Multi-verb constructions in Eastern Indonesia

Volker Unterladstetter

Studies in Diversity Linguistics 99

./langsci/graphics/lan

Studies in Diversity Linguistics

Editor: Martin Haspelmath

In this series:

1. Handschuh, Corinna. A typology of marked-S languages.
2. Rießler, Michael. Adjective attribution.
3. Klamer, Marian (ed.). The Alor-Pantar languages: History and typology.
4. Berghäll, Liisa. A grammar of Mauwake (Papua New Guinea).
5. Wilbur, Joshua. A grammar of Pite Saami.
6. Dahl, Östen. Grammaticalization in the North: Noun phrase morphosyntax in Scandinavian vernaculars.
7. Schackow, Diana. A grammar of Yakkha.
8. Liljegren, Henrik. A grammar of Palula.
9. Shimelman, Aviva. A grammar of Yauyos Quechua.
10. Rudin, Catherine & Bryan James Gordon (eds.). Advances in the study of Siouan languages and linguistics.
11. Kluge, Angela. A grammar of Papuan Malay.
12. Kieviet, Paulus. A grammar of Rapa Nui.
13. Michaud, Alexis. Tone in Yongning Na: Lexical tones and morphotonology.
14. Enfield, N. J. (ed.). Dependencies in language: On the causal ontology of linguistic systems.
15. Gutman, Ariel. Attributive constructions in North-Eastern Neo-Aramaic.
16. Bisang, Walter & Andrej Malchukov (eds.). Unity and diversity in grammaticalization scenarios.
17. Stenzel, Kristine & Bruna Franchetto (eds.). On this and other worlds: Voices from Amazonia.
18. Paggio, Patrizia and Albert Gatt (eds.). The languages of Malta.
19. Seržant, Ilja A. & Alena Witzlack-Makarevich (eds.). Diachrony of differential argument marking.
20. Hölzl, Andreas. A typology of questions in Northeast Asia and beyond: An ecological perspective.
21. Riesberg, Sonja, Asako Shiohara & Atsuko Utsumi (eds.). Perspectives on information structure in Austronesian languages.
22. Döhler, Christian. A grammar of Komnzo.
23. Yakpo, Kofi. A Grammar of Pichi.
24. Guérin Valérie (ed.). Bridging constructions.
25. Aguilar-Guevara, Ana, Julia Pozas Loyo & Violeta Vázquez-Rojas Maldonado (eds.). Definiteness across languages.

ISSN: 2363-5568

Multi-verb constructions in Eastern Indonesia

Volker Unterladstetter

Unterladstetter, Volker. 2019. *Multi-verb constructions in Eastern Indonesia* (Studies in Diversity Linguistics 99). Berlin: Language Science Press.

This title can be downloaded at:
http://langsci-press.org/catalog/book/213

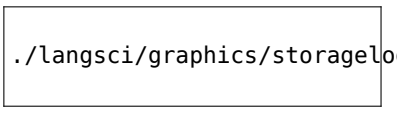
Indexed in EBSCO
ISBN: 978-3-96110-216-7 (Digital)
978-3-96110-217-4 (Hardcover)

ISSN: 2363-5568
DOI:10.5281/zenodo.3546018
Source code available from www.github.com/langsci/213
Collaborative reading: paperhive.org/documents/remote?type=langsci&id=213

Cover and concept of design: Ulrike Harbort
Typesetting: Carla Bombi
Proofreading: Andreas Hölzl, Ikmi Nur Oktavianti, Jan Wohlgemuth, Jeroen van de Weijer, Joseph Lovestrand, Katja Politt, Laura Arnold, Jean Nitzke, Tom Bossuyt, Waldfried Premper
Fonts: Linux Libertine, Libertinus Math, Arimo, DejaVu Sans Mono
Typesetting software: XeLaTeX

Language Science Press
Unter den Linden 6
10099 Berlin, Germany
langsci-press.org

Storage and cataloguing done by FU Berlin



To

Hanna and Wolfgang

Contents

Acknowledgments v

List of abbreviations ix

Glossary xiii

Summary and guide to the book xvii

1 The Eastern Indonesian linguistic area 3
- 1.1 Introduction . . . 3
- 1.2 Genealogical lineage . . . 6
  - 1.2.1 Austronesian languages . . . 6
  - 1.2.2 Papuan languages . . . 7
- 1.3 Typological features . . . 12
  - 1.3.1 Preposed possessor languages . . . 15
  - 1.3.2 East Nusantara as a linguistic area . . . 16
  - 1.3.3 Linguistic Wallacea . . . 23
  - 1.3.4 West Papuan . . . 26
- 1.4 Introduction to the languages . . . 30
  - 1.4.1 Sulawesi . . . 30
  - 1.4.2 Nusa Tenggara . . . 35
  - 1.4.3 Maluku . . . 44
  - 1.4.4 Western Papua . . . 50
- 1.5 Summary . . . 56

2 Grammatical properties 59
- 2.1 Introduction . . . 59
- 2.2 Argument structure . . . 62
  - 2.2.1 Argument sharing . . . 72
  - 2.2.2 No argument sharing . . . 78
- 2.3 Constituent structure . . . 82
  - 2.3.1 Headedness . . . 83

2.3.2 Contiguity 105
2.4 Summary 113

References **115**

Index **129**
Name Index 129
Language Index 133

1 The Eastern Indonesian linguistic area

1.1 Introduction

Indonesia is one of the linguistically most diverse countries of the world and hosts about 700 languages spread across a vast archipelago with thousands of islands. Stretching from the large islands of Sumatra and Borneo in the far west, along the chains of the Sunda-Banda arc system, up to the western part of mainland New Guinea in the east, the territory of today's Indonesia has provided space for a multitude of ethnic groups to evolve and develop a wealth of distinct cultural and linguistic systems. Archaeologists, geneticists, and linguists have all contributed evidence that there were several major waves of human migration spreading over the area. The first humans migrating into the archipelago and beyond set forth as early as about 50,000 BCE in the Late Pleistocene (Capelli et al. 2001), at a time when Australia, New Guinea and parts of Indonesia were still connected, and formed the prehistoric continent Sahul. These groups eventually reached New Guinea and continued further eastward to the Solomon Islands and southward into Australia. The descendants of these migrants are associated with the ethnic groups of Aborigines in Australia and the Papuans that live on the island of New Guinea as well as in its vicinity.

The last wave of migrants arrived much later in the Indonesian area, dating back to a time frame around 4,500 BCE (Bellwood 1998; 2007). These groups were the ancestors of the Austronesian people. They probably originated from South China, migrated further to the island of Taiwan, and from there on followed along the Philippine Islands down southwards (Tryon 1995; Capelli et al. 2001). In the course of their dispersal into the Malay archipelago, their languages eventually replaced the Pre-Austronesian languages, or drove them into the interior parts of the islands. Archaeological evidence suggests that the situation was by no means the same across the Indonesian archipelago. While the western islands of Indonesia had only small Pre-Austronesian populations along the coastlines, which must have entered into a serious competition with the Austronesian seafaring people, the opposite appears to have been true for the island of New Guinea, which already hosted a dense population of Pre-Austronesian

agricultural groups at the time of the Austronesian advent (Bellwood 1998; see also Ross 2005). These different conditions probably had a strong influence on the present situation, where most of the Papuan people are found in the mountainous inner parts of New Guinea, with few remaining settlement areas on and off the island of Halmahera in the northern Moluccas and on the islands of Timor, Alor and Pantar in the southeast. Where Austronesian and Papuan groups live in close vicinity, the former are mainly confined to the coastal areas, while the latter often maintain settlement areas further inland. This distribution is particularly visible in parts of Western Papua, where Austronesian speaking areas are located on the Raja Ampat Islands off the Bird's Head or in small communities scattered in and around Cenderawasih Bay.

The Eastern Indonesian region can be defined on geographical, biological, and linguistic grounds, all of which show roughly corresponding demarcation lines. Geographically, the area of today's Indonesia and East Timor may be separated into four parts: the Sundaland continental core in the west, the Australian continent in the southeast, the Pacific and the Philippine oceanic plates to the north, and the vast central collision area that is part of the Sunda-Banda arc system (Bellwood 2007, Hall 2009). It is the Sunda-Banda arc system that forms large parts of what may be depicted as Eastern Indonesia (together with the western part of the island of New Guinea, which geographically belongs to the Australian continental shelf). Among biologists, the transition area between the shelf formations to the east and west has come to be known as Wallacea. Wallacea forms the central part of the Malesian floristic region, and its western border is traditionally defined by Wallace's Line (more recently modified by Huxley's line, Bellwood 2007, Raes & Van Welzen 2009; Van Welzen et al. 2011 propose to include Java as well). Wallace's line as well as other biogeographical demarcation lines running through Wallacea designate floristic and faunal boundaries beyond which the ratio of oriental species declines, while the number of endemic species sharply increases (Bellwood 2007). Wallace's line separates the island of Bali from its neighbour Lombok to the east and runs northward. Alfred Russel Wallace himself was unsure whether to include or exclude Sulawesi (a question that is also of relevance to the delimitation of linguistic Wallacea, see below) and there are two variants of his line, one running through the strait of Makassar, where it divides Sulawesi in the east from Borneo in the west, and another one running east of Sulawesi (Van Welzen et al. 2011). Figure 1.1 below illustrates the major demarcation lines. Lydekker's line, running along the edge of the Sahul shelf, is usually considered the eastern border of biogeographical Wallacea.

Figure 1.1: Biogeographical demarcation lines in insular Southeast Asia. Wallace's Line is drawn here in two variants, one including Sulawesi, and another one excluding it. Biological Wallacea is traditionally delimited by Wallace's Line in the west, and Lydekker's Line in the east. Reprinted from Van Welzen et al. 2011, Biol J Linn Soc, © 2011 The Linnean Society of London.

Throughout this book, I will consider the western variant of Wallace's line loosely as the western boundary of the Eastern Indonesian area, and mainland New Guinea as the eastern boundary (extending biogeographical Wallacea beyond Lydekker's Line to comprise the Bird's Head area). Moving roughly from west to east, the whole area then consists of Sulawesi, the Lesser Sunda Islands (or Nusa Tenggara) including Timor, the Moluccas, and the western tip of Indonesian Papua. Turning now to linguistic data, we find that the area of Eastern Indonesia as sketched above is supported by both typological and historical-comparative evidence. I will in §1.2 start with an outline of the diachronic relations, presenting the languages of the EI sample in the context of their genealogical affiliation as suggested by historical-comparative evidence. In §1.3, I will then shift the perspective to a typological overview, summarising recent research on Eastern Indonesia as a linguistic Sprachbund.

1.2 Genealogical lineage

The languages of Eastern Indonesia share a set of common ancestors, that is, they are in a genealogical relationship. This cannot always be traced by way of the traditional historical-comparative method. It is specifically within the Papuan languages that time depth is a challenging issue: the time frame starting from the point where proto-languages such as Proto-Trans–New Guinea split up and developed into separate directions up to the contemporary situation in linguistic Papua is tremendous. Given that the advent of Papuan-speaking communities in the New Guinea area dates back about 40,000 years BP, it does not come as a surprise that Papuan linguistics up to today can neither reconstruct a single Proto-Papuan ancestor nor link all branches together. The term *Papuan* is thus to be understood as a cover term for a group of unrelated language families in a particular geographical area rather than as a genealogical concept. Recent work on the classification of Papuan languages made use of pronoun paradigms as diagnostic evidence for genealogical relations (Ross 2005). Ross identified twenty-three families of Papuan languages all across New Guinea and its vicinity, among them the large Trans–New Guinea (TNG) family.

1.2.1 Austronesian languages

The Austronesian languages constitute a clear monophyletic group, and much work has been done to reconstruct the Proto-Austronesian lexicon, phonology, and grammar (recent contributions include, among others, Tryon 1995, Wouk & Ross 2002, Blust 2009; see Adelaar 2005 for an overview). The whole Austronesian language family consists of some 1,200 languages and is considered the largest language family in the world with respect to the number of languages, and the second largest in terms of geographical distribution (Adelaar 2005). Having originated from Taiwan, Austronesian-speaking communities made their way as far west as Madagascar, as far east as Easter Island, and settled much of insular Southeast Asia, Melanesia, Micronesia, and Polynesia from Haiwai'i in the north to New Zealand in the south. All these groups can be traced back to the primary branch Malayo-Polynesian (MP). The other nine primary branches never ventured out of Taiwan (Blust 2009). MP divides further into Western Malayo-Polynesian (WMP) and Central-Eastern Malayo-Polynesian (CEMP), both comprising some 600 languages. Blust (2009) names as the chief defining feature of WMP the presence of nasal substitution in active verb forms, often leading to segmental changes in the prefix and/or the root (cp. Malay *pukul* 'hit' (base form): *me-mukul* (active form); Blust 2009: 30). Apart from this characteristic, it is still

not clear whether WMP really constitutes a monophyletic group or rather a paraphyletic collection of residual branches that are not CEMP (cf. Blust 2009: 30).

Central-Eastern Malayo-Polynesian, on the other hand, is firmly supported by phonological, lexical, morphosyntactic, and semantic innovations (see Blust 1993) and seems now widely accepted. The 600 odd languages divide into a Central-Malayo-Polynesian branch (CMP) with about 120 languages, and an Eastern-Malayo-Polynesian (EMP) branch. The CMP languages are located in the Nusa Tenggara area, comprising the Lesser Sunda Islands from East Sumbawa eastwards, up to the Timor area and beyond into the southern Moluccas, including the Austronesian languages on the western extremities of Bomberai peninsula (Northern Bomberai languages Sekar, Onin and Uruangnirin; Adelaar 2005: 24), but not the Halmahera archipelago north of Buru and Seram. Here, as well as in the Bird's Head area and around Cenderawasih Bay, we find 30–40 EMP languages of the South Halmahera-West New Guinea subfamily (SHWNG), which is the sister taxon of the Oceanic languages that have spread eastwards into Melanesia and greater Oceania (Blust 2009). The dividing line between the SHWNG languages in the west and the Oceanic languages in the east runs somewhere through the eastern end of Cenderawasih Bay, leaving Waropen in the SHWNG group while the Sarmi languages belong to the Oceanic subfamily. Thus all Austronesian languages in Eastern Indonesia (as defined in this book) either belong to WMP, CMP or to SHWNG. Figure 1.3 presents the internal genealogical division of the Malayo-Polynesian languages down to CMP and SHWNG, including the 16 Austronesian languages investigated in this book.

1.2.2 Papuan languages

Quite unlike the Austronesian family, there is up to now no convincing hypothesis that would link the Papuan languages in Eastern Indonesia to a single common ancestor (Reesink 2005; Klamer et al. 2008). Papuan languages in EI come in three major areal groupings: (i) the Papuan languages spoken on the islands of Alor and Pantar off the Timorese north coast, as well as the languages located on Timor and the small island of Kisar (TAP languages); (ii) the Papuan languages of North Halmahera (NH); and (iii) the Papuan languages of the Bird's Head area, including the isolate Yawa on Yapen island in Cenderawasih Bay. Several hypotheses on their genealogical relationship (as well as their connection to the Papuan languages further to the east) have been discussed. The TAP languages have been placed among the Trans–New Guinea phylum and links have been postulated between TAP and the West Bomberai languages, most recently by Ross (2005), who proposed that they are part of the TNG "Western Linkage", based on

figures/languages_aff_aus.pdf

Figure 1.2: Geographical distribution of Austronesian languages in the EI sample. Colours indicate genetic affiliation to the different subgroups.

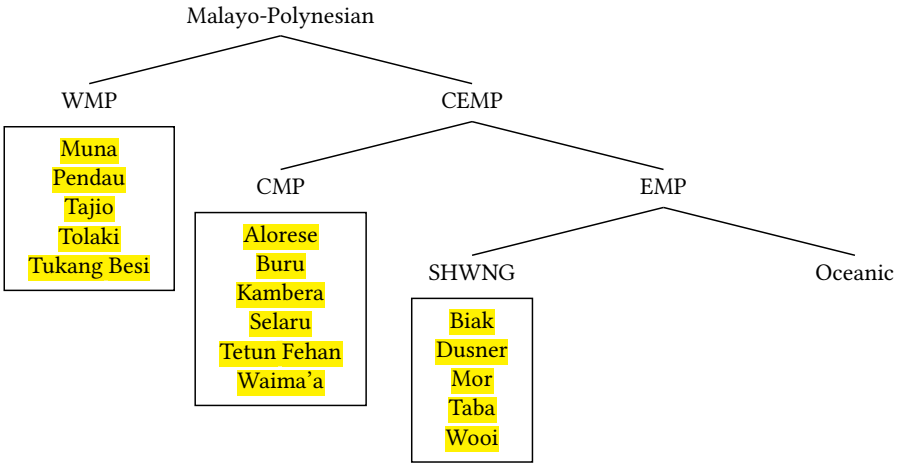


Figure 1.3: Tree diagram of the Malayo-Polynesian branch of the Austronesian language family. Genealogical affiliation after Adelaar (2005). Boxed languages belong to the sample of EI languages investigated in this book.

a pronominal innovation in the first person plural (Schapper 2014: 9). The NH languages, on the other hand, have been placed with the West Papuan languages from the Bird's Head area, most prominently with those of the West Bird's Head family (see Reesink 2005 for an overview).

The TAP languages comprise some 30 languages and divide into two main branches, the Alor-Pantar languages (AP) and the Timor-Kisar languages (TK). Both subgroups, as well as the TAP branch in general, have recently been established by comparative work (Holton et al. 2012; Klamer 2014b), although a genealogical link between the languages was hypothesised before (Schapper 2014: 7). While the relationship between the five Timor-Kisar languages seems quite well understood, the internal subgrouping of the AP languages is still under discussion. Figure 1.5 shows a tree diagram of the TAP branch. Seven TAP languages, two TK languages and five AP languages, have been included in the sample.

The North Halmaheran language family is supported by lexicostatistic evidence and appears now generally accepted (e.g. Voorhoeve 1994; Reesink 2005). The languages are located on the northern part of Halmahera, including Morotai and the small volcano islands just off the western shore. NH consists of three related language groups, Northeast Halmaheran, Sahu, and Ternate-Tidore, as well as the family level isolate West Makian (Voorhoeve 1994). While Voorhoeve listed the Northeast Halmaheran group as a chain of closely related dialects, con-

figures/languages_aff_pap.pdf

Figure 1.4: Geographical distribution of Non-Austronesian languages in the EI sample. Colours indicate genealogical affiliation to the different taxa. Language isolates are given in green.

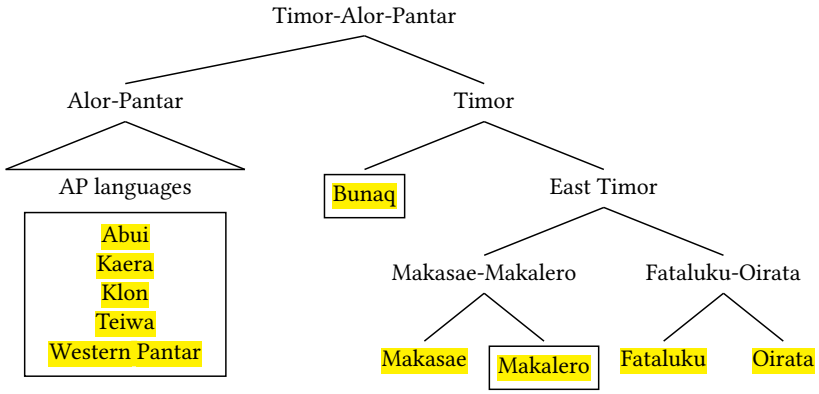


Figure 1.5: Tree diagram of the Timor-Alor-Pantar languages, as proposed by Schapper (2014). Boxed languages belong to the sample of EI languages used in this book.

temporary research supports the view that the different varieties are in fact distinct languages rather than dialects. One of the main arguments is that mutual intelligibility is hard to put to the test in areas with extensive multilingualism (see Holton 2003 on Tobelo; a similar argument is made by Schapper on the TAP languages, see Schapper 2014: 3). Therefore, the rate of real intelligibility would actually be lower if there were no cultural practice of multilingualism. Figure 1.6 depicts the internal relationship of the NH languages, including the varieties of Northeast Halmaheran. Two languages from this language family, Tobelo and Tidore, have been included in the EI sample.

The third Papuan grouping (Bird's Head languages of Western Papua) shows a more complicated internal pattern, and the different groups have hitherto resisted the reconstruction of a common ancestor. A fairly traditional approach to the genealogical relationship in the area was the postulation of two main taxa: first, the West Papuan languages, including the Bird's Head languages without the South Bird's Head (SBH) family, and second, the Trans New Guinea phylum, represented in Western Papua by the SBH languages and the West Bomberai subgroup. This dichotomy, however, has recently been called into question as research on the Bird's Head languages has advanced (Dol 2007), and more cautious approaches now distinguish a range of smaller sized families (Reesink 2005).

The relationship within some of these subgroups is well established by now. There is evidence that the Papuan languages along the Head's western shore form a coherent group, comprising Moi, Tehit, Moraid and Seget (The West Bird's Head family (WBH)). Along the northern shore and further inland, we find a set

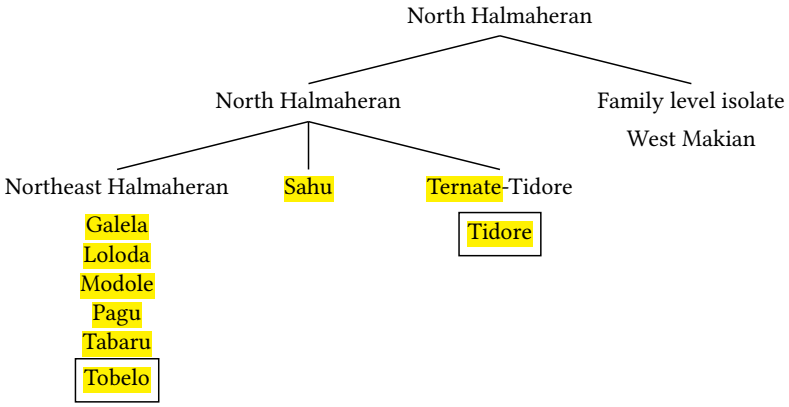


Figure 1.6: Tree diagram of the North Halmaheran language family, following Voorhoeve (1994) and Holton (2003). Boxed languages belong to the sample of EI languages used in this book.

of unrelated isolates, namely Abun, Mpur, and Maybrat. Finally, there is the East Bird's Head family, consisting of Meyah, Moskona and Sougb, and the Hatam-Mansim group on the north-eastern part of the Bird's Head. Following Klamer et al. (2008), we can establish the list of genealogically related subgroups as shown in Figure 1.7 of which seven languages are part of the EI sample.

Summing up the genealogical situation in EI, we find both Austronesian and non-Austronesian language communities. While the Austronesian languages are fairly well connected by a shared linguistic history, it has proven difficult to formulate an uncontroversial genealogical reconstruction for the non-Austronesian languages. The TAP languages provide a link to the vast TNG language family in mainland Papua. The North Halmaheran languages as well as the bulk of Papuan languages in the Bird's Head, on the other hand, do not seem to be related to TNG.

The boxed languages from all taxa presented in Figures 1.3–1.7 make up a total of 32 languages, including 16 Austronesian languages and 16 Papuan languages, and together constitute the data source of this study. In the next section, I will put the languages into the context of a shared areal history of mutual contact, resulting in the convergence of features, both Wallacean and Melanesian.

1.3 Typological features

In most situations where different linguistic communities live in close proximity to one another, there is language contact through trade, inter-marriage, warfare,

Cenderawasih Bay
(1) Yawa (isolate)

Northern Bird's Head, with three families and three isolates
(2) East Bird's Head family: Meyah; Moskona; Sougb
(3) West Bird's Head family: Moi; Tehit; Moraid; Seget
(4) Hatam and (extinct) Mansim
(5) Mpur
(6) Maybrat
(7) Abun

Southern Bird's Head
(9) The Trans New Guinea family with two subgroups:
– South Bird's Head, with Inanwatan
– West Bomberai: Iha, Baham

Figure 1.7: Papuan language families in the Bird's Head area, following Klamer et al. (2008). Boxed languages belong to the sample of EI languages used in this book.

and other kinds of interaction. Scenarios of contact constitute one of the major forces that cause languages to change over time (Thomason 2001). Such contacts not only lead to language change but over longer periods to language convergence and the formation of linguistic areas, in which common structural features diffuse into the different languages. The area that biogeographically forms Wallacea is known for extended periods of language contact between different social groups. Schapper (2015: 141f.) lists archaeological evidence for pre-Austronesian contacts in Wallacea: pelagic fish hook finds from East Timor suggest the existence of a pre-Austronesian seafaring people in the area more than 5,000 years before Austronesian arrival. Rock art motifs from Timor and Bomberai peninsula show similar traits, which suggest prehistoric contact between different communities beginning before 20,000 BP. Obsidian finds from Timor dating back up to 13,000 BP point to ancient inter-island trading routes. Finally, the anthropogenic introduction of Australasian marsupial species into the Wallacea area (for instance the Northern common cuscus *Phalanger orientalis*) confirms human impact across zoogeographical subregions (see also Heinsohn 2010).

Moving down to historical times, evidence from trade of natural resources indigenous to the Moluccas, such as clove, nutmeg and mace, suggests that there were ancient trade routes in place as early as 2,000 years BP (Klamer et al. 2008).

The 15th century saw the advent of Islam in Ternate and Banda, and in the subsequent centuries, the "Malayo-Muslim trading network" expanded throughout western Indonesia and well into the eastern parts (Klamer et al. 2008). One of the most important driving forces for inter-cultural contact in the eastern area was certainly the slave trade and raid routes that were established at the very latest with the rise of the kingdoms of Ternate and Tidore from the 13th century onward (Klamer et al. 2008). These routes extended well into the Bird's Head area, where the power and influence of the Sultans was exerted by dominant cultural groups such as the Biak people in the Cenderawasih Bay area (van den Heuvel 2006: 2) or the Onin "middle men" along the Bird's Head south coast that had the title *raja* 'king' (de Vries 2004: 2). De Vries reports that these trading networks into the Bird's Head area stimulated situations of extensive language contact:

> There were *raja*'s in the villages Rumbati, Patipi, Ati-Ati and Fatagar and each *raja* had its own section of the Bird's Head south coast where he had some influence through representatives who settled near river mouths. The *raja* of Patipi sent representatives to the Siganoi river mouth where they engaged in slave trade with the Inanwatan people. To get slaves, the Inanwatan raided the interior but also neighbouring coastal peoples like the Yahadian. In exchange for the slaves, they received cloths, iron tools and weapons and guns from the Patipi "middle men". Although these *raja*'s of Patipi never established a regular government in the Inanwatan area, the Patipi colonists in Inanwatan married local women and Patipi words were borrowed by the Inanwatan language.

The dominant position of these regional agents of the Sultanates had important linguistic consequences all across the region, as their native languages gained the prestige typical for ruling groups. Biak and Onin thus became local lingua francas in their respective areas of dominance, as did Ternate and Tidore across the wider Moluccan area, and Malay varieties throughout all of Eastern Indonesia. When the first Europeans arrived in the area, they not only found the regional kingdoms to dominate an entire trading economy but also a slave trade along the New Guinean coasts, into the Moluccas, and the islands further south that had caused much interethnic mixing. Consequently, many slaves from mainland Papua lived among the populations on Tidore and Ternate. This situation must have led to "the displacement of Austronesian speakers to non-Austronesian speaking areas, and vice versa" (Klamer et al. 2008: 105f.).

All these historical facts suggest that Wallacea was indeed a place of prolonged and intensive language contact, and, not unexpectedly, this is reflected in shared

linguistic features throughout the area. Several authors have discussed sets of common features, and some of them recently suggested a Sprachbund scenario for the area. In the following sections, I will briefly introduce three approaches that highlight the shared linguistic background: Himmelmann's typological profile of Austronesian preposed possessor languages (§1.3.1), Klamer, Reesink and van Staden's approach to East Nusantara as a linguistic area (§1.3.2), and Schapper's proposal of linguistic Wallacea as a Sprachbund (§1.3.3). Further Papuan-related features that are found across the Papuan language families in the Bird's Head area and beyond are discussed in Reesink (2005) (briefly reviewed in §1.3.4).

1.3.1 Preposed possessor languages

Working on the Austronesian languages of insular Southeast Asia, Himmelmann proposed a typological subdivision of the western Austronesian languages[1] (excluding the Oceanic branch) into *symmetrical voice languages* and *preposed possessor languages* (Himmelmann 2005c). He argues that symmetrical voice and preposed possessors are mutually exclusive in most languages, and that each of these features clusters with further typological features (Himmelmann 2005c: 113). Symmetrical voice languages are defined by the presence of two or more voice patterns (similar but not equivalent to active vs. passive) none of which can be considered the basic form. The most prototypical representatives of symmetrical voice languages are found within the group of the so-called Philippine-type languages (for instance the well-researched Tagalog voice system; Schachter 1976, Himmelmann 2005b, Riesberg 2014), which Himmelmann defines as having the following additional characteristics:

- at least two formally and semantically different *undergoer* voices
- at least one non-local phrase marking clitic for nominal expressions (e.g. Tagalog genitive *ng*)
- pronominal second position clitics

These features exclude other symmetrical voice languages like Malagasy, Chamorro as well as the Tomini-Tolitoli, Gorontalo-Mongondic, Sama-Bajau, and South Mindanao languages that are spoken in Northern Sulawesi, the southern

Sama-Bajau languages

[1] The term *Western Austronesian* is a purely geographical expression and should not be confused with the phylogenetic branch of Western Malayo-Polynesian. See Himmelmann (2005c) for further explanation.

Philippines, and environs (Himmelmann 2005c: 113). The five languages from Sulawesi are the only symmetrical voice languages included in the sample.

Preposed possessor languages, on the other hand, are primarily defined as placing the possessor before the possessum in possessive constructions. This type of language is predominantly found in the eastern parts of Indonesia and appears most often to have either asymmetrical voice alternations or no voice alternations at all. For instance, in the Austronesian language Waima'a, spoken in East Timor, the most common possessive construction shows a preposed possessor order, as in *hire buu* (1PL.IN ancestor) 'our ancestors' or *mata umo-n* (dead house-POSS) 'the deceased's house' (Bowden 2006: 31) .[2] The dividing line between symmetrical voice languages and preposed possessor languages roughly cuts through the western Lesser Sunda Islands and runs east of Sulawesi, dividing linguistic Eastern Indonesia in two parts: a smaller western portion, consisting of Sulawesi and the westernmost Lesser Sunda Islands Bali, Lombok, Sumbawa and possibly Flores, and a greater eastern part comprising eastern Nusa Tenggara, Timor, the Moluccas and the western tip of mainland Papua. Figure 1.8 shows the distribution of possessive constituent orders in selected languages throughout Indonesia, illustrating the clustering of preposed-possessor languages (blue) in the east and postposed-possessor languages (red) in the west. The map is adapted from WALS (World Atlas of Language Structures; Dryer 2013) and thus does not display all languages that are part of the EI sample.

What makes the distinction into symmetrical voice languages and preposed possessor languages typologically useful is that these parameters are reported to match with values of further parameters. Table 1.1 gives an overview of the feature complex for both typological subgroups.

It is certainly not the case that all Austronesian languages in Eastern Indonesia invariably show all preposed possessor features (person marking, for instance, is absent in a group of isolating Austronesian languages spoken on Timor, see Himmelmann 2005c: 175) but chances are high that they have at least some of them.

1.3.2 East Nusantara as a linguistic area

The last section presented evidence that the Austronesian languages in Eastern Indonesia converge on a number of typological features. Turning now to the

[2] There is also a less common postposed possessor construction in Waima'a where the possessor is overtly marked by final *nini*. This construction, however, is functionally more specific as it appears to focus the possessor, and permits the omission of the possessed entity (see Bowden 2006: 32).

figures/Preposed_possessor.eps

Figure 1.8: Order of possessor and possessum in Western Austronesian languages. Blue circles designate preposed possessor languages, red circle languages show the opposite order with the possessum before the possessor. Grey languages do not have a clear preference. Adapted from Dryer (2013).

Table 1.1: Characteristic features of symmetrical voice and preposed possessor languages according to Himmelmann (2005c: 175).

Symmetrical voice languages	Preposed possessor languages
Symmetrical voice alternations	No or asymmetrical voice alternations
Postposed possessor	Preposed possessor
No alienable/inalienable distinction	Alienable/inalienable distinction
Few or no differences between narrative and equational clauses	Clear-cut differences between narrative and equational clauses
Person marking only sporadically attested	Person marking prefixes or proclitics for S/A arguments
Numerals/quantifiers precede head	Numerals/quantifiers follow head
Negators in pre-predicate position	Clause-final negators
V-initial or SVX	V-second or -final

Papuan languages in the area, we observe that most of these features are shared by them as well, and there have been claims that some of the features listed by Himmelmann are in fact of Papuan origin. Klamer et al. (2008) argue for a linguistic area in Eastern Indonesia which they call East Nusantara (Nusantara is a Malay term meaning 'the islands in-between', from *nusa* 'island' and *antara* 'between'; see Klamer et al. 2008: 99). According to their definition, East Nusantara includes all islands along the Sunda-Banda chains, from Flores in the west and Halmahera in the north, up to the Bird's Head region of Indonesian Papua, and is thus roughly consistent with my depiction of Eastern Indonesia, with one major exception: Sulawesi is excluded from East Nusantara, although the authors note that

> [t]here is clear evidence that the inhabitants of East Nusantara travelled to places outside the area, and there are genealogical relations between languages of this area and languages outside it. Especially parts of Sulawesi and New Guinea, not included at present, may have to be incorporated later.

In their analysis of East Nusantara linguistic features, the authors argue that the following Papuan features diffused into both Austronesian and non-Austronesian languages (in Eastern Indonesia): alienability, order of possessor and pos-

sessum in adnominal possession, and clause-final negators. Evidence that tone also spread from Papuan to Austronesian languages is considered weak.

The distinction between alienable and inalienable possession is a lexically conditioned effect that divides up the noun system of a language into two or more subsets (for instance, in distinguishing between entities with external relation to the possessor vis-à-vis internal relations such as kin, part-whole relations etc). It is absent from most western Austronesian languages but occurs in Central-Eastern Malayo Polynesian (CEMP) languages that are spoken in close vicinity to Papuan speaking communitites in EI (Klamer et al. 2008: 116). The Papuan languages in the area have this distinction. Thus, while historical-comparative approaches have attempted to present the alienability distinction as a shared innovation inside the CEMP subgroup (Blust 1993), typologists more recently argued for a Papuan feature that had made its way into the Austronesian languages of EI.

Possessive classification can be found as far west as Sulawesi. Tukang Besi, for instance, shows different ways of construing (phrasal) possession, and these construals are sensitive to lexical classes. Consider the following example from Tukang Besi where the possessive determiner *nu* connects the possessed item to a possessor.

(1) Tukang Besi (Austronesian, WMP; Donohue 1999: 339)
te kadera nu ama-su
CORE chair GEN father-1SG.POSS
'my father's chair'

Tukang Besi

In Tukang Besi, there are two features of adnominal possession that give rise to an alienable/inalienable interpretation. First, *nu* is preferentially left out when it comes to "possession of a kin term, or the 'possessive relation' expressed between a person and their village, island or ethnic group" (Donohue 1999: 346). Second, there is a distinct possessive construction that appears to mark inalienable possession overtly by use of the element *mai*. *Mai* has at least two different meanings, depending on the status of the possessed noun. With close kin nouns, the reading is that the item is inalienable from its possessor. The same reading may be invoked with ordinary objects like houses or canoes. The only difference is that in those cases a sense of plurality is associated with the objects. The core system, however, seems to be sensitive to close family kin terms, so that we may say that the set of nouns in Tukang Besi is subdivided into two types (although the *mai* construction is, outside its core semantics with kinship terms, basically a pragmatic device).

If possessive classification constitutes an areal feature marking language contact and the presence of a linguistic area, this area exerts influence beyond the borders of East Nusantara *sensu* Klamer et al. (2008) and into parts of neighbouring Sulawesi. In her discussion of linguistic Wallacea, Schapper notes that "[t]he Melanesian feature with the widest reach beyond New Guinea is possessive classification" (Schapper 2015: 108), extending far into Melanesia and the Oceanic languages. This eastern spread appears to be weakly mirrored by the western spread of possessive classification systems in Sulawesi languages, beyond East Nusantara proper. Almost all Papuan languages of Eastern Indonesia show the alienability/inalienability distinction. This has led Klamer et al. (2008: 120) to the conclusion that

> [a]lthough it is not a universal feature in the Papuan languages, the distinction between alienable and inalienable possession is found in a number of different Papuan families [...] and can be seen as a 'Papuan trait'.

With regard to the Austronesian languages in the area, they report that the languages east of Timor typically make the alienability/inalienability distinction, while the Timor languages as well as the languages to the west show a more varied pattern. Interestingly, they claim that, among others, Tukang Besi does not mark alienability (Klamer et al. 2008: 120), while Schapper apparently does include Tukang Besi in the group of languages that show possessive classification (judging from the map in Schapper 2009: 110). As we have seen above, the interplay between *nu* and *mai* encodes the concept of alienable/inalienable possession at least in some contexts, so that Schapper's classification appears justified.

The second feature claimed to be of Papuan origin is the order of possessor and possessum. Klamer and colleagues show that both Papuan languages with SOV constituent order as well as many Papuan SVO languages have preposed-possessor order, at least with inalienable possession and a full NP possessor (Klamer et al. 2008: 123f.). There are, however, hybrid patterns. In Maybrat, spoken in central Bird's Head, the order shifts to possessum-possessor in alienable possession. Consider the following pair of examples. In (2b), the relating element *ro* marks a possessum-possessor construction, while in (2a), inalienable possession shows preposed possessor order without any linking element.

(2) Maybrat (Papuan, isolate; Klamer et al. 2008: 119)

Maybrat

a. *fnia* *m-ao*
woman 3U-foot
'the woman's foot'

b. *amah ro t-atia*
house POSS 1SG-father
'my father's house'

Another feature that seems to be Papuan in origin is clause-final negator placement (*post predicate negation* in Klamer et al. 2008). Recall that this feature is used by Himmelmann (2005c) as a correlate for his preposed possessor languages. Yet, from a typological perspective, clause-final negation is more common with SOV word order, and is therefore rather unexpected for Austronesian languages with predominant VSO or SVO constituent orders (Klamer et al. 2008). It is, however, well known from several groups of Papuan languages, such as the Trans-New-Guinea languages, the South Bird's Head languages like Inanwatan, as well as the Papuan languages of Timor, Alor and Pantar (for instance from Western Pantar, Kaera and Sawila), languages along the north coast (Sentani), some of the Torricelli phylum languages, and East Papuan languages (Klamer et al. 2008). Clause-final negator placement seems also to be present in some of the Papuan languages of Halmahera (Tobelo has a predicate-final suffix *-ua*, Holton 2003; but see Klamer et al. 2008: 131).

In Austronesian languages outside East Nusantara, the typical negation pattern is pre-verbal/pre-predicate or clause-initial. In Eastern Indonesia, however, we do find a number of Austronesian languages with clause-final negation, especially in the eastern parts. Wooi is an example, as well as Dusner, Biak, and Windesi Wamesa (Gasser 2014), all of which show a related formative *va* (which might be a reflex of a borrowed negator from a West Papuan language that has diffused into the area, as Reesink (2002b) argues). Another example of clause-final negation is the marker *te* in Taba, spoken in the Moluccas. These cases notwithstanding, a sizeable amount of Austronesian languages from East Nusantara apparently withstood Papuan influence and still show pre-verbal/pre-predicate negation. Some languages of Timor seem to have retained this pattern (for instance Waima'a, see also Klamer et al. 2008: 132), and the same goes for some languages further to the west, e.g. Kambera (but not Alorese), and the Sulawesi languages (for instance Muna and Tukang Besi). Eastern outliers of the pre-verbal/pre-predicate pattern can also be found in the Moluccas, where, for instance, Selaru has a pre-verbal negator *lema* (Coward 2005: 140). And Tetun Fehan (Timor) shows a hybrid pattern involving two general negators *la* and *ha'i*: the former occurs in pre-predicate position, and the latter in post-predicate position (van Klinken 1999: 228).

According to Klamer et al. (2008), the alienable/inalienable distinction, the preposed possessor order as well as clause-final negation are clearly Papuan traits

that have percolated into neighbouring Austronesian languages in the East Nusantara linguistic area. Other features seem to have taken the opposite direction and originated in Austronesian languages. These are (i) SVO constituent order, and (ii) the inclusive/exlusive distinction. Both features have spread to some of the Papuan languages of the area. All Austronesian languages in the East Nusantara area show SVO word order (Klamer et al. 2008: 113). Among the non-Austronesian languages we find SOV order, a typical Papuan feature, in the Alor-Pantar languages as well as in the Papuan languages of Timor. North Halmahera and the Bird's Head region seem to be more heterogeneous and feature both SVO and SOV languages (SVO being more common in the Bird's Head; exceptions are the SBH languages, i.e., Inanwatan, as well as language isolate Yawa on Yapen island). Among the NH languages, Sahu, Ternate-Tidore and West Makian have been reported to have shifted from SOV to SVO, and the same appears to have happened in Pagu (Klamer et al. 2008: 114). Closely related Tobelo, on the other hand, still shows predominant SOV order, which, as Holton (2003: 55) reports, "distinguishes Tobelo from most of its NH neighbors". He goes on in noting that VO constituent order is also available in Tobelo, as is the case in most of the Papuan SOV languages.

The inclusive/exclusive opposition in first person plural pronouns and subject indexers marks a contrast between 'we, including you' and 'we, excluding you'. Inclusive/exclusive is a widespread feature all across Austronesia, and almost all languages have this contrast (Tryon 1995; Klamer et al. 2008). The Austronesian languages in East Nusantara agree with this pattern. Even languages with considerable exposure to Papuan neighbours and clear Papuan traits in their make-up still retain the inclusive/exclusive opposition, for instance Alorese (Klamer 2011). Exceptions to the rule are only found in Malay varieties such as the ones spoken in the Northern Moluccas, the Alor-Pantar area (Klamer et al. 2008), as well as in varieties of Papuan Malay on mainland Papua (Kluge 2014). With regard to the Papuan languages in the area, Klamer et al. (2008: 115) note that

> in East Nusantara, it appears that the inclusive/exclusive distinction for the first person plural, a typically Austronesian feature, occurs just in those Papuan languages that have had a long history of contact with surrounding Austronesian languages.

This includes the East Bird's Head family (EBH), Meyah and Sougb, as well as the West Bird's Head family (WBH), and the SBH family with Inanwatan, but not Maybrat, Abun and Mpur. In the other Papuan taxa of East Nusantara, it is even more widespread: almost all of the Timor-Alor-Pantar languages (TAP) and

the Papuan languages of North Halmahera make the distinction with very few exceptions (Klamer et al. 2008: 115).

1.3.3 Linguistic Wallacea

Another approach to defining a linguistic area in Eastern Indonesia has recently been proposed by Schapper (2015). Analogous to biological Wallacea, she argues for a linguistic Wallacea that comprises Nusa Tenggara including Timor, the Moluccas, the Bird's Head, and Cenderawasih Bay, but not Sulawesi. Schapper's linguistic Wallacea is thus roughly commensurate with Klamer and colleagues' East Nusantara except that Schapper includes the lesser Sunda Islands up to Lombok (conforming to the Wallace line here), while Klamer et al. (2008) exclude the islands west of Flores. By taking into account the wider linguistic context east of Wallacea, Schapper argues that some of the EI areal features actually belong to a much larger zone of Melanesian influence. These include negator placement (clause-final negation), noun-numeral (postposed numeral) and genitive-noun (preposed possessor) orders, presence of possessive classification, complex numerals below ten as well as absence of the velar nasal /ŋ/. The first three features have been mentioned above. Possessive classification includes all types of possessive noun classes and is thus a broader phenomenon than the alienable/inalienable distinction which it includes. Possessive classification is further defined by distinct possessive constructions for each class. It is common in most Austronesian and Papuan languages of Eastern Indonesia and mainland Papua (although many central highland languages and a number of north coast Papuan languages do not have it) and spreads far into Oceania (Schapper 2015: 109).

The next feature, complex numerals below ten, refers to the compositional nature of numerals between six and ten in many languages that are located close to or on mainland Papua. Complex numerals may either be derived by adding up component numbers (e.g. in Mambae (Austronesian, Timor), the term 'eight' is *lim nai telu* [5+3]), by subtracting them (e.g. 'eight' in Pak (Austronesian, Admiralty Islands) is *arhuo* [10-2]), or by multiplication (e.g. *ɹua mbhutu* [2x4] means 'eight' in Rongga (Austronesian, Flores); Schapper 2015: 113). The distribution pattern of complex numerals stretches from Flores and Sulawesi in the west throughout Eastern Indonesia, continues along the Papuan north coast up into the Bismarck Archipelago, and reaches Vanuatu and New Caledonia in the east (Schapper 2015: 112–4). For Sulawesi, Schapper reports that some South Sulawesi languages show subtractive complex numerals 'eight' and 'nine', while Makasarese has additive 'seven' (Schapper 2015: 113f.). The Sulawesi complex numerals are listed as outliers, but may as well be taken to confirm a connection between the core area of Eastern Indonesia and Sulawesi.

The last feature of the Melanesian linguistic area is the absence of the phoneme /ŋ/, highly frequent in the vast majority of Austronesian languages, and fairly frequent also in the Papuan languages (roughly one half in Schapper's sample; Schapper 2015: 116). The area of absence comprises Timor, Wetar and the islands to the east, South and Central Maluku, and from there spreads to mainland Papua. The Bird's Head area appears to predominantly follow the pattern, although ŋ is sometimes found as a nasal allophone. In Wooi, word-final nasals turn into ŋ, for instance *ang* 'eat', which retains the alveolar nasal when suffixed with a resumptive object marker (*y-an-i* 'I-eat-it')[3].

In order to distinguish the Wallacean linguistic area from the wider "linguistic Melanesia", Schapper proposes four alternative features that are found across the different language families in the area (and, indeed, even cross the "Papuan-Papuan divide" (Schapper 2015: 124), i.e., occurring in more than one Papuan family in EI). These features are: (i) semantic alignment of verbal person markers, (ii) neuter gender, (iii) reflexes of #muku 'banana'[4], and (iv) synchronic metathesis.

Semantic alignment of verbal person markers pertains to systems where arguments are marked differently, depending on their semantic features such as agentivity. Agentivity may result in split-S systems where the sole argument of unergative verbs receives a different encoding from the sole argument of unaccusative verbs, for instance in Kamang (Papuan, Timor-Alor-Pantar group, Alor) or in Taba. Other factors include, among others, effectedness, control (volition), or aspectual (Schapper 2015: 125). Semantic alignment of verbal person markers is reported to occur all across linguistic Wallacea, especially in the Alor-Pantar area, on the Aru islands, in Central Maluku and Halmahera, and in some languages around Cenderawasih Bay. Yet, it is also found beyond the confines of linguistic Wallacea. Mori (Eastern Sulawesi) also shows a split-S system (Barsel 1994), differentiating between given subject referents (marked by a pronominal affix on the verb) and new subject referents (marked by a full NP or an independent pronoun). This again hints at a link between linguistic Wallacea and Sulawesi.

Neuter gender pertains to a division of the nominal word class along the animacy hierarchy. The label *neuter* in these systems covers the lower portion of the hierarchy such as the nonmale class (e.g. in Maybrat), nonhuman (e.g. in Tobelo), or inanimate (found for instance in Ujir; Schapper 2015: 128). Neuter

[3] The original nasal is still visible in Dusner and Biak which have *an* 'eat' (Ross et al. 2008 give Proto-Oceanic *kani and Proto-Malayo Polynesian *kaen as reconstructed forms).

[4] I follow Schapper's notation here with the number sign # marking the form as a generalisation from a set of etyma from partially unrelated languages.

gender is predominantly encoded in verbal cross-referencing morphology via prefixes or suffixes. In some Alor-Pantar languages, neuter gender marking also occurs on other parts of speech, for example on demonstratives in Bunaq. Yet another form of neuter gender marking appears to be at work in Wooi where nonhuman subject referents do not trigger subject agreement on the verb. Consider the following example where subject marking is absent from the main verb *mahoy* (expected **he-mahoy* '3PL-sit' is not licit).

(3) Wooi (Austronesian; HIVIAY_exp)
payna, hniviay vaw vo, mahoy mahni
so star DET:PL FOC sit fit
'So the stars have the same position. (lit. are seated alike)'

Wooi

Neuter gender systems constitute a highly marked feature of Wallacea and are almost completely absent from all other Austronesian and Papuan languages. Exceptions are only found in the Formosan languages in Taiwan, as well as in some outliers: Palauan (Austronesian, Micronesia) and Tolaki (Sulawesi) both show human-nonhuman distinction, and Kanum (Papuan, Southern New Guinea) has female-nonfemale gender. Tolaki is another case where Sulawesi languages share Wallacean or Melanesian features.

Among the words for 'banana', the form #muku and its variants have "a striking skewing towards Wallacea" (Schapper 2015: 132). It occurs in some Papuan languages along the western Bird's Head and Bomberai Bay, in Austronesian languages of the Southern Moluccas (with a considerable share on the Aru islands), and finally in the Timor-Alor-Pantar languages as well as in Austronesian languages of the same area as far west as Flores and Sumba. Reflexes of #muku are, however, completely absent from Halmahera and the Cenderawasih Bay area.

The last feature, synchronic metathesis, is another unusual typological feature that is present in a range of Austronesian languages in the Wallacea area, most of them on Timor, Wetar and adjacent islands to the east. Papuan languages that show synchronic metathesis seem rare and also confined to Timor and the Alor-Pantar area. Synchronic metathesis involves a reversed linear ordering of phonological segments either within a root or as a result of affix-root interaction, for instance, the word for 'smile' in Helong (Austronesian, West Timor) is realized as *mali* in final position, and *mail* in non-final position (Schapper 2015: 134ff.).

1.3.4 West Papuan

Reesink (2005) is concerned with typological similarities between the different Papuan language families in Eastern Indonesia (what he calls the West Papuan languages, a geographical term similar to Himmelmann's Western Austronesian), and discusses features that are common to the Non-Austronesian languages of the area as well as to some of the Austronesian languages. His features may thus also qualify as evidence for a linguistic area. Most of them have been discussed in the previous sections, so that I will only mention two further features here: experiential constructions and a specific type of instrument constructions.

Experiential constructions show peculiar construals in many Papuan and some Austronesian languages in the area. In Yawa, the East Bird's Head languages and in some North Halmahera languages, experiencer constructions occur with a 3SG dummy subject and an object experiencer (of the general form 'it hungers me', or 'hunger does (strikes) me', Reesink 2005: 191). Consider the following example from Tobelo where the verb inflects with the objective paradigm, marking the experiencer as the object.

(4) Tobelo (Papuan, NH; Holton 2003: 39)
Tobelo
i-hi-birahi
3-1-happy
'I am happy.'

Very similar constructions are also found in the neighbouring languages Pagu and Galela. In other languages, experiential constructions show nominal construals involving possessive affixes (for instance, in Meyah; Reesink 2005: 192) or body part nouns. To illustrate this feature in Austronesian languages, Wooi construes experiencer constructions involving emotion, affection or cognition ('like', 'love', 'hate', 'remember') by using the word for stomach plus a directional or non-directional preposition. Windesi Wamesa does the same (Gasser 2014: 154). (5) is an example from Wooi.

(5) Wooi (Austronesian, SHWNG; elicited data)
Wooi
hane ve ya
stomach PURP 1SG
'He/she remembers me.'

Reesink notes that Papuan-style experiential constructions are also present in some Austronesian languages of the Central Moluccas and in Waropen (Cenderawasih Bay). This seems to indicate that such experiential constructions may be

another feature that helps establish evidence for a linguistic area in Eastern Indonesia (though its geographical distribution does not seem to exceed the Bird's Head area any further than up to the Moluccas in the west).

Another peculiar feature of the Bird's Head area is the use of instrument prefixes. These prefixes occur in the East Bird's Head languages, in Hatam, as well as in some of the Austronesian languages spoken around Cenderawasih Bay. Instrument prefixes increase the number of arguments in the clause by one, referring to an argument of the previous clause and marking it as the instrument through which the action is carried out. The underlying constraint is that the instrument argument itself is not allowed to be overtly expressed in the same clause. Consider (6) from Hatam, and (7) from Biak:

(6) Hatam (Papuan, Hatam-Mansim; Reesink 2005: 194)
di-ba singau di-bi-digo nab
1SG-use knife 1SG-INS-cut.up pig
'I use a knife to cut up the pig.'

Hatam

(7) Biak (Austronesian, SHWNG; van den Heuvel 2006: 418)
wai ski-i-ne ko-(vu)k-usr kmam-sko
canoe 3TRL-EXS-this 1IN-INS-follow father-3TRL
'The few canoes we use to follow our parents and their relatives.'

Biak

In all three Papuan languages from the Bird's Head in which such a prefix is attested (Hatam, Meyah, Sougb), it seems to have started as a full verb with the meaning 'use/take' or 'give' (Reesink 2005: 194). This feature is not present in the other Papuan families of Eastern Indonesia, but it is found, for instance, in Wooi (which appears to share many Papuan features), as well as in Windesi Wamesa (Gasser 2014: 188ff). Both Wooi and Wamesa show instrument constructions over multiple clauses like the ones in (6) and (7), but the mentioned clausal restriction (no overt NP expression of the instrument) is less rigid. It may also appear in pre-predicate topic position within the same clause, as (8) from Wamesa shows:[5]

[5]Gasser glosses the prefix *-it-* as applicative and not as instrument because it can also mark a range of aspectual functions. It seems, however, that the term applicative is misleading here as the prefix does not produce verb-argument configuration pairs that are typical for applicative devices in other languages. Only those arguments may be targeted that in the particular context of the utterance may be felicitously interpreted as (non-human) instruments. Also, in the aspectual uses there seems to be no valency increase.

(8) Windesi Wamesa (Austronesian, SHWNG; Gasser 2014: 190)
wona=ne-si y-it-awer pimuna=pa-i
dog=DET-PL 1SG-APPL-hunt pig=DET-SG
'I use the dogs to hunt the pig.'

Windesi Wamesa

Summing up the last sections, we have seen that there is ample evidence that the languages in Eastern Indonesia have converged on a number of distinct features from a range of grammatical levels (such as syntagmatic and paradigmatic features, lexical items, and even a phonological feature). By mapping the distribution of these features across the area, as shown by Schapper's Wallacean features (Schapper 2015: 138f.), we can further conclude that the geographical centre of the area, the maximal feature density, is found in Timor plus environs on the one hand, and in the Bird's Head area on the other. Some of the features seem more Timorese, for example synchronic metathesis or the distribution of #muku, while other features like Reesink's experiential constructions and the instrument prefix point to an origin somewhere in the West Papuan influence zone in the Bird's Head. Further research may show that these subareas in fact constitute two different nuclei of linguistic convergence. Further support for these core areas will be presented in Chapter **??** at the end of this book. One of the findings is the identification of two "hotspots" of MVC formation in Eastern Indonesia, matching the feature convergence zones in the TAP and the Bird's Head area, respectively. Moving away from these centres, the Moluccas, the lesser Sunda islands west of Alor and Pantar, and even more so Sulawesi, form the western transition zone where Eastern Indonesian features gradually diminish and Western Austronesian features become more and more prevalent. Table 1.2 below summarises the features as discussed in the previous sections.

The main purpose of this section was to make the reader aware of the shared linguistic history through which the EI languages have converged on a number of features. Although most of the features fade out as we move away from the central zones of linguistic Wallacea, it seems helpful to also take the more peripheral areas into consideration. As I pointed out at several occasions, it is first and foremost the Sulawesi languages that reflect features of linguistic Wallacea, and should therefore not be excluded at this stage. Just like Wallace himself was unsure about the biogeographical status of Sulawesi, it appears that no consensus has yet been reached as to its linguistic status either. As some of the Sulawesi languages quite clearly exhibit MVCs, a selection of five Sulawesi languages has been included in the data sample.

The following section serves to introduce the languages analysed in this book with a focus on their verbal system, as an understanding of this is required to evaluate the findings presented in later chapters.

Table 1.2: Overview of shared linguistic features in Eastern Indonesian languages as discussed by the different authors.

Feature	Himmelmann 2005c	Klamer et al. 2008	Schapper 2015		Reesink 2005
			M[a]	W[b]	
syntactic					
negator placement	x	x	x		
noun-numeral	x		x		
noun-genitive	x	x	x		
word order	x	x			x
grammatical					
(sym) voice	x				
inclusive/exclusive		x			x
inalienability	x	x			
possessive classification			x		
narrative/equational clause	x				
person marking device	x				
semantic alignment				x	
number-conditioned ablaut					x
experiential constructions					x
instrument prefix					x
lexical					
complex numerals			x		
neuter gender				x	(x)
#muku				x	
synchronic metathesis				x	
pronominal 1SG 2SG					x
phonological					
velar nasal			x		

[a] Melanesian
[b] Wallacean

1.4 Introduction to the languages

The languages of the sample are both strikingly heterogeneous and similar at the same time, depending on which feature is assessed. They are quite different in terms of genealogical affiliation, as we have seen, but also when it comes to grammatical features. For instance, while some of the Austronesian languages from Sulawesi show (symmetrical) voice systems and employ grammatical formatives on the verb to mark off actor and undergoer constructions, voice marking, and voice in general, is largely absent from most parts of EI and does not figure in the other languages of the sample. At the same time, languages that are not closely related or not related at all, do show strikingly similar features (some of which I have already introduced in §1.3 on linguistic areas). But there are also other grammatical features that recur across EI. For instance, many Austronesian and Papuan languages make use of person-marking systems on the verb, and they even show similar restrictions on using these person markers. In Kambera (Austronesian) and in some AP languages (e.g. Abui, Western Pantar, Kaera), properties of the O argument suppress the use of the argument indexer[6] on the verb. These include, for instance, inanimate, indefinite, or non-specific Os.

As the focus of this work is on verbs, their function and patterns of combination within the wider clausal and sentential context, the following introduction to the languages will be restricted to properties that prove to be relevant in the later course of the study. This will give us some idea about what verbs are (like) in the languages of EI. Two properties are of particular importance: the patterns of verbal inflection (collapsed into the notion of headedness in Chapter 2), and predominant constituent order, as this will be shown to bear on some of the MVC construals found across EI.

1.4.1 Sulawesi

There are five languages from Sulawesi in the sample, covering two distinct areas (see Figure 1.9 below). Tajio and Pendau belong to the Tomini-Tolitoli group that is spoken in the province Sulawesi Tengah (Central Sulawesi).

[6] There is a considerable discussion in the literature on the status of person-marking on verbs. Notions like "agreement" and "bound pronouns" seem not always applicable from a typological perspective. The term *argument indexing* (or *indexation*) has been proposed as a more neutral concept covering both speech-role forms (referencing speech act participants) and allophoric forms (for non-speech role referents) (Haspelmath 2013). In what follows, I will adopt this terminology and group the different person-marking systems in EI under the label *argument indexing* (my use of *crossreferencing* is interchangeable with *indexing*).

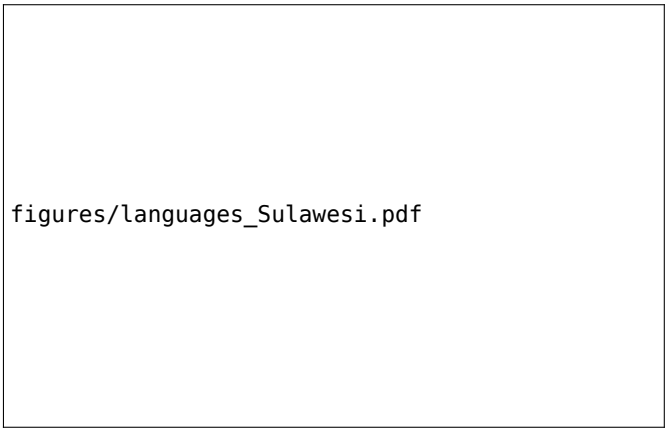


Figure 1.9: Distribution of languages from the Sulawesi subarea.

Typologically, both languages belong to Himmelmann's symmetrical voice-languages and display a range of Philippine-type features, the most prominent one being a symmetrical voice system with two basic transitive constructions, each marked by overt morphology. Both Pendau and Tajio differentiate between an actor and an undergoer voice construction. In Pendau, the grammatical subject (or pivot[7]) is defined by position in the preverbal slot, as Quick shows (Quick 2007: 124). If the undergoer argument becomes the pivot in an undergoer voice construction, the NP is moved into preverbal position in order to be marked as pivot. Explicit verbal morphology on the verb specifies the pivot as being the undergoer.

(9) Pendau (Austronesian, WMP; Quick 2007: 124)

Pendau

a. *siama'u*	*nonuju*	*siina'u*
si=ama='u	N-pong-tuju	si=ina='u
NM=father=1SG.GEN	RLS-SF-send	NM=mother=1SG.GEN
Pivot=A		**Non-pivot=P**

'MY FATHER sent my mother.'

b. *siama'u*	*nituju*	*niina'u*
si=ama='u	ni-tuju	ni=ina='u
NM=father=1SG.GEN	IV.RLS-send	NM.GEN=mother=1SG.GEN
Pivot=B		**Non-pivot=A**

'My mother sent MY FATHER.'

[7] As the NP sensitive to a given grammatical process is more cautiously called by most research on subjects in Philippine-type systems.

In (9a), the argument *siama'u* receives an actor interpretation whereas in (9b), it is assigned the undergoer role by virtue of the undergoer voice formative on the verb.[8] A further parameter in this construction pair is constituent order alternation. For both the *nong-* and the *ni*-construction there is also a predicate-initial order of constituents available: A *nong*-V O may be replaced by *nong*-V O A, and O *ni*-V A can give way to an alternative order *ni*-V A O (Quick 2007: 366).[9]

Another feature of Pendau (and Tajio) that is shown by the examples above is that the verbs do not carry any person-marking morphology that would cross-reference the arguments with the syntactic functions of the clause. The verb stem does take a lot of formatives at times, basically stem-forming morphology and valency-increasing applicatives and causatives, yet there is no direct link established to the NPs in the clausal context other than by position in the clause (as well as through subtle variation in the assigment of the nominal markers, note for instance the switch from absolute case to genitive case in the actor argument in (9b)). The Tajio voice system works in a quite similar way, and shows related formatives *noN-/moN-* for actor voice realis/non-realis, and *ni-/nu-* for undergoer voice realis/non-realis (see Mayani 2013 for further details).

Notably, serial verb constructions are mostly confined to cases where uninflectible directional verbs interact with voice-marked verbs. A first example for illustration is given below in (10) from Tajio.

(10) Tajio (Austronesian, WMP; Mayani 2013: 289)

Tajio

sia'u	*jiopo*	*mai*	*nendiis*
sia'u	jio=po	mai	ne-ndiis
1SG	NEG=CONT	go.to	DYN.RLS-bath

'I have not gone for a bath yet.'

[8] Note that Quick argues for this system to be a pragmatic inverse system on a par with inverse systems found, for instance, in some North American languages. Whatever the advantages for such an analysis may be, the Pendau system is in essence one variant of a symmetrical voice system. Both voice constructions are equally basic in terms of morphological marking as well as in terms of frequency (the *ni*-construction was about 20% more frequent in Quick's analyses, Quick 2007: 580). The term inverse, however, implies that some system is flipped from its normal state to a marked/unnormal one. As this is clearly not what proponents of the symmetrical voice approach want to state about voice systems of this type, I will treat the Pendau system as an "ordinary" symmetrical voice system.

[9] Here and in the remainder of the book, I will use the generalised role labels as introduced by Dixon (1979) and recently summarised by Bickel (2011): S – sole argument of an intransitive verb, A – most actor-like argument in a transitive verb, O – not most actor-like argument in a transitive verb, T – most patient-like argument in a ditransitive construction, and G – most goal-like or ground-like argument in a ditransitive construction (see Bickel 2011: 402ff.).

Tolaki, Muna, and Tukang Besi form the second group of Sulawesi languages in the sample. They are all spoken in the far south-east of Sulawesi. While the Tolaki community is located on the tip of mainland Southeast Sulawesi, the Muna and Tukang Besi speaking communities live on islands located off the mainland (Muna and Buton are larger islands close to the coast, while the Tukang Besi islands are smaller coral islands forming a chain out into the Banda sea).

In contrast to Pendau and Tajio, all three Southeastern Sulawesi languages make use of argument indexing systems where pronominal affixes or clitics on the verb crossreference NP arguments in the clause. In Tolaki, both subjects and objects in transitive clauses are crossreferenced by two sets of clitics on the verb. In intransitive clauses, the S argument may receive marking from either class, rendering Tolaki subject crossreferencing a fluid-S system (Mead & Youngman 2008: 115). Example (11) below shows a transitive clause with a prononimal subject argument and a full NP object that is crossreferenced by the suffix on the verb. Note that certain clause-initial monosyllabic function words may attract the subject clitic, drawing it off the verb.

(11) Tolaki (Austronesian, WMP; Mead & Youngman 2008: 114)
a-no *wohiki-'i* *ana-ndo*
and-3SG.NOM wash-3SG.ABS child-1PL.IN.GEN
'...and he washed our child.'

Tolaki

Tukang Besi has developed a similar system of pronominal subject and object indexing on the verb, yet showing an intricate interplay with case-marking articles of the (pro)nominal arguments in the clause. The basic unmarked transitive construction involves both subject and object indexing on the verb. The O argument follows in postverbal position and is marked with the nominative article *na*, the A argument comes last and is assigned the core article *te* (cp. example (12a) below). If the pronominal object indexer on the verb is left out, however, the case-marking system shows the reverse pattern: now the O argument receives the core case marker *te*, while the A argument is coded as nominative by *na* (as in (12b)). Donohue (1999: 53) analysed this system as some kind of Philippine-type voice system, though he pointed out that the "normal transitive" construction is the one with pronominal object indexing, accounting for about 70% of the forms found in texts and being in fact the only choice for some verbs. Therefore, the Tukang Besi voice system does not match the characteristics of the symmetrical voice systems found elsewhere in Sulawesi. The pair of examples in (12) illustrates the switch pattern.

(12) Tukang Besi (Austronesian, WMP; Donohue 1999: 53)

Tukang Besi

a. *no-kiki'i-ko (na iko'o) te beka*
3.RLS-bite-2SG.OBJ NOM 2SG CORE cat
'The cat bit you.'

b. *no-kiki'i te iko'o na beka*
3.RLS-bite CORE 2SG NOM cat
'The cat bit you.'

The Muna inflectional system is a bit different again. Subject indexing is expressed via three classes of subject prefixes, basically dividing the Muna verbs into three classes: dynamic intransitive verbs mostly take class I prefixes, transitive verbs take class II prefixes, and stative intransitives take class III, albeit with exceptions. Object inflection, on the other hand, is not a crossreference system but involves pronominals attached as suffixes to the verb. Examples (13a) and (13b) illustrate a pair of transitive clauses. In the first clause, an NP object does not trigger object inflection on the verb, while a pronominal object in the second case does. A further interesting feature of class II prefixes is the so-called definiteness shift that occurs with definite objects. If the object is definite, the class II prefix on the verb shifts to a class I prefix (in the example, the shift is from *ne-* to *no-*).

(13) Muna (Austronesian, WMP; van den Berg 1989: 65)

Muna

a. *ne-pepe-mo se-mie*
3SG.RLS-hit-PRFV one-person
'He hit somebody.'

b. *no-pepe-kanau-mo*
3SG.RLS-hit-me-PRFV
'He hit me.'

Other typical Sulawesi features that occur in all five languages include a bipartite mood marking system on the verb, assigning realis or irrealis mood either through variation of the nasal segment in verbal prefixes, or through changes in the vowel quality of subject agreement prefixes. A further conspicuous feature of most Sulawesi languages is the system of aspectual enclitics attached to the verb. These clitics come in two shapes *=nV/=mV* and *=pV*, the former denoting perfective 'already'-type semantics, the latter one denoting continuative 'still'-type semantics (example (13a) above illustrates the former aspectual in Muna). The

placement of these aspectuals poses an interesting challenge to the delimitation of multi-verb sequences as they are sometimes attracted to the first verb, and sometimes to the last one, possibly reflecting underlying constructional differences. Table 1.3 sums up the main verbal features of the five Sulawesi languages.

Table 1.3: Overview of basic verbal features of the Sulawesi languages in the data set. Constituent order lists only the basic pattern, pragmatically induced alternative patterns are often also available.

language	constituent order	argument indexing	other verbal inflection
Pendau	SV, AVO	–	voice, mood
Tajio	SV, AVO/VOA	–	voice, mood
Muna	VS, AVO	S/A crossref	mood
Tolaki	SV, AVO?	S/A, O crossref	–
Tukang Besi	VS, VAO	S/A, O crossref	mood

1.4.2 Nusa Tenggara

Where the languages of Sulawesi put most informational load on the verbal head of the clause, for instance by argument indexing formatives, stem-forming morphology, voice and mood markers, the languages of Nusa Tenggara show only limited verbal morphology. Moving from west to east, we can see that Kambera still retains a rich person marking system on the verb, while the Papuan languages of Alor and Pantar only occasionally show verbal person marking, and the Austronesian languages Alorese and Waima'a have lost all verbal morphology and have developed towards highly isolating languages.

The Austronesian language Kambera is spoken on the island of Sumba, located south of the Sunda-Banda island chain. Kambera is the westernmost language of the Lesser Sunda islands that has been included in the sample (cf. Figure 1.10), and presents some features that are more reminiscent of Western Austronesian languages than of the languages of Eastern Indonesia. The verb system features four sets of pronominal clitics, each marking one of the "cases" nominative, genitive, accusative, and dative. The crossreferencing system in Kambera is sensitive to certain clitic sequences and to definiteness in NPs, both of which may influence the clitic choice and combination on the verb. Example (14a) shows a canonical transitive construction. Both NP arguments are optional as their properties are

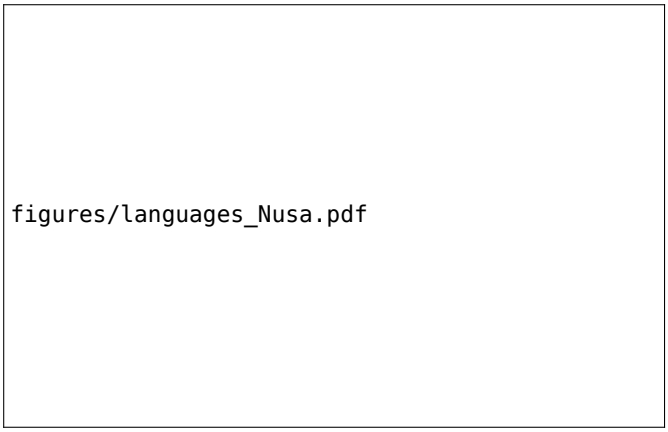


Figure 1.10: Distribution of languages from the Nusa Tenggara subarea.

coded by clitics on the verb. The next two examples in (14b) and (14c) illustrate two situations which prohibit crossreferencing of all three arguments on the verb. In (14b), the sequence of two third person objects causes the direct object clitic to be omitted. In (14c), the direct object also fails to be crossreferenced on the verb because it is indefinite.

(14) Kambera (Austronesian, CMP; Klamer 1998: 63f.)

Kambera

a. *(na tau wútu) na-palu-ka (nyungga)*
ART person be.fat 3SG.NOM-hit-1SG.ACC I
'The big man hit me.'

b. *I Ama na-wua-nja$_k$ [na heu na njara]$_j$.*
ART father 3SG.NOM-give-3PL.DAT ART one.CLF ART horse
'Father gives them one horse.'

c. *(I Ama) na-kei-nja rí.*
ART father 3SG.NOM-buy-3PL.DAT vegetable
'Father buys them vegetables.'

A further conspicuous feature of Kambera is the presence of overtly marked subordinating constructions: a verbal prefix explicitly marks controlled clauses as well as nominalised/relativised subordinate clauses. Overt subordination strategies such as these replace certain types of MULTI-VERB CONSTRUCTIONS, and set

Kambera apart from all other languages in the data set.[10] The following examples illustrate the use of overtly marked subordination in Kambera. Example (15a) shows a combination of a nominalised subordinate clause that is linked to the direct object of the matrix clause via the relativiser *pa-*. In (15b), the subordinate clause is marked as a controlled clause by a homophonous *pa-*, indicating that the subject of the matrix clause controls the subject of the embedded clause.

(15) Kambera (Austronesian, CMP; Klamer 1998: 338)

Kambera

a. *ta-pakiri-nya*$_j$ [*na pa-tinu-nda*]$_{NPj}$
1SG.NOM-start-3SG.DAT ART REL-weave-1SG.DAT
'We start (with) (it) our weaving.'

b. *ta-pakiring* [*pa-tinu-nya* *na lau* *haromu*]
1SG.NOM-start CTR-weave–3SG.DAT ART sarong tomorrow
'We start weaving/to weave the sarong tomorrow.'

The other Nusa Tenggara languages of the sample are markedly different from the Kambera type. Most of these languages are characterised by two tendencies. First, there is a (massive) reduction in verbal morphology (including person-marking clitics), leading to languages with little or no verbal formatives. And second, if inflection on the verbs is retained, we often find irregular inflection patterns.

If verbal inflection is present, the languages typically exhibit person-marking prefixes or clitics. The Papuan languages show some variation with regard to the number of person-marking paradigms. Schapper (2014) reports that West Alor languages typically have three paradigms, east Alor languages two paradigms, and Pantar languages only one paradigm. In terms of verb morphology, we may group the remaining Nusa Tenggara languages in the sample into two classes. First, languages that show regular argument indexing in some category, or retain part of their indexing system although the system is not completely obligatory and omission of person-markers is triggered by grammatical or lexical factors:

[10] A putative further case where a language might be analysed as having non-finite morphology is the *-um-* infix in Tolaki. However, the occurrence of *-um-* is dependent upon a range of phonological, morphological, syntactic and pragmatic factors, rendering it an unstable indicator for non-finiteness. The data are further complicated by the existence of a homophonous *-um-* morpheme that appears to mark repetitive action in manner of motion verbs. See Mead & Youngman (2008: 117) for further discussion.

this applies to Abui, Teiwa, Klon, Bunaq, Western Pantar, and Kaera. And second, languages that have either lost their verb morphology completely or still display remnants of person-marking, but only under specific phonological or lexical conditions. This pertains to Makalero, Tetun Fehan, Alorese, and Waima'a, with the former two showing residual marking patterns, and the latter two being (almost) completely isolating. All three Austronesian languages go in this second group. For the Papuan TAP languages, Klamer & Schapper (2012) summarise the number of person-marking paradigms and the alignment system. Here, I only show those languages that are in the sample.

Table 1.4: Overview of TAP prefix paradigms and alignment types (taken from Klamer & Schapper 2012: 178), the Kaera data were added from Klamer (2014a: 128).

island	language	no. of prefix paradigms	alignment
Pantar	Western Pantar	1	split-S
	Teiwa	1	accusative
	Kaera	3 (1)	accusative
Alor	Klon	3	split-S
	Abui	5	split-S
Timor	Bunaq	1	accusative
	Makalero	(1)	(accusative)

Abui is the language with the most abundant verb morphology in the TAP group. Abui has both person-marking prefixes and aspectual suffixes on the verb, showing more formative load on the clausal head than is found in most of the other TAP languages. As in other Papuan languages of the area, it is only undergoer arguments that may be crossreferenced by bound pronouns on the verb. A arguments are always expressed by free forms. A feature that seems quite common in the Nusa Tenggara area is that the person-marking systems found on the verbs regularily interact with certain properties of the crossreferenced argument. We have already seen that in Kambera indefinite arguments fail to attract a crossreferencing clitic on the verb. This is mirrored in Abui and other TAP languages by similar interaction mechanisms. In Abui, person-marking is found to be sensitive to contrasts in specificity. For instance, the two object referents in

(16a) and (16b) evoke different crossreferencing patterns. While the amount of wood is non-specific in the first clause and thus no clitic appears on the verb, it is given a specific reading in the second clause by means of the undergoer clitic.[11]

(16) Abui (Papuan, TAP; Kratochvíl 2007: 179)

Abui

a. *maama bataa fak-d-a*
father wood break-hold-DUR
'Father splits wood.'

b. *maama bataa he-fak-d-a*
father wood 3II.LOC-break-hold-DUR
'Father splits the wood. (the nearer defined quantity of wood)'

Two further characteristics of the Abui grammar become apparent in the example pair above. First, there is a set of aspectual suffixes that attach to the verb. These suffixes are not obligatory in the sense that every verb has to have one. Yet if a verb takes one, there is a constraint concerning the stem allomorph of the verb: Verbs in Abui show stem alternations. These alternations affect the coda and express either completive (final boundary), continuative (no boundary) or inceptive events (initial boundary). That is, aspectual encoding in Abui is at least distributed across two different grammatical layers. Second, according to Kratochvíl's analysis, Abui not only has a great wealth of serial-verb constructions at the syntax level, but also another layer of verb combination, which he names complex verb (formation). Just like *fak* 'break' and *d* 'hold' are argued to yield *fak-d* 'split' in (16a), verbal roots are often presented in compounds and seem to interact in non-trivial ways with verb combinations at the the syntactic layer. This complexity in verb formation would be quite exceptional (reminiscent of the Kalam verb system), and appears to be completely unparalleled in both AP languages as well as in the other languages of Easten Indonesia. In fact, there have been doubts that Abui verb roots can indeed be decomposed in such ways (Antoinette Schapper, p.c.; comments from an anonymous reviewer). Therefore, and in order to enhance readability, I will paraphrase all complex verb roots in Abui by leaving the verb compound intact and glossing it the way the free translation suggests. In the above examples, for instance, the verb would read *fakd-* and be glossed as 'split', just as indicated by the free translation.

[11] Class II clitics are referred to as "locatives" by Kratochvíl, and comprise "prototypical locations, including the benefactives and malefactives (human location), theme (location of the event), and purpose (location in time)" (Kratochvíl 2007: 188). Argument indexing in Abui thus includes a range of non-prototypical core arguments exceeding the number of argument roles that are reported to be indexed in other TAP languages.

Turning to the other languages in this group, we find that, for instance, Western Pantar has a single set of argument indexing prefixes that are obligatory with one (small) set of verbs, optional with another (the majority), and illicit with still other verbs (basically stative intransitives, Holton 2014: 76). Depending on the verb, the prefix may either denote an undergoer argument (O or G), or, in some cases, two prefixes occur in sequence with the first one marking the A argument and the second one the O argument, as in (17). NP arguments may optionally stand in apposition to a person-marking prefix (cp. (18a)), but may also be dropped. The person-marking system is sensitive to contrasts in animacy. If the undergoer referent is inanimate, no co-referential pronoun may occur next to the bound prefix on the verb (18b).

(17) Western Pantar (Papuan, TAP; Holton 2014: 77)
ke'e pi-ga-ussar
fish 1PL.IN-3SG-catch
'We are catching fish.'

(18) Western Pantar (Papuan, TAP; Holton 2014: 77)

a. *nang bla ga-niaka*
1SG.ACT house 3SG-see
'I saw the house.'

b. **nang gaing ga-niaka*
1SG.ACT 3SG.UG 3SG-see

Kaera, a neighbour to Western Pantar and Teiwa on Pantar island, has a similar indexing system. Transitive verbs in Kaera fall into three classes which either always take a person-marker to encode O, or optionally take a person-marker, or never express O with a prefix but only with a free NP. This pattern looks quite like the Western Pantar system in that it depends on the verb lexeme whether or not a prefix is required. Interestingly, however, among the smallish class of five verbs in Western Pantar that obligatorily trigger indexing are two verbs, *-niaka* 'see' and *-kkang* 'hit' (Holton 2014: 77), the equivalents of which in Kaera belong just to the opposite class: *lal-* 'see' and *kup-* 'hit (thing, person)' refuse bound O-constituents on the verb.

The suffix slot in Kaera may either be filled with a marker of clause-final position, or with one of three aspectual suffixes. The phonological shape of the verb root determines whether or not the clause-final marker *-o* is attached. Example (19) shows two clauses. In the first clause, the verb receives the clause-final

marker due to its position at the end of the clause. In the second clause, the verb is followed by an aspectual and therefore not marked with *-o*, but instead occurs with one of the aspectual suffixes that are restricted to verbs in non-final position.

(19) Kaera (Papuan, TAP; Klamer 2014a: 142)

Kaera

a. *ging tei gu patak-o*
   3PL tree that cut-FIN
   'They cut that wood.'

b. *ging tei gu patak-i sei*
   3PL tree that cut-PRFV COMPL
   'They have cut that wood.'

Klon, Teiwa, and Bunaq basically all show variations of these patterns. Teiwa indexes animate O arguments with prefixes on the verb, and has a reduced reality status inflection consisting of just one morpheme, *-Vn*. It marks "whether an event has been realized ('realis status') or not ('irrealis status')" (Klamer 2010: 245). The latter is zero marked in Teiwa. As the difference between a zero-marked irrealis and a potential bare verb cannot be determined from the published data, this feature causes serious problems in interpreting whether a given verb in a MVC is in fact inflected (through zero-marking) or not. S encoding in intransitive clauses is more straightforward in Teiwa than in other TAP languages: There is no semantic alignment, and the subject of unaccusative clauses is formally marked just the way subjects of unergative clauses are (Klamer 2010: 169). Klon, on the other hand, does have a semantic alignment system showing the familiar subcategorisation into obligatory and optional O indexing verbs. Some intransitive verbs always take an actor argument, some always take an undergoer argument, and some verbs can take either. According to Baird, alignment choice in Klon is effected by the parameters performance, effect, instigation, control, and affectedness (Baird 2008a: 52). Among the group of alternating intransitives, we find for instance that *g-emeq* (3UG.I-not.want) means 'she (inherently) doesn't want' while *ga emeq* (3SG.ACT not.want) translates as 'she (decidedly) doesn't want'. Bunaq essentially shows the same argument indexing system as in Western Pantar. Animate O arguments are indexed on the verb by a set of prefixes while inanimate Os are not.

We can see from the range of different indexing systems in TAP languages, as well as from their irregular patterns, that the general diachronic development

in these languages is directed towards a reduction of verbal morphology. Verbal inflection, be it argument indexing morphology, aspect morphemes or other formatives, can therefore not be regarded as obligatory anymore. As already indicated for Teiwa, this has repercussions for MVC analysis inasmuch as inflection is certainly not a constructional property. Its occurrence is in many cases too scant for any analysis trying to determine which verb is the "main verb" in a given construction. This trend to inflection reduction accords well with the second, still more isolating group of languages in Nusa Tenggara.[12] Here we can observe a later stage: the indexing systems as well as all other morphology is already on its way to being completely lost. Waima'a can be considered the isolating endpoint of this morphological breakdown. Waima'a does not have an indexing system on the verb, yet there is still verbal reduplication and a (partially productive) causative prefix *ra-*. Waima'a shows the basic Austronesian clausal syntax, having SV/AVO word order (with other orders being also quite common) and accusative alignment. Both S, A and O arguments are frequently elided if they are retrievable from context (Bowden 2006). For instance, in a context where fire making is already an established topic, the following utterance with elided O can be regarded unmarked:

(20) Waima'a (Austronesian, CMP; Bowden 2006: 29)
Waima'a
mai buni aku loo
come look 1SG make
'Come and see me make (fire).'

Tetun Fehan and Alorese are quite similar to Waima'a. They also show Austronesian SV/AVO constituent order and accusative alignment. Their argument indexing system, however, is still extant, being reduced to a class of phonologically defined verbs. In Alorese, only a handful of vowel-initial verbs still display argument indexing of the A argument (not O, as in the TAP languages). Furthermore, the verb 'eat' in Alorese is irregular and shows suppletion between *(g)Vng* and *-aka* (Klamer 2011: 61). In Tetun Fehan, an Austronesian language spoken on Timor (Fehan is one of the western Timorese Tetun dialects), we find just the reverse pattern: here, vowel-initial verbs do not index the subject anymore,

[12] Note that verbal morphology has been reconstructed for both Papuan TNG languages and Malayo-Polynesian languages. Although readers that are less familiar with the area might wonder whether absence of inflection in the Timor area could not be regarded as an ancient feature, the diachronic context into which the languages have been placed rather suggests a gradual erosion of inflection.

while h-initial verbs still retain a paradigm covering singular persons and 3PL,[13] and consonant-initial verbs still take the indexer *k-* for first person singular, but no other markers. Subject indexing in Tetun Fehan is a regular process, NP expression is optional and ellipsis of both subjects and objects is as common as in Waima'a. There is a further interesting difference between subject indexing on h-initial verbs and consonant-initial verbs. It is only h-initial verbs that all take subject marking in a verb series, while C-initial verbs in a series only inflect in V_1 position. Compare the following two examples from van Klinken (1999). In the first verb string in (21) the verbs *halai*, *hola* and *hikar* all take the subject indexer *n-* for third person. In (22), on the other hand, both verbs begin with a consonant other than h which is why the second verb, *nono*, does not take the person marker here.

(21) Tetun Fehan (Austronesian, CMP; van Klinken 1999: 174)
sia n-alai onan, n-alai n-ola n-ikar loro-sa'e-n bá
3PL 3-run IMM 3-run 3-take/via 3-back sun-ascend-GEN go
'They ran, ran away further to the east.'

Tetun Fehan

(22) Tetun Fehan (Austronesian, CMP; van Klinken 1999: 175)
ha'u k-bá nono wé á
1SG 1SG-go heat(.liquid) water DEF
'I went and boiled water…'

Tetun Fehan

The last language of the Nusa Tenggara group to be introduced here is Makalero, another one of the four Papuan languages spoken on Timor. Makalero is largely isolating with very few morphological processes on the verb. The only person marking device that still exists in Makalero is the formative *k-* that occurs with a smallish set of vowel-initial verbs and encodes O arguments. Example (23) illustrates the use of *k-*.

(23) Makalero (Papuan, TAP; Huber 2011: 253)
nana pere=ni muni k-afu=ni mu'a-ia-la'a
snake big.SG=LNK return 3.UG-carry=LNK ground-under:RED-move
'…having become a large snake, he carried her under the earth.'

Makalero

[13] van Klinken (1999: 173 footnote 5) notes that the missing subject markers for first and second person plural in Tetun Fehan have to be considered a diachronic loss as the reconstructed system of Proto Central Malayo-Polynesian has them, as well as neighbouring languages Dawan and Rotinese.

The distinction between bound pronominal *k-* and the free pronoun forms, however, is blurred in Makalero as the pronouns may also occupy the pre-verbal "complement" slot, apparently behaving like prefixes (at least this is suggested by Huber's transcription). Compare the following example where *ani* '1SG' appears to be prefixed to the verb *uta* 'kill'.

(24) Makalero (Papuan, TAP; Huber 2011: 350)
Makalero
ei=ni ani mei pa'uk-ini=si ani-uta=si
2SG=CONTR 1SG take bad-do:BD=LNK 1SG-kill=LNK
'It was you who destroyed me and killed me.'

A further exceptional feature of Makalero is a constraint on verbs against taking more than two arguments. Ditransitive configurations are resolved by making use of the light verb *mei* (developed from *mei* 'take'), as can be seen in example (24). Because the second argument slot of the verb *ini* 'do' is already occupied by the modifier *pa'uk* 'bad' (the pre-verbal complement slot triggers the use of a bound verb form, glossed with BD) *mei* takes over the role of the object-licensing verb, and the construction is literally speaking a trivalent 'you do me bad' with 'bad' acting as some kind of argument.

Summing up, we can see that the wealth of verbal morphology found in the Sulawesi languages gives way to more reduced verb systems in the Nusa Tenggara area with a marked decline of person-marking systems from west to east, culminating in highly isolating languages such as Waima'a on Timor. Both the Papuan and Austronesian languages in the area largely retain their inherited features in the clausal domain. For instance, while the Austronesian languages have SV/AVO word order, the Papuan languages are verb-final languages. A further genealogical trend can be found in the person-marking systems. Papuan languages tend to mark undergoer arguments, while Austronesian languages tend to index the actor argument on the verb. Table 1.5 summarises the main verbal features of the area.

1.4.3 Maluku

This language group forms a small sample, consisting of only five languages, three of them Austronesian, and two Papuan. They are all spoken in the Moluccas between the Lesser Sunda Islands and Timor in the southwest, and mainland Papua with the Bird's Head and Bomberai peninsula in the north and east. The Maluku languages come in two typological groups that differ considerably from each other. The southern group consists of Selaru and Buru, each spoken on one

Table 1.5: Overview of basic verbal features of the Nusa Tenggara languages in the EI data set. Constituent order lists only the basic pattern, pragmatically induced alternative patterns are often also possible. Brackets around person marking formulae indicate that the system does not apply to all verbs in all contexts. Grouping of languages is roughly according to the discussion in the prose.

language	constituent order	person marking	other verbal inflection
Kambera	SV, AVO	(S/A,O[+def])	–
Abui	SV, AOV	(O[+spec])	aspect
Western Pantar	SV, AOV	(O,G,(A))	–
Kaera	SV, AOV	(O)	aspect, final
Teiwa	SV, AOV	(O[+an])	"reality status"
Klon	SV, AOV	(S_O, O)	–
Bunaq	SV, AOV	(S_O, O[+an])	–
Waima'a	SV, AVO	–	–
Alorese	SV, AVO	(A)	–
Tetun Fehan	SV, AVO	(S/A)	–
Makalero	SV, AOV	(O)	–

of the many islands between Timor and mainland Papua. The northern group is located on and off the island of Halmahera in the northern Moluccas (see Figure 1.11 below).

Selaru is an Austronesian CMP language with typical SV/AVO constituent order, prepositions and subject indexing by prefixes on the verb. Subject indexing is a regular process and each verb is marked by one of three inflectional classes. The choice is triggered by the stem onset. As in many of the TAP languages, animacy plays a role in Selaru. Inanimate subject referents are crossreferenced on the verb with a special prefix that is neutral with regard to number agreement. Consider example (25) below.

(25) Selaru (Austronesian, CMP; Coward 2005: 66)

Toto,	*mbwa*	*ti*	*mal*	*masire*	*ma*	*kele*	*ksyoyeta*	*bakbakare*
toto,	mw-ba	ti	mw-al	masy-Vre	ma	kele	ky-soyeta	bakbak-Vre
boy,	2SG-go	CONJ	2SG-get	fish-PL	CONJ	then	INAN-replace	dry-PL

'Boy, you go and get some fish in order to replace the dried ones.'

Selaru

While the animate subject is indexed on each of the first two verbs by the second person singular prefix *mw-*, the fish from the second VP is reintroduced as the subject of the following clause by use of the inanimate prefix *ky-*.

Figure 1.11: Geographical distribution of languages from the Maluku subarea.

A striking feature of Selaru is that MVCs are infrequent and occur in rather unexpected types. One reason for this is that Selaru employs two semantically unspecific linkers, *ti* and *ma*, both of which appear to be grammaticalised from motion verbs.[14] These linkers appear in most contexts where in other languages of the EI area we would find unmarked verb sequences. Example (25) from above illustrates this nicely with the motion-action sequence *mbwa ti mal*. In virtually

[14] The origin of *ma* seems clear from a vast range of surrounding Austronesian and Papuan languages many of which still show reflexes of a reconstructable motion verb *mai 'come' (Ross et al. 2008 give PAn *maRi, *mai 'come', PCEMP *mai 'come' and POc *mai, *ma 'come'/DIR (towards speaker)'. The origin of *ti* is less clear. In Waima'a, there is a motion goal verb *tii* meaning 'arrive' or 'until' in a temporal sense, and Tetun Fehan has *ti'a* meaning 'already' both of which are reminiscent of Indonesian *tiba* 'arrive' but I have not come across any proposed reconstruction. Selaru seems to use a verb stem *-ait* for 'arrive' (Coward 2005: 175).

all other languages such a sequence would be expressed by a plain MVC, yet in Selaru one of the two markers overtly chains the two verbs together. Apart from the low use of MVCs, Selaru is a rather typical representative of an Eastern Indonesian language, showing for instance possessive classification with alienable and inalienable constructions (the former of which marks a further split into edible and non-edible possessums) and object preposing (functionally similar to passive alternations, although there is no real voice distinction in Selaru).

Buru is in some ways similar to Selaru, including the overall scarcity of MVCs, although Grimes (1991) reports on a range of MVC types. In contrast to Selaru and the other languages included in the Maluku subsample, Buru has lost all inflecting devices on the verb (while retaining a rather elaborate set of derivational prefixes and suffixes). Buru is therefore, from a verb-morphological perspective, more similar to Waima'a and Alorese than it is to Selaru.

The other three languages from the Maluku group are both spoken on Halmahera and surrounding islands. Taba (or East Makian) is another Austronesian language, genealogically belonging to the South Halmahera-West New Guinea branch and showing the by now familiar Austronesian word order pattern SV/AVO. Bowden (2001: 144f.) points out that while Taba meets most of the typological expectations connected to word order-correlations in VO languages, it does show some sign of deviation, most prominently from the preposed possessor order that Himmelmann (2005c) argued to be a general trait of Eastern Indonesian (Austronesian) languages (see §1.3.1). Actor arguments are expressed by cross-referencing prefixes on the verb. As Taba has developed a split-S system, this pertains to A and S_A arguments. Undergoer S_O arguments are not subject to verbal indexing though pronominal S_O arguments are placed in postverbal position instead of expected SV. In some MVCs, this split leads to interesting constructions where the participant is marked twice, one time as the actor and one time as the undergoer. Consider the example in (26).

(26) Taba (Austronesian, SHWNG; Bowden 2001: 300f.)
nwosal máddodang i
n=wosal máddodang i
3SG=stand be.straight 3SG
'He's standing up straight.'

Taba

The pronoun *i*, which is optional here, is postposed and thus denotes a S_O argument. It is coreferential with the S_A argument indexed on the first verb. This construction is thus similar to reflexive and middle voice constructions (Bowden 2001: 301), and is mirrored in Taba by another peculiar construction. Verbs of

excretion in Taba not only show an indexed actor argument, but also a set of suffixes that are otherwise completely absent from that language. Compare example (27).

(27) Taba (Austronesian, SHWNG; Bowden 2001: 196)
Taba
Buang nciwi
Buang n=sio-i
Buang 3SG=shit-3SG
'Buang shat.'

Just as in (26), we see that a single participant receives actor and undergoer encoding at the same time. A similar, albeit distinct, construction is also found in Tobelo, one of the Papuan languages that form the closely related Northeast Halmaheran group.

Tobelo retains many Papuan features, including conservative SV/AOV word order, postpositions, gender (male, female, non-human) and noun markers. Core-arguments are indexed on the verb by two sets of prefixes (called subjective and objective paradigm respectively, see Holton 2003: 38). The single argument of active intransitives as well as the A argument of transitives are indexed by the subjective paradigm occupying the initial prefix slot. The single argument of stative intransitives and the O argument of transitives, on the other hand, are marked in the second prefix slot by the objective paradigm. Example (28) illustrates a minimal transitive construction in Tobelo (ellipsis being common for topical arguments).

(28) Tobelo (Papuan, NH; Holton 2003: 39)
Tobelo
i-hi-goli
3-1-bite
'It/they bit me.'

Now, there is a further quirk in Tobelo's active-stative system in that the stative intransitives appear to be encoded just like transitive predicates. While the S_O argument is indexed by the objective paradigm in the second slot, the first slot invariably shows neutral third person singular *i-*, effecting some kind of pseudo-transitive construction. Compare the following example:

(29) Tobelo (Papuan, NH; Holton 2003: 38)
Tobelo
i-hi-pehaka
3-1-wet
'I am wet.'

The Taba excretion construction can be formally differentiated from Tobelo's stative intransitives by the fact that the former shows person and number agreement in both markers, while the latter always has 3SG.NH for the actor. What is common to both systems is that the referent appears to lack full control of the situation, which is apparently what is captured by the undergoer marking.

Tobelo has an array of further formatives appearing on the verb, such as applicative, distributive, intensifier morphology as well as a set of aspect suffixes denoting perfective, imperfective, repetitive, durative, and sequential events. These aspect suffixes are not obligatory, and do not form a viewpoint aspect system such as in Russian. They may occasionally also attach to host classes other than verbs (for instance to nouns and numerals). This makes Tobelo aspect suffixes category-independent (Holton 2003: 44), which casts doubt on the usefulness of theses suffixes as indicators of finiteness in verbs.

Tidore, another Papuan language of Halmahera, is morphologically less elaborate than Tobelo. Tidore verbs may take a subject prefix[15] inflecting for person and number (and partially for gender and animacy). Argument indexing, however, seems to be completely optional, without any apparent change as to well-formedness or sociolectal situation. Based on a small exploratory analysis of 80 turntaking units from one conversation, van Staden (2000: 79) reports that only about one third of all inflectible main verbs actually take an argument indexer. A verb that stays uninflected may thus be uninflected for two reasons: it may either be uninflected simply by pragmatic choice, or through grammatical restrictions. For instance, in the example pair (30), the second verb *tora* remains uninflected because of constructional constraints. The first verb, on the other hand, is free to accept a person marker or to remain bare.

(30) Tidore (Papuan, NH; van Staden 2000: 81)

Tidore

a. *ngofa ngge* *peka tora*
child 3NHUM.there fall go.downwards
'The child fell down.'

b. *ngofa ngge* *yo-peka* *tora*
child 3NHUM.there 3NHUM.ACT-fall go.downwards
'The child fell down.'

[15] In van Staden's grammar on Tidore, this prefix is called "actor prefix". It appears, however, that clear undergoer verbs such as 'fall' or '(be) drunk' also accept the prefix (see for instance example (30)). Two distinct person-marking paradigms that would convey differences in semantic roles, as we find in Tobelo, are missing in Tidore. In the examples from Tidore I left the ACT gloss in place though I do understand the prefix set as agreeing more generally to any argument in subject function.

Table 1.6 summarises some of the core features associated with the verb systems of the Maluku subgroup.

Table 1.6: Overview of basic verbal features of the Maluku languages in the EI data set. Constituent order lists only the basic pattern, pragmatically induced alternative patterns are often also available. Brackets indicate optional use of argument indexers.

language	constituent order	argument indexing	other verbal inflection
Buru	SV, AVO	–	–
Selaru	SV, AVO	S/A	–
Taba	SV, AVO	S_A/A	–
Tidore	SV, AVO	(S/A)	–
Tobelo	SV, AOV	S_A/A, S_O/O	aspect?

1.4.4 Western Papua

The last subarea is comprised of the westernmost part of mainland New Guinea: the Bird's Head peninsula down to Bintuni Bay, as well as the islands of Cenderawasih Bay to the east. The Bird's Head is a geographically diverse peninsula, ranging from the vast mangrove swamps in the Bintuni Bay area to the Tamrau and Arfak Mountains towering up in the north and east. The region is home to a couple of Papuan language families as well as to the West New Guina-subbranch of the Austronesian SHWNG phylum. As with the Nusa Tenggara group, I included 11 languages from this region in the dataset (cf. Figure 1.12).

I will discuss these languages in three groups. The first group includes the Papuan family-level isolates Abun, Mpur and Maybrat, as well as the SBH language Inanwatan. The languages of this group are all spoken in the north and west of the Bird's Head, Abun and Mpur along the northern coastline, Maybrat further inland on the central plateau, at the foothills of the Tamrau mountain range, and Inanwatan along the southwestern coast. The second group of languages is formed by members of the EBH family and the Hatam-Mansim family. They are all located in the eastern part of the Bird's Head. Third and last comes the group of Austronesian languages, including Biak, Dusner, Mor, and Wooi, which are all located in the Cenderawasih Bay area.

A few typological features apply to (almost) all of these languages (which is why Reesink 2005 speaks of West Papuan languages in a geographical sense) and can be discussed together. Constituent order in WP and the Austronesian

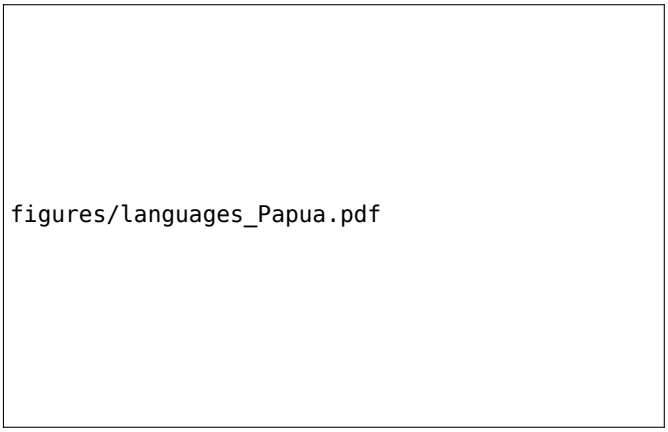


Figure 1.12: Distribution of languages from the Western Papua subarea.

languages is almost invariably SV/AVO with only Inanwatan showing Papuan AOV order (though direct objects may be placed postverbally, see Reesink 2005: 195; also de Vries 2004: 52f.). Almost all languages in the area have argument indexing prefixes on the verb (except Abun; Dol 2007: 5). Gender is a persistent feature only in the first group (except for Abun), and lacking in the EBH family, in Hatam and in the Austronesian languages (Reesink 2005: 205). A further syntactic hallmark is the placement of the negator which is clause-final, or at least post-predicate (Reesink 2005: 199), tallying well with Himmelmann's preposed possessor type in Austronesian languages of the area. The high degree of mutual influence between Papuan and Austronesian languages is also witnessed by strikingly similar phonemic shapes of the negators, many of them corresponding to a form #*va/βa* or #*te* (see Reesink 2005: 199 for discussion).

The three family-isolate languages of the first group, Abun, Mpur, and Maybrat, do not have any established genealogical context and hence are sufficiently different from each other in terms of lexical and grammatical properties.[16] Inanwatan, on the other hand, as a member of the SBH family, provides some evidence for a distant relationship to the TNG language family.

Of all WP languages, Abun "seems to have undergone the highest degree of morphological erosion, even to the extent that verbal affixation is totally absent" (Reesink 2005: 205). Instead of verbal morphology, many grammatical features in

[16] Maybrat has in fact been linked to the WBH family (of which no language could be included in the present data set), with traces of cognate structures in pronouns, gender distinction, and verbal prepositions (Reesink 2005: 187).

Abun are encoded by particles. As there is no argument indexing on the verb nor any case marking, Abun grammatical relations are entirely defined by position, i.e., the subject is always the NP that stands before the predicate (Berry & Berry 1999: 51). Objects may be fronted if topicalised, and they are also frequently subject of ellipsis. While SVCs do not constitute a distinct topic in Berry and Berry's grammar, they do note in passing that SVCs are not uncommon in Abun, and that there is some variation between speakers as to the placement of pronouns "to separate verbs" (Berry & Berry 1999: 51). Examples (31a) and (31b) serve to illustrate the basic linguistic structure of Abun clauses, as well as interverbal pronoun placement in SVCs. Note that both constructions involve a MOTION-TO-ACTION sequence, yet the coding differs in both cases according to the presence or absence of a subject pronoun marking the subject of V_2. While the first case looks like two juxtaposed clauses and thus arguably corresponds to the Kambera control construction using *pa-*, or to the Selaru linker construction, the second case is the expected unmarked construction that is typical for most of the other languages of EI.

(31) Abun (Papuan, isolate; Berry & Berry 1999: 52)

Abun

a. *ji mu ji git su-git mo nu*
1SG go 1SG eat NMLZ-eat LOC house
'I went and ate at home.'

b. *ye-suk-mise ma nai gwat an mu ket*
PERS-NMLZ-evil come capture carry 3SG go west
'The police came and caught him and took him westward.'

Mpur, Maybrat and Inanwatan, on the other hand, function quite differently and index S/A arguments, or S/A and O arguments (Inanwatan) on the verb. Mpur has S/A-indexing prefixes but indexing is only obligatory with human subjects. The 3SG indexer shows a split into masculine and feminine gender. The Mpur pattern is paralleled in Maybrat with the difference that the non-masculine gender is the unmarked gender associated with most nouns (i.e. those without male sexus), and the indexing system appears to be obligatory with all kinds of referents. Bisyllabic verb stems in Maybrat that have a C-initial second syllable do not, however, take overt person prefixes but may be analysed as covertly inflecting for person (see Dol 2007: 52f. for discussion).

Inanwatan is morphologically more complex and has a linguistic profile that is similar to that of the Marind languages from the south central coast of New Guinea suggesting an old genealogical relationship (de Vries 2004: 16). De Vries

notes that the Marind languages have four characteristic features that are also present in Inanwatan: (i) subject prefix followed by object prefix on the verb in a basic AOV clause; (ii) suppletive verb stems indicating plurality of the subject (and sometimes of the object); (iii) gender systems with agreement phenomena and with front vowels indicating masculine and back vowels indicating feminine gender; and (iv) coordination of fully inflected verbs instead of clause chaining with medial verbs, and no or marginal presence of serial verbs. The following examples illustrate properties (i) and (iii), respectively.

(32) Inanwatan (Papuan, SBH; de Vries 2004: 15)

Inanwatan

a. *iwáa-go* *suqére* *né-i-we-re*
yesterday-CIRC sago 1SG.SBJ-2PL.OBJ-give-PST
'Yesterday I gave you sago.'

b. *nó-opo-be-re* *né-ri-be-re* *né-re-be*
1SG.SBJ-take.a.bath-PRS-and 1SG.SBJ-eat-PRS-and 1SG.SBJ-sleep-PRS
'I took a bath, ate and slept.'

Example (32a) shows the order of indexers on a ditransitive verb with A and G being indexed while the T argument is only expressed via an NP. Generally, O and G indexing only happens when the object is either the speaker or the addressee, otherwise only S/A is marked on the verb (de Vries 2004: 35). Inanwatan has another two categories that cause inflection on the verb. First, there are three tenses, past, present and future tense, each marked by a tense suffix. And second, there is the habitual-durative suffix *-rita* (the only aspectual distinction marked that way) replacing the tense suffixes in events that occur habitually, repeatedly or prolonged (de Vries 2004: 38).

The second example in (32b) is an instance of Inanwatan clause coordination, a feature that is only marginally (if at all) present in other WP and Austronesian languages of the area. Event sequences of a similar sort may be found in other languages as well, though without overt coordination morphology. There are, however, other multi-verb sequences in Inanwatan that do not receive such coordination marking.

The three languages of the second group, Hatam, Sougb and Moskona, are structurally rather similar. They are all SV/AVO and they have subject prefixes on the verb. Otherwise their verbal morphology is quite simple. Gender as a nominal category is absent from Moskona, but there is a phonological distinction into alienable and inalienable nouns in that members of the former group begin with *m-*. Subject arguments are crossreferenced on the verb and may be omitted

if topical (Gravelle 2010: 269). Objects follow their verb and can be moved to a pre-posed topic position, as is common throughout the area. Moskona also marks irrealis on the verb by using the prefix *me-/m-*. The irrealis marker comes after the subject prefix and before a potential causative prefix. In negative polarity clauses, the verb always takes *me-* (Gravelle 2010: 110).

Related Sougb also has the Moskona features except for some minor differences: alienable nouns do not show a fossilised *m-* prefix but instead inalienable nouns appear to begin with a vowel (Reesink 2002a: 218). Verbs in Sougb are also phonologically restricted and begin with a [-HIGH] vowel, either /e/, /o/ or /a/. Sougb verbs may take subject indexing prefixes, the irrealis morpheme *em-*, and the instrument marker *a-*. The combination of these prefixes differs in the three verb classes with regard to vowel realisation in the stem and the prefixes (Reesink 2002a). The instrument marker is a phenomenon that occurs in a range of languages in the area (also Austronesian ones) and has repercussions for SVC analysis. I repeat two examples of the use of the instrumental prefix from Reesink (2002a) below:

(33) Sougb (Papuan, EBH; Reesink 2002a: 205)

Sougb

a. *dan d-eic kepta d-a-(e)hi sogo*
I 1SG-take machete 1SG-INS-fell tree
'I cut the tree with a machete.'

b. *dan d-et roti d-a-(e)k kopi*
I 1SG-eat bread 1SG-INS-drink coffee
'I eat bread and drink coffee.'

In the first example, a sequence of two verbs, *eic* 'take' and *ehi* 'fell' is connected by the use of the instrument prefix reanalysing the O argument of the first verb as the instrument of the second. TAKE-action sequences are quite common throughout Eastern Indonesia, but the instrument prefix here adds specific morphology to the construction disambiguating the verb string as a coherent unit. This is in contrast to other languages, especially in the Nusa Tenggara subarea, where the verbs are merely juxtaposed without overt argument-flagging. The second example in (33b) is different as the use of the instrument marker here seems to follow from the fact that "a previous predicate has introduced an instrument or an accompaniement" (Reesink 2002a: 205). One might wonder, however, whether the reading 'I eat bread and drink it by dipping it into the coffee' would not be preferred here.

Neighbouring Hatam also has an instrument prefix that appears on verbs in verb sequences. In fact, there are two homophonous morphemes *bi-* that seem to express quite related concepts though they clearly occupy different preverbal slots. While instrumental *bi-* appears after the person prefix and before the root, purposive *bi-* comes first in sequence right before the person prefix. The following example illustrates both items in their morphological context.

(34) Hatam (Papuan, Hatam-Mansim; Reesink 1999: 103)
yoni i-ba micim i-bi-dat dani bigom bi-di-mai
they 3PL-take spear 3PL-INS-pierce I almost PURP-1SG-die
'They almost killed me with their spear(s).'

Hatam

The first instance of *bi-* functions much the way Sougb *a-* does: the O argument of a previous verb is flagged as the instrument of the *bi*-marked verb. Note that the subject of both verbs remains co-referential. The second (purposive) *bi-* does not effect the reanalysis of a previous argument. Rather, what it seems to do is that the whole previous proposition becomes the reason or source for the *bi*-marked action to take place. Another feature of purposive *bi-* is that a change in subjects from V_1 to V_2 is possible. A further difference between the two markers is that only with instrumental *bi-* which takes up a previous argument the subject prefix marker on the verb may be dropped.

The last group to be discussed here is the Austronesian languages of Western Papua. Dusner and Biak are closely related. Both languages have reduced initial syllables in some roots leading to consonant clusters in the onset that are otherwise rare in Austronesia (for instance Biak *mnu* 'village', cf. Wooi *manu* 'house'). Wooi and Mor are phonologically simpler and have Austronesian CV(N) syllable structure. All languages make use of person marking on the verb, indexing subjects with prefixes and infixes. Infixes occur in 2SG and 3SG in Wooi, Dusner and Biak (with consonant-inital verbs, otherwise as prefix) but not in Mor which has only prefixes (zero-marked for 3SG on consonant-initial stems). Dusner and Biak have two 3PL subject indexers. In Dusner, the split is between human and non-human, while in Biak animate subjects are distinguished from inanimates.

All languages are straightforward SV/AVO and frequently prepose objects. In Wooi, preposed objects need to be crossreferenced by bound resumptive object forms distinguishing between indiviuated object referents and non-individuated (plural) objects. In the following example, the hero Ayraroy (placed in preposed topic position) is killed by his enemies (and is resumptively referred to by the clitic *=i*).

(35) Wooi (Austronesian, SHWNG; ethnic_war_1 081)
Ayraroy hemuni
A. he-mung=i
A. 3PL-kill=3SG.OBJ
'They killed Ayraroy.'

Further features of the Austronesian group include clause-final negators, complex determiner and directional systems, instrument prefixes (much like in the EBH languages and in Hatam), as well as prepositions and clause linkers/topic markers developed from verbs. Serialisation seems quite pervasive although there is some variation between Wooi, showing many types of multi-verb strings, and for instance Biak, where verb strings are mostly limited to CAUSE-RESULT sequences. Table 1.7 lists the crucial syntactic features.

Table 1.7: Overview of basic verbal features of the Western Papuan languages in the data set. Constituent order lists only the basic pattern, pragmatically induced alternative patterns are often also possible.

Language	Constituent order	Person marking	Other verbal inflection
Abun	SV,AVO	–	–
Maybrat	SV, AVO	S/A	–
Mpur	SV, AVO	S/A	–
Inanwatan	SV, AOV	S/A, (O)	tense, aspect
Moskona	SV, AVO	S/A	irrealis
Sougb	SV, AVO	S/A	irrealis, instrument
Hatam	SV, AVO	S/A	instrument
Biak	SV, AVO	S/A	instrument
Dusner	SV, AVO	S/A	instrument
Wooi	SV, AVO	S/A	instrument
Mor	SV, AVO	S/A	–

1.5 Summary

Summarising the findings from this chapter, we have seen that most of the languages of EI, although genealogically and typologically quite varied, share some basic features, such as argument indexing on the verb and clause-final negation.

The Papuan languages appear to fall into at least two areal clusters (leaving aside the North Halmahera languages): the TAP languages are verb-final languages with reduced and irregular undergoer argument indexing on part of their verbs. The West Papuan languages in the Bird's Head area, on the other hand, have converged on a couple of Austronesian features, such as adopting AVO word order and the inclusive/exclusive opposition. The Austronesian languages are more heterogeneous if we take into account the Sulawesi languages, the western outlier Kambera in the Nusa Tenggara group, or the highly isolating languages on Timor, such as Waima'a. If we abstract away a little further we may imagine the languages of EI along a west-to-east gradient as tending to lose verbal morphology up to Timor and gaining or preserving verbal morphology yet further to the east in the Northern Moluccas and Western Papua. While person marking appears to be quite constant throughout, TAM marking is prevalent only in the far west and the far east of the area, leaving Nusa Tenggara practically devoid of these verbal categories.

This review has focused on verb morphology for two reasons. First, languages differ as to which categories are marked on the verbs. Second, languages strongly differ in the extent to which verb morphology is used. The challenge here is not only the lack of overt morphology in isolating languages, but also that a set of languages does not have *reliable* verb morphology, in the sense that in annotating verbal inflection in MVCs one is not able to determine whether a given verb is inflected, would potentially be inflected (if it had other lexical or phonological properties), or is in fact uninflected. I will come back to the issue of verb inflectability in Chapter 2, where I will have another look at unreliable inflection.

In the next chapter, I will turn to the literature on verb serialisation, and explore in more detail the ways in which these constructions may be conceived of as coherent units. The chapter will then go on to explore the term MVC that is, I will argue, more suitable for an analysis of the EI dataset than the serialisation concept.

2 Grammatical properties

2.1 Introduction

Having arrived at a (somewhat preliminary) definition of MVCs in Eastern Indonesia, this chapter and the subsequent ones analyse the sample according to morphosyntactic (this chapter) and semantic patterns (Chapter ??). Chapter ?? then provides a combination of grammatical and semantic traits in order to establish potentially meaningful subgroups of MVCs. As van Staden & Reesink (2008) showed in their exploratory study on serial verbs in Eastern Indonesia, most languages in their sample did not just make use of one morphosyntactic construction type but showed variation in formal coding between different functional types. That is, out of 12 languages, only three (Buru, Kambera and Leti) had just a single morphosyntactic pattern, while all other sample languages employed at least two different construction types (Maybrat even had all four postulated construction types; see Table 2.1 below). The tendency in van Staden and Reesink's data is clear: although the languages in their sample tend to favour independent serialisation (with both verbs carrying full inflection), no absolute pattern was apparent.

> […] [W]hat we can observe is a set of general tendencies in this area that needs to be further explored. One such tendency is that independent serialisation is by far the most commonly found type. Co-dependent serialisation is very common for the expression of state changes, a finding also reported for many Oceanic languages (Lynch, Ross and Crowley 2002: 47). Otherwise, predicting the construction type on the basis of the semantics is not possible. There is no good explanation for the absence of complex verbs expressing instrument and comitative, nor is there any a priori reason why co-dependent serialisation does not express comitative. (van Staden & Reesink 2008: 48)

If there is no pattern visible in a given data set, two explanations could be tried: either there is no such pattern, regardless of how much data one may look at, or there really is a pattern, yet the resolution of the data set does not enable

a clear look at it. What I want to do in this chapter is to add more data to the picture and check whether the tendencies found by van Staden and Reesink can be replicated with the EI sample. Some of the oberservations reported by van Staden and Reesink will indeed turn out to be a result of limited data. For instance, while they found that "posture serialisation is completely absent" in East Nusantara (van Staden & Reesink 2008: 48), the present study does have a subset of languages that make use of constructions involving a posture verb in V_1 (see for discussion §?? in Chapter ??). The main message of this chapter, however, is that pattern predictability is quite low if we just look at the morphosyntactic level (supporting the preliminary findings from van Staden & Reesink 2008).

Table 2.1: Semantic notions expressed per construction type in 12 languages from Eastern Indonesia (adapted from van Staden & Reesink 2008: 47). Languages given in bold reappear in the present study. Note that Inanwatan does have MULTI-VERB CONSTRUCTIONS albeit at the word level. These constructions have been excluded as proper instances of serialisation in Van Staden and Reesink, but are included in the present study.

Language	Complex verbs	Independent	Dependent	Co-dependent	Totals
Inanwatan					0
Mpur		3		1	4
Tidore		5		3	8
Hatam		2	3	3	8
Moi	1	3		4	8
Maybrat	1	4	2	2	9
Kambera			1		1
Leti		1			1
Buru	4				4
Tetun (Fehan)	1	3	1		5
Taba		1?	4	1	6?
Ambon Malay (Creole)	3	1		1	5

One of the disadvantages of approaches like van Staden and Reesink's is that the categories are orthogonal to each other, that is, the different construction types are not based on the same invariant defining features. Rather, as already discussed in the last chapter, three major parameters have been used: independent and dependent serialisation differ in the behaviour of the morphosyntactic locus (both verbs inflected versus only one verb inflected). Co-dependent serialisation pertains to a switch in argument function, turning the direct object of V_1 into the subject of V_2. This type can occur both as independent as well as dependent serialisation. And finally, complex serialisation refers to contiguous verb sequences that share a common set of affixes (yet are different from verbal compounds by bearing independent intonational targets). Van Staden and Reesink are well aware of this categorial overlap, explicitly noting their way of dealing with it:

> […] [A] construction can be at once be [sic] analysed as a co-dependent SVC and either an independent or dependent SVC. When both analyses were possible, we sorted this construction with the co-dependent SVCs. (van Staden & Reesink 2008: 47)

The number of semantic notions coded by independent as well as dependent serialisation is therefore in fact somewhat higher in Table 2.1 as co-dependency was sorted separately. In order to avoid orthogonal categories and examine the interaction between the underlying features in the EI languages, the sample is coded for single features rather than for feature bundles. The discussion in Chapter ?? has evaluated a set of surface features that form the base of existing classificatory systems. Adjacency of the verbs is a key factor in Foley and Van Valin's typology into nuclear layer and core layer serialisation, and reappears in van Staden and Reesink's complex serialisation type (as a necessary prerequisite to the affix-sharing complex), as well as in Pawley's compact serialisation type ("strictly V-serialising"; Pawley 2008: 172). The feature *locus of inflection* figures in van Staden and Reesink's distinction into independent and dependent serialisation. Argument configuration, that is, the sharing or reanalysing of arguments in a given MVC, has received most attention in cases of switch-function. Van Staden and Reesink have devoted a specific construction type to this pattern: co-dependent serialisation. And predicate-to-argument reanalysis is known to constitute a distinct construction type in Oceanic languages such as Paamese ("ambient serialisation" in Crowley's terms; Crowley 2002).

Therefore, for each construction in the EI sample, the features locus of inflection, argument configuration, and contiguity (of verbal constituents) were

tracked as far as this was possible within the different languages. Their patterns across and within EI languages are laid out and discussed in the following sections. They are organised into three blocks: the first part of the chapter is concerned with variation in argument structure configuration. I distinguish between two broad types: Argument sharing, and no-argument sharing. Argument sharing subsumes all instances where two or more arguments are shared in the sense that there is referential identity between them. Two arguments may, for instance, be coded for different syntactic functions (object of V_1, subject of V_2), and yet refer to the same referent. The no-argument sharing type pertains to all those cases where there is no referential identity between arguments. In one subtype, however, the predicates within the MVC are intertwined by reanalysis of the first VP as subject of the second (the Paamese type mentioned above).

The second part of the chapter turns to constituent structure. Patterns in verb inflection are analysed here as variation in headedness. I will briefly introduce the concept of *head* in linguistics, and discuss to what extent the phenomenon of different inflection patterns in MVCs may reflect a hierarchical organisation of MVC-internal constituents. The last section then deals with contiguity, setting the focus on the distribution of constituents within MVCs and possible limits to constituent insertion between the verbs. The chapter closes with a summary of the morphosyntactic patterns in EI MVCs and leads over to Chapter **??**.

2.2 Argument structure

Each verb in a MVC refers to its own set of referents, introducing them into the discourse space as verbal arguments, with a semantic role and a syntactic function assigned to them. Introduced arguments from different verbs in a given MVC may on all three levels – referential status, semantic role, and syntactic function – either combine (that is, share the same status) or refuse to do so (that is, maintain separate states). Arguments in a MVC could then in principle be analysed as being co-referential, co-thematical and co-functional, in different combinations.

Co-functionality has long been recognised as a major feature of variation in verb serialisation, leading to classificatory systems such as van Staden & Reesink's, where a special category is devoted to functional switch constellations (two arguments from different verbs are co-referential and co-thematical but display different functional states).

Co-thematical semantics, that is arguments with identical semantic roles, are less well discussed. Based on a literature survey, Haspelmath (2016) puts up a classification along semantic roles rather than along syntactic functions, and calls the

different types argument-role types. He basically discusses agent sharing and patient sharing, in different configurations (Haspelmath 2016: 3ff.). One type combines agent sharing with patient sharing, that is, both subjects and objects refer to the same referent and share a semantic role.

Co-referentiality, at last, is the basic underlying factor: two arguments could of course be said to be co-functional in that both are, say, subjects, but this observation is only useful if both arguments are also co-referential. Otherwise no argument-sharing would take place (function sharing between arguments of two verbal constituents as such seems rather predictable in MVCs as every VP would license its own subject).

With these categories in mind, we can then, at least in theory, derive a set of different combinations between co-referentiality, co-thematicity, and co-functionality. Table 2.2 shows the potential combinations as well as their attestations in EI.

Table 2.2: Combination types of semantic role and syntactic function in shared MVC arguments.

		Co-referential	Co-thematical	Co-functional
(i)	(Not attested?)	x		
(ii)	Switch function	x	x	
(iii)	Same subject/object	x	x	x
(iv)	Participant introduction?	x		x
(v)	Participant accumulation?		x	x

If we assume that arguments which are shared by two or more verbs necessarily refer to the same referent, we end up with the first four options from Table 2.2: (i) the arguments are only co-referential but neither share the same semantic role nor the same syntactic function; (ii) the arguments are co-referential and in addition share the same semantic role but occur in different syntactic functions; (iii) the arguments are co-referential, co-thematical, and are expressed by the same syntactic function; or (iv) the arguments are co-referential and share the same syntactic function albeit without appearing in the same semantic role. To these four combination types, we may add a fifth one that seems to occur as a peripheral type: (v) the arguments share both semantic role and syntactic function, yet they are not (fully) co-referential.

Type (i) is not attested in the data set. Co-referentiality seems to be strongly associated either with a sharing of semantic roles, or with a sharing of syntactic function, mostly coinciding in all three categories. How could such an argument sharing look like? If one discriminates the semantic macrorole undergoer into semantic roles like patient or theme (see below for a discussion), one may regard the following example from Ewe, discussed by Ameka (2005) under the heading "consecutive" MVC, as a hypothetical case of type (i):

(1) Ewe (Niger-Congo; Ameka 2005: 18)
Ewe
tu-i *né* *me-mé* *o*
2SG-grind-3SG CONSEC 3SG:NEG-fine NEG
'Grind it and let it not be too fine.'

We can see in (1) that both verbs refer to an object to be crushed, perhaps in a mortar. The referent is in each case assigned a different syntactic function (direct object with the first verb, subject with the second), but the semantic role is also subject to change. While the grinding requires a patient role to be filled, the stative verb clearly does not impose such a role on its subject. We may rather call it a theme. Thus, a co-referential participant is "shared" among two verbs (and, in fact, two clauses), but is assigned different syntactic functions and different semantic roles.

Type (iii) is the most common type of argument sharing in the EI languages (as most probably also elsewhere). A same subject configuration with a subject-agent performing some action can be regarded as canonical. Example (2) from Wooi illustrates this case. The agent here is coded as subject on both verbs. The patient is the frog (referred to by *ehni*) which is also the implied object of both verbs and thus also shared, as in type (iii).

(2) Wooi (Austronesian, SHWNG; frogstory_Kosmus)
Wooi
herava *ehni* *hniow*
<i>harava ehni <i>how
<3SG>lift.up one:CLF <3SG>throw
'He took one (frog and) threw (it).'

Type (ii) basically covers the switch function cases: an argument receives the same semantic role twice (normally an undergoer role, most often the patient), yet the argument appears in two different syntactic functions (object of first verb, subject of second). Here is another Wooi example. The object of V_1, the boy and his dog, is reanalysed as subject of V_2, but the semantic role remains stable: in

both cases, the boy and the dog are in the patient role, being subject to the action performed by the agent (the deer).

(3) Wooi (Austronesian, SHWNG; frogstory_Kosmus)
kepateta *haru huntawa*
<i>kapateta haru hu-tawa
<3SG>shake 3DU 3DU-fall
'(The deer) shook them off.'

Wooi

Type (iv) scenarios are hard to find in the sample. They would need to have co-referential arguments with the same syntactic function, yet with different semantic roles.[1] One example for this type might be instrument introduction MVCs in which V_1 introduces an (object) referent by use of a TAKE verb. V_2 then takes up the argument as the understood instrument with which the action is carried out. At least from a lexical-based perspective, a co-referential argument would in this scenario appear first as an object-theme, and then as an object-instrument (see e.g. Durie 1997: 305 for examples of instrument serialisation). Other potential cases of type (iv) are occasionally (though very rarely) found in constructions that are already grammaticalised to a certain extent. Here is one more example from Wooi. A directed motion verb seems to introduce an agent-theme (the goer), but is then followed by an undergoer verb, *pandasia*, which has the meaning 'fall into water'. This second verb certainly renders the agent-theme a patient since the action takes place accidentally and without any volitional force.

(4) Wooi (Austronesian, SHWNG; frogstory_Kosmus)
haru hunda *humpandasia* *na*
haru hu-ra hu-pandasia na
3DU 3DU-go 3DU-fall.into.water LOC.ANA
'The two of them fell into the water at (that place).'

Wooi

[1] Recall from Chapter ?? that Givón's classification of SVCs into functional groups included a category of case-role marking (Givón 1991). This group appears to comprise exactly these cases, and one might assume that such SVCs often feature a shift in semantic roles. Research into SVCs has found this group to be strongly prominent in African languages (Birgit Hellwig, p.c.). This tendency is only weakly mirrored in some of the languages of Eastern Indonesia, and we shall see in Chapter ?? that, on average, other types are more predominant in the area. This points to overall differences between linguistic areas, with different ways of putting verb serialisation into practice.

Such combinations are so uncommon in Wooi as well as across the other EI languages, however, that I suspect the GO verb to fulfill a somewhat grammaticalised function here. The going could either be read as a sequentialising function ('then they fell into the water', as for example with *lako* 'go/then' in Tolaki; on Tolaki *lako* see §2.3.1.5), or as some kind of aspectual or epistemological encoding which is attested for directed motion verbs in other languages (for instance, the inceptive aspect function in Moskona, cf. Gravelle 2010: 297). In this scenario, the GO verb would not license an agent-theme participant any more, and we would probably be dealing with a plain type (iii). Alternatively, the grammaticalised V_1 would not assign a semantic role whatsoever, but rather act like a modifier.

Of these four types, type (iii) covers the bulk of MVCs in the sample. Type (i) is not attested, type (iv) only with some dubious examples. The rest is covered by the switch function type (ii). This leaves us with type (v), co-thematical and co-functional arguments that refer to two different referents. This type has been included in the overview in Table 2.2 because there seems to be one remarkable group of MVCs that does exactly that. In participant accumulation constructions, two referents (each singular) are introduced by V_1 and are then combined into a new reference (dual or plural) designated by V_2. The type construction comes from Paamese and has been discussed by Crowley (2002: 41) under the label *inclusory serialisation*. The EI sample only shows very few examples of this type, and most of them are slightly different in that other verbs are used in V_1, or the accumulation of participants is nested into a transport construction (e.g., I bring you we go ...). (5) has the prototypical example from Paamese:

(5) Paamese (Austronesian, Oceanic; Crowley 2002: 41)

makurik	*lovaha*
ma-kuri-ko	lo-va-haa
1SG:IM.FUT-take-2SG	1DU.IN-IM.FUT-go

'I will take you away with me.'

Now, co-referentiality, as we have seen, is a prerequisite for argument sharing (except for type (v) which is hardly present in the EI sample). Co-functionality can be recognised quite easily if the language in question is a subject indexer language (which applies to most of the EI languages). The third category, semantic role, is a bit trickier to pin down. Two problems are associated with it. First, it is at times difficult to determine the exact semantic role an argument represents in a given MVC. Some of these ambiguous cases are well-known from the literature (e.g. Dowty 1979; Jackendoff 1990; Van Valin Jr & LaPolla 1997). For instance, does a GO verb license an agent or a theme, or a combination of both, as the goer is

both a willful instigator of an action, yet at the same time subject to a change in location? Or take instrument reanalysis from above: in certain constructions, a theme object of a TAKE verb is reanalysed as an instrument of V_2 (and probably holds the instrument role also from a constructional perspective).

A second problem pertains to the granularity of semantic analysis. Argument types can either be described as concrete verb-derived concepts (the eater and the eaten derived from the verb *eat*), as weakly generalised semantic concepts (the eater > agent and the eaten > patient of a verb *eat*, but these roles also reappear with other verbs), or as strongly generalised semantic macroroles (the eater > agent > actor, and the eaten > patient > undergoer) (see for instance Van Valin Jr & LaPolla 1997 on that topic). Depending on the granularity chosen, the feature *co-thematical* from Table 2.2 may turn out to be assigned quite different values. Choosing a macrorole approach would require the merging of (iv) into (iii), at least for cases of instrument introduction (since both theme and instrument would be analysed as some sort of undergoer). On the other hand, choosing a finer granularity which is verb-based in its extreme (the eater and the eaten as roles only licit with an EAT verb) would make the co-thematical criterion completely impractical to use. For all these reasons, and also because annotating weakly generalised semantic roles of the second kind was impossible to do for the whole EI sample within the scope of this book, I used a slightly different annotation scheme that draws heavily on the co-functional criterion. This scheme, I think, is able to capture the main options in argument sharing across the EI languages. Table 2.3 gives the six values of the annotation scheme, with a definition, a templatic formalisation, and the equivalent sharing types discussed above. In what follows, I will use the term *referentiality* as a shortform to refer to these six different types of argument interaction in MVCs.

The annotation scheme distinguishes between six values: (1) same subject argument sharing ("S"); (2) same subject and same object argument sharing ("SO"); (3) different subjects argument sharing (this is the switch function type, annotated here as "D"); (4) accumulated participants argument sharing (basically Crowley's inclusory serialisation type, here marked as "A"); (5) event-to-argument reanalysis (in the literature often discussed as ambient serialisation, here marked as "E"); and (6) no argument sharing whatsoever ("X"). The first two values, same subject "S", and same subject and same object "SO", match type (iii) from Table 2.2. Type (ii) from Table 2.2 is captured by the third value, different subjects "D", since these cases in the EI sample always seem to show shared semantic roles as well. The few cases from type (iv), hetero-thematical but co-functional objects in MVCs, go in the "S" type, and have not been coded separately, because of the difficulties with assigning semantic roles, as discussed above. Type (v) is covered

Table 2.3: Comparison of referentiality values and argument sharing types. For sake of brevity, subject and oject have been abbreviated as "S" and "O" in the templates. S = Co-functional ("same subject"), SO = Transitive co-functional ("same subject and object"), D = Switch-function ("Different subject"), A = Participant accumulation, E = Event-to-argument ("Ambient"), X = no interaction, no arguments shared. The indexes *i* and *k* in the templates indicate co-referentiality between arguments. Note that in the event-to-argument type, the first VP is not co-referential with the subject of the second VP in a strict sense. The index here rather indicates a reanalysis from VP to (subject) argument.

Ref value	Definition	Template	Sharing type
S	same subject	S_i V (O) S_i V (O)	(iii), (iv)
SO	same subject and object	S_i V O_k S_i V O_k	(iii)
D	different subject (object-to-subject sharing)	S V O_i S_i V (O)	(ii)
A	participant accumulation	S_i V O_k S_{i+k} V (O)	(v)
E	event-to-argument	$[S\ V\ (O)]_i$ S_i V	–
X	no sharing	S V (O) S V (O)	–

by the "A" value. In addition, the two values "E" and "X" comprise cases with no direct argument sharing. Table 2.4 below gives absolute numbers for argument sharing types in the EI languages.

What Table 2.4 shows is that overall the same subject pattern is by far the most common argument sharing device in the EI sample, accounting in both Austronesian and Papuan languages for 1660 cases out of 2146 MVCs. The other patterns are less frequent to infrequent, as only the switch function device ("D"), and, to a lesser degree, the event-to-argument type ("E") contribute about 200 cases each. "SO" and "A" are almost completely absent from the sample, only appearing in very small numbers. The negative value "X" (no argument interaction whatsoever) is also quite rare. Figure 2.1 below presents the numbers from the upper section of Table 2.4 in percent. As can be seen, both the Austronesian and the Papuan languages are remarkably similar in the use of the different referentiality values, the distribution being almost identical. This might suggest that linguistic affiliation does not have a major influence on the choice of referentiality patterns in MVCs, at least from a global view on the EI languages.

Table 2.4: Overview of argument structure interaction in the EI languages. Note that each of the two subcalculations, i.e., into language family affiliation as well as into areal subgroups, amount to the total number of observations given in the last row.

	S	SO	D	A	E	X
Austronesian	869	28	105	6	92	22
Papuan	791	11	94	1	101	26
Sulawesi	222	0	7	1	32	6
Nusa Tenggara	674	9	84	0	79	13
Maluku	193	7	24	2	33	14
Western Papua	571	23	84	4	49	15
Total	1660	39	199	7	193	48

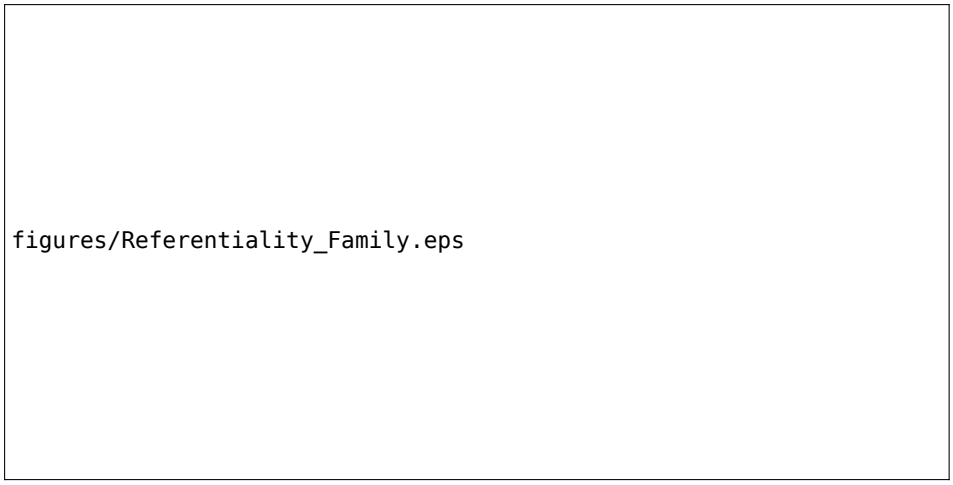


Figure 2.1: Referentiality of MVCs per linguistic affiliation. S = Co-functional ("same subject"), SO = Transitive co-functional ("same subject and object"), D = Switch-function ("Different subject"), A = Participant accumulation, E = Event-to-argument ("Ambient"), X = no interaction, no arguments shared. Numbers on top of the bars refer to the number of observations in the sample.

Figure 2.2: Referentiality of MVCs per subarea. S = Co-functional ("same subject"), SO = Transitive co-functional ("same subject and object"), D = Switch-function ("Different subject"), A = Participant accumulation, E = Event-to-argument ("Ambient"), X = no interaction, no arguments shared. Numbers on top of the bars refer to the number of observations in the sample.

The areal distribution patterns are quite consistent with the overall trends. Figure 2.2 again illustrates an overall similar distribution of referentiality values across subareas. Trends are hardly visible. The relation between "D" and "E" is subject to a certain degree of variation. While there are more "E" than "D" constructions in the Sulawesi and Maluku languages, Nusa Tenggara and, in particular, the Western Papua languages show the opposite pattern. Here, the "D" pattern is more frequently encountered. Maluku also has more "X" cases in relation to the other referentiality values than the other three groups, but this could be due to the small number of languages in this subsample (more languages might level out the overall number).

A look at the argument interaction patterns per language (Table 2.5) confirms the hypothesis that all languages make good use of the same subject pattern, making it the default argument sharing pattern in the EI area. A further interesting point is that virtually all languages (except for Mor) seem to make use of the switch function ("D") interaction pattern as well, albeit often in very low numbers. Of the other patterns, "E" is present in all subgroups and found almost all over Sulawesi, Nusa Tenggara and Maluku. Only the Western Papua languages show less usage of this type (the bulk of examples here is from only one lan-

Table 2.5: Argument structure interaction per language. S = Co-functional ("same subject"), SO = Transitive co-functional ("same subject and object"), D = Switch-function ("Different subject"), A = Participant accumulation, E = Adverbial raising ("Event-to-argument"/ "ambient"), X = no interaction, no arguments shared.

Language	S	SO	D	A	E	X
Muna	39	0	2	0	6	3
Pendau	44	0	2	0	5	0
Tajio	28	0	1	0	3	0
Tolaki	61	0	1	0	3	0
Tukang Besi	50	0	1	1	15	3
Abui	100	0	1	0	5	3
Alorese	36	0	11	0	0	0
Bunaq	49	0	12	0	26	0
Kaera	23	0	1	0	0	0
Kambera	35	4	4	0	1	0
Klon	94	0	3	0	2	1
Makalero	56	0	8	0	12	0
Teiwa	75	0	5	0	1	4
Tetun	61	0	12	0	0	0
Waima'a	115	5	23	0	29	4
Western Pantar	30	0	4	0	3	1
Buru	51	0	1	0	16	0
Selaru	15	2	2	2	0	4
Taba	29	3	9	0	3	0
Tidore	71	0	10	0	8	3
Tobelo	27	2	2	0	6	7
Abun	28	0	3	0	1	1
Biak	48	6	7	2	3	1
Dusner	36	1	9	0	0	3
Hatam	46	0	3	0	0	0
Inanwatan	23	0	3	0	0	2
Maybrat	54	0	14	1	9	0
Mor	66	1	0	1	0	3
Moskona	39	0	16	0	24	0
Mpur	44	4	6	0	4	4
Sougb	32	5	3	0	0	0
Wooi	155	6	20	0	8	1

guage, Moskona). The three other patterns are restricted to a subset of areas or even languages. "SO" is absent from Sulawesi, and quite rare in Nusa Tenggara. Participant accumulation "A" is virtually absent from Sulawesi and Maluku, and totally absent from Nusa Tenggara. Finally, "X" is present in all subgroups, but only in a fraction of languages.

All in all, we may say that none of the referentiality patterns is exclusively confined to certain subareas or even to certain languages, suggesting that all patterns somehow participate in the overall dissemination of linguistic features through language contact. The fact that the "D" pattern is in use in almost all languages would make it a particularily good candidate for an areal feature, further confirming the existence of a Sprachbund area including Sulawesi and Western Papua. This would, however, only hold true if switch function patterns could be demonstrated to be unequally distributed among serialisation languages in general. Such an assumption is difficult to validate as figures for "D" have seldom been given. Aikhenvald (2006) and Durie (1997), for instance, make no mention as to how many languages in fact use "D" type SVCs in their data set. Writing on the languages of Eastern Indonesia, van Staden & Reesink (2008: 26) state that

> [c]o-dependent serialisation is not a very regular pattern in the East Nusantara languages. In the Austronesian languages it is only found in Taba and in Ambon Malay. It is more widely attested in the Papuan languages (Moi, Mpur, Abun, Maybrat) but it is never a frequent pattern.

We have just seen in Table 2.5 that this assumption appears to be too pessimistic for Eastern Indonesia, and that a larger amount of data might result in the detection of more "D" constructions. Note in particular that switch-function has now been attested in three further Austronesian languages, Buru, Kambera and Tetun Fehan, that were also part of van Staden and Reesink's sample, but for which no examples could then be found.

The following sections provide examples from the EI languages and discuss some peculiarities related to the different patterns. The sections are sorted into argument sharing and no-argument sharing patterns.

2.2.1 Argument sharing

MVCs with argument sharing amount to 1905 cases (out of 2146) in the EI sample. This means that argument sharing in general can be regarded as a core trait of MVCs, and is highly predictable. All three argument sharing types have in common some relation of shared identity between the arguments of different verbs.

Co-functional MVCs, that is, the "S" and "SO" patterns, maintain a single syntactic function, whereas switch-function MVCs and participant accumulation MVCs do not.

2.2.1.1 Co-functional MVCs

Co-functional MVCs occur in all EI languages. As this is the default type, I will not have much to say about it. The following examples are from the four subareas, and are chosen to show different degrees of verbal subject encoding: both verbs may be closely strung together and share one set of affixes, as in example (6) from Tukang Besi; both verbs may remain completely uninflected (Klon example); both verbs may be inflected for a shared subject referent, as in the Tobelo example in (8); or only the first verb may be inflected for subject whilst the second remains bare (Hatam). Whatever the coding option, the common ground in all these constructions is that each verb refers to the same subject referent. So, for instance, in example (6) the subject referent denoted by *no-* is understood as being licensed by both *wila* and *ako*.

(6) Tukang Besi (Austronesian, WMP; Donohue 1999: 201) — Tukang Besi
no-wila-ako-'e (na ina-no) kua daoa
3RLS-go-do.for-3OBJ NOM mother-3POSS ALL market
'They went for their mother to the market.'

(7) Klon (Papuan, TAP; Baird 2008a: 137) — Klon
kuur angkol a-awar qad alah mi ik
dog self RDP-return come house be.at COMPL
'The dog itself came back and was at home.'

(8) Tobelo (Papuan, NH; Holton 2003: 43) — Tobelo
o-Morotai-iha gaanga yo-koki-boa yo-karajanga
NM-M.-LAND there 3PL-DSTR-come 3PL-work
'We all came to Morotai to work.'

(9) Hatam (Papuan, Hatam-Mansim; Reesink 1999: 108) — Hatam
yoni y-ug bong ei ig-bei big
they 3PL-go sleep LOC house-under not
'They don't go (to) sleep in the house (at home).'

The most common sharing pattern is subject sharing, as we have seen. In case there are objects, these are often not shared (two examples for object sharing are

given below; further discussion is found in §?? on handling constructions that involve both "S" and "SO" patterns). Object sharing is also much rarer than subject sharing as many verbs in V_1 position are intransitive (as is the case with the motion verbs in the examples above). This may, for instance, explain why the Sulawesi languages have no "SO": there are hardly any combinations of transitive verbs found. When object sharing does take place in the other subareas, it always seems to involve subject sharing as well. Both verbs in such cases are of course transitive. V_1 more or less invariantly involves a verb of object manipulation (basically verbs of taking, and patientive manipulation verbs such as hitting, kicking, stabbing or hammering). Here are two examples of object sharing:

(10) Taba (Austronesian, SHWNG; Bowden 2001: 311)

ntotas	*nik*	*kos*	*nabulang*
n=totas	nik	kos	n=ha-bulang
3SG=wash	1SG.POSS	T-shirt	3SG=CAUS-be.white

'She washed my T-shirt white.'

(11) Mpur (Papuan, isolate; Odé 2002: 98)

n-soro	*mar*	*ka*	*n-da(k)-frak*	*nton*	*aka*	*ut*
3SG.F-take.off	cloth	that	3SG.F-take-throw	child	then	died

'She took off that cloth and threw the child away and it died.'

Example (10) from Taba is a resultative construction in which a causative verb is derived from a resultant state verb, sharing the object with the first verb, *nik kos* 'my T-shirt' (a more literal translation would probably be 'she washed my T-shirt$_i$ causing it$_i$ to become white'). The second example in (11) is from Mpur, and shows a close combination of a TAKE verb and a THROW verb. Both verbs are transitive and license both a co-referential subject and object argument ('and took (and) threw the child away' would probably be more precise).

2.2.1.2 Switch-function MVCs

Switch-function MVCs are found in all EI languages but one (I am assuming that the missing data from Mor are most probably a chance effect). The canonical switch-function type is similar to the shared subject and object constructions ("SO") from the last section in that an event of object manipulation is viewed from two different perspectives. In the SO type, both event designators assume an agentive perspective, just as in example (11) from Mpur (actor does action A to object$_i$, actor does action B to object$_i$). The only difference in the switch-function type is that it is only the first event designator that is agent-oriented.

The second verb then shifts to an undergoer perspective with the PATIENT entering into subject function. Such MVCs most often express a CAUSE-RESULT or a causative relation. Crowley (2002) refers to this types as switch-subject serial verbs, and gives the following oft-cited example from Paamese:

(12) Paamese (Austronesian, Oceanic; Crowley 2002: 55)
inau nuas *vuas* *he:mat*
inau ni-uasi vuasi hee-mate
1SG 1SG:DIST.FUT-hit pig 3SG:DIST.FUT-die
'I will hit the pig to death.'

Paamese

The EI languages use the switch-function pattern a lot for constructions involving a causing action and a resulting action or state. In Biak, for instance, all "D" cases are annotated as being related to some sort of causation. The following one is rather typical: the process of a glass breaking due to some involuntary action is split up into two event kernels: the agent incidentally strikes the glass (the object), and the glass (now being understood as subject of the second, intransitive verb *kpéf*) shatters.

(13) Biak (Austronesian, SHWNG; van den Heuvel 2006: 194)
yúf *mnis gelas ine* *va vo,* *yamer* *kpéf* *i*
y-úf mnis gelas i-ne va vo ya-mer kpéf i
1SG-take fit glass 3SG.SPEC-this not SIM 1SG-strike.hard shatter 3SG
'I did not pick up the glass rightly so that I struck and made it shatter.'

Biak

Similar construals appear in many other EI languages. The agent of V_1 may in some cases be replaced by the instrument as such, carrying out the action, as in example (14) from Bunaq where the machete is promoted to subject function. Here the resultant event is not expressed by a state change verb but by a stative verb, rendering it a resultative construction rather than a construal with two active verbs.

(14) Bunaq (Papuan, TAP; Schapper 2009: 447)
Sore *rebel,* *gu-bul* *bere* *pak* *tol* *haqal.*
machete descend 3AN-head CNTREXP.INAN strike broken finished
'The machete descended (and) struck his head splitting it completely.'

Bunaq

Example (15) from Maybrat below illustrates another quite freqent pattern, this time with a THEME object becoming the subject of V_2 in what I call DIRECTION COMPLEX constructions (see discussion in §??). Literally, it would mean 'Should I pour water go(es) into the thermos flask'.

(15) Maybrat (Papuan, isolate; Dol 2007: 215)
Maybrat
t-tu aya m-amo cerek a
1SG-pour water 3U-go thermos.flask INT
'Should I pour water into the thermos flask?'

The switch-function concept also extends to other construction types that seem less widespread and much more specific. Example (16) from Abui illustrates a case where a quantifier verb *tafuda* is interpreted to have a subject that is co-referential with the direct object of the main verb *fur* (something like 'he swallowed it$_i$ (it$_i$ is) all'). Note that (16) is one of very few cases in which the function switch seems to occur the other way round: it is not the object of V_1 that is reanalysed as subject of V_2, but V_2 has a direct object that is reanalysed as subject of V_1. This order is in the Abui case an effect of general rules of constituent order placing the main verb(s) last in the clause.[2] Cases of reversed switch-function have therefore been subsumed under the label "D". Another reason was that the number of instances was at any rate not sufficient to argue for a referential interaction type of its own.

(16) Abui (Papuan, TAP; Kratochvíl 2007: 372)
Abui
tafuda ha-fur-i he-nil-e
be.all 3PAT-swallow.COMPL-PRFV 3LOC-make.like.this-IPFV
'He swallowed everything this way.'

The Abui example illustrates MVCs in which the function switch is only implicit, and no morphology helps interpret the argument relations. In other languages, subject marking does, in principle, allow for reference tracking, but function switches between third person referents may frequently occur along the way within concatenations of verbs. This is often only indicated by the semantic context. Take the Muna example in (17) which is, with four verbs in sequence, exceptionally long for a Sulawesi MVC. Between the first verb and the second is

[2] Unfortunately, I have hardly found any further data that would allow to expand on this issue. What seems to be going on is that there is a clash of two constraints on constituent order at work in (some) AOV languages. On the one hand, AOV languages prefer to place the main verb at the end of the construction (just as clause-chaining languages would place their final verb at the end of the chain). On the other hand, there is a general preference in MVCs to place the verbal constituents according to the sequence in which the event stages occur (principle of iconicity; see for instance van Staden & Reesink 2008). As we will see in §??, these constraints appear to interact in complex ways, and the outcome is not always predictable. In cause-result MVCs from AOV languages, for instance, temporal iconicity is sometimes preserved, and sometimes overwritten.

a function switch: it is the old man that is with a stick, not the female actor from V_1. V_3 and V_4 then continue with the old man being the subject. Note that the indirect object suffix of the first verb refers to *kamokula*, the old (man).

(17) Muna (Austronesian, WMP; van den Berg 1989: 241)
no-po-ghawa-ghoo kamokula ne-katuko no-mai-ghoo
3SG.RLS-RECP-meet-IO old 3SG.RLS-stick 3SG.RLS-come-IO
no-hulo
3SG.RLS-hunt
'She met an old man with a stick who had been hunting.'

Muna

2.2.1.3 Participant accumulation

Participant accumulation, as we have seen, is rather not a typical case of argument sharing because the referent of V_2 is not identical with either the subject or the object of V_1. Rather, it is the sum of both the subject and the object referent. This entails that V_1 is either transitive or intransitive with a second oblique argument. In the EI languages, two ways of construing participant accumulation can be distinguished. The Paamese type from example (5) involves a TAKE verb, followed by some joint action ('I take you, we go'). The EI examples differ from this pattern in that V_1 (or a nested MVC in the first slot of the matrix construction) denotes a motion event (like 'you come (to me), we do' or 'I take you here, we do'). This motion component seems to be absent in the Paamese construction. An alternative pattern is the use of a comitative function verb in V_1, yielding something like 'I with you, we do'. The following examples from Tukang Besi and Selaru illustrate both options. Note that, strictly speaking, it is not clear in examples like (18) that the motion verb assigns a human goal argument in the first place. Alternatively, *mai* might only vaguely imply a spatial origo, which, by implicature, is interpreted as being the location of the first person singular participant. In any case, participant accumulation is a rare phenomenon in EI, and clearly different from default Paamese participant accumulation.

(18) Tukang Besi (Austronesian, WMP; Donohue 1999: 516)
Mai to-wila-ako to-tunga-ntunga, La bela Kandokendoke.
come 1PL.RLS-go-APPL 1PL.RLS-RED-fish La dear Monkey
'Let's go and do some fishing, Dear Monkey.'

Tukang Besi

(19) Selaru (Austronesian, CMP; Coward 2005: 120)
Y-aso sir ma r-al-a kotw ti enen desike y-or
3SG-request them CONJ 3PL-give-Ø food CONJ woman that 3s-with

Selaru

amam desike ra ma ktei.
man that they.eat until done
'He requested they give the food so that woman and that man [can] eat until done.'

2.2.2 No argument sharing

MVCs without argument sharing come in two types. The first type is annotated as "E", marking cases where the whole first VP is reanalysed as an impersonal subject referent of the second verb. The second type appears to feature two or more VPs that have no connection to each other whatsoever. This type has been labelled "X". Both types contribute a total of 241 cases to the sample.

2.2.2.1 Event-to-argument reanalysis

Event-to-argument reanalysis typically consists of two event kernels: an action event, and a modifying or evaluative state. The action event becomes the sole argument of the evaluative state. Event-to-argument reanalysis is an obvious feature only in those languages that use subject indexing morphology on the verb. Languages without verbal morphology do not offer direct clues for an event-to-argument relation in MVCs but certain construction types can be interpreted that way (though not uncontroversially, or so it seems). Let us begin with some examples from languages that do mark this type. Maybrat, for instance, has a smallish class of prepositional verbs. Two of these verboids, *ae* 'be at' and *kah* 'be with', occur in MVCs where their subject does not agree with the subject of the action verb. Rather, it shows the prefix for third person unmarked gender. Compare the following examples.

(20) Maybrat (Papuan, isolate; Dol 2007: 80)

Maybrat

a. *ait y-amo m-ae amah*
he 3M-go 3U-at house
'He goes home.'

b. *ait y-amo y-ae amah*
he 3M-go 3M-at house
'He goes and he is at home.'

(21) Maybrat (Papuan, isolate; Dol 2007: 80)

Maybrat

a. *t-ai m-kah ara*
1SG-hit 3U-with stick
'I hit with a stick.'

b. **t-ai t-kah ara*
1SG-hit 1SG-with stick

The first pair in (20) shows two ways of using the verboid *ae* with a motion verb in V_1. It may either agree in person marking with the motion verb, yielding a motion event with successive event stages (the going, and the resultant being at the place of destination), or it may show a disagreement in person marking. In this case, as there is no other participant available that *m-* could refer to, I would suggest that it represents an instance of event-to-argument reanalysis. Semantically, one could expect something like 'the going of him is (directed) at the house'. The free translation given by Dol suggests that both verbs together are interpreted as denoting one single motion event (as opposed to the staged example with person marking agreement). A similar case is found with *kah* in (21) except that the event-to-argument construal is the only one permitted. Here as well, my interpretation is that it is the hitting that *m-* refers to ('my hitting is with a stick').

Other contexts with event-to-argument construals pertain to adverbial MODIFICATION. In Tukang Besi and Muna, adverbials may behave like full verbs in that they receive subject indexing morphology. Yet in many cases, no real participant is selected but the subject indexer seems to refer to the whole event which is modified. Consider the example pair from Muna below.

(22) Muna (Austronesian, WMP; van den Berg 1989: 236f.)

Muna

a. *no-nea a-leni*
3SG.RLS-usual 1SG.RLS-swim
'I usually swim.'

b. *ao-nea a-leni*
1SG.RLS-usual 1SG.RLS-swim
'I usually swim.'

The two ways of construing a temporal modification in (22) offer an interesting contrast in argument relation. In the first construction, "the juxtaposed clause is semantically the subject of the first clause", according to van den Berg (1989: 236). With some such adverbial verbs, however, a second construal is possible where

the subject indexer of the modifying verb agrees with the subject of the main verb. This phenomenon is called subject harmonisation by van den Berg. Some adverbial verbs always require subject harmonisation, others never do, and a third group allows optional subject harmonisation, as for instance with *nea* '(be) usual'.

All the instances above quite clearly encode event-to-argument reanalysis. In languages without rigorous subject marking on the verb, however, such construals are often only indirectly inferable. In the following examples, one of the verbs seems to refer to the whole VP rather than to a concrete participant, but this is a matter of interpretation and not marked by grammatical means.

(23) Abui (Papuan, TAP; Kratochvíl 2007: 363)
Abui
di=ng *wahai mara*
3ACT=see look go.up.CONT
'He looks up.'

(24) Taba (Austronesian, SHWNG; Bowden 2001: 315)
Taba
Lkiu *kwat*
l=kiu kwat
3PL=be.frightened be.strong(EMPH)
'They were really frightened.'

(25) Waima'a (Austronesian, CMP; dom2_kaben 219f.)
Waima'a
nau hite ma'a lo, den te ma'a lo
know PTL finish ASP hear PTL finish ASP
'(You) already know, have already heard (…)'

Example (23) illustrates a construal of visual perception with a path specification denoted by a directed motion verb. As a simplex predicate, *mara* 'go up' would license an actor, yet the MVC in (23) already has an actor (which is the experiencer, introduced by the grammaticalised element *=ng*). Since the context makes it clear that the experiencer is not moving upward, the best interpretation would be that the whole event of him looking is directed upwards. The next example from Taba is a similar case. *Kwat* can be an independent verb in simplex predicates. Here, it seems that the event of them being frightened is taken to be the argument of *kwat* ('their being frightened is strong'). The last example in (25) is a completive construction from Waima'a, involving the verb *ma'a* that is sometimes glossed as 'finish' and sometimes as 'all'. As knowing and hearing are non-agentive events and no agent seems available in both MVCs, *ma'a*

could again be interpreted as taking the whole event as its single argument (the knowing is all/complete/finished)[3].

In Buru we find an intruiging example of what seems to be an event-to-argument reanalysis together with normal subject sharing. Buru offers an interesting contrast in object marking with completive MVCs. The object enclitic *-h* may either attach to the matrix verb (as in example (26a) below), or to the completive verb (cf. example (26b)). The former case seems to highlight the consumption of the item, and *sepo* could be taken as showing an unmarked same subject pattern ('he ate-it (he) finished'). This case is best described as a completive construction. A more apt translation of example (26a) would thus be 'He ate it all'. The latter case, on the other hand, appears to reanalyse the eating process denoted by V_1 as its direct object ('he ate (he) finished-it' where 'it' would refer back to the eating).[4] If that were so, we would be dealing with two argument-sharing devices being active within one MVC: same subject would allow sharing the subject referent, while the object of V_2 would be available through event-to-argument reanalysis. Note that such an interpretation would at any rate differ from canonical cases of "E" in that the main event is not reanalysed as the subject of an unaccusative V_2, but rather as the object of a transitive verb in V_2.

(26) Buru (Austronesian, CMP; Grimes 1991: 160)

Buru

a. *da kaa-h sepo*
   3SG eat-OBJ.SG finish
   'He finished eating it. (consumption of item)'

b. *da kaa sepo-h*
   3SG eat finish-OBJ.SG
   'He finished eating it. (completion of action)'

As this brief discussion has shown, assigning the label "E" to MVCs is a matter of interpretation in languages that do not offer direct morphosyntactic reference tracking on the verb. Therefore it should be borne in mind that the numbers for "E" MVCs presented in this study might change under closer investigation of the underlying referential systems.

[3] It seems tempting to analyse such FINISH verbs the "English way" as syntactically transitive verb. However, FINISH verbs in EI languages typically do not offer any clue as to their transitivity.

[4] Alternatively, the second constructions could be analysed as a plain affix-sharing nuclear-layer construction, with *-h* still referring to the object licensed by the main verb. This would, however, not directly explain the specific focus in meaning on the action.

2.2.2.2 Cases without argument interaction

MVCs without any argument interaction cover a range of constructions, and can be found in most of the EI languages. Many cases involve what seems to be juxtaposed clauses without prosodic boundary cues. Prosodic units that are uttered in close succession without clear rhythmical boundary cues are known as latching in prosody research (cf. for instance Himmelmann et al. 2018). However, the MVCs without argument interaction that I have found in the literature are more than just prosodic collocations that reflect rapid prosodic production. In most of the cases, both (or all) events encoded by the verbs are related to each other in certain recurring ways. This relation may be temporal in that both events occur simultaneously, or in explicit sequence. Consider for instance the simultaneous construal of the verbs *hupu* and *tiha* from Tobelo below.

(27) Tobelo (Papuan, NH; Holton 2003: 61)
Tobelo
to-hupu-óko ahi-kongo i-tiha
1-go.out-SEA 1POSS-tears 3-fall
'I came out with tears falling.'

Other cases rather denote conditional relations, as in example (28) from Muna. Cases like this may turn out to be simple biclausal conditionals where the grammatical marker can be left out (as with *ane*). Van den Berg notes that "it is possible to add a conjunction (for example *ane* 'if'), which results in a conjoined construction" (van den Berg 1989: 235).

(28) Muna (Austronesian, WMP; van den Berg 1989: 235)
Muna
nao-kesa sepaliha dua suara-no (ane) nae-lagu
3SG.IRR-beautiful very also voice-his (if) 3SG.IRR-sing
'His voice will also be very beautiful when he sings.'

2.3 Constituent structure

The next sections now turn to morphosyntactic features on the level of constituent structure. Differences in grammatical marking between the verbs of a MVC have led many to postulate differences in constructional make-up. For instance, van Staden and Reesink classify SVCs with two inflected verbs into one category, and SVCs with only one inflected verbs into another. §2.3.1 presents an overview of inflection patterns in the EI sample, and aims at discussing the theoretical implications that these patterns may have. One way of analysis would

treat inflected verbs as conceptual heads of a syntactic projection, leading in the case of van Staden & Reesink's "dependent type" to a potentially hypotactic construction with one verbal constituent being of higher rank than the other. An alternative approach would not grant verbal inflection the status of a head-marking device in the sense that the underlying construction would necessarily be interpreted as hypotactic. While I will argue for some structural difference between inflected and uninflected verbs, my point is that the majority of languages from the area does not explicitly use verbal morphology to systematically trace hierarchical differences in MVCs. At the same time, certain MVCs indeed carry an inflection pattern that seems induced by the construction rather than by some parameter from other linguistic planes (such as phonology).

The second parameter discussed here under the label *constituent structure* is contiguity of verbal constituents. As mentioned before, contiguity (or adjacency) of verbs is another factor often recognised as being vital to SVC formation, and construction types are often said to be sensitive to strict contiguity (think again of Pawley's compact serialisation type, for instance). §2.3.2 will discuss contiguity in EI MVCs.

2.3.1 Headedness

Verbal inflection highlights the verb as being of central importance to the construction in question, or, in Bloomfield's terms, being the *center* of the construction (Bloomfield 1933). This central constituent is usually referred to as *head*. The idea of heads in linguistics has been in use at least since Leonard Bloomfield and the American structuralist times, and, as Zwicky in his seminal paper from 1985 showed, has come with a range of different interpretations and theoretical tenets (Zwicky 1985).

This section proceeds as follows: I will first give a brief summary of Zwicky's account of heads, basically because he was the first to make explicit a set of competing notions that can be taken as candidates for the concept. The headedness discussion at that time was basically revolving around the SAE language type, with English being the example of choice. The formula was "one clause, one (verbal) head", and few problems arose with European languages as they adhere quite well to that principle by employing verbal morphology for finiteness distinctions in a regular way. MVCs seem to be quite different. Nevertheless it is, I think, worthwhile to take the idea of heads and apply it to these structures. In order to do so, I will in §2.3.1.2 briefly review what I call unreliable inflection in EI languages. The third part of the section in §2.3.1.3 then turns to subordinate relative clauses in Wooi. Wooi relative clauses are connected to the matrix clause

via two marking strategies involving differential inflection patterns. I will argue that this distinction is not a finiteness distinction of the sort required for judging head marking patterns but quite a different technique driven by constraints in argument tracking. The fourth and final part of this section returns to EI MVCs and their inflection patterns, and gives examples from different languages of the sample.

2.3.1.1 Zwicky: Competing concepts

Discussing the ambiguity of the term *head*, Zwicky singled out three notions that all share the basic idea that within a given set of two components, one of them is more central and characteristic of the whole constituent. These notions are: the semantic argument (later called base in Zwicky 1993), the subcategorisand (semantic functor), and the morphosyntactic locus (later called head, as this is assumed to be the most appropriate candidate notion with regard to syntactic constituency; Zwicky 1985: 3). The semantic argument relies on semantic tests: the semantic head of two elements is the one element that is of the same kind as the categorial projection of both elements.

> [I]n a combination X + Y, X is the 'semantic head' if, speaking very crudely, X + Y describes a kind of the thing described by X. On this basis, N is the semantic head in Det + N (*those penguins* describes a kind of penguin), and VP is the semantic head in Aux + VP (*will leave* describes a kind of leaving). (Zwicky 1985: 4)

The subcategorisand, the second candidate for the head of a constituent, is a constituent that is restricted in its ability to occur in specific constructional slots. The most prominent instance is verbs that are subcategorised with regard to the constellation of argument positions. Zwicky gives the following examples:

> The verb *give* is subcategorized to occur with either NP NP or NP *to* + NP as its sisters (*give Kim money, give money to Kim*); *donate* is subcategorized to occur only in the second of these two constructions (**donate Kim money, donate money to Kim*). (Zwicky 1985: 5)

The third notion of head is the morphosyntactic locus, that is, the constituent that bears the marks of morphosynactic relation to other constituents. If, for instance, a verb (or its projection, a VP) bears marks of mood or subject agreement then it is the morphosyntactic locus of the clause. Yet, this is only one of

two possible understandings of *morphosynactic locus*. There is another interpretation available in which the morphosyntactic locus is on all those constituents that would *potentially* bear the respective inflectional marks if the language in question has developed the appropriate morphology. Thus, not only inflecting languages would have heads but also isolating languages where the potential locus is inferable from general theory.

> This is a general notion of morphosyntactic locus which is to be considered as an explication of headship in syntactic theory. The actual inflectional locus will serve as a guide to the morphosyntactic locus in specific cases, at least in languages with sufficiently rich inflectional morphology. Speaking very loosely, the morphosyntactic locus is the 'potential inflectional locus', the constituent on which inflectional features will be marked if the language has the appropriate morphology. (Zwicky 1985: 6)

The surface-structural interpretion of heads as morphosyntactic loci of grammatical information clearly offers the most practical starting point for typological comparison, at least in languages with overt morphology. Within the serialisation debate, claims have been made as to where the locus of inflection should go in serial verb constructions. One of the most widely read (and cited) papers on this is Durie's *Grammatical structures in verb serialization* with a critical evaluation of such predictions from GB approaches (Durie 1997; mostly focusing on Baker's indirect θ-marking account). What is interesting to us at this point is that Baker indeed assumed inflected verbs in SVCs to be heads:

> [I]t is known that only the head of a phrase can in general carry inflectional features that originate with an element outside that phrase. Interestingly, in some serializing languages the same tense/aspect and subject agreement morphology appears on every verb in the SVC. [...] This is exactly what the theory expects. Traditionally, tense/aspect features are copied from the Infl node onto the head of the associated verb phrase. The fact that these features show up on both verbs in the SVC thus supports the hypothesis that both verbs are heads. (Baker 1989: 523f.)

Baker's hypothesis would require one to interpret inflection as a marker of headedness in SVCs. There are different problems associated with this. First, as we have seen in Chapter 1, the languages from EI encode quite different concepts on their verbs. Would TAM-morphology on verbs in Sulawesi languages then be comparable to person indexing verb morphology in languages from Western

Papua? Some TAP languages even show traces of both verbal categories, TAM and person indexing. At the same time, many of these languages have restrictions on verb inflection. This leads to a second challenge: are languages with unstable verb morphology also to be analysed as marking heads? And third, how can we deal with differences in verbal inflection across different types of constructions? Is it the construction that sets the scene, for instance, by prohibiting inflection of V_2, or could it be that V_2 has become a non-verbal item, say, a directional particle or a case-marker.

The first challenge is hard to overcome. While TAM-morphology may be seen as some kind of "canonical inflection type" (cf. Foley 2010), the inflectional systems found in SAE languages often also include person indexing, typically involving portmanteau morphemes bundling together different conceptual categories. In a typological study such as the present one, at least two strategies are available: first, one could only compare languages with "identical" conceptual categories encoded on the verbs. This would leave us with TAM-languages such as Tajio and Pendau on the one hand, and person indexing languages on the other, like most of the remaining EI languages in the sample. Obvious problems would emerge, however, with languages that do both (Inanwatan would be a good example of a language combining tense marking with person indexing on its verbs). The second strategy would lump together languages with different verbal categories, on the assumption that as long as there is *some* category encoded on the verbs we are dealing with a "head".[5] As this strategy would help avoid the above mentioned problem of deciding what to do with mixed inflectional systems, I decided to side with the lumpers rather than with the splitters, although there are obvious shortcomings with this decision.

2.3.1.2 Unreliable verb morphology

Let us turn to the second challenge by having another look at irregular verb-morphological systems in EI. In both the Sulawesi and Nusa Tenggara groups, a considerable portion of languages does have inflection on their verbs, but only within a subset of cases. From the introduction to the EI languages in Chapter 1, we can discern three main types of unreliable inflection in EI languages:

[5] Specific problems would arise in case different categories were marked on different verbs. There is, however, only one such case in the EI sample. In Abui, aspectual suffixes always go with the final verb, while O crossreference is applied to those verbs that are lexically specified for marking undergoer arguments. This can lead in some cases to two verbal categories, marked on different verbs. For the reasons discussed in the following section neither verbal category has been interpreted as assigning head properties in Abui. See also §2.3.1.6 below.

lexically determined, situationally determined or phonologically determined. To these types, we may add a fourth one, which is totally optional inflection, as found in Tidore. This section presents a short review of these types. Table 2.6 sums up their basic properties.

Table 2.6: Four types of unreliable inflection in the EI sample. Some languages are assigned two categories as they exhibit properties of both types. See §1.4 for information on the languages, and their verbal systems.

Type	Properties	Languages
Lexical	Only a subset of verbs takes inflection	
a) obligatory	Obligatory inflection of verbs in subset	Tajio, Pendau, Teiwa, Makalero
b) optional	Optional inflection of verbs in subset	*not attested, but see below*
c) mixed	subclasses of verbs with obligatory and optional inflection	Western Pantar, Kaera, Klon, Bunaq
Situational	Properties of the NP determine whether or not person indexer appears on the verb	
a) definiteness	indefinite NPs prevent inflection	Kambera
b) specificity	non-specific NPs prevent inflection	Abui
c) animacy	inanimate NPs prevent inflection	Western Pantar, Teiwa, Bunaq
Phonological	Phonological factors delimit inflection	Tetun Fehan, Alorese
Free	Inflection completely optional	Tidore

The first type, the lexical type, is most widespread and covers both the SUL and the NUS subgroups, albeit within quite different configurations. While the

Sulawesi languages Tajio and Pendau have a very small class of directional verbs resisting inflection, the opposite is true for some of the Nusa Tenggara languages where the subset of verbs that do take inflection seems quite small (Makalero) or cannot be estimated from the publications (for instance, Teiwa). Whatever the exact rules of the inflectional system might be, the bottomline is that counting verbal inflection in those languages leads to differences in inflectional behaviour within certain kinds of MVCs. In Tajio, for instance, MOTION-TO-ACTION constructions with a motion verb in V_1 and an action verb in V_2 fall into two categories: head-final if the motion verb belongs to those verbs that do not inflect, or double-headed (both verbs inflect), in case *jaok* 'come' is in V_1 (being the only motion verb that does take inflection). Examples (29) and (30) below provide an illustration.

(29) Tajio (Austronesian, CMP; Mayani 2013: 294)
Tajio
tanga ndoung minyei mosisip
tanga mondoung minyei mo-sisip
middle night go.here DYN.RLS-sneak
'In the middle of the night (I) will come here to sneak around.'

(30) Tajio (Austronesian, CMP; Mayani 2013: 294)
Tajio
siia najaok nongintai tetagunya
siia nV-jaok noN-intai te=tagu=nya
3SG ST.RLS-come AV.RLS-visit NM=friend=3SG.POSS
'She came to visit her friend.'

The languages from the NUS subgroup, on the other hand, do not show lack of inflection within a semantically restricted class such as motion verbs, but partition their verbal lexicon into classes that do inflect and others that do not. Let us take Western Pantar (Holton 2010; 2014) as a brief case study. Person marking in Western Pantar is based on either free pronominals or a set of bound forms. Bound person marking forms are most commonly associated with O or S arguments, but may in rare cases also mark A participants. Whether or not a given verb accepts such bound forms is lexically determined, and the verbs fall into seven different classes. One large class, consisting of both intransitive and transitive verbs, does not accept pronominal affixes at all. Another large class contains transitive verbs where the O argument is mandatorily expressed via bound forms. A small number of verbs even takes both an undergoer and an actor prefix. Example (31) illustrates such a case.

(31) Western Pantar (Papuan, TAP; Holton 2014: 77)
Ke'e pi-ga-ussar.
fish 1IN-3SG-catch
'We are catching fish.'

Western Pantar

Exceptional A marking by bound forms is further complicated by the fact that the A and O indexers may occur in the opposite order in some examples. In addition, Holton (2010) gives another five classes of verbs that optionally take bound forms. The bulk of Western Pantar motion verbs seems to go into these classes, among many other verbs. Motion verbs in Holton's class III, for instance, do not normally receive S indexers but may do so occasionally with first and second person referents (Holton 2010: 109). Two examples from the EI sample illustrate this. The first example has *lama* 'walk'[6] uninflected, while the second one has it inflected for person. Note that both cases contain first person referents so that in principle one could also expect the opposite inflectional behaviour.

(32) Western Pantar (Papuan, TAP; Holton 2014: 90)
ping dalla siga=b lama dia maum pi badde
1SG.ACT tomorrow there=REL go/walk go LEVEL.SPEC.NVIS 1PL.POSS fence
using kalung ta
raise here.and.there IPFV
'Tomorrow we will go there and put up our fences here and there.'

Western Pantar

(33) Western Pantar (Papuan, TAP; Holton 2014: 88)
pi-laku pi-lama ta
1IN-two 1IN-go/walk IPFV
'Let's (just) the two of us go.'

Western Pantar

The results of unreliable morphology, whether of the situational or the phonological type, are quite alike in that the inflection patterns obtained crosscut otherwise definable MVC types. This is why, in such languages, not much is gained by merely looking at the inflection patterns. The extent to which unreliable inflection obscures the sample is, however, not the same across all languages. In the

[6] Note that *lama* is one of those items that receive differential glossing across various examples, shifting between 'go' and 'walk' (I changed the gloss to 'go/walk' in examples (32) and (33)). As Western Pantar appears to have other motion verboids meaning 'go' (for instance *wa*) that come to stand in path-specifying positions in MOTION COMPLEX constructions (see §??), I have tentatively treated *lama* as a manner of motion verb, rather than a pure path-denoting directional motion verb proper, although in some examples it does seem to convey path semantics as well.

Sulawesi languages, inflection on motion verbs is predictable as their behaviour is lexically conditioned. What is more, it is only a small fraction of verbs overall that do not participate in the inflection system. The picture is thus more complicated in the Nusa Tenggara languages. Here, only a small fraction of verbs (according to the inflectional remnants still active in the respective language) may display verb morphology. It is for this reason that I decided to exclude the problematic languages of this subgroup (but not of Sulawesi) from the annotation of inflection patterns in MVCs. A further complicated case is Tidore with its free choice with respect to the use of inflection on verbs. Having annotated Tidore for inflection patterns at an early stage, I later decided to keep those data included since it was not clear to me whether the appearance of verbal inflection would indeed be totally random, or whether certain inflection patterns would be favoured over others. So, when turning to a quantitative assessment of inflection patterns in §2.3.1.4, it must be kept in mind that the major part of the Nusa Tenggara languages have, on these grounds, been excluded from consideration.

A further complication arises with isolating languages. If a language does not have coding options on the verb in the first place, it is obvious that no insights whatsoever are gained into MVC formation by looking at its inflectional variation (as there is, of course, none). Coding Alorese, Waima'a, Buru and Abun MVCs as cases of no-head inflection would thus distort the overall picture since in these languages the question of verbal inflection characterising MVCs simply does not arise. Therefore I decided to keep these languages out of the calculation presented below.

2.3.1.3 Constructional differences in head marking - the Wooi case

In this section, I would like to turn briefly to the third challenge mentioned in §2.3.1.1 above. My main point here is that differences in inflectional behaviour do not always cue differences in headedness status, and that (lack of) inflection may be exploited quite differently in EI languages. Consider example (34a) and (34b) with relative clause constructions in Wooi.

(34) Wooi (Austronesian, SHWNG; elicit.)

Wooi

a. *vaving ve rora Agus vo hanong pey no Susan*
woman REL hit Agus FOC name PTL PTL S.
'The woman that beat Agus is named Susan.'

b. *vaving ve Agus riorai pay vo hanong pey no*
vaving ve Agus <i>rora=i pa-i vo hanong pey no
woman REL A. <3SG>hit=OBJ.SG H.PRX-SG FOC name PTL PTL
Susan
Susan
S.
'The woman that Agus beat is named Susan.'

If a field linguist were only to elicit examples such as (34a) in order to find out about relative clauses in Wooi, he or she would get the impression that the main verb in relative clauses remains uninflected, possibly reflecting subordination. This is, however, not what is expressed by the uninflected verb here. The picture becomes clear only when the relativised argument from the main clause is not the subject of the relative clause, as in the less politically correct example in (34b). Here, we find the main verb inflected just like any ordinary main verb would be in Wooi. This difference in verb inflection remains constant across all corpus data, and is obviously driven by constraints on argument-tracking: while relativised arguments can be easily retrieved from subject function in the relative clause, tracking appears to be less straightforward with relativised arguments in postverbal object or oblique function. Therefore it seems that any shift to a non-subject function would require overt subject marking on the verb.

Does verb inflection in Wooi then always reflect issues in argument tracking? Apparently not. Take as another example motion complex MVCs in Wooi: a motion verb in V_1 is complemented by a directed path verb in V_2. This path-lending verb always remains uninflected. Here is an example from the dataset:

(35) Wooi (Austronesian, SHWNG; initiation_ritual_first_sex)
hembo ra o:
he-vo ra o:
3PL-row go FILL
'(Then) they row away eh -'

Wooi

By comparing the two construction types from Wooi I want to emphasise that verb inflection patterns may in one and the same language be exploited for quite different things. Therefore, an uncritical view on inflectional loci automatically assuming differences in constituent hierarchies would fall short of recognising precisely why these patterns emerge with certain constructions. Accordingly, in the relative clause example we would not want to claim that one type of relative clause is overtly subordinate to the matrix clause, while the other is not. The

motion MVC, on the other hand, could be argued to feature different hierarchical levels (for instance, because V_2 is always and invariable uninflected, while other same-subject MVCs maintain subject indexing on both verbs; see also §?? for discussion), suggesting that the whole construction might have one clausal head (V_1), and another VP that is associated with it, though ranked on a lower level. But, as will become clear, verbal inflection in MVCs does not always produce such homogeneous patterns. My point in this section is that while annotating and analysing inflection on verbs in MVCs does lead to the detection of certain patterns (as we shall see below), inflectional differences in EI languages can serve different functions. The regular flagging of construction-internal hierarchies is most likely not among them, at least not in the majority of languages.

2.3.1.4 Headedness variation in EI

Headedness variation across the EI sample was annotated according to the following decision tree, leading to five different values B, 1, 2, S and N:

1. Is any of the verbs inflected?
    a) None of the verbs bears inflection – **N = None**
    b) At least one verb bears inflection – **2**
2. Are both/all verbs inflected the same way?
    a) Both/all verbs bear the same inflection marks – **B = Both**
    b) Verbs are inflected differently, or only one verb takes inflection – **3**
3. Is one set of affixes spread across more than one verb?
    a) Two or more verbs share one set of affixes – **S = Shared**
    b) No affix sharing involved – **4**
4. Which verb takes inflection marks?
    a) Only first verb is inflected – **1 = First verb inflected**
    b) Only second/final verb is inflected – **2 = Second/final verb inflected**

Table 2.7 gives an overview of the distribution of these values across the EI sample. Although van Staden & Reesink (2008) only gave numbers per semantic notion across the investigated languages (as illustrated above in Table 2.1), it seems that the trend for languages in East Nusantara is to double mark MVCs, that is, in van Staden & Reesink's terms, use independent serialisation. This tendency is

also found in the EI sample. In general, both Papuan and Austronesian languages favour symmetrical headedness patterns over non-symmetrical ones, with 412 instances of either both verbs or none of the verbs being inflected ("B" plus "N") in the Austronesian subset, and 368 cases for the Papuan subset. The headedness type most often used in both groups is "B", which covers van Staden & Reesink's independent serialisation plus part of what they call co-dependent serialisation (381 instances for Austronesian languages, and 303 for Papuan languages). The second most frequent category after "B" is "1" in Austronesian languages, in which the first verb takes inflection but not the second, scoring higher than the no-marking pattern "N". For the Papuan languages, both these categories are equally frequent in use. The affix-sharing type "S" comprises van Staden and Reesink's complex serialisation as well as MVCs on word level, as for instance in Inanwatan (which had been excluded from van Staden and Reesink's data set for phonological reasons). The "S" pattern is more frequent than the "N" pattern in Austronesian, but not in Papuan where "N" clearly outranks "S".

Table 2.7: Overview of headedness variation in the EI languages. B = Both verbs marked, 1 = First verb marked, 2 = Second/final verb marked, S = Shared affix set, N = None of the verbs marked. Note that both subcalculations, i.e., into language family affiliation as well as into areal subgroups, each amount to the total number of observations given in the last row. Recall that all but one language from NUS are excluded from these numbers, as well as one language from MAL and one language from PAP.

	B	1	2	S	N
Austronesian	381	230	36	80	31
Papuan	303	66	19	19	65
Sulawesi	117	69	29	27	26
Nusa Tenggara	6	2	0	36	0
Maluku	89	43	7	0	66
Western Papua	472	182	19	36	4
Total	684	296	55	99	96

Both groups, Austronesian and Papuan languages, are consistent in trending towards using "B" above all other patterns. As Figure 2.3 below illustrates, however, Austronesian languages tend to use the "1" pattern more frequently, both in absolute numbers, and in relation to their use of "B". Thus, in contrast to what we found with referentiality in §2.2, genetic affiliation does seem to influence the likelihood of specific inflectional patterns in EI MVCs.

The numbers for the four subareas, Sulawesi, Nusa Tenggara, Maluku and Papua, have to be read with great care. Due to the exclusion of all but one language from the NUS group, the numbers here are identical to the distribution of inflection patterns in Kambera, the only language included in Nusa Tenggara. Another group with much noise in the results is the Maluku group. One of five languages (Buru) was excluded, and another one (Tidore) was included, but the numbers associated with it are difficult to interpret because inflection, as discussed before, seems completely optional in Tidore. The inflectional systems in Sulawesi and Western Papua were found to be stable (with the mentioned uninflected motion verbs in Pendau and Tajio). In both groups, uninflected verbs in MVCs can be interpreted as springing from properties of the respective construction, for instance, postverbs in Biak and Wooi (recall §?? on Wooi M-verbs, §?? shows Biak postverbs involving causation), or preposed bare verb stems in Inanwatan (examples can be found in §??). Figure 2.4 plots the percent distribution of headedness patterns across the four subareas.

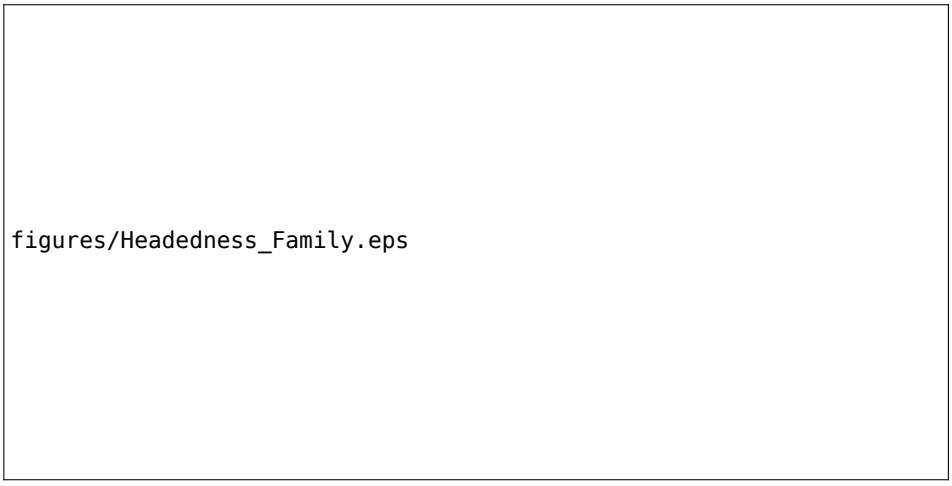


Figure 2.3: Headedness of MVCs per linguistic affiliation. B = Both verbs marked, 1 = First verb marked, 2 = Second/final verb marked, S = Shared affix set, N = None of the verbs marked. Numbers on top of the bars refer to the number of observations in the sample.

Rather surprisingly, a look at the choice of inflection patterns per language (Table 2.8) clearly shows that only one language (Moskona, PAP) sticks to a single headedness pattern for all MVCs. All other languages use more than one option (though Tobelo is another candidate for using a single pattern with only one outlier). The corpus language Wooi illustrates the full range of variation, running

Figure 2.4: Headedness of MVCs per subarea. B = Both verbs marked, 1 = First verb marked, 2 = Second/final verb marked, S = Shared affix set, N = None of the verbs marked. Numbers on top of the bars refer to the number of observations in the sample.

the whole gamut of inflectional patterns from "B" to "N". As with most other languages in the sample, "B" and "1" constitute the dominant headedness patterns in Wooi. The "S" pattern is restricted to the cases of Wooi modifier verbs, as already introduced in §??). The numbers for "2" and "N" only reflect irregular inflectional behaviour of loan verbs from the dominant national language, Indonesian, as well as the item *kay* 'finish', a verboid lexeme that has undergone grammaticalisation towards a completive marker and thereby lost part of its inflectional ability. Example (36) below is a combination of both an Indonesian loan verb and *kay*. Such instances were counted as "N" since no inflection could be found (nor added, for that matter).[7]

(36) Wooi (Austronesian, xSHWNG; ikan_ANDAWA_ANTANAY)

mara	*i*	*vo*	*vetau*	*kay*
mara	i	vo	ve-tau	kay
TOP	3SG	TOP	VBLZ-know	complete

'As for him, he knows all (the story).'

Wooi

[7] To be precise, the verbaliser *ve-* does occasionally take a prefix to mark plural subjects, but has lost the ability to inflect for singular subject referents.

What is notable from Table 2.8 below is that there are two kinds of distributional patterns. First, there is an overall trend towards "B" followed by "1" (yet not in all languages). Second, there are micro trends that only take place in single languages or small clusters of neighbouring languages. For instance, all instances of "S" marking in the Sulawesi group are due to only Tolaki and Tukang Besi, both located in the far south-east of the island. The languages from central/northern Sulawesi, Pendau and Tajio, do not seem to make use of that pattern.

In the following sections, I will provide some more examples for the different inflection patterns, and try to explain the most conspicuous numbers from Table 2.8. To this end, I will subsume under the label "symmetrical-head constructions" both the "B" and the "N" types. "Asymmetrical-head constructions" refer to the patterns "1" and "2". Finally, "distributed-head constructions" comprise the "S" pattern.

2.3.1.5 Symmetrical-head constructions

Symmetrical-head constructions mark both/all verbs in exactly the same way, that is, either they are fully inflected, or no inflection whatsoever occurs on the verbs. The latter type is of course prevalent in isolating languages of the NUS subarea as well as in Buru, but these have been excluded for the reasons already discussed. If one just regards the languages that in principle have the grammatical means to construe asymmetrical headedness patterns, "N" inflectional behaviour is virtually absent from all subareas, with two major exceptions. In the MAL group, "N" is the unmarked choice (in both senses of the term) to express MVCs in Tidore. In Sulawesi, Tolaki differs strongly from the other languages in the extent to which uninflected MVCs are in use. To illustrate this, let us have a closer look at Tolaki "N" inflection.

Mead & Youngman (2008) refer to MVCs that only have the first verb inflected as dependent serialisation, and they offer plenty of examples from Tolaki. In many of their examples, however, the first verb in sequence is not a semantically full-fledged verb that would add to the event frame of the construction, but rather a verboid with a grammatical rather than a semantic function. Therefore, when analysing such strings as a matrix construction featuring a grammaticalised verb on the one hand and a nested construction on the other, the nested construction would end up being annotated as "N" since inflection is only attached to the matrix level verb. Here are two examples, each with a nested motion construction.

Table 2.8: Headedness variation per language. B = Both verbs marked, 1 = First verb marked, 2 = Second/final verb marked, S = Shared affix set, N = None of the verbs marked. Languages in grey, only displaying NA values, have been excluded from the calculation for reasons discussed in §2.3.1.2

	B	1	2	S	N
Muna	46	0	4	0	0
Pendau	15	22	11	0	3
Tajio	18	4	10	0	0
Tolaki	0	37	0	5	23
Tukang Besi	38	6	4	22	0
Abui	*NA*	*NA*	*NA*	*NA*	*NA*
Alorese	*NA*	*NA*	*NA*	*NA*	*NA*
Bunaq	*NA*	*NA*	*NA*	*NA*	*NA*
Kaera	*NA*	*NA*	*NA*	*NA*	*NA*
Kambera	6	2	0	36	0
Klon	*NA*	*NA*	*NA*	*NA*	*NA*
Makalero	*NA*	*NA*	*NA*	*NA*	*NA*
Teiwa	*NA*	*NA*	*NA*	*NA*	*NA*
Tetun	*NA*	*NA*	*NA*	*NA*	*NA*
Waimaqa	*NA*	*NA*	*NA*	*NA*	*NA*
Western Pantar	*NA*	*NA*	*NA*	*NA*	*NA*
Buru	*NA*	*NA*	*NA*	*NA*	*NA*
Selaru	16	7	2	0	0
Taba	24	18	1	0	1
Tidore	6	18	3	0	65
Tobelo	64	0	1	0	0
Abun	*NA*	*NA*	*NA*	*NA*	*NA*
Biak	59	34	0	1	0
Dusner	36	22	0	0	0
Hatam	47	29	0	0	0
Inanwatan	18	4	14	6	0
Maybrat	95	6	1	0	0
Mor	78	10	0	0	0
Moskona	84	0	0	0	0
Mpur	74	7	1	1	0
Sougb	28	6	0	9	0
Wooi	115	70	3	16	3

(37) Tolaki (Austronesian, WMP; Mead & Youngman 2008: 116)
lako-no-to *lumaa lako um-ale-'iro* *banggona-no*
go-3SG.GEN-PERF fly go <M>-take-3PL.ABS companion-3SG.GEN
'Then he flew off and fetched his companions.'

(38) Tolaki (Austronesian, WMP; Mead & Youngman 2008: 116)
a-no *amba Anawaingguluri* *ina'u* *me-titiro* *i*
and-3SG.NOM then Anawaingguluri descend <M>:INTR-look-.down at
pu'u nohu
base mortar
'At that point Anawaingguluri went down and peered down at the base of the mortar.'

In both (37) and (38) only the first verboid takes subject inflection[8], *lako* 'go' (translated as 'then') and *amba* 'then', both conveying some sequentialising function within the discourse context (next, X happened, where X is filled by a nested MVC). According to my understanding, cases like (37) are hierarchically structured with one or more nested constructions inside (STACKED MVCs, see also §??). Here, *lumaa*, the second *lako* and *ale* together form a subordinate motion-to-action MVC which in turn has an embedded motion complex in slot 1, consisting of *lumaa* and *lako* ('fly go' meaning 'flying off/away from situational centre'). Figure 2.5 illustrates what I take to be the internal make-up of example (37).

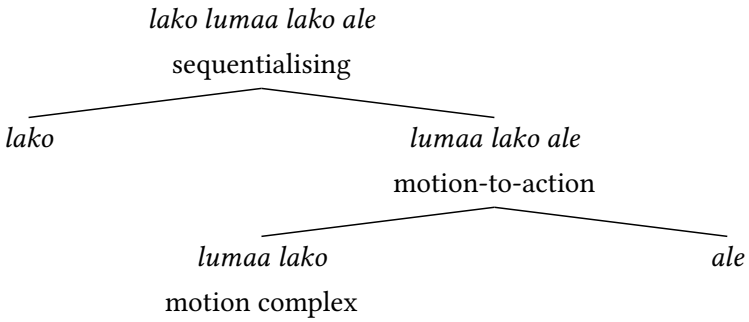


Figure 2.5: Internal structure of example (37) from Tolaki. Terms underneath the verbs name the respective construction.

[8] Note that the indexer may act as an enclitic and is then attracted to clause-initial "single syllable relators" (Mead & Youngman 2008: 114), as in (38) where *-no* is attracted to the left and the verboid *amba* remains bare.

Each MVC receives its own encoding in the EI sample, and as only the topmost verb, *lako*, is inflected for person, I annotated the two nested MVCs as "N". It is this procedure that accounts for the surprising number of 23 uninflected Tolaki MVCs. Example (38) has a similar internal structure with *ina'u* 'descend' and *me-titiro* 'look-down' forming another motion-to-action MVC.

Turning to the second type of symmetrical-head constructions, we see that in all three subareas SUL, MAL and PAP, the "B" pattern clearly dominates, with the mentioned exceptions. The following examples illustrate different inflectional categories from the subareas. In Sulawesi, mood and voice are marked on the verbs in the north, while person indexers appear on the verbs from the south-eastern languages. In Muna the mood system is integrated into the subject indexer morphology in the sense that there are two sets of indexers, one indicating realis, and another one indicating irrealis. In both Sulawesi examples below, there has to be agreement between the grammatical categories marked on the verbs: the mood values in Pendau, and the mood values as well as the person indexers in Muna. Recall that in Pendau there is a subset of motion verbs that fail to inflect, causing many motion MVCs to be either "1" or "2".

(39) Pendau (Austronesian, WMP; Quick 2007: 355)

a'u	*menyau*	*mobanta*	*ridagat*
a'u	M-pe-nyau	M-po$_1$-banta	ri=dagat
1SG.ABS	IRR-SF-go.down	IRR-SF-fish	LOC=ocean

'I will go down to fish in the ocean.'

Pendau

(40) Muna (Austronesian, WMP; van den Berg 1989: 236)

naewine	*da-si-kala-ha*	*dae-kabua*	*we*	*tehi*
tomorrow	1PL.IRR-SI-go-HA	1PL.IRR-fish	LOC	sea

'Tomorrow we will go fishing together in the sea.'

Muna

Selaru, Taba and Tobelo from Maluku are very similar in that they all mark subjects (in Tobelo also objects) on the verbs, and the majority of their MVCs are symmetrically inflected, with all verbs attracting inflection. Example (41) from Selaru illustrates this pattern. The matrix construction is a delimitative coordination explicitly marked by use of *ma*.[9] Delimitative constructions consist of both a

[9] *Ma* clearly belongs to the complex of COME verbs that are almost ubiquitous in the EI area. Other languages like Wooi still employ cognates of this lexeme as verbs or directionals, and the verbal character is still more or less visible. Since Coward glosses *ma* as a conjunction, and explicitly refers to it as a conjunctive marker, I have refrained from treating it as a verb in Selaru.

main event and a delimiting event (x takes place *until* y happens), and are mostly construed as plain biclausal constructions in EI. In this example, the first clause consists of a two-verb cause-result MVC, and both verbs, *sil* 'beat' and *hunw* 'murder', receive full person indexing inflection.

(41) Selaru (Austronesian, CMP; Coward 2005: 125)
Selaru
mw-sil-a mw-hunw-a i ma y-maty
2SG-beat-Ø 2SG-murder-Ø him CONJ 3SG-die
'… you beat and murdered him until he died.'

Symmetrical head marking is also the most common choice in the languages from Western Papua, with the exception of isolating Abun. The most consistent language in this group is Moskona with all 84 instances of MVCs in the sample being construed as "B". Moskona is a typical West Papuan language with subject agreement prefixes on the verb and moderate verb morphology. Person marking on the verb is consistently carried out whereby third person singular subjects are zero-marked. The following two examples show position-action MVCs that have been grammaticalised to a certain extent to mark aspectual information (continuous or progressive aspect; Gravelle 2010: 296). The singular example looks just like an unmarked "N" MVC. Yet, within the Moskona subject marking paradigm, it is clear that the very same construction would receive person marking with any other person/number constellation, and so has been annotated "B" as well.

(42) Moskona (Papuan, EBH; Gravelle 2010: 296)
Moskona
Petrus ah omk(a) jig jog.
Petrus lie sleep.deep LOC already
'Petrus was already sleeping deeply.'

(43) Moskona (Papuan, EBH; Gravelle 2010: 296)
Moskona
Eri i-ot i-eregejg(a) ofa.
they.PL 3PL-stand 3PL-surround s/he
'They were (standing) around him.'

2.3.1.6 Asymmetrical-head constructions

Asymmetrical-head constructions assign verbal inflection to one of the verbs only, leaving the other(s) without prefixes or suffixes. The inflected verb may either stand in V_1 position (the "1" type) or in construction-final position ("2"). If the head of a MVC is expected to go where the main verb goes in simplex

clauses then one might expect that in asymmetrical-head constructions Papuan-style AOV languages would have the last verb of a MVC marked as head (see also Durie 1997 on this point). This is, however, not a consistent trend in the dataset. There are a total of nine (Papuan) languages in the sample with AOV word order of which only one language, Inanwatan from the Papua group, shows a preponderance of "2" MVCs. All other languages are either not equipped with reliable verbal morphology (Nusa Tenggara) or do not show any inclination towards asymmetrical-head constructions at all (Tobelo from the Maluku group). As only Inanwatan behaves fully "Papuan" in this respect, we cannot, at this point, confirm such a hypothesis. Before I take a closer look at the Inanwatan MVC system, however, I would like to make mention of one other language in the sample that seems to behave in a "Papuan" way in terms of head-final marking.

In Abui (NUS group), as mentioned before, there are two inflectional categories realised on the verbs. First, there is the by-now-familiar unreliable person indexing morpholgy, basically indicating undergoer arguments but at times also S. And second, there is an aspectual category with verbal suffixes denoting perfective, imperfective and durative temporal frames. It is these suffixes that seem to indicate that the last verb in a MVC could indeed be interpreted as a Papuan final verb, or at any rate as the head of the construction. When there is an aspectual suffix, it always seems to go with the last verb (Kratochvíl 2007: 350). However, as these aspectuals are not obligatory, and do not appear with every MVC, I did not count those instances as inflection. It might very well be the case that aspectual behaviour is a better indicator of headedness in Abui MVCs than unreliable person indexing.

Inanwatan appears to be the only language in the sample that consistently makes use of the "2" pattern in certain MVCs. The structure is bare verb - subject indexer - second verb - tense suffix. De Vries refers to those constructions as complex phrasal verbs (de Vries 2004: 57). The second verb slot involves most often a (directed) motion verb, but other combinations are found as well. Examples (44) to (46) illustrate the pattern. Recall from §1.4.4 that verb inflection in Inanwatan is marked both by prefix sets for subject and objects (indicating person and number), as well as by suffixes denoting tense and gender in third person singular forms of the subject argument. Therefore *noé* 'go.out' in example (44), for instance, clearly stands out as a preposed bare verb stem.

(44) Inanwatan (Papuan, SBH; de Vries 2004: 48f.)

mé-se-i	*mé-se-i*	*mé-se-i*	*ewáiwa,*
3SBJ-walk-PST.M	3SBJ-walk-PST.M	3SBJ-walk-PST.M	and

Inanwatan

nóe-we-i-di
go.out-3SBJ-descend-PST.M
'He went on and on and on and he arrived.'

(45) Inanwatan (Papuan, SBH; de Vries 2004: 47)
Inanwatan
gáago-wo dópis ewái ísi-we-ge-rita-re obapasa ewái
side-at chamber this.F fill-3SBJ-do-HAB-PST gunpowder this.F
'At the side they used to fill the chamber with gunpowder.'

(46) Inanwatan (Papuan, SBH; de Vries 2004: 44)
Inanwatan
tíra-tira-we-i-rita-re ewáiwa íde-wó-u-rita-re
take-take-3SBJ-pierce-HAB-PST and INTR-3SBJ-fell-HAB-PST
'They pierced it repeatedly and then it would fall.'

The examples show the three main functions of the Inanwatan "2" pattern. In (44) a motion verb is combined with another motion verb to form a complex motion event. The first slot may feature different motion verbs, such as *mo* 'come', *mogo* 'carry' or *qai* 'follow', while the second slot hosts directed motion verbs specifying the path of the motion event. The next example in (45) is a loanverb carrier construction in which the loanword comes first as a bare verb stem (*isi* is a loan from Indonesian *(meng)isi*, 'fill (into)') followed by an inflected DO verb. This is functionally equivalent to a widespread verbaliser construction in West Papuan languages involving a form *ve/be* (for instance, in Wooi and Biak). The third example in (46) shows another use of the pattern. Here a TAKE verb in V_1 is combined with some other action verb in V_2. *Tira* may have already lost part of its lexical semantics in this construction, and could possibly express some kind of direct or total effectedness of the patient of *i* 'pierce'. In Tetun Fehan, for instance, the TAKE – action construction grammaticalises into a marker of successful action. In (46), however, we can still recognise a typical cause-result structure 'take something (and) pierce it (immediately)'. Note that the reduplication pattern suggests that both verbs indeed form a tight semantic unit: although it is the first verb *tira* that is reduplicated, it seems clear from the given translation that it is an action of repeated piercing, not of repeated taking followed by a single piercing action.

2.3.1.7 Distributed-head constructions

Distributed-head constructions share a set of affixes, and both verbs seem to receive the same constituent status. Alternatively, one could analyse both verbs

as forming one phrasal head instead of a lexical head. This head marking pattern is quite closely related to van Staden and Reesink's concept of complex serialisation in that both verbs form what is perceived to be an inseparable unit. Unlike Van Staden and Reesink, however, I also included cases in which both verbs appear within one phonological word (that is, having just one main accent). Distributed-head constructions are quite rare in the sample. They seem to be absent from the Moluccan languages, and appear only in a very small subset of languages in the other three subareas. In the SUL group, the "S" pattern is confined to south-eastern Tolaki and Tukang Besi (but not Muna). The pattern then reappears prominently in Kambera, and is used consistently in Inanwatan, Sougb, and Wooi.

Detecting distributed-head constructions is less straightforward than detecting other inflectional patterns. This is because the pattern stands out clearly only if a given language employs both prefixes and suffixes. This is the case in Tukang Besi, Kambera, and Wooi, but not in Tolaki and Sougb. My analysis of these languages should therefore be treated with some caution. Turning to the unambiguous cases first, the following examples provide illustrations of "S"-inflected MVCs in Tukang Besi and Kambera. Tukang Besi "S" MVCs are headed by a subject indexer in the prefix slot and may have an object pronominal form at the end of the complex. Object agreement in Tukang Besi changes the argument alignment in that a full object NP must be marked with the nominative case instead of using the non-nominative core-article *te*. The use of object indexers "implies perfectivity, greater individuation of the object, and more total affectedness of the object" (Donohue 1999: 135). It is thus not directly connected to a certain type of MVC encoding but is instead sensitive to expressing grammatical or discourse notions.

(47) Tukang Besi (Austronesian, WMP; Donohue 1999: 182)

Tukang Besi

a. *no-helo'a te roukau ako te ana-no*
3RLS-cook CORE vegetables do.for CORE child-3POSS
'She cooked the vegetables for her children.'

b. *no-helo'a-ako te ana-no te roukau*
3RLS-cook-do.for CORE child-3POSS CORE vegetables
'She cooked the vegetables for her children.'

(48) Tukang Besi (Austronesian, WMP; Donohue 1999: 183)

Tukang Besi

no-tutu-molobu-'e na kabali te La Mbagi
3RLS-pound-straight-3OBJ NOM machete CORE La Mbagi
'La Mbagi beat the machete blade straight.'

The first example pair (47) shows a non-contiguous construal with the two verbs, *helo'a* and *ako*, being placed in separate VPs, and a contiguous construal with both verbs appearing within what seems to be one phonological unit. As no clear semantic difference is given, it seems that both constructions convey more or less the same meaning (this seems rather exceptional among EI MVCs). The undergoer arguments in both constructions are marked with the CORE marker *te*. [10] The last example in (48) illustrates another way of construing a clear "S" inflectional pattern in Tukang Besi. This type is found with unaccusative verbs in V_2 position, and involves a switch-function interpretation (the O argument of V_1 becomes the S argument of V_2). Note that the use of the object suffix results in a switch in case-marking: the A argument is now marked with the CORE marker *te* and the O argument receives nominative marking.

The Kambera "S" pattern is quite similar to the Tukang Besi pattern. The (two) verbs are placed in clause-initial position framed by one or more person indexer(s) in prefix and/or suffix position, and aspectual suffixes. The following examples illustrate typical cases. In (49) two motion verbs are combined to form a motion complex. In this construction, the first verb seems to have lost its andative path semantics and V_2 *mai* contributes a path specification instead. This kind of motion combination is also found in other languages of the area (for instance, in Wooi). The "S" inflectional pattern is clearly marked off with the nominative marker in front and the imperfective clitic *-pa*. Prefix indexers can, however, also be absent, as in the following example (50). Here, the first verb of the MVC, *taka* 'arrive', does not literally evoke a spatial dislocation of the subject but rather performs a sequentialising function. As the nominative marker is not repeated, there is no prefix indicating the "S" pattern. Yet my interpretation here is that as long as a prefix is licit, cases like this one should also be included in the "S" group. In other words, if there is a slot for a given affix, and there are contexts in which the use of the affix is prevented, the whole construction nonetheless conforms to the "S" pattern.

(49) Kambera (Austronesian, CMP; Klamer 1998: 339)
Kambera
na-laku *mái-pa* *pa-hili* *karai-ka*
3SG.NOM-go come-IPFV CTR-again ask-1SG.ACC
'He came yet again to ask me again.'

[10] Note that each of the verbs assigns a CORE case role to a referent. As these referents, the O and the G argument, are not co-referential one might wonder if this does not instead suggest a biclausal construal. Example (47b) therefore seems to combine contradictory signals: while the full phonological integration of both verbs appears to mirror a tight syntactic unit, the case assignment to the arguments suggests two independent argument sets, and thus a biclausal construal rather than a monoclausal one.

(50) Kambera (Austronesian, CMP; Klamer 1998: 357)
ba reu-reu padua-na-ka dá, tàka
CONJ RDP-talk in_the_middle-3SG.GEN-PERF inside arrive
njàrung-na-nya-ka dumu
punch-3SG.GEN-3SG.DAT-PERF EMPH.2SG
'(And) he (=J) was inside in the middle of talking, then he (=older brother) punched him (=J) …'

Kambera

2.3.2 Contiguity

Contiguity refers to the distribution of verbal constituents within a given MVC, and is applied here as a measure of distance between the verbs. Contiguous verbs in a MVC are directly adjacent to each other, only allowing for verbal morphology to intervene within their sequence. If both verbs form part of one phonological word, as for instance in Inanwatan, the MVC is coded as "W". The most common case, however, is the "C" pattern (contiguous yet being part of different phonological words). As Table 2.9 shows, adjacent verbs that are phonologically independent form the most common contiguity pattern found in the EI languages, with a total of 1584 cases. Both macro affiliations, Austronesian and Papuan, overall favour the "C" pattern over all other contiguity configurations (see also Figure 2.6 below). The other option for contiguous MVCs, the within-word pattern "W", is only found in a few languages, mostly in the Papua group. With most languages, the "W" pattern seems to only show up accidentally or in specific low-frequency constructions. So, for instance in Wooi, there is only erratic or obsolete use of within-word MVCs (for examples and discussion, see next section).

When morphemic material intervenes between the verbal constituents, the first question is how to quantify the intervening elements. One could in principle either count morphemes, words, or constituents. I decided to adopt the last option as this would avoid biased counts of single constituents consisting of many morphemes or words. As displayed by the numbers, the EI languages frequently allowed one non-verbal constituent to appear between the verbs. Cases with more than one constituent were only rarely found, the most extreme being MVCs which seem to have their verbs separated by four constituents. Intervening constituents were in general more common in the Maluku and Papua group than in the other two groups: The "1" pattern comprised about 30% of the cases in MAL and PAP, as opposed to just slightly below 20% in SUL and NUS. Figure 2.7 shows the plots for degree of contiguity by subarea. No major deviation from the general pattern is to be seen, which again suggests that neither genetic affiliation

Table 2.9: Overview of contiguity variation in the EI languages. W = Within word, C = Contiguous verbs 1 = One non-verbal constituent intervening, 2 = Two non-verbal constituents intervening, 3 = Three non-verbal constituents intervening, 4 = Four non-verbal constituents intervening. Note that both subcalculations, i.e., into language family affiliation as well as into areal subgroups, amount to the total number of observations given in the last row.

	W	C	1	2	3	4
Austronesian	11	873	205	25	7	1
Papuan	34	711	248	29	2	0
Sulawesi	0	218	45	4	0	1
Nusa Tenggara	0	670	156	26	7	0
Maluku	8	203	56	6	0	0
Western Papua	37	493	196	18	2	0
Total	45	1584	453	54	9	1

nor subarea have any bearing on preferences in verb contiguity.

When we turn to contiguity variation by language (cf. Table 2.10) we see that the distribution is again quite even across the EI languages. What seems surprising is that there is not a single language that seems to use just one of the patterns for all its MVCs: All languages have MVCs with contiguous verbs, and others with non-contiguous verbs. Certain constructions may be predisposed towards specific contiguity patterns (e.g., motion constructions might tend towards "C" because V_1 typically hosts an intransitive verb so that no direct object may go between it and the following verb). Alternatively, certain constructions/ languages may not impose specific restrictions, so that speakers are free to insert non-verbal constituents into any MVC (for instance, adverbials; as long as limits of information-load are not transgressed).

A closer inspection of the data seems to suggest that both cases in fact contribute to the general pattern. In some languages, certain constructions indeed remain stable, in that a constructional template seems to receive a fixed order of constituents. This is particularly clear in instances of MVCs within a single phonological unit. For instance, in Inanwatan, motion complex constructions involving one motion event that is dissected into two or more verbal event descriptors consistently appear in "W" construals, as illustrated in (51) below. The first verb, *mogó* 'carry', remains uninflected and attaches to the second verb or verbal complex (like *de-wo* in the example), which is inflected for person and syntactic function (prefix), as well as for tense, number and gender (suffix).

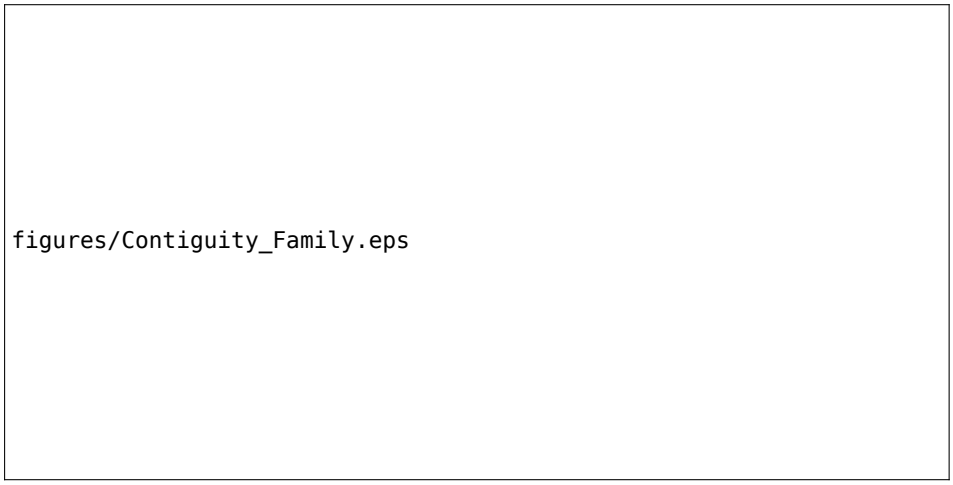


Figure 2.6: Contiguity of MVCs by linguistic affiliation in percent. W = Within word, C = Contiguous verbs 1 = One non-verbal constituent intervening, 2 = Two non-verbal constituents intervening, 3 = Three non-verbal constituents intervening, 4 = Four non-verbal constituents intervening. Numbers on top of the bars refer to the number of observations in the sample.

Figure 2.7: Contiguity of MVCs by subarea in percent. W = Within word, C = Contiguous verbs 1 = One non-verbal constituent intervening, 2 = Two non-verbal constituents intervening, 3 = Three non-verbal constituents intervening, 4 = Four non-verbal constituents intervening. Numbers on top of the bars refer to the number of observations in the sample.

Table 2.10: Contiguity variation by language. W = Within word, C = Contiguous verbs 1 = One non-verbal constituent intervening, 2 = Two non-verbal constituents intervening, 3 = Three non-verbal constituents intervening, 4 = Four non-verbal constituents intervening.

	W	C	1	2	3	4
Muna	0	34	13	2	0	1
Pendau	0	45	6	0	0	0
Tajio	0	24	8	0	0	0
Tolaki	0	54	9	2	0	0
Tukang Besi	0	61	9	0	0	0
Abui	0	93	15	1	0	0
Alorese	0	33	13	1	0	0
Bunaq	0	70	17	0	0	0
Kaera	0	13	9	2	0	0
Kambera	0	41	3	0	0	0
Klon	0	76	21	3	0	0
Makalero	0	67	8	1	0	0
Teiwa	0	63	19	2	1	0
Tetun	0	57	16	0	0	0
Waimaqa	0	126	29	15	6	0
Western Pantar	0	31	6	1	0	0
Buru	8	51	9	0	0	0
Selaru	0	17	7	1	0	0
Taba	0	34	10	0	0	0
Tidore	0	66	22	4	0	0
Tobelo	0	35	8	1	0	0
Abun	0	19	14	0	0	0
Biak	0	51	15	1	0	0
Dusner	0	28	21	0	0	0
Hatam	0	25	22	2	0	0
Inanwatan	20	5	1	2	0	0
Maybrat	0	55	23	0	0	0
Mor	0	62	6	2	1	0
Moskona	0	41	35	3	0	0
Mpur	1	39	19	3	0	0
Sougb	13	13	9	4	1	0
Wooi	3	155	31	1	0	0

(51) Inanwatan (Papuan, SBH; de Vries 2004: 44)
mái-wo wó-uwu-i *ewáiwa, ao* *nésar* *áwuga-era-era-ro* *tétewo*
here-to 3SBJ-sit-PST.SG.M and his smithy iron-piece-piece-PL all
mogó-we-de-wo-i
carry-3SBJ-go.across-come-PST.SG.M
'Here he settled, and he brought across pieces of iron for his smithy.'

Inanwatan

Verb contiguity is thus in many cases directly influenced by properties more general to the given language: as would be expected in verb-final languages like Inanwatan, the object of the transport verb *mogo* precedes the verbal complex. Similar constructions in verb-second languages confirm this: the object of the transport verb in V_1 appears postverbally and thus before V_2, typically leading to a "1" pattern if the theme argument of the transport process is expressed. (52) is an example from Pendau:

(52) Pendau (Austronesian, WMP; Quick 2007: 345)
io *nongkomung* *tuainyo* *uo* *manyau*
io N-pong-'omung tuai=nyo 'uo ma-nyau
3SG.ABS RLS-SF-carry y.sibling=3SG.GEN yonder UG:IRR-go.down
rigii *nudagat*
ri=gii nu=dagat
LOC=edge CN:GEN=ocean
'She carried her baby sister down to the edge of the ocean.'

Pendau

Certain constructions may on the other hand allow for variation with regard to interverbal constituents. Motion-to-action constructions in Waima'a, for instance, are commonly construed with the "C" pattern (as in (53) below). However, up to three constituents may occur between the verbs, as in example (54), where an adverbial (*nan*), a goal NP (*basara*) and a proform (*wuo-ruo*) are placed before V_2 which saturates the action slot of the motion-to-action template.[11]

[11] Note that in Waima'a MVCs may occur without an overt subject associated with V_1. In such cases, the overt subject may appear before V_2. This is very likely related to information-structural issues. The phenomenon bears a resemblance to tail-head linkage systems in that old information from the previous IP is often repeated as the first part of the ongoing IP. Overt subject assignment probably indicates new information in such construals. I did not filter out such MVCs, but a thorough analysis might prove that these instances are in fact better treated as some kind of information-structural device repeating known information in a condensed form. This issue is indeed vital for MVC analysis, and my hypothesis is that STAGE-RELATING CONSTRUCTIONS of at least some types are brought to life by such a device. I will explore this question briefly as an outlook to further research in Chapter ??.

(53) Waima'a (Austronesian, CMP; dom2_kaben 61)
ne mai sani loli se ehe
3SG come sing expression one say
'Someone comes speaking in 'loli' language saying…'

(54) Waima'a (Austronesian, CMP; dom2_kaben 22–3)
kas nan basara wuo-ruo hita ini
laka_isi nani basara wuo-ruo hita ini
go_PREP? perhaps market CLF-two find RECP
'Going to the market the two would meet.'

In the following sections, I will provide some more examples of contiguous and non-contiguous constructions.

2.3.2.1 Contiguous constructions

Contiguous constructions *sensu lato* comprise both within-word contiguity and verbal adjacency (the "C" pattern). As the latter is the unmarked choice for MVCs in Eastern Indonesia, I will here turn to some more examples of the "W" type. Within-word contiguity only appears in a small subset of languages of Western Papua and the Moluccas. While Inanwatan shows a variety of different constructions, all construed as "W", the Sougb cases are mostly confined to motion MVCs. Only three verbs are found in V_1 position: *ed(a)/d* 'go', *en* 'come', and *ougb* 'run'. V_2 may host a variety of action and motion verbs, deriving motion-to-action MVCs or motion complex MVCs. Example (55) is a typical case of the motion-to-action scenario. (56) gives a motion complex with a manner of motion verb in front and a path-specifying directed motion verb in second position (note that the whole MVC is a subordinated relative clause derived by the use of a nominaliser).

(55) Sougb (Papuan, EBH; Reesink 2002a: 214)
Ban b-in naugb b-id-eya se ab-ires habi.
you 2SG-come for 2SG-go-see with 2SG-eye then
'You come to go see (him) with your own eyes first.'

(56) Sougb (Papuan, EBH; Reesink 2002a: 200)
Godeh hom g-ougb-da dau m-ena.
child one NM-run-go from 3SG-father
'A son who ran away from his father.'

Another use of the within-word pattern in Sougb MVCs is required by the loanword verbaliser *(e)be* that is glossed as 'do'. In order to integrate loanverbs and use them as verbs, *(e)be* has to be attached carrying a subject indexing prefix, as shown by example (57) (*menghadap* is a loanverb from Indonesian, fully integrated - even with the actor voice prefix *meN-* - into Sougb).

(57) Sougb (Papuan, EBH; Reesink 2002a: 217)
Tau la-(e)be-menghadap-im.
or 2DU-do-oppose-RECP
'Or the two of them were opposite to each other.'

Sougb

Further traces of within-word MVCs can be found in lexicalised verb compounds in Sougb (some items are listed in Reesink 2002a: 216). Complex word formation with more than one verbal morpheme is also occasionally found in other languages of the area, most notably in Abui for which Kratochvíl (2007) discusses quite complex formation patterns. As many of these compound verbs seem to have lost a great deal of their internal semantics, I generally refrained from recording them as MVCs proper, though more in-depth analyses of fixed complex verbs might still find that the semantic patterns from the EI sample are in fact of the same (or at least of a similar) kind.

In Wooi, three cases of within-word MVCs have been recorded, two of them involving the generic verb *ong* in the sense of *ong* x = follow x = doing also x. *Ong* always comes first and forms what I call a sequitive construction. In most instances, both verbs behave like fully independent verbs, yet in the following two cases a sandhi effect appears between the verbs. This suggests that they are more fully integrated here. In (58) the fricative /v/ is changed to the homorganic voiced stop [b] which in turn causes the morpheme-final nasal /n/ (in its word-final allophone [ng]) to assimilate to [m]. Example (59) illustrates another sandhi between two morphemes: here, a combination of two morphemes causes the segment /s/ to appear in its word-internal form [s] (instead of the allophone [h] which appears in word-initial position[12]). The change of [h] to [s] in *cosua* strongly suggests that both morphemes form a tight phonological unit, and therefore are best treated as a "W" MVC.

[12] The spelling [hn] in Wooi reflects a nasalisation of the glottal fricative, appearing before high vowels /u/ and /i/.

(58) Wooi (Austronesian, SHWNG; midwife_traditional_medicine 21–2)
tangko *na* *yampa konta varo* *combemengerti*
ta-ko na yampa konta varomi ti-ong-ve-mengerti
1PL.IN-take ABL MED again in.order.to 3SG-follow-VBLZ-understand
'We have to take (knowledge) from it as well, so that she also understands.'

(59) Wooi (Austronesian, SHWNG; zaman_Belanda 118)
Wooi
bertindak kio *cosua*
bertindak kio ti-ong-hnua
operate until 3SG-follow-enter
'He (the Dutch) ruled until he (the Japanese) also came in.'

What the Wooi cases demonstrate is that there may be both languages that adopt a "W" pattern by way of grammaticalisation of a specific construction, and other languages in which the exact formation of some MVC may be subject to a certain amount of free inter-speaker variation. Both Wooi speakers that produced the utterances in (58) and (59) were old speakers, 84 and 78 years old respectively. The variation evident in the examples above may therefore in fact reflect inter-generational differences in MVC formation and use, rather than a constructional property.

2.3.2.2 Non-contiguous constructions

The verbs of non-contiguous MVCs are separated by one or more constituents. One constituent is the most frequent pattern, but up to four constituents have been recorded before the second verb of the construction. Extreme cases tend to belong to MVC categories that are typically not analysed as SVCs, for instance because the (subject) referents are not shared by the verbs (FREE JUXTAPOSITION). The only case of "4" in the sample is a good example.

(60) Muna (Austronesian, WMP; van den Berg 1989: 343)
Muna
ka-rimba-no *no-horo* *katogha ka-rimba-no* *dua* *dahu no-lumpa*
NM-fast-POSS 3SG.RLS-fly crow NM-fast-POSS also dog 3SG.RLS-run
'The faster the crow flew, the faster the dog ran.' (lit. 'its fastness, the crow flew, its fastness also the dog ran')

In example (60) from Muna, the verbs are separated from one another by four constituents: the postponed subject *katogha*, a *ka*-nominalisation of the verb

rimba, an adverb *dua*, and the second subject *dahu*. This is an example that is taken from one of the appended texts. While van den Berg did make use of punctuation throughout the text, marking (potential) points of prosodic segmentation, the case in (60) could probably also be uttered in two IPs. Furthermore, only the second part of the utterance is modified by the adverb. This seems to point at a biclausal construal rather than a MVC. At the same time, the interpretation is clearly that of a construction with fixed semantics (the more X, the more Y). Cases like this one are hard to interpret and should at this analytical stage at best be understood as peripheral examples of MVCs.

More typical cases of discontinuous MVCs are illustrated by the following examples. We see that a range of different elements can fill the position between the verb constituents. Some, as the goal argument *turu uling* in example (61) from Alorese, are directly licensed by the preceding verb. Other elements are adjuncts (as *hanyen* and *bu* in example (62) from Hatam), or pertain to partial modification of one of the constructional stages (as with the aspectual marker *lo* that aligns with the right edge of the motion STAGE in example (63)).

(61) Alorese (Austronesian, CMP; Klamer 2011: 130)
mareng lele neka, fe gere turu uling hiki turu
night long already they go.up sleep place see sleep
'In the middle of the night, they get into bed to sleep.'

(62) Hatam (Papuan, Hatam-Mansim; Reesink 1999: 97)
nok lene ni-mbut hanyen bu ni-kwei ei igbei
like then 1EX-walk anew again 1EX-come LOC house
'So then we walked around again, came home …'

(63) Waima'a (Austronesian, CMP; pear_Santina 203)
mai lo bati la
come ASP divide LOC
'(One of them came running), he came to divide (it) up.'

2.4 Summary

Summarising the findings from this chapter, I have introduced and discussed three formal parameters that are retrievable from published data sources: (i) argument sharing, (ii) headedness, and (iii) contiguity. A quantitative assessment revealed that the EI languages in fact differ very little across the preferred features. For neither of the three parameters could a strong influence of genealogical

affiliation be found. In headedness variation, however, there is a tendency for the Papuan languages to make less use of the head-first pattern than the Austronesian languages. An investigation of the geographical distribution across the four subareas did also not yield clear differences among the groups.

What can be gathered from the sample is that prototypical MVCs in the EI area have shared subject arguments ("S"), that both verbs bear the same amount of inflection ("B"), and that they occur right next to each other ("C") without intervening constituents such as direct object arguments or adjuncts. This is in line with van Staden and Reesink's finding that "independent serialisation is by far the most commonly found type" (van Staden & Reesink 2008: 48). This holds all the more if we include the isolating languages Alorese, Waima'a, and Buru into the picture. These languages do not possess any other strategy than to construe MVCs without verbal morphology (and thus appear to be symmetrical in terms of headedness as well). Another finding can also be supported: that co-dependent serialisation (involving argument switch of the "D" type) is very common (especially for change of state, as we shall see in section §??). In §2.2, the numbers not only showed a moderate degree of "D" type argument sharing patterns, but also that virtually every EI language in the sample makes use of them. Switch-subject constructions can therefore be regarded a general trait across all of Wallacea (as the use of MVCs in general).

What the data have shown is that variation in the morphosyntactic make-up of MVCs is a poor predictor of areal tendencies or genealogical descendance of the languages. It seems, therefore, that van Staden & Reesink's conclusion that "serialisation on the whole is more characteristic of the Papuan languages than of the Austronesian languages" (van Staden & Reesink 2008: 50) is not borne out by evidence from the present sample. From a formal perspective, it appears that variation in formal encoding of MVCs is characteristic of all languages. In the next chapter, I will shift my focus to semantic properties of MVCs, arguing for a distinction into three basic techniques of MVC formation: feature MERGING, MODIFICATION, and STAGING.

References

Adelaar, Alexander. 2005. The Austronesian languages of Asia and Madagascar: A historical perspective. In Alexander Adelaar & Nikolaus Himmelmann (eds.), *The Austronesian languages of Asia and Madagascar*, 1–42. Routledge.

Aikhenvald, Alexandra Y. 1999. Serial constructions and verb compounding: Evidence from Tariana (North Arawak). *Studies in Language* 23(3). 469–497.

Aikhenvald, Alexandra Y. 2006. Serial verb constructions in typological perspective. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Serial verb constructions: A cross-linguistic typology*, 1–68. Oxford: Oxford University Press.

Aikhenvald, Alexandra Y. 2011. Multi-verb constructions: Setting the scene. In Alexandra Y. Aikhenvald & Pieter Muysken (eds.), *Multi-verb constructions. A view from the Americas*. Leiden/Boston: Brill.

Alsina, Alex, Joan Bresnan & Peter Sells. 1997. Complex predicates: Structure and theory. In Alex Alsina, Joan Bresnan & Peter Sells (eds.), *Complex predicates*, 13–47. CSLI.

Ameka, Felix K. 2005. Multiverb constructions on the West African littoral: Microvariation and areal typology. In M. Vulchanova & TA Åfarli (eds.), *Grammar and beyond: Essays in honour of Lars Hellan*, 15–42. Oslo: Novus.

Ameka, Felix K. 2006. Ewe serial verb constructions in their grammatical context. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Serial verb constructions: A cross-linguistic typology*, 124–143. Oxford University Press.

Ameka, Felix K. & James Essegbey. 2013. Serialising languages: Satellite-framed, verb-framed or neither. *Ghana Journal of Linguistics* 2(1). 19–38.

Baird, Louise. 2008a. *A grammar of Klon: A non-Austronesian language of Alor, Indonesia*. Canberra: Pacific Linguistics.

Baird, Louise. 2008b. Motion serialisation in Keo. In Gunter Senft (ed.), *Serial verb constructions in Austronesian and Papuan languages*, 55–74. Pacific Linguistics.

Baker, Brett & Mark Harvey. 2010. Complex predicate formation. In Mengistu Amberber, Brett Baker & Mark Harvey (eds.), *Complex predicates: Cross-linguistic perspectives on event structure*, 13–47. Cambridge University Press.

Baker, Mark C. 1989. Object sharing and projection in serial verb constructions. *Linguistic inquiry* 20(4). 513–553.

Barsel, Linda A. 1994. *The verb morphology of Mori, Sulawesi*. Canberra: Pacific Linguistics.

Bellwood, Peter. 1998. From Bird's Head to bird's eye view: Long term structures and trends in Indo-Pacific prehistory. In Jelle Miedema, Cecilia Odé & Rien A. C. Ram (eds.), *Perspectives on the Bird's Head of Irian Jaya, Indonesia. Proceedings of the conference, Leiden, 13–17 october 1997*, 951–978. GA.

Bellwood, Peter. 2007. *Prehistory of the Indo-Malaysian Archipelago*. Canberra: ANU E Press.

Belo, Maurício C. A., John Bowden, John Hajek, Nikolaus P. Himmelman & Alexandre V. Tilman. 2002–2006. *DoBes Waima'a documentation*.

Berry, Keith & Christine Berry. 1999. *A description of Abun: A West Papuan language of Irian Jaya*. Canberra: Pacific Linguistics.

Bickel, Balthasar. 2011. Grammatical relations typology. In Jae Jung Song (ed.), *The Oxford handbook of linguistic typology*, 399–444. Oxford: Oxford University Press.

Bloomfield, Leonard. 1933. *Language*. New York: Holt.

Blust, Robert. 1993. Central and central-eastern Malayo-Polynesian. *Oceanic Linguistics* 32. 241–293.

Blust, Robert. 2009. *The Austronesian languages*. Canberra: Pacific Linguistics.

Bohnemeyer, Jürgen, Nick J. Enfield, James Essegbey, Iraide Ibarretxe-Antuñano, Sotaro Kita, Friederike Lüpke & Felix K. Ameka. 2007. Principles of event segmentation in language: The case of motion events. *Language* 83(3). 495–532.

Bohnemeyer, Jürgen, Nick J. Enfield, James Essegbey & Sotaro Kita. 2011. The macro-event property. In Jürgen Bohnemeyer & Eric Pedersen (eds.), *Event representation in language and cognition*, 43–67. Cambridge University Press.

Bowden, John. 2001. *Taba: Description of a South Halmahera language*. Canberra: Pacific Linguistics.

Bowden, John. 2006. A grammar sketch of Waimaqa.

Bowern, Claire. 2008. The diachrony of complex predicates. *Diachronica* 25(2). 161–185.

Bradshaw, Joel. 1993. Subject relationships within serial verb constructions in Numbami and Jabêm. *Oceanic Linguistics* 32. 133–161.

Bril, Isabelle. 2007. Nexus and juncture types of complex predicates in Oceanic languages: Functions and semantics. *Language and linguistics (Academia Sinica)* 8(1). 267–310.

Bril, Isabelle & Françoise Ozanne-Rivierre. 2004. *Complex predicates in Oceanic languages: Studies in the dynamics of binding and boundness*. Berlin: Walter de Gruyter.

Bruce, Les. 1988. Serialization: From syntax to lexicon. *Studies in Language* 12(1). 19–49.

Butt, Miriam. 2010. The light verb jungle: Still hacking away. In Mengistu Amberber, Brett Baker & Mark Harvey (eds.), *Complex predicates: Cross-linguistic perspectives on event structure*, 48–78. Cambridge University Press.

Bybee, Joan L., Revere Dale Perkins & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

Capelli, Cristian, James F. Wilson, Martin Richards, Michael P. H. Stumpf, Fiona Gratrix, Stephen Oppenheimer, Peter Underhill, Vincenzo L. Pascali, Tsang-Ming Ko & David B. Goldstein. 2001. A predominantly indigenous paternal heritage for the Austronesian-speaking peoples of insular Southeast Asia and Oceania. *The American Journal of Human Genetics* 68(2). 432–443.

Carlson, Greg N. 1977. *Reference to kinds in English*. University of Massachusetts. (Doctoral dissertation).

Chafe, Wallace. 1994. *Discourse, consciousness, and time: The flow and displacement of conscious experience in speaking and writing*. Chicago: University of Chicago Press.

Chierchia, Gennaro. 1995. Individual-level predicates as inherent generics. In Gregory N. Carlson & Francis Jeffry Pelletier (eds.), *The generic book*, 176–223. University of Chicago Press.

Christaller, Johann Gottlieb. 1875. *A grammar of the Asante and Fante language called Tshi [Chwee, Twi], based on the Akuapem dialect, with reference to the other [Akan and Fante] dialects*. Basel: Basel Evangelical Missionary Society.

Comrie, Bernard. 1995. Serial verbs in Haruai (Papua New Guinea) and their theoretical implications. In Janine Bouscaren, Jean-Jacques Franckel & Stéphane Robert (eds.), *Langues et langage: Problèmes et raisonnement en linguistique. Mélanges offerts à Antoine Culioli*, 25–37. Paris: Presses Universitaires de France.

Coward, David F. 2005. *A introduction to the grammar of Selaru, Indonesia*. Saumlaki, Indonesia: SIL International.

Croft, William. 2001. *Radical construction grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Croft, William. 2012. *Verbs: Aspect and causal structure*. Oxford: Oxford University Press.

Crowley, Terry. 1987. Serial verbs in Paamese. *Studies in Language* 11(1). 35–84.

Crowley, Terry. 2002. *Serial verbs in Oceanic: A descriptive typology*. Oxford: Oxford University Press.

Dalrymple, Mary & Suriel Semuel Mofu. 2012. *Dusner*. Munich: Lincom Europa.
Davidson, Donald. 1967. The logical form of action sentences. In Nicholas Rescher (ed.), *The Logic of decision and action*.
Davis, Karen. 2003. *A grammar of the Hoava language, Western Solomons*. Canberra: Pacific Linguistics.
de Vries, Lourens. 2004. *A short grammar of Inanwatan, an endangered language of the Bird's Head of Papua, Indonesia*. Canberra: Pacific Linguistics.
de Vries, Lourens. 2005. Towards a typology of tail–head linkage in Papuan languages. *Studies in Language* 29(2). 363–384.
de Vries, Lourens. 2006. Areal pragmatics of New Guinea: Thematization, distribution and recapitulative linkage in Papuan narratives. *Journal of pragmatics* 38(6). 811–828.
Defina, Rebecca. 2016. Do serial verb constructions describe single events?: A study of co-speech gestures in Avatime. *Language* 92(4). 890–910.
Defina, Rebecca & Asifa Majid. 2012. Conceptual event units of putting and taking in two unrelated languages. In *Proceedings of the cognitive science society*, vol. 34, 1470–1475.
Dixon, R. M. W. 2006. Serial verb constructions: Conspectus and coda. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Serial verb constructions: A cross-linguistic typology*, 338–50.
Dixon, Robert M. W. 1979. Ergativity. *Language* 55. 59–138.
Dol, Philomena. 2007. *A grammar of Maybrat: A language of the Bird's Head Peninsula, Papua province, Indonesia*. Canberra: Pacific linguistics.
Donohue, Mark. 1999. *A grammar of Tukang Besi*. Berlin: de Gruyter.
Dowty, David R. 1979. *Word meaning and Montague grammar*. Dordrecht: D. Reidel.
Dowty, David R. 1991. Thematic proto-roles and argument selection. *Language* 67(3). 547–619.
Dryer, Matthew S. 2013. Order of Genitive and Noun. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/86.
Durie, Mark. 1988. Verb serialization and "verbal-prepositions" in Oceanic languages. *Oceanic linguistics* 27. 1–23.
Durie, Mark. 1997. Grammatical structures in verb serialization. In Peter Sells Alex Alsina Joan Bresnan (ed.), *Complex predicates*, 289–354. Stanford, California: CSLI Publications.

Elman, Jeffrey L. 2009. On the meaning of words and dinosaur bones: Lexical knowledge without a lexicon. *Cognitive Science* 33. 547–582.
Enfield, Nicholas J. 2008. Verbs and multi-verb construction in Lao. In Anthony V. N. Diller, Jerold A. Edmondson & Yongxian Luo (eds.), *The Tai-Kadai languages*, 83–183. Routledge.
Enfield, Nicholas J. 2009. Serial verb constructions: A cross-linguistic typology (review). *Language* 85(2). 445–451.
Engelberg, Stefan. 2005. Kimian states and the grammar of predicative adjectives. *Theoretical Linguistics* 31(3). 331–347.
Engelberg, Stefan. 2011. Frameworks of lexical decomposition of verbs. In Claudia Maienborn, Klaus von Heusinger & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, vol. 1, 358–399.
Engelhardt, Sonja. 2010. *Das verhältnis von Intonationseinheiten zu grammatischen Einheiten im Waimaʻa (Osttimor). Eine empirische Arbeit (MA thesis).*
Farr, Cynthia J. M. 1999. *The interface between syntax and discourse in Korafe, a Papuan language of Papua New Guinea*. Canberra: Pacific Linguistics.
Fillmore, Charles J. 1970. The grammar of *breaking* and *hitting*. In Roderick Jacobs & Peter Rosenbaum (eds.), *Readings in English transformational grammar*, 120–133. Washington D.C.: Georgetown University Press.
Fillmore, Charles J., Paul Kay & Mary Catherine O'Connor. 1988. Regularity and idiomaticity in grammatical constructions: The case of let alone. *Language* 64(3). 501–538.
Foley, William A. 2008. The notion of "event" and serial verb constructions: Arguments from New Guinea. In, 129–156.
Foley, William A. 2010. Events and serial verb constructions. In Mengistu Amberber, Brett Baker & Mark Harvey (eds.), *Complex predicates: Cross-linguistic perspectives on event structure*, 79–109.
Foley, William A. & Mike Olson. 1985. Clausehood and verb serialization. In Johanna Nichols & Anthony C. Woodbury (eds.), *Grammar inside and outside the clause: Some approaches to theory from the field*, 17–60. Cambridge: Cambridge University Press.
Foley, William A. & Robert D. Van Valin Jr. 1984. *Functional syntax and universal grammar* (Cambridge Studies in Linguistics 38). Cambridge: Cambridge University Press.
Fox, James J. 1971. Semantic parallelism in Rotinese ritual language. *Bijdragen tot de taal-, land-en Volkenkunde* 2. 215–255.

Fox, James J. 2005. Ritual languages, special registers and speech decorum in Austronesian languages. In Alexander Adelaar & Nikolaus Himmelmann (eds.), *The Austronesian languages of Asia and Madagascar*, 87–109.

Fox, James J. 2006. *To speak in pairs: Essays on the ritual languages of Eastern Indonesia*. Cambridge: Cambridge University Press.

Gasser, Emily Anne. 2014. *Windesi Wamesa morphophonology*. New Haven, Connecticut: Yale University Press.

Givón, Talmy. 1991. Serial verbs and the mental reality of 'event': Grammatical vs. cognitive packaging. In Elizabeth Closs Traugott & Bernd Heine (eds.), *Approaches to grammaticalization*, vol. 1, 81–127. John Benjamins.

Goldberg, Adele E. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.

Goldberg, Adele E. 2006. *Constructions at work: The nature of generalization in language*. Oxford: Oxford University Press.

Gravelle, Gloria. 2010. *A grammar of Moskona: An East Bird's Head language of West Papua, Indonesia*. Vrije Universiteit Amsterdam. (Doctoral dissertation).

Grice, H. Paul. 1989. *Studies in the way of words*. Cambridge, Massachusetts: Harvard University Press.

Grimes, Charles E. 1991. *The Buru language of Eastern Indonesia*. Australian National University. (Doctoral dissertation).

Gruber, Jeffrey Steven. 1965. *Studies in lexical relations*. Massachusetts Institute of Technology. (Doctoral dissertation).

Hall, Robert. 2009. Southeast Asia's changing palaeogeography. *Blumea* 54. 148–161.

Haspelmath, Martin. 2013. Argument indexing: A conceptual framework for the syntactic status of bound person forms. In Dik Bakker & Martin Haspelmath (eds.), *Languages across boundaries: Studies in memory of Anna Siewierska*, 197–226.

Haspelmath, Martin. 2016. The serial verb construction: Comparative concept and cross-linguistic generalizations. *Language and Linguistics* 17(3). 291–319.

Heeschen, Volker. 1998. *An ethnographic grammar of the Eipo language spoken in the central mountains of Irian Jaya (West New Guinea), Indonesia*. Berlin: D. Reimer.

Heinsohn, Thomas E. 2010. Marsupials as introduced species: Long-term anthropogenic expansion of the marsupial frontier and its implications for zoogeographic interpretation. In Matthew Prebble Simon G. Haberle Janelle Stevenson (ed.), *Altered Ecologies: Fire, climate and human influence on terrestrial landscapes*, 133–176. Canberra: ANU Press.

Higginbotham, James. 1985. On semantics. *Linguistic Inquiry* 16(4). 547–593.
Higginbotham, James. 2000. *On events in linguistic semantics*. Oxford: Oxford University Press.
Himmelmann, Nikolaus P. 2004. Lexicalization and grammaticization: Opposite or orthogonal. In Walter Bisang, Nikolaus Himmelmann & Björn Wiemer (eds.), *What makes grammaticalization?: A look from its fringes and its components*, 21–42.
Himmelmann, Nikolaus P. 2005a. Gram, construction, and class formation. In Clemens Knobloch & Burkhard Schaeder (eds.), *Wortarten und Grammatikalisierung. Perspektiven in System und Erwerb*, 79–93.
Himmelmann, Nikolaus P. 2005b. Tagalog. In Alexander Adelaar & Nikolaus P. Himmelmann (eds.), *The Austronesian languages of Asia and Madagascar*, 350–376. London: Routledge.
Himmelmann, Nikolaus P. 2005c. The Austronesian languages of Asia and Madagascar: Typological characteristics. In Alexander Adelaar & Nikolaus P. Himmelmann (eds.), *The Austronesian languages of Asia and Madagascar*, 110–181. London: Routledge.
Himmelmann, Nikolaus P. 2006. The challenges of segmenting spoken language. In Jost Gippert, Nikolaus P. Himmelmann & Ulrike Mosel (eds.), *Essentials of language documentation*, 253–274. Berlin: Mouton de Gruyter.
Himmelmann, Nikolaus P., Meytal Sandler, Jan Strunk & Volker Unterladstetter. 2018. On the universality of intonational phrases: A cross-linguistic interrater study. *Phonology* 35(2). 207–245.
Holton, Gary. 2003. *Tobelo*. Munich: Lincom Europa.
Holton, Gary. 2010. Person-marking, verb classes, and the notion of grammatical alignment in Western Pantar (Lamma). In Michael C. Ewing & Marian Klamer (eds.), *Typological and areal analyses: Contributions from East Nusantara*, 99–119. Canberra: Pacific Linguistics.
Holton, Gary. 2014. Western Pantar. In Antoinette Schapper (ed.), *Papuan languages of Timor, Alor and Pantar: Sketch grammars*, vol. 1, 23–96.
Holton, Gary, Marian Klamer, František Kratochvíl, Laura C. Robinson & Antoinette Schapper. 2012. The historical relations of the Papuan languages of Alor and Pantar. *Oceanic Linguistics* 51(1). 86–122.
Huber, Juliette. 2011. *A grammar of Makalero: A Papuan language of East Timor*. Utrecht: LOT.
Huber, Juliette & Antoinette Schapper. 2014. The relationship between aspect and universal quantification. In Marian Klamer & František Kratochvíl (eds.), *Number and quantity in East Nusantara*, 152–169. Asia-Pacific Linguistics.

Jackendoff, Ray. 1990. *Semantic structures*. Cambridge, Massachusetts: MIT Press.

Jarkey, Nerida. 2010. Cotemporal serial verb constructions in White Hmong. In Mengistu Amberber, Brett Baker & Mark Harvey (eds.), *Complex predicates: Cross-linguistic perspectives on event structure*, 110–134. Cambridge: Cambridge University Press.

Jukes, Anthony. 2005. Makassar. In K. Alexander Adelaar & Nikolaus Himmelmann (eds.), *The Austronesian languages of Asia and Madagascar*, vol. 7. London: Routledge.

Jukes, Anthony. 2006. *Makassarese (basa Mangkasara'): A description of an Austronesian language of South Sulawesi*. University of Melbourne. (Doctoral dissertation).

Kamholz, David. 2009. More Moor. In *Handouts from eleventh international conference on Austronesian linguistics, Aussois, France, June 2009*, 22–26.

Kay, Paul & Charles J. Fillmore. 1999. Grammatical constructions and linguistic generalizations: The what's x doing y? construction. *Language* 75(1). 1–33.

Kirihio, J. Karter, Volker Unterladstetter, Apriani Arilaha, F. Morigerowski, Alexander Loch, Yusuf Sawaki & Nikolaus P. Himmelmann. 2009–2015. *DoBes Wooi documentation*.

Klamer, Marian. 1998. *A grammar of Kambera*. Berlin: Walter de Gruyter.

Klamer, Marian. 2010. *A grammar of Teiwa*. Vol. 49. Berlin: Walter de Gruyter.

Klamer, Marian. 2011. *A short grammar of Alorese (Austronesian)*. Munich: Lincom Europa.

Klamer, Marian. 2014a. Kaera. In Antoinette Schapper (ed.), *The Papuan Languages of Timor, Alor and Pantar: Volume 1: Sketch grammars*, 97–146. Mouton de Gruyter.

Klamer, Marian. 2014b. The Alor-Pantar languages: Linguistic context, history and typology. In Marian Klamer (ed.), *The Alor-Pantar languages: History and typology*, 5–53.

Klamer, Marian, Ger Reesink & Miriam van Staden. 2008. East Nusantara as a linguistic area. In Pieter Muysken (ed.), *From linguistic areas to areal linguistics*, 95–149. Amsterdam: John Benjamins.

Klamer, Marian & Antoinette Schapper. 2012. The development of 'give' constructions in the Papuan languages of Timor-Alor-Pantar. *Linguistic Discovery* 10. 174.

Kluge, Angela. 2014. *A grammar of Papuan Malay*. Leiden: LOT.

Kratochvíl, František. 2007. *A grammar of Abui: A Papuan language of Alor*. Utrecht: LOT.

Kratzer, Angelika. 1995. Individual-level predicates. In Gregory N. Carlson & Francis Jeffry Pelletier (eds.), *The generic book*, 125–175. University of Chicago Press.
Kroeger, Paul R. 2005. *Analyzing grammar: An introduction*. Cambridge: Cambridge University Press.
Ladd, D. Robert. 2008. *Intonational phonology*. Cambridge: Cambridge University Press.
Lakoff, George. 1970. Linguistics and natural logic. *Synthese* 22(1). 151–271.
Lane, Jonathan. 2008. *Kalam serial verb constructions*. Canberra: Pacific Linguistics.
Lehmann, Christian. 2015. *Thoughts on grammaticalization*. Vol. 3. Berlin: Language Science Press.
Leto, Claudia, Winarno S. Alamudi, Nikolaus P. Himmelmann, Jani Kuhnt-Saptodewo, Sonja Riesberg & Hasan Basri. 2005–2010. *DoBes Totoli documentation*. http://dobes.mpi.nl/projects/totoli/.
Levin, Beth. 1993. *English verb classes and alternations: A preliminary investigation*. Chicago: University of Chicago Press.
Levin, Beth & Malka Rappaport Hovav. 2005. *Argument realization*. Cambridge: Cambridge University Press.
Levinson, Stephen C. 2013. Recursion in pragmatics. *Language* 89(1). 149–162.
Li, Charles N. & Sandra A. Thompson. 1973. Serial verb constructions in Mandarin Chinese: Subordination or co-ordination? In Claudia Corum, T. Cedric Smith-Stark & Ann Weiser (eds.), *You take the high node and i'll take the low node. Papers from the comparative syntax festival. The difference between main and subordinate clause*. Chicago Linguistic Society.
Lichtenberk, Frantisek. 1991. Semantic change and heterosemy in grammaticalization. *Language* 67(3). 475–509.
Lord, Carol. 1993. *Historical change in serial verb constructions*. Amsterdam: John Benjamins.
Maienborn, Claudia. 2005. On the limits of the Davidsonian approach: The case of copula sentences. *Theoretical linguistics* 31(3). 275–316.
Maienborn, Claudia. 2011. Event semantics. In Claudia Maienborn, Klaus von Heusinger & Paul Portner (eds.), *Semantics: An international handbook of natural language meaning*, vol. 1, 802–829.
Margetts, Anna. 1999. *Valence and transitivity in Saliba: An Oceanic language of Papua New Guinea*. Radboud University Nijmegen. (Doctoral dissertation).
Margetts, Anna. 2015. Person shift at narrative peak. *Language* 91(4). 755–805.

Matthews, Stephen. 2006. On serial verb constructions in Cantonese. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Serial verb constructions. A cross-linguistic typology*, 69–87.

Mayani, Luh Anik. 2013. *A grammar of Tajio. A language spoken in Central Sulawesi*. Universität zu Köln. (Doctoral dissertation).

McCawley, James D. 1971. Prelexical syntax. In *Report of the 22nd roundtable meeting on linguistics and language studies*, 19–33.

Mead, David & Scott Youngman. 2008. Verb serialisation in Tolaki. In Gunter Senft (ed.), *Serial verb constructions in Austronesian and Papuan languages*, 113–140.

Menick, Raymond H. 1996. Verb sequences in Moi. In Ger Reesink (ed.), *Studies in Irian languages*, vol. 1, 41. Badan Penyelenggara Seri NUSA, Universitas Katolik Indonesia Atma Jaya.

Mofu, Suriel Semuel. 2008. *Biak morphosyntax*. University of Oxford. (Doctoral dissertation).

Muysken, Pieter & Tonjes Veenstra. 2006. *Serial verbs*. Martin Everaert & Henk van Riemsdijk (eds.). Hoboken: Wiley Online Library. 234–270.

Næss, Åshild. 2004. Serial verbs and complex constructions in Pileni. In Isabelle Bril & Françoise Ozanne-Rivierre (eds.), *Complex predicates in Oceanic languages: Studies in the dynamics of binding and boundness*, vol. 29, 225–250. Walter de Gruyter.

Newtson, Darren & Gretchen Engquist. 1976. The perceptual organization of ongoing behavior. *Journal of Experimental Social Psychology* 12(5). 436–450.

Nishiyama, Kunio & Herman Kelen. 2007. *A grammar of Lamaholot*. Munich: Lincom Europa.

Nordhoff, Sebastian. 2012. Multi-verb constructions in Sri Lanka Malay. *Journal of Pidgin and Creole Languages* 27(2). 303–343.

O'Melia, Thomas. 1966. First year Cantonese, revised edition. *Hong Kong: Catholic Truth Society.[first edition 1938]* 2.

Odé, Cecilia. 2002. A sketch of Mpur. In Ger Reesink (ed.), *Languages of the Eastern Bird's Head*, 45–107.

Olson, Mike. 1981. *Barai clause junctures: Toward a functional theory of interclausal relations*. (PhD thesis).

Pawley, Andrew. 1987. Encoding events in Kalam and English: Different logics for reporting experience. In Russell S. Tomlin (ed.), *Coherence and grounding in discourse*, 329–360. Amsterdam: John Benjamins.

Pawley, Andrew. 1991. Saying things in Kalam: Reflections on language and translation. In Andrew Pawley (ed.), *Man and a half: Essays in Pacific anthropology and ethnobiology in honour of Ralph Bulmer*, vol. 48, 432. Polynesian Society.

Pawley, Andrew. 2008. Compact versus narrative serial verb constructions in Kalam. In Gunter Senft (ed.), *Serial verb constructions in Austronesian and Papuan languages*, 171–202.

Pawley, Andrew. 2011. Event representation in serial verb constructions. In Jürgen Bohnemeyer & Eric Pedersen (eds.), *Event representation in language and cognition*, 13–42.

Payne, Thomas Edward. 1997. *Describing morphosyntax: A guide for field linguists*. Cambridge: Cambridge University Press.

Pianesi, Fabio & Achille C. Varzi. 2000. Events and event talk: An introduction. In James Higginbotham, Fabio Pianesi & Achille C. Varzi (eds.), *Speaking of events*, 3–47. Oxford: Oxford University Press.

Pustejovsky, James. 1991. The syntax of event structure. *Cognition* 41(1). 47–81.

Quick, Phil. 2007. *A grammar of the Pendau language of central Sulawesi, Indonesia*. Canberra: Pacific Linguistics.

Raes, Niels & Peter C. Van Welzen. 2009. The demarcation and internal division of Flora Malesiana: 1857 – present. *Blumea* 54. 6–8.

Rappaport Hovav, Malka & Beth Levin. 1998. Building verb meanings. In Miriam Butt & Wilhelm Geuder (eds.), *The projection of arguments: Lexical and compositional factors*, 97–134.

Reesink, Ger. 1999. *A grammar of Hatam: Bird's Head Peninsula, Irian Jaya*. Canberra: Pacific Linguistics.

Reesink, Ger. 2002a. A grammar sketch of Sougb. In Ger Reesink (ed.), *Languages of the Eastern Bird's Head*, 181–275. Canberra: Pacific Linguistics.

Reesink, Ger. 2002b. The Eastern Bird's Head languages. In Ger Reesink (ed.), *Languages of the Eastern Bird's Head*, 1–44. Canberra: Pacific Linguistics.

Reesink, Ger. 2005. West Papuan languages: Roots and development. In Andrew Pawley, Robert Attenborough, Jack Golson & Robin Hide (eds.), *Papuan pasts: Studies in the cultural, linguistic and biological history of the Papuan-speaking peoples*, 185–218. Canberra: Pacific Linguistics.

Riesberg, Sonja. 2013. Multi-verb constructions in Yali. Paper presented in the early career session at the international conference "Language documentation: past – present – future", at Schloss Herrenhausen Hannover, Germany, 05–07 June 2013.

Riesberg, Sonja. 2014. *Symmetrical voice and linking in Western Austronesian languages*. Berlin: Walter de Gruyter.

Robbins, Joel. 2008. On not knowing other minds: Confession, intention, and linguistic exchange in a Papua New Guinea community. *Anthropological Quarterly* 81(2). 421–429.

Robbins, Joel & Alan Rumsey. 2008. Introduction: Cultural and linguistic anthropology and the opacity of other minds. *Anthropological Quarterly* 81(2). 407–420.

Ross, Malcolm. 2005. Pronouns as a preliminary diagnostic for grouping Papuan languages. In Andrew Pawley, Robert Attenborough, Jack Golson & Robin Hide (eds.), *Papuan pasts. Cultural, linguistic and biological histories of Papuan-speaking peoples*, 15–66. Canberra: Pacific linguistics.

Ross, Malcolm, Andrew Pawley & Meredith Osmond. 2008. *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*. Canberra: Pacific Linguistics.

Rumsey, Alan. 2013. Intersubjectivity, deception and the 'opacity of other minds': Perspectives from Highland New Guinea and beyond. *Language & Communication* 33(3). 326–343.

Schachter, Paul. 1976. The subject in Philippine languages: Topic, actor, actor-topic, or none of the above. In Charles N. Li (ed.), *Subject and topic*, vol. 1976, 491–518. Academic Press.

Schapper, Antoinette. 2009. *Bunaq: A Papuan language of Central Timor*. Australian National University. (Doctoral dissertation).

Schapper, Antoinette. 2011. Iconicity of sequence in the coding of source and goal in two Papuan languages. *Linguistics in the Netherlands* 2011. 101–113.

Schapper, Antoinette. 2014. Introduction. In Antoinette Schapper (ed.), *The Papuan languages of Timor, Alor and Pantar: Volume 1: Sketch grammars*, 1–22. Walter de Gruyter.

Schapper, Antoinette. 2015. Wallacea, a linguistic area. *Archipel. Études interdisciplinaires sur le monde insulindien* 90. 99–151.

Schultze-Berndt, Eva. 2000. *Simple and complex predicates in Jaminjung: A study of event categorisation in an Australian language*. Nijmegen: Radboud University Press.

Schultze-Berndt, Eva & Nikolaus P. Himmelmann. 2004. Depictive secondary predicates in crosslinguistic perspective. *Linguistic typology* 8(1). 59–131.

Sebba, Mark. 1987. *The syntax of serial verbs: An investigation into serialisation in Sranan and other languages*. Amsterdam: John Benjamins Publishing.

Senft, Gunter. 2008a. Event conceptualization and event report in serial verb constructions in Kilivila: Towards a new approach to research an old phenomenon.

In Gunter Senft (ed.), *Serial verb constructions in Austronesian and Papuan languages*, 203–230. Canberra: Pacific Linguistics Publishers.
Senft, Gunter. 2008b. Introduction. In Gunter Senft (ed.), *Serial verb constructions in Austronesian and Papuan languages*, 1–16. Pacific Linguistics.
Seuren, Pieter. 1991. The definition of serial verbs. In Francis Byrne & Thom Huebner (eds.), *Development and structures of creole languages*, 193–205.
Slobin, Dan I. 2004. The many ways to search for a frog. In Sven Strömqvist & Ludo Verhoeven (eds.), *Relating events in narrative: Typological and contextual perspectives*, 219–257. Mahwah, NJ: Lawrence Erlbaum.
Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. In Timothy Shopen (ed.), *Language typology and syntactic description: Grammatical categories and the lexicon*, vol. 3, 36–149.
Talmy, Leonard. 2000. *Toward a cognitive semantics*. Cambridge, Massachusetts: MIT Press.
Thomason, Sarah Grey. 2001. *Language contact: An introduction*. Edinburgh: Edinburgh University Press.
Tjia, Johnny. 1997. *Verb serialization in Ambonese Malay*. University of Oregon. (Doctoral dissertation).
Tryon, Darrell T. 1995. The Austronesian languages. In Darrell T. Tryon (ed.), *Comparative Austronesian Dictionary. An Introduction to Austronesian Studies*, 5–44. Mouton de Gruyter.
van den Berg, René. 1989. *A grammar of the Muna language*. Dordrecht: Foris Publications.
van den Heuvel, Wilco. 2006. *Biak, description of an Austronesian language of Papua*. Utrecht: LOT.
Van Valin Jr, Robert D. & Randy J. LaPolla. 1997. *Syntax: Structure, meaning, and function*. Cambridge: Cambridge University Press.
Van Welzen, Peter C., John A. N. Parnell & J. W. Ferry Slik. 2011. Wallace's Line and plant distributions: Two or three phytogeographical areas and where to group Java? *Biological Journal of the Linnean Society* 103(3). 531–545.
van Klinken, Catharina Lumien. 1999. *A grammar of the Fehan dialect of Tetun: An Austronesian language of West Timor*. Canberra: Pacific Linguistics.
van Staden, Miriam. 2000. *Tidore: A linguistic description of a language of the North Moluccas*. Leiden: Universiteit Leiden.
van Staden, Miriam & Ger Reesink. 2008. Serial verb constructions in a linguistic area. In Gunter Senft (ed.), *Serial verb constructions in Austronesian and Papuan languages*, 17–54. Canberra: Pacific Linguistics.
Vendler, Zeno. 1957. Verbs and times. *The philosophical review* 66(2). 143–160.

Voorhoeve, Clemens L. 1994. Contact-induced change in the non-Austronesian languages in the North Moluccas, Indonesia. In Tom Dutton & Darrell T. Tryon (eds.), *Language contact and change in the Austronesian world*, 649–674. Mouton de Gruyter.

Wouk, Fay & Malcolm Ross. 2002. *The history and typology of western Austronesian voice systems*. Canberra: Pacific Linguistics.

Wunderlich, Dieter. 2012. Lexical decomposition in grammar. In Markus Werning, Wolfram Hinzen & Edouard Machery (eds.), *The Oxford handbook of compositionality*, 307–327. Oxford: Oxford University Press.

Zacks, Jeffrey M. 2010. How we organize our experience into events. *Psychological Science Agenda* 24(4).

Zacks, Jeffrey M. & Khena M. Swallow. 2007. Event segmentation. *Current Directions in Psychological Science* 16(2). 80–84.

Zwicky, Arnold M. 1985. Heads. *Journal of linguistics* 21(1). 1–29.

Zwicky, Arnold M. 1990. What are we talking about when we talk about serial verbs? *Working Papers in Linguistics* 39. 1–13.

Zwicky, Arnold M. 1993. Heads, bases and functors. In Greville G. Corbett, Norman M. Fraser & Scott McGlashan (eds.), *Heads in Grammatical Theory*, 292–316. Cambridge University Press.

Name index

Adelaar, Alexander, 24, 25, 27
Aikhenvald, Alexandra Y., 4, 79, 80, 86–88, 90, 93, 100, 108–110, 113, 119, 127, 130, 131, 160, 208, 213, 294, 326, 340
Alsina, Alex, 92
Ameka, Felix K., xxiv, 11, 127, 128, 131, 152, 247, 297, 383

Baird, Louise, 20, 59, 87, 96, 161, 265, 267, 313, 314, 331, 348, 357, 362, 401
Baker, Brett, 91, 92, 203, 212, 213, 229–233, 238
Baker, Mark C., 87, 104, 173
Barsel, Linda A., 42
Bellwood, Peter, 21, 22
Belo, Maurício C. A., 20
Berry, Christine, 17, 20, 70, 138, 380, 400
Berry, Keith, 17, 20, 70, 138, 380, 400
Bickel, Balthasar, 50
Bloomfield, Leonard, 171
Blust, Robert, 24, 25, 37
Bohnemeyer, Jürgen, 85, 86, 100, 101, 118, 133, 212, 247, 279, 286, 287
Bowden, John, 20, 34, 60, 65, 66, 108, 162, 168, 253, 271, 294, 323
Bowern, Claire, 140
Bradshaw, Joel, 115
Bril, Isabelle, 9, 77, 80, 88, 92, 108, 109, 112, 115–117
Bruce, Les, 12, 86, 203
Butt, Miriam, 92, 93
Bybee, Joan L., 142, 334

Capelli, Cristian, 21
Carlson, Greg N., xxii, 219
Chafe, Wallace, 99
Chierchia, Gennaro, 217, 220
Christaller, Johann Gottlieb, 6, 10, 11
Comrie, Bernard, 213
Coward, David F., 20, 39, 63, 64, 165, 188, 325, 329
Croft, William, 105, 236, 237
Crowley, Terry, 9, 12–14, 88, 89, 115, 140, 149, 154, 163

Dalrymple, Mary, 17, 20, 347, 372, 386
Davidson, Donald, xxii, 217, 218
Davis, Karen, 116
De Vries, Lourens, 13, 20, 32, 69, 71, 189, 190, 197, 258, 295, 308, 349, 350, 413–416
Defina, Rebecca, 102, 114
Dixon, R. M. W., 286
Dixon, Robert M. W., 50
Dol, Philomena, 20, 29, 69, 71, 83, 164, 166, 167, 214, 252, 256, 275, 299, 306, 311, 312, 331, 352, 361
Donohue, Mark, 19, 20, 37, 51, 52, 161,

165, 191, 255, 261, 280, 325, 326, 335, 336, 363, 365, 369, 378, 411
Dowty, David R., 154, 217, 240
Dryer, Matthew S., 34, 35
Durie, Mark, 4, 80, 86–88, 90, 104, 107, 115, 153, 160, 173, 189, 203

Elman, Jeffrey L., 208
Enfield, Nicholas J., 84, 107, 125, 127–131, 400, 401
Engelberg, Stefan, 217, 222
Engelhardt, Sonja, 99
Engquist, Gretchen, 101, 208
Essegbey, James, xxiv, 247, 297

Farr, Cynthia J. M., 416
Fillmore, Charles J., 212, 234
Foley, William A., 4, 5, 10, 12, 85, 91, 111, 112, 120, 174, 203, 212
Fox, James J., 314

Gasser, Emily Anne, 39, 44–46
Givón, Talmy, 5, 6, 15, 81, 140, 153, 326
Goldberg, Adele E., 104, 105
Gravelle, Gloria, 20, 72, 154, 188, 297, 334, 340, 355
Grice, H. Paul, 260
Grimes, Charles E., 20, 65, 142, 169, 333, 334, 347, 367, 372
Gruber, Jeffrey Steven, 231, 232

Hall, Robert, 22
Harvey, Mark, 91, 92, 203, 212, 213, 229–233, 238
Haspelmath, Martin, 4, 48, 78, 80–82, 84–88, 90, 99, 100, 105, 116, 119, 125, 126, 150, 151, 208, 326
Heeschen, Volker, 413, 418
Heinsohn, Thomas E., 32
Higginbotham, James, xxii, 217, 220, 222
Himmelmann, Nikolaus P., 33, 34, 36, 39, 47, 65, 96, 99, 142, 143, 170, 338, 368
Holton, Gary, 20, 27, 29, 30, 39, 40, 44, 58, 66, 67, 161, 170, 176, 177, 300, 311, 313, 333, 337, 347, 354, 383, 385
Huber, Juliette, 17, 20, 61, 62, 255, 301, 306, 327, 328, 332, 361, 365, 414

Jackendoff, Ray, 154, 217, 231–233, 236, 239
Jarkey, Nerida, 426
Jukes, Anthony, 409

Kamholz, David, 17, 20, 367
Kay, Paul, 212
Kelen, Herman, 142
Kirihio, J. Karter, 20
Klamer, Marian, 20, 25, 27, 30–33, 36–41, 47, 54–56, 59, 60, 91, 92, 193, 201, 252, 261, 294, 308, 313, 321, 330, 351, 352, 358–362, 368, 372, 376, 381, 382, 385, 400, 404, 415
Kluge, Angela, 40
Kratochvíl, František, 20, 57, 95, 108, 110, 164, 168, 189, 199, 299, 306–308, 331, 340, 357, 387
Kratzer, Angelika, 217, 220
Kroeger, Paul R., 91

Ladd, D. Robert, 99

Lakoff, George, 217
Lane, Jonathan, 77, 85, 121
LaPolla, Randy J., 111, 154, 155, 217, 230, 236–239, 242–245, 248, 423
Lehmann, Christian, 141
Leto, Claudia, 409
Levin, Beth, 217, 229, 230, 234, 236, 239, 240, 247
Levinson, Stephen C., 402
Li, Charles N., 11
Lichtenberk, Frantisek, 205, 206
Lord, Carol, 140, 311, 326

Maienborn, Claudia, 207, 217–220, 222, 223, 275, 350
Majid, Asifa, 102
Margetts, Anna, 117, 353
Matthews, Stephen, 10–12
Mayani, Luh Anik, 20, 50, 51, 176, 294, 301, 347
McCawley, James D., 217
Mead, David, 20, 51, 55, 184, 186, 333, 335
Menick, Raymond H., 120, 141, 305
Mofu, Suriel Semuel, 17, 20, 347, 372, 386
Muysken, Pieter, 80, 87

Newtson, Darren, 101, 208
Nishiyama, Kunio, 142
Nordhoff, Sebastian, 11, 125, 131
Næss, Åshild, 116

Odé, Cecilia, 20, 162, 266, 276, 296, 309, 370, 373, 376
Olson, Mike, 4, 111, 112
Ozanne-Rivierre, Françoise, 9, 77, 80, 108, 109, 112, 115

O'Melia, Thomas, 11

Pawley, Andrew, 5, 77, 121–123, 149, 203, 212, 306
Payne, Thomas Edward, 91
Pianesi, Fabio, 218
Pustejovsky, James, 229

Quick, Phil, 20, 49, 50, 187, 197, 293, 294, 299, 380

Raes, Niels, 22
Rappaport Hovav, Malka, 217, 229, 230, 236, 239, 240, 247
Reesink, Ger, xx, xxi, 9, 13, 14, 20, 25, 27, 29, 33, 39, 44, 45, 47, 69, 70, 72, 73, 77, 113, 118–120, 137, 147–149, 160, 161, 164, 180, 199, 201, 202, 251, 271, 274, 280, 286, 294–296, 301–303, 339, 357, 358, 383, 411, 422
Riesberg, Sonja, 33, 426
Robbins, Joel, 325
Ross, Malcolm, 22, 24, 25, 42, 64
Rumsey, Alan, 325

Schachter, Paul, 33
Schapper, Antoinette, 20, 27, 29, 31, 38, 41–43, 46, 47, 55, 56, 94, 98, 99, 163, 279, 321, 324, 330, 332, 339, 349, 358–360, 369, 384, 385, 415
Schultze-Berndt, Eva, 82, 338, 368
Sebba, Mark, 4, 10, 12, 106–108
Senft, Gunter, 10, 11, 125, 304
Seuren, Pieter, 103, 104
Slobin, Dan I., 297
Swallow, Khena M., 101, 102, 208

Talmy, Leonard, 247, 286, 297
Thomason, Sarah Grey, 31
Thompson, Sandra A., 11
Tjia, Johnny, 120
Tryon, Darrell T., 21, 24, 40

Van den Berg, René, 19, 20, 52, 165, 167, 170, 187, 201, 296, 335, 382
Van den Heuvel, Wilco, 20, 32, 45, 163, 265, 308, 309, 322, 365–367
Van Klinken, Catharina Lumien, 20, 40, 61, 314, 328, 329, 348, 366, 378, 379
Van Staden, Miriam, xx, xxi, 9, 13, 14, 20, 67, 77, 113, 118–120, 136, 137, 140, 143, 147–149, 160, 164, 180, 202, 271, 280, 286, 339, 365, 379, 422
Van Valin Jr, Robert D., 5, 85, 91, 111, 112, 120, 154, 155, 217, 230, 236–239, 242–245, 248, 423
Van Welzen, Peter C., 22, 23
Varzi, Achille C., 218
Veenstra, Tonjes, 80, 87
Vendler, Zeno, 99, 227, 229, 237
Voorhoeve, Clemens L., 27, 30

Wouk, Fay, 24
Wunderlich, Dieter, 217

Youngman, Scott, 20, 51, 55, 184, 186, 333, 335

Zacks, Jeffrey M., 101, 102, 208
Zwicky, Arnold M., 6, 106, 171–173

Language index

Abui, 20, 29, 48, 56, 57[11], 57, 63, 94, 95, 110, 159, 164, 168, 174[5], 175, 189, 196, 199, 285, 298–300, 305–308, 325, 326, 328, 330, 331, 336, 339, 340, 357, 376, 387, 395, 397, 399, 408, 409, 424, 425
Abun, 17, 20, 30, 31, 41, 68–70, 75, 138, 139, 159, 160, 178, 188, 196, 285, 286, 305, 379, 380, 399, 400, 409
Akan, 11, 13, 14
Akan (Twi), 11
Alamblak, 12, 14, 85–87, 93, 280
Alorese, 20, 27, 39, 40, 53, 56, 60, 63, 65, 159, 175, 178, 196, 201, 202, 285, 286, 293, 294, 299, 307, 312, 371, 372, 385, 399, 408, 409, 411
Ambon Malay, 120, 148, 160
Avatime, 102, 114

Baham, 31
Barai, 112
Biak, 20, 27, 32, 39, 42[3], 45, 69, 73–75, 159, 163, 182, 185, 190, 196, 264, 265, 285, 299, 308, 309, 321, 322, 336, 351, 364–367, 399, 409
Bunaq, 20, 29, 43, 56, 59, 63, 94, 98, 105, 159, 163, 175, 196, 279, 285, 321, 323, 324, 330, 332, 336, 338, 339, 348, 349, 369, 384, 385, 399, 409
Buru, 17[6], 20, 25, 27, 62, 65, 68, 142, 147, 159, 160, 169, 178, 182, 184, 196, 202, 285, 333, 334, 345, 347, 348, 366, 367, 371, 372, 399, 406, 409

Cantonese, 11, 12, 14, 15, 110
Chamorro, 34

Dawan, 61[13]
Dusner, 17, 20, 27, 39, 42[3], 69, 73, 75, 159, 185, 196, 285, 308, 312, 345, 347, 348, 366, 371, 372, 385, 386, 399, 409

East Makian, 65
Eipo, 418, 419
English, xxii, xxiii, 5, 11[4], 83, 84, 87, 91, 92[2], 94, 95, 101, 102, 103[5], 110, 117, 122, 138, 139, 142, 169[3], 171, 210, 212, 218, 224, 227, 233, 234, 236, 237, 239, 241, 245, 252, 305, 318, 324
Ewe, 11, 14, 107[6], 128, 131, 152

Fataluku, 29
Formosan languages, 43

Galela, 30, 44
German, 222[4], 241
Gorontalo-Mongondic, 34

Hatam, 20, 30, 31, 45, 69, 72–75, 119, 159, 161, 185, 196, 201, 251, 274, 285, 293, 294, 300–305, 338, 339, 345, 357, 358, 399, 409
Helong, 43
Hoava, 116, 117

Iha, 31
Inanwatan, 13, 20, 31, 32, 39–41, 68–72, 75, 148, 159, 174, 181, 182, 185, 189–191, 193, 196–198, 258, 285, 290, 294, 295, 297, 307, 308, 313, 347–350, 399, 409
Indonesian, x, xxiii, 9, 19, 21–23, 36, 46, 47, 64[14], 65, 83, 114, 183, 190, 199, 235, 264, 391, 400, 418, 420, 426

Jaminjung, 82

Kaera, 20, 29, 39, 48, 56, 58, 59, 63, 159, 175, 196, 261, 263, 285, 321, 358, 360, 361, 395, 399, 404, 408, 409
Kalam, 5, 57, 77, 114, 121–124, 145, 306, 379, 424
Kamang, 42, 330, 332
Kambera, 20, 27, 39, 48, 53–56, 63, 70, 74, 91, 92, 147, 159, 160, 175, 182, 185, 191–193, 196, 252, 285, 308, 309, 312, 313, 329, 330[9], 330, 399, 400, 406, 408, 409
Kanum, 43
Keo, 96
Kilivila, 125, 304
Klon, 20, 29, 56, 59, 63, 87, 159, 161, 175, 196, 264, 265, 267, 285, 312–314, 329–331, 348, 357, 361, 362, 399, 401, 409
Korafe, 416, 417

Lamaholot, 142
Lao, 125, 128, 129, 400, 401, 424, 426
Leti, 147, 148
Loloda, 30

Makalero, 17, 20, 29, 56, 61–63, 159, 175, 176, 196, 255, 257, 285, 301, 306, 312, 325–329, 332, 339, 360, 361, 364, 365, 367, 376, 395, 399, 408, 409, 414, 415, 424, 425
Makasae, 29
Makasarese, 42
Makassarese, 409–411, 425
Malagasy, 34
Malay, 32
Mambae, 41
Mandarin, 11, 14
Mansim, 30, 31
Marra, 232
Maybrat, 20, 30, 31, 38, 41, 43, 68, 69, 70[16], 70, 71, 75, 83, 135, 147, 159, 160, 163, 164, 166, 167, 185, 196, 214, 252, 253, 255, 256, 275, 285, 297–299, 306, 311[5], 311, 312, 328–331, 336, 351, 352, 360, 361, 395, 399, 408, 409, 424, 425
Meyah, 30, 31, 44
Modole, 30
Moi, 29, 31, 120[11], 120, 141, 148, 160, 297, 304, 305
Mor, 17, 20, 27, 69, 73, 75, 158, 159, 162, 185, 196, 285, 307, 308, 336, 367[12], 367, 399, 408, 409

Moraid, 29, 31
Mori, 42
Moskona, 20, 30, 31, 72, 75, 154, 159, 160, 182, 185, 188, 196, 285, 297, 333, 334, 336, 339, 340, 351, 355, 399, 409
Mpur, 20, 30, 31, 41, 68–71, 75, 159, 160, 162, 185, 196, 266, 269, 275, 276, 285, 296, 308, 309, 312, 369, 370[13], 370, 373, 376, 386, 399, 409
Muna, 19, 20, 27, 39, 51–53, 159, 164, 165, 167, 170, 185, 187, 191, 196, 201, 284, 285, 296, 332, 335, 337, 342, 373, 382, 383, 386, 395, 397, 399, 408, 409, 411, 424, 425

Northeast Halmaheran, 27

Oirata, 29
Onin, 25, 32

Paamese, 12–14, 86, 88–90, 133, 149, 150, 154, 163, 165, 281
Pagu, 30, 40, 44
Pak, vi, 41
Palauan, 43
Pendau, 20, 27, 48, 49, 50[8], 50, 51, 53, 135, 159, 174–176, 182, 184, 185, 187, 196, 197, 284, 285, 293, 294[3], 298, 299, 337, 380, 393, 395, 399, 404, 408, 409
Pileni, 115–117
Proto-Malayo Polynesian, 42[3]
Proto-Oceanic, 42[3]

Romance, 92[2], 93
Rongga, 41
Rotinese, 61[13], 314
Russian, 67

Sahu, 27, 30, 40
Saliba, 117, 353
Sama-Bajau languages, 34
Saramaccan, 87
Sarmi languages, 25
Sawila, 39
Seget, 29, 31
Sekar, 25
Selaru, 16[5], 17[6], 20, 27, 39, 62, 63, 64[14], 64, 65, 68, 70, 159, 165, 185, 187[9], 187, 188, 196, 285, 324, 325, 328, 329, 397, 399, 406, 409, 411
Sentani, 39
Sougb, 20, 30, 31, 40, 45, 72, 73, 75, 159, 185, 191, 196, 198, 199, 285, 290, 295, 296, 312, 383, 399, 409
South Mindanao languages, 34
Sranan, 12, 14, 106, 107
Sunum, 418

Taba, 20, 27, 39, 42, 65–68, 159, 160, 162, 168, 185, 187, 196, 253, 271, 285, 293, 294, 323, 329, 371, 399, 406, 408, 409, 411
Tabaru, 30
Tagalog, 33
Tajio, 20, 27, 48–51, 53, 135, 159, 174–176, 182, 184, 185, 196, 284, 285, 294[3], 301, 305, 345, 347, 393, 395, 399, 404, 408, 409
Tehit, 29, 31
Teiwa, 20, 29, 56, 58–60, 63, 159, 175, 176, 196, 285, 328, 351, 352, 358, 362, 367, 368, 376, 380–382, 399, 409, 425

Ternate, 27, 30, 32, 40
Tetun, 314
Tetun Fehan, 20, 27, 39, 56, 60, 61[13], 61, 63, 64[14], 135, 160, 175, 190, 328, 329, 348, 366, 379, 415
Tidore, 20, 27, 29, 30, 32, 40, 67[15], 67, 68, 113[9], 135, 136, 140, 143, 144, 159, 175, 178, 182, 184, 185, 196, 285, 329, 336, 338, 339, 364, 365, 378, 379, 395, 399, 409
Tobelo, 20, 29, 30, 39, 40, 43, 44, 66, 67[15], 67, 68, 159, 161, 170, 182, 185, 187, 189, 196, 285, 300, 311, 336, 337, 353, 354, 383, 385, 399, 409
Tolaki, 20, 27, 43, 51, 53, 55[10], 154, 159, 184–187, 191, 196, 284, 285, 332, 333, 335, 337, 344, 369, 399, 409
Tomini-Tolitoli languages, 34
Totoli, 409–411, 424
Tukang Besi, 19, 20, 27, 37–39, 51–53, 159, 161, 165, 167, 184, 185, 191, 192, 196, 255, 261, 263, 280, 284, 285, 293, 325, 326, 328, 332, 335, 336, 344, 347, 363–366, 369, 371, 378, 399, 409, 411
Twi, 10, 11, 445

Ujir, 43
Urdu, 93
Uruangnirin, 25

Wagiman, 233, 235
Waima'a, 16, 17, 19, 20, 27, 34[2], 34, 39, 53, 56, 60–63, 64[14], 65, 74, 96, 159, 168, 178, 197[11], 197, 198, 201, 202, 204, 205, 206[2], 206–208, 212, 213, 215[3], 216, 221, 250, 252, 273, 279, 285, 286, 291[2], 299, 308, 310–312, 328, 334, 344, 353–355, 359, 361, 362, 376, 387, 388, 393, 395, 397–399, 406, 409, 411, 412, 415–417, 419, 425
Wama'a, 354
Wamesa, 44, 45
Waropen, 25, 45
West Makian, 27, 40
Western Pantar, 20, 29, 39, 58, 177, 249, 313, 333, 347, 359
White Hmong, 426
Windesi Wamesa, 39, 46
Wooi, v, vi, 3, 4[1], 16, 17, 19, 20, 27, 39, 42–45, 69, 73–75, 83, 84, 96, 98, 106, 108, 137, 152–154, 159, 171, 178, 179, 182, 183, 185, 187[9], 190–193, 196, 199, 200[12], 200, 208–212, 224–227, 251[10], 251, 252, 260, 263, 285, 286, 291[2], 299, 303, 304, 306–308, 312, 318, 320, 324, 325, 334, 336, 344, 348, 351–354, 366, 373, 376, 393, 395, 397–399, 406, 409, 412, 413, 415, 417–419

Yagua, 130[12]
Yali, 426
Yawa, 25, 31, 40, 44
Yimas, 10[3], 12, 14, 15

Multi-verb constructions in Eastern Indonesia

Constructions with multiple verbal elements have posed a long-standing challenge to linguistic analysis. Most studies of verb serialisation have been confined to single languages rather than looking at crosslinguistic patterns. This book provides the first in-depth account into the areal characteristics of multi-verb constructions (MVCs) in Eastern Indonesia. By collating published data and corpus data from 32 Austronesian and Papuan languages, it traces commonalities as well as differences in MVC use across the area. To this end, a sample of 2146 MVCs is analysed both from a grammatical and a semantic perspective. One of the main hypotheses is that the crucial driving force behind multi-verb construals is semantic interaction between the verbs, leading to four principal techniques of event formation: merging, staging, modification, and free juxtaposition. Combining semantic approaches with crosslinguistic data analysis, the book provides a new model of event interaction offering a fresh perspective on multi-verb constructions in Eastern Indonesia and beyond.

ISBN 978-3-96110-216-7