., Department of Anthropology, Université Paris I.
- Thomas, Niclas
- 1990 *Marquesan societies. Inequality and Political Transformation in Eastern Polynesia*. Oxford: Clarendon Press.
- Tolman, E.C.
- 1948 Cognitive maps in rats and men. *Psychological Review* 55 (4): 189–208.
- Ullmer-Ehrich, Veronika
- 1979 Wohnraumbeschreibungen. *Zeitschrift für Literaturwissenschaft und Linguistik* 9: 58–83.
- Vandeloise, Claude
- 1986 *L'espace en Français: Sémanistique des Prépositions Spatiales*. Paris: Seuil.
- Van Valin, Robert D., and Randy J. Lapolla
- 1997 *Syntax: Structure, Meaning and Function*. Cambridge: Cambridge University Press.
- Vater, Hans
- 1991 *Einführung in die Raum-Linguistik*. Hürth-Efferen: Gabel.
- Vonen, Arnfinn M.
- 2000 Polynesian multifunctionality and the ambitions of linguistic description. In *Approaches to typology of word classes*, Petra Vogel, and Bernard Comrie (eds.), 479–488. (Empirical approaches to language typology: 23.) Berlin: Mouton de Gruyter.
- Ward, Jack H.
- 1985 Rapid Lexical Change and the Problem of What to Include in a New Tahitian Dictionary. In *Austronesian Linguistics at the 15th*

- Pacific Science Congress*, Andrew Pawley, and Lois Carrington (eds.), 343–353. (Series C-88.) Canberra: Pacific Linguistics.
- Wassmann, Jürg and Pierre R. Dasen
- 1998 Balinese spatial orientation: some empirical evidence of moderate linguistic relativity. *Journal of the Royal anthropological Institute (incorp. Man)* 4: 689–711.
- Weissenborn, Jürgen and Wolfgang Klein
- 1982 Introduction. In *Here and There. Cross-linguistic Studies on Deixis and Demonstration*, Jürgen Weissenborn, and Wolfgang Klein (eds.), 1–12. (Pragmatics and beyond: an interdisciplinary series of language studies: III: 2/3.) Amsterdam: John Benjamins.
- Wilkins, David
- 1993 Preliminary COME and GO questionnaire. In *Cognition and space kit. Version 1.0*, Eve Danziger (ed.), 29–45. Nijmegen: Cognitive Anthropology Research Group, Max Planck Institute for Psycholinguistics.
- 1995 (ed.) *Extensions of Space and Beyond: “Manual“ for Field Elicitation for the 1995 Field Season*, Nijmegen: Cognitive Anthropology Research Group, Max Planck Institute for Psycholinguistics.
- Wilkins, David, and Deborah Hill
- 1995 When GO means COME: Questioning the basicness of basic motion verbs. *Cognitive Linguistics* 6 (2–3): 209–259.
- Wunderlich, Dieter
- 1982 Sprache und Raum. *Studium Linguistik* 12: 1–19.
- 1985 Raum, Zeit und das Lexikon. In *Sprache und Raum. Ein Arbeitsbuch für das Lehren von Forschung*, Harro Schweizer (ed.), 66–89. Stuttgart: Metzler.
- 1990 Ort und Ortswechsel. *Zeitschrift für Literaturwissenschaft und Linguistik* 78: 43–58.
- Wunderlich, Dieter, and Michael Herweg
- 1991 Lokale und Direktionale. In *Semantik: ein internationales Handbuch der zeitgenössischen Forschung*, Arnim von Stechow (ed.), 758–785. (Handbücher der Sprach- und Kommunikationswissenschaft; 6.) Berlin: Walter de Gruyter.
- Wynn, Thomas
- 1989 *The Evolution of Spatial Competence*. (Illinois studies in anthropology 17.) Urbana: University of Illinois Press.
- Zewen, François
- 1987 *Introduction à la Langues des îles Marquises – le Parler de Nuku Hiva*. Papeete: Haere Po No Tahiti.

Index

- ablative, 63, 283, 284
- accusative, 54, 577
- action (motion) verbal, 83, 88, 123, 172, 184
- addressee, 26, 75, 78, 100, 102, 106, 107, 108, 110, 122, 140, 154, 201, 204, 218, 219, 226, 244, 245, 246, 247, 248, 251, 252, 255, 256, 286, 340, 427, 433, 434, 435, 437, 438, 439, 449, 455, 457, 467, 473, 474, 475, 530, 532, 547, 557, 589
- adjective, 29, 30, 54, 66, 67, 86
- adjunct, 59, 63, 98, 115, 116, 143, 155, 168, 207
- adnominal modifier, 64, 65, 67, 85, 102, 132, 156, 156, 158, 160–167, 169, 282, 286, 288, 317, 328, 338, 403, 404, 406, 426–427, 452–487
- adposition
 - circumposition, 450–452
- adverbial, 62, 106, 109, 110, 177, 190, 203
- adverbial phrase, 59, 115, 152, 177, 181
- affixation, 122–128, 132
- affricate, 56
- agent, 63, 77, 78, 79, 80, 81, 82, 83, 88, 91, 92, 93, 94, 95, 128, 146, 155, 174, 208
- agentive, 123, 128, 145, 170
- allative, 283, 284, 285, 302, 313
- anapher, 103, 104, 106, 108
- anaphoric
 - article, 62, 142–143
 - proform, 65, 107, 113
- particle, 62, 100, 114–115, 177, 183, 184, 187, 205
- angle, 272
- anthropological linguistics, 4
- argument, 59, 67, 68, 71, 75, 76, 78, 79, 80, 96, 98, 116, 154, 155, 167, 168, 172, 204, 206, 207, 208, 209, 210, 313, 316, 319, 320, 329, 387, 436, 437, 584, 591, 595
- argument structure, 77, 81, 83, 88–95
- article
 - anaphoric, 142–143
 - dual/plural, 140, 141
- general/generic, 102, 103, 134–135, 162, 168, 170, 173, 318, 321, 322, 324–325, 326, 335, 505, 506, 585
- indefinite, 140, 141, 404
- non-specific, 60, 135–138, 321, 324–325, 326, 335, 578
- personal, 72, 74–75, 101, 143, 145
- article system, 34, 35, 62, 65, 66, 67, 69, 71, 72, 73, 74, 96, 106, 113, 115, 116, 132, 134–143, 166, 168, 169, 171, 209, 283, 294, 299, 303, 308, 316, 321, 322, 326, 330, 331, 333, 403, 404, 408, 409, 411, 412, 421, 424, 494, 500, 578
- aspect, 57, 60, 84, 85, 126, 127, 176, 178–199, 205, 303, 427, 429, 448, 449, 577
- Austronesian, 1, 5, 37, 285, 358, 577, 581

babytalk register, 33
 Balinese, 257, 259, 264, 276, 277, 278
 benefactive, 63
 bilingualism, 12, 18, 21, 25, 26, 28, 29, 30, 44, 573, 576
 body analogy, 238–241, 250
 body-part, 237–241
 body-part term, 8, 13, 67, 71, 72, 75, 76, 146, 156, 158, 237, 239, 240, 250, 283, 284, 288, 293, 297, 298, 299, 300, 301, 303–331, 351, 356, 377, 399, 403, 408, 409, 410, 412, 419, 420, 424, 426, 452, 461, 466, 469, 475, 477, 478, 480, 489, 490, 494–495, 519, 520, 521, 523, 524, 525, 527, 528, 529, 530, 532, 534, 545, 547, 549, 550, 578, 579, 581, 583, 584, 585, 587, 590, 591, 592, 593, 596, 597
 borrowing, 18, 19, 32, 39, 55, 72
 canonical position, 226, 239, 240, 378, 386, 389, 390, 393, 479, 529, 530, 532, 534, 546, 547, 548, 549, 550
 cardinal directions, 244, 255, 256, 257, 258, 259, 262, 497, 511, 519, 594
 case-marking, 54, 78, 80, 133, 175, 209, 279, 282, 285, 286, 287, 294, 299, 307, 320, 329, 357, 363, 399, 408, 414, 418, 419, 421, 423, 424, 577, 584, 586
 causative positional verb, 229, 230
 cause, 63, 81, 88, 91, 94, 95, 125, 144, 155, 186, 241
 caveat meaning, 197–198
 child data, 23, 24, 31–33, 455–457, 545, 560, 561
 child-directed speech, 33–37
 classifier, 97, 98, 126

clause
 basic simple, 57–65
 chaining, 54, 61, 62, 209
 classifying, 60, 137
 comparative, 136, 137
 complex, 115, 116–120
 embedded, 207
 non-embedded, 209
 equational, 60, 153
 existential, 136, 137, 138, 160
 negative existential, 136, 137, 138, 160
 non-verbal, 57, 58, 60, 64, 98, 108, 111, 137, 161
 relative, 115, 132, 156, 161–162, 183, 184, 187, 86
 verbal, 57–65, 69, 76, 80, 83, 93, 97, 127, 132, 133, 135, 161, 162, 170, 172–176, 183, 203, 205, 209, 210
 code-mixing, 26
 code-switching, 12, 18, 21, 23, 25–33, 35, 576
 cognates, 126, 132, 143, 197
 cognition, 2, 3, 4, 6, 212, 215, 216, 236
 cognitive
 development, 2
 linguistics, 2,
 map, 214, 256, 260
 process, 215, 291, 310
 representation, 213, 214, 235, 256, 496
 science, 13, 214, 260, 272, 575
 collective nominals, 64, 132, 156–158, 159, 168
 comitative, 63, 147
 common noun, 68
 complement phrase, 78, 81, 82, 98, 143, 155, 165, 166, 209, 210
 compounding, 122, 131, 132
 conditional, 119
 conceptualisation, 2, 3, 4,

- 5–7, 8, 10, 14, 48, 126, 213–217, 219, 220, 221, 223, 224, 225, 229, 230, 231, 232–233, 234, 236, 239, 241, 242, 245, 259, 260, 261, 263, 268, 270, 271, 272, 273, 278, 279, 292, 297, 310, 318, 324, 325, 368, 377, 387, 397, 459, 480, 496, 499, 506, 523, 525, 528, 529, 530, 534, 547, 548, 549, 550, 567, 575, 578, 579, 590, 592, 593, 596, 597
 conjunction, 65, 85, 116–120, 148
 construction
 actor emphatic, 65, 152, 154, 183
isu mamafa, 72, 172, 313, 316
 possessive, 54, 132, 149, 167–172, 293, 308, 321, 330, 338, 341, 342, 349, 350, 351, 353, 354, 355, 356, 357, 358, 360, 361, 362, 363, 373, 375, 376, 383, 391, 392, 393, 396, 397, 462, 464, 467, 471, 475, 486, 530, 537, 538, 542, 543, 544, 550, 554, 556, 558, 560, 565
 pronominal, 168
 context-dependency
 global, 225, 227–228, 234, 236, 264, 280, 291, 301, 335, 337, 390, 391, 493, 495, 576
 situational, 217, 224, 225, 234, 236, 269, 274, 275, 280, 285, 293, 300, 309, 335, 340, 355, 360, 262, 383, 449, 467, 470, 493, 521, 525, 526, 537, 576
 continuous aspect, 61, 110, 126, 189, 190
 coordinate system, 246, 248, 249, 256, 258, 265, 276
 coordination, 117, 118, 148
 copula, 57
 cross-linguistic, 3, 215, 216, 241, 244, 250
 culture-specific, 4, 5, 6, 7, 10, 212, 233, 592, 596
 dead reckoning, 256
 definiteness, 62, 135, 136, 141, 178
 deixis, 65, 100, 102–111, 132, 178–182, 185, 187, 189, 190, 191, 198, 204, 212, 225, 226, 227, 242, 248, 251, 256, 426, 427, 429, 433, 437, 439, 447, 449, 452, 455, 471, 493, 554, 555, 589
 demographic development, 15–18
 demonstrative, 62, 64, 65, 71, 100, 102–106, 107, 110, 120, 132, 133, 135, 156, 160, 162, 168, 169, 171, 189, 190, 191, 205, 286, 288, 303, 313, 317, 333, 334, 403, 405, 406, 408, 409, 411, 426, 431, 435, 445, 467–475, 478, 482, 490, 497, 554, 555, 556, 578, 586, 589
 derivation, 69, 70, 77, 86, 88, 107, 123, 124, 172, 184
 dialectal situation, 37–44
 dimension
 expression, 236, 238
 horizontal, 212
 one-, 232
 structure, 212, 233, 224, 234, 243, 244, 270, 271, 452, 592, 593
 three-, 211, 212, 224, 227, 234, 237, 238, 261
 transversal, 212, 236
 two-, 224, 227, 234, 235, 246, 374
 vertical, 212, 224, 234, 235, 242, 244, 377
 diminutive, 131, 158
 directional particle, 14, 62, 64, 65, 78, 79, 115, 132, 156, 176, 177, 204–205, 286, 288, 303, 317,

- 333, 334, 393, 394, 426, 427–466, 475, 476, 482, 485, 486, 490, 493, 554, 578, 579, 586, 589
- distribution, 40, 98, 99, 111, 113, 138, 145, 413, 419, 480, 449
- dual, 100, 101, 140
- Eastern Oceanic, 37
- ego, 212, 213, 256, 426, 594
- egocentric, 212, 213
- elicitation, 45–50, 362, 369, 370, 383, 384, 531, 564, 568
- ergative, 81, 93, 94
- event, 60, 76, 78, 83, 85, 91, 92, 104, 110, 146, 178–200, 209, 221, 222, 229, 231, 241, 268, 270, 301, 323, 346, 391, 397, 412, 414, 419, 422, 423, 424, 425, 433, 434, 435, 437, 438, 439–444, 445, 449, 450, 452, 463, 469, 505, 518, 540
- exclusive, 54, 100, 577
- experiencer, 77, 78, 443, 444
- experience verbal, 61, 77, 78, 174, 199, 307, 381, 443, 444, 448
- featuredness, 50, 237, 238, 251, 319, 458, 459, 477, 479, 527, 529, 533, 550, 552, 554, 558, 559
- fieldwork methodology, 44–50
- figure/ground, 51, 220
- first-order entity, 14, 261, 262, 267, 284, 358, 583, 584
- foreigner talk, 46
- frame of reference, 237, 244, 245, 246, 249–259
- frame of reference
 - absolute, 303, 344–360, 490, 518, 519, 521, 534–449, 552, 553, 554, 555, 556, 557
 - intrinsic, 317, 318, 322–326,
- habitual, 60, 68, 176, 178, 187–188
- Hausa, 252, 253, 532, 549, 593
- Hawaiian, 297, 427, 586
- home language, 20, 21, 22, 23, 25, 26, 36
- homonyms, 69, 70, 136
- human behaviour, 1, 6, 575
- imperative, 60, 81, 82, 84, 85, 87, 88, 92, 94, 95, 192, 193, 194, 197, 201, 202
- imperfective, 60, 67, 83, 86, 87, 88, 116, 127, 176, 178, 181, 182, 187, 188–190
- inchoative, 60, 61, 67, 68, 83, 84,
- 330, 339–344, 479, 521–529, 533, 449, 552, 555, 556
- relative, 318, 321–322, 330, 339–344, 356, 525, 529–534, 559
- functional, 9, 65, 116, 280, 287, 578
- future, 109, 110, 111, 113, 126, 178, 179, 180, 181
- genetic affiliation, 37–38
- geophysical phenomenon, 45, 257, 262, 263, 518
- gesture
 - eye, 48, 110
 - hand, 48, 110
 - pointing, 106, 107, 226, 227, 555
- glide, 55
- glottal stop, 56, 57
- grammaticalisation, 6, 8, 9, 240, 249, 250, 263, 264, 310, 320, 329, 331, 496, 550
- granularity, 350, 580
- gravity, 211, 212, 235, 236, 241, 378, 379, 383, 391, 393, 396
- Guugu Yimidhirr, 255

- 85, 86, 88, 183, 184, 192–193, 194, 200
- inclusive, 54, 100, 577
- indefiniteness, 135, 136, 141
- individuation, 320, 584
- Indoeuropean, 1, 3, 4, 5, 7, 8, 14, 54, 86, 242, 244, 245, 270, 282, 283, 286, 427, 575, 576, 577, 579, 586
- information structuring, 54
- innate, 3, 4, 9, 214, 216
- instantiation, 292, 336, 361, 362, 376, 377, 587, 590
- instrument, 63, 146, 147, 148, 155, 578
- interdisciplinary, 1, 211
- interjection, 65, 122
- interrogative, 65, 99, 100, 110, 111–114, 116, 120, 121, 132, 176
- juxtaposition, 117, 118
- knowledge
 - encyclopaedic, 228, 260, 280, 291, 292, 337, 338, 359, 363, 389
 - geographic, 1, 2, 224, 267
- landmark
 - ad hoc*, 36, 259, 261–267, 268, 273, 275, 276, 277, 538, 550, 551, 552, 553
 - expression, 8, 9, 13, 36, 63, 125, 146, 149, 237, 243, 260, 271, 272, 273, 274, 275, 276, 277, 278, 279, 284, 288, 295, 296, 300, 308, 338, 344–361, 362, 363, 373, 375, 380, 396, 402, 403, 406, 412, 417, 418, 424, 425, 426, 451, 452, 455, 460, 469, 470, 474, 480, 485, 487, 489, 490, 493, 494, 496, 497–518, 534–549, 550–555, 580, 581, 582, 583, 584, 585, 587, 588, 593, 595
 - geophysical, 257, 261–267, 510–518, 443–445
 - man-made, 214, 261, 261–267, 407, 408, 412
 - model, 236, 237
 - general, 4, 9, 13, 14, 214, 219, 221, 223, 244, 245, 249, 254, 255, 256, 257, 258, 259, 261–267, 268, 271, 272, 274, 275, 276, 277, 278, 346, 347, 349, 350, 354, 355, 357, 358, 416, 418, 419, 421, 424, 425, 426, 454, 455, 580, 581, 582, 583, 585, 594
 - system, 257, 273, 278, 296, 338, 358, 496, 497–518, 534–549, 550–555, 595
- language acquisition
 - first, 21, 22, 548, 561, 573
- language
 - attitudes, 12, 21–25
 - contact, 25, 45, 596
 - death, 33
 - endangerment, 21–33, 576
 - policies, 18–25
 - shift, 18, 20, 21, 22, 23, 26, 33
 - socialising practices, 21–25
- language-specific, 4, 5, 6, 215, 576
- lexical
 - doublet, 40
 - triplet, 40
- lexical source, 8, 237, 263, 309, 585
- lexicalisation, 59, 74, 109, 117, 131, 140, 162, 163, 215, 223, 229, 283, 286, 335, 337, 391, 455, 493, 495, 505, 506, 519, 585, 586
- lingua franca*, 21
- linguistic

- accommodation, 34, 35
- change, 12, 14, 22, 43, 562–574
- innovation, 32, 38, 39, 40, 43, 297, 561
- relativity, 214, 215
- transmission, 12, 21–25, 561, 573, 574, 576
- variation, 4, 6, 12, 45, 213, 215, 216, 236, 241, 250
- localisation
 - dynamic, 11, 228–232, 233, 497–518
 - three-point, 246–249, 538, 559
 - two-point, 246–249, 251, 538
- local noun, 63, 65, 67, 71, 72, 73, 75, 76, 100, 103, 106, 107, 108, 111, 113, 132, 136, 138, 143, 146, 156, 158, 205, 281, 282, 283, 284, 285, 286, 287, 288, 290, 291, 292, 294, 295, 297, 298, 299, 300, 301, 303, 316, 317, 318, 325, 329, 331–399, 402, 403, 406, 407, 408, 409, 411, 412, 419, 420, 421, 424, 425, 426, 427, 428, 450, 452–466, 467, 469, 470, 471, 473, 474, 475, 477, 479, 482, 484, 485, 486, 488, 489, 490, 491, 492, 493, 495, 501, 505, 506, 510, 519, 520, 521, 523, 524, 527, 528, 529, 531, 532, 533, 535, 538, 549, 550, 555, 558, 561, 562, 566, 569, 573, 574, 578, 579, 581, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 595, 596
- Longgu, 259, 302
- manner, 110, 229
- Maori, 37, 38, 89, 281, 297
- mass noun, 134
- matrix
 - construction, 200–203
 - verbal, 195, 200, 202
- Mayan, 220
- meaning contribution, 14, 144, 283, 284, 286, 290, 292, 299, 300, 301, 305, 309, 317, 320, 332, 336, 338, 339, 344, 345, 350, 359, 361, 363, 371, 373, 376, 388, 397, 448, 453, 455, 460, 473, 476, 477, 480, 483, 484, 562, 586, 589
- Mesoamerican, 237, 239, 309, 549, 593
- metalinguistic, 26
- metaphorical
 - shift, 2, 264, 310, 311, 523, 547, 549, 593, 596
 - use, 336, 491, 495, 596
- metonymical
 - use, 73, 336, 506, 519, 585, 586
 - shift, 310, 311, 318
- mixed language, 26
- modifier
 - postnuclear, 64, 65, 116, 133, 160–167, 198, 199, 205, 207
 - prenuclear, 64, 65, 116, 156–160, 168, 203, 205, 484
- mood, 57, 50, 85, 178, 179, 180, 193, 194, 196, 203, 208
- morphosyntax, 10, 12, 13, 45, 66, 68, 76, 77, 78, 80, 82, 83, 87, 88, 94, 95, 99, 111, 113, 116, 132–209, 288, 296, 302, 303–308, 310, 311–331, 334–335, 339–425, 429, 430–433, 436–437, 450–467, 485, 487, 496, 499, 500, 501, 518, 575, 576, 578, 579, 584, 585, 589, 591
- motion, 50, 78, 81, 122, 228, 229, 230, 231, 232, 234, 267, 268, 270, 307, 323, 325, 346, 367, 381, 382, 434, 435, 437, 444, 448, 449, 452, 493, 505, 506,

- 507, 508, 509, 510, 511, 518, 519, 533, 538, 540, 541, 542, 543, 577, 589
- multifunctional, 9, 116, 578
- multilingual, 26
- navigation, 262, 490, 491, 496, 510–519, 549, 595
- negation, 62, 65, 95, 116, 132, 136, 137, 138, 156, 160, 170, 177, 183, 187, 200–203
- neighbourhood region, 220, 234, 242, 263
- nominal, 9, 63, 64, 66, 67, 69, 70–77, 85, 104, 108, 109–110, 132–176, 177, 206, 285, 292, 296, 328, 329, 331, 345, 358, 360, 361, 408, 411, 418, 421, 424, 425, 436, 481, 506, 528, 578, 579, 580, 581, 583, 585, 588, 590, 591, 593, 595
- nominalisation, 12, 29, 43, 54, 69, 76, 97, 127, 132, 133, 135, 162, 172–176, 203, 205, 209, 210, 428, 430, 481, 577
- non-egocentric, 257, 548
- non-linguistic, 215, 216
- non-productive, 122
- non-specificity, 58, 62, 135–138, 283, 321, 324, 325
- noun incorporation, 12, 132, 209–210, 500
- number, 62, 71, 72, 100
- numerals, 43, 65, 96–100, 111, 113, 122, 123, 126, 132, 135, 170, 176, 578
- oblique object, 59, 62, 63, 75, 92, 93, 94, 95, 101, 133, 144, 145, 577
- obsolete, 74, 145
- occlusion, 253, 532, 534, 549
- Oceanic, 6, 8, 37, 245, 280, 281, 285, 302, 309, 427, 430, 449, 496, 505, 579, 593, 594
- omission, 33, 35, 80, 81, 177
- ontological category, 14, 261, 263, 267, 424, 595, 579, 583, 585, 591
- optative, 60, 194
- origo*, 225, 226, 227, 234, 239, 246, 247, 248, 249, 250, 252, 256, 433, 437
- orthography, 56–57
- Papuan, 5
- path, 11, 13, 50, 51, 63, 106, 113, 146, 147, 223, 228–233, 268, 269, 270, 271, 272, 278, 279, 283, 284, 292, 299, 305, 306, 308, 309, 315, 322, 323, 325, 336, 339, 346, 350, 354, 361, 362, 363, 365, 368, 373, 376, 377, 396, 397, 420, 466, 507, 533, 540, 541, 581, 586, 587, 588, 590
- participants, 78, 80, 93, 436, 437
- participant observation, 45, 46
- particle
 - discourse, 29, 30, 31
 - grammatical, 57, 58, 62, 64, 65, 66, 67, 68, 74, 75, 84, 87, 96, 98, 113, 114, 297, 115–122, 134–155, 178–205
- part-whole-relationship, 293
- passive, 79, 89, 93, 94, 95, 128, 164, 564
- past, 59, 60, 67, 68, 105, 109, 110, 111, 113, 126, 178–181, 184, 185–187, 191, 397
- paucal, 62, 140, 141–142
- perception
 - tactile, 2, 212
 - visual, 2, 212, 234, 235, 244
- perfective, 60, 67, 68, 85, 87, 88,

- 127, 128, 176, 179, 181, 183–185, 432
- person, 100–101
- personal pronoun, 62, 63, 65, 74, 100, 100–101, 140, 145, 149, 167, 168, 169, 170, 283, 284, 300, 313, 403, 406, 407, 412, 413, 421, 423, 424, 425, 450, 452, 466, 583
- perspective
 - deictic, 43, 226, 248, 251, 341, 434, 455, 457, 486, 547, 548
 - intrinsic, 248
 - taking, 439, 442, 443, 449, 450, 457, 534
 - canonical, 547, 548, 550
- place name, 9, 13, 67, 73, 75, 76, 103, 132, 146, 167, 223, 259, 260, 262, 266, 275, 283, 284, 285, 287, 288, 295, 296, 299, 300, 301–309, 316, 317, 329, 345, 346, 349, 350, 354, 356, 357, 358, 359, 360, 361, 377, 380, 402, 403, 406, 407, 408, 412, 417, 419, 424, 425, 468, 475, 489, 490, 506, 519, 520, 521, 538, 539, 540, 550, 578, 579, 581, 582, 583, 584, 585, 587, 588, 592, 593
- plural, 62, 100, 101, 129, 130, 132, 140, 141, 156–158, 292, 299, 339, 362, 375, 376, 397, 398, 399, 419, 578, 587, 588, 590
- Polynesian, 1, 5, 9, 17, 20, 23, 36, 37, 38, 43, 54, 58, 65, 66, 122, 128, 149, 152, 172, 175, 205, 229, 281, 282, 283, 286, 293, 297, 298, 302, 332, 411, 427, 430, 449, 499, 505, 555, 575, 578, 586, 587, 592, 596, 597
- polysemy, 70, 221, 235, 264, 291, 292, 310, 330, 335, 336, 339, 347, 427, 491, 492, 496, 499, 503, 518, 555, 557, 590, 591
- positionals, 229, 230, 271, 307, 471
- possession
 - alienable, 54, 63, 64, 149, 170, 174, 577
 - inalienable, 54, 63, 64, 149, 174, 283, 294, 299, 505, 577, 585, 586
- possessive pronoun, 65, 100, 101–102, 135
- postfactitive, 60, 198
- pragmatics, 1, 3, 26, 228, 382, 590
- prefixation, 97, 110, 122–126
- present, 61, 109, 178, 179, 181, 185, 198, 199
- presentative, 60, 63, 95, 111, 153, 499, 553
- preventative, 60, 197
- proform, 65, 99, 100–115, 132, 176, 578
- proper name, 56, 62, 63, 65, 67, 71, 73, 74, 75, 76, 101, 103, 111, 112, 132, 145, 149, 153, 154, 167, 168, 170, 266, 283, 284, 299, 300, 301–309, 313, 358, 403, 406, 407, 412, 413, 421, 423, 424, 425, 583
- Proto
 - Central Eastern (PCE), 37, 38, 39, 40, 41, 43, 56
 - Eastern Polynesian (PEP), 38, 41, 56
 - Polynesian (PPN), 297, 232, 411
- psycholinguistics, 3, 12, 14, 243–259, 272, 489
- punctuative, 60
- Rapanui, 298
- Rarotongan, 37, 38, 297, 596
- recipient, 63, 78, 79, 81, 144, 436, 437

- reduplication, 12, 122, 128–131
- reference
 - large-scale, 9, 11, 12, 13, 14, 264, 264, 264, 265–267, 280, 285, 300, 303, 305, 306, 307, 308, 309, 331, 338, 344, 345–351, 354, 355, 357, 360, 361, 380, 396, 435, 449, 452, 454, 465, 466, 469, 470, 477, 483, 487, 489–519, 534, 543, 580, 581, 582, 588, 594, 595
 - small-scale, 11, 12, 13, 14, 144, 245, 254, 258, 261, 264, 265–267, 269, 271, 273, 274, 275, 276, 277, 278, 279, 280, 284, 285, 295, 300, 303, 305, 306, 307, 308, 309, 331, 338, 339, 344, 349, 351, 351–360, 361, 402, 412, 452, 453, 465, 469, 470, 471, 477, 483, 487, 488, 489, 490, 492, 505, 517, 518, 519–574, 580, 581, 582, 594, 595
 - reference object, 47, 50, 51, 138, 267
 - referent, 45, 217
 - reflexive, 82, 427, 429, 449
 - relation
 - adhesion, 384, 388, 389, 392, 563, 564, 567, 573
 - attachment, 385, 564, 567, 573, 562
 - front/back, 4, 238, 244, 245, 250, 252, 253, 275, 309–326, 339–344, 452, 458, 477, 479, 521–529, 530, 533, 534, 549, 552, 593, 554, 559
 - hanging, 384, 385, 391, 391, 395, 396, 397, 489, 562, 563, 564, 565, 567, 569, 570, 571, 573, 588, 593
 - inside/outside, 361–375
 - left/right, 326–329
- supporting surface, 377, 378, 382, 384, 386, 387, 389, 390, 394, 395, 396, 565, 588, 593
- up/down, 377–395
 - above, 377–395, 452, 558–562
- resultative, 60, 88, 124, 125, 185, 187, 208
- rotation, 253, 258, 536
- saliency, 4, 218, 219, 224, 245, 258, 259, 262, 276, 387, 396, 496, 499, 506, 509, 522, 523, 593, 595
- Samoan, 72, 94, 206, 281, 297
- scope, 177, 209
- search domain, 223, 260, 261
- secondary reference point, 249, 251, 254, 261, 262, 538, 560
- semantic
 - bleaching, 335
 - change, 264
 - narrowing, 335, 336
- semantic role, 77, 78, 80, 83, 92, 144, 146, 284, 437, 580
- semantics
 - compositional, 219–224, 225, 280, 285, 287, 288, 293, 305–308, 309, 311–329, 337, 338, 339–351, 359, 363, 381, 382, 454–466, 475–487, 511, 540, 579, 582, 590
- semi-lingualism, 22, 25
- sentence modifier, 59, 180
- shape, 51, 220, 231, 261, 362, 376, 397, 522
- sociolinguistics, 15–44, 562–574
- source, 63, 113, 147, 192, 230, 237, 267, 268, 269, 270, 271, 273, 279, 283, 284, 288, 305, 306, 308, 309, 322, 339, 342, 345, 354, 355, 358, 360, 364, 394, 430, 434, 435, 442, 450, 451, 545, 466, 491, 496, 513, 514,

- 515, 516, 523, 549, 578, 588, 589
- space game, 24, 35, 48, 49, 50, 521, 525, 526, 531, 535, 537, 546, 548
- space
 - basic/universal, 211, 212, 233, 234, 236, 237, 240, 242, 426, 547, 592, 593
 - table-top, 8, 9, 11, 13, 50, 254, 255, 261, 264, 274, 308, 344, 412, 487, 488, 532, 534, 536, 550, 594, 595, 580
- spatial description
 - configuration, 299–344, 351–395, 400–424, 452–487, 519–573
 - route, 534–549
- strategy
 - aligning, 253, 531, 532, 534, 549
 - facing, 253, 529, 530, 531, 532, 549
- speech situation
 - demonstratio ad oculus*, 103, 106, 107, 108, 225, 227, 244, 433, 434, 437, 438, 439, 440, 444, 449, 450, 452, 455, 555
- stress, 56
- subordination, 117, 118
- suffixation, 79, 85, 87, 88, 89, 93, 122, 126–128, 172, 175, 176, 205
- syllable, 55, 56, 128
- syntactic function, 62, 66, 98, 155, 310, 313, 318, 320, 329, 330, 458, 584, 591
- Tahitian, 18, 19, 20, 22, 37, 38, 39, 46, 55, 297, 596
- TAM-particle, 12, 34, 36, 57, 58, 60, 61, 62, 66, 67, 68, 69, 82, 87, 96, 114, 115, 116, 132, 176, 178–200, 201, 205, 206, 209, 577, 578
- telic/atelic, 76, 275, 365, 381, 382, 434, 435, 437, 449, 505, 518, 540
- temporal relation, 59, 98, 105, 149, 178, 181, 182, 185, 187, 190, 198, 199, 284, 397, 444, 446
- tense, 54, 56, 57, 60, 178–200
- tense
 - absolute, 178, 179, 185, 187, 198, 199
 - relative, 178, 189, 191
- Tokelauan, 429, 444
- Tongan, 37, 297
- topicalisation, 63, 65, 152, 153, 154, 155
- topology
 - contact, 240, 242–243, 319, 320, 323, 362, 370, 371, 373, 376, 377, 378, 381, 382, 383, 388, 389, 390, 391, 393, 394, 396, 464, 465, 467
 - containment, 14, 214, 216, 223, 241, 242–243, 291, 336, 489, 491, 495, 562–574
 - exclusion, 242–243, 336, 361
 - inclusion, 242–243, 336, 361, 367, 375, 562–574
 - vicinity, 242–243
- topological
 - expression, 221, 222, 243, 317, 562–574, 334, 361–377
 - notion, 14, 241, 242–243, 326, 332, 377, 378, 395, 562–574
 - structure, 211, 212, 233, 292
- transcription, 51–53
- transfer verbal, 78, 81, 125, 184, 192, 365, 367, 368, 381, 435, 436, 437, 448
- transposition, 225, 226, 227, 234, 246, 248

- undergoer, 77, 78, 79, 80, 81, 82, 83, 89, 92, 93, 94, 95, 124, 155, 436, 437
universals, 3, 4, 5, 6, 7, 8, 9, 13, 212, 214, 216, 231, 233, 242, 254, 376, 496, 575, 579, 592, 593, 594
valency, 59, 69, 77, 94
vector, 233, 272, 278, 279
verbal classes
 ditransitive, 77, 81–83, 193, 436, 437
 intransitive, 57, 59, 68, 77, 81, 83–88, 89, 91, 92, 93, 94, 123, 124, 127, 128, 144, 174, 175, 184, 193, 429, 192, 193, 367
 neuter, 77, 88–95, 175, 183, 184
state, 61, 69, 71, 83, 84, 85, 86, 87, 88, 89, 91, 94, 95, 123, 133, 156, 159, 160, 162, 163, 175, 182, 183, 184, 187, 193, 313, 316, 328, 329, 446, 448, 481, 500, 577
transitive, 54, 57, 59, 77–81, 94, 123, 127, 130, 144, 174, 202
verbal modifier, 65, 67, 79, 85, 104–106, 111, 114, 116, 132, 133, 203–204, 207, 288, 427–449
verbal property, 69, 73, 76, 77, 82, 83, 87, 88, 94, 95, 132, 173, 175
verb-noun-distinction, 12, 54, 76, 577
verb serialisation, 132, 205–209
vocative, 64, 71, 75, 154–155
voiced stop, 54
word class
 closed, 67, 72, 100, 310, 311, 331
 open, 303
word classification, 6, 7, 8, 9, 10, 11, 12, 13, 63, 65–122, 183, 288, 292, 303, 318, 403, 410, 413, 419, 425, 501, 576, 578, 579, 584, 592
word order, 57

