AGREEMENT IN TUYUCA

by

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ABSTRACT

The main premise of this thesis is that subject agreement morphology in Tuyuca can be isolated from the rest of the morphology. Subject agreement appears on evidentials, nominalizers, animate classifiers, gerunds, and verb stems requiring an auxiliary. This agreement is instantiated by a pervasive final vowel pattern that codes various values of gender, number, and person features. These final vowels also code the same information on nouns and pronouns. Before arguing for my analysis I provide some preliminary material on Tuyuca. Chapter 1 is a brief discussion of the sociolinguistic context of the language. Chapter 2 discusses issues relevant to Tuyuca data and surveys some of the literature related to Tuyuca; it also discusses some methodological concerns arising from the data and important to the thesis in general. Chapter 3 is a brief sketch of Tuyuca grammar important to agreement. Analysis is done in Chapters 4 and 5.

In Chapter 4 I argue, in a descriptive-typological framework, that by isolating agreement a general deverbalizing function can be seen coded in the morpheme /-g-/. This morpheme has predictable interpretations in restricted morphosyntactic environments. It can be interpreted as a progressive or perfective aspect, an animate classifier, a gerund, and a nominalizer.

In Chapter 5 I relate the general premise of isolating agreement in Tuyuca to theoretical issues belonging to the Minimalist Program. I show that isolating agreement morphemes from evidentials is, assuming the analysis in Chapter 4, straightforward. This

has a practical advantage of making it easier to observe variation between present tense and past tense morphology of the evidentials. I take this as straightforward evidence that tense is fused with evidential. I also give evidence that supports the *pro*-drop status of Tuyuca, conjecturing that subject agreement is packaged with nominative case. I also argue informally that verbal inflection of tense-evidentials and subject agreement are "extensions" of the verb phrase and relate the predication of VP to some speech time and discourse situation of the verb event, relative to some specific world. This results in a model of functional hierarchy that places Evidential under Tense Phrase. I conjecture that this Evidential position is a predicational one, in contrast to the more accepted notions of $Mood_{evidential}$ or $Modal_{epistemic}$, which are known to be above Tense Phrase. I provide two detailed models, one with the conventional hierarchy and one with my hierarchy, arguing for the latter—based on general principles of syntactic economy and locality. I also provide a technical analysis of syntactic locality for the morphosyntactic fusion of tense-evidentials in a Distributed Morphology framework.

I dedicate this work to my wife, who has always believed that I will be a good linguist—I

hope the following does not disappoint.

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LIST OF ABBREVIATIONS

1	first person	INTS	intensifier/intensive
2	second person	IO	indirect object
3	third person	P	transitive patient
ACC	accusative	PART	participle
ADVR	adverbializer	PASS	passive
AN	animate	PCLF	possessive classifier
APR	apparent evidential	PFCT	perfect
ASM	assumed evidential	PREP	preposition
ASP	aspect	PRF	perfective
AUX	auxiliary	PRN	pronoun
BEN	benefactive	PL	plural
CLF	classifier	POSS	possessive
COMPL	completive	POST	postposition
CONC	concessive	PROG	progressive
DAT	dative	PRS	present
DEF	definite	PRT	preterite
DES	desiderative	PRXT	proximate (1 deictic)
DUB	dubitative	PST	past
EVD	evidential	QUOT	quotative
F	feminine	RDP	reduplication
FUT	future	REC	recent (past)
GEN	genitive	REL	relative clause marker
GER	gerund	REP	reportative evidential
IMPF	imperfect(ive)	SBJ	subject
LOC	locative	SCD	second-hand evidential
M	masculine	SG	singular
MDL	modal	SPEC	specific
NEG	negative	SUBJ	subjunctive
NOM	nominative	SUBR	subordinator
NPST	nonpast	SUP	superlative
NVIS	nonvisual evidential	SUS	sustantivador
OBJ	object	TNS	tense
INAN	inanimate	TOP	topic
INFR	inferential evidential	TR	transitive
INT	interrogative	VISL	visual evidential
INTR	intransitive	VN	verbal noun

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I would like to acknowledge my intellectual debt to Lyle Campbell, who changed my view of linguistic work, literally, on the first day of graduate classes. I thank him for all his help and for his unwavering insistence that students not only understand a theory but critically evaluate it. Much of the material of Chapters 1, 2, 3 and 4 had their beginning in his Documenting Languages and Typology and Universals classes. Thank you also to Mauricio Mixco for always being open to observations and for help on Spanish to English translations. I also want to thank Ed Rubin for being a great Department Chair and for effectively communicating his respect for the study of linguistic science. An additional thank you goes to Aniko Csirmaz for all her detailed help and observations. Her dedication to understanding linguistics, critical awareness, and observational scrutiny is an example. Much of the material in Chapter 5 had its beginning in her Morphology and Advanced Syntax classes. Thank you also to Wilson Silva, who convinced me in our American Indian Languages course with Professor Campbell to start studying Amazonian languages. He also deserves thanks for allowing a near stranger to accompany him on a field work grant we wrote together in summer 2007, and for letting me stay at his parent's house in Manaus for a few weeks—and also for putting up with my horrible Portuguese. Lastly, thanks to Thiago Chacon who was always excited to talk and share his knowledge about Tukanoan languages.

This thesis could not have been written without the help of those mentioned

INTRODUCTION

There are many linguistic issues not covered in these chapters, but in another sense, there are too many. For example, Chapter 5 touches on issues of language change, grammaticalization, evidentiality, economy in minimalist syntax, cartographic domains, the semantics of tense and aspect, the typology and morphology of fused tense-evidentials, and sisterhood relations for fused morphemes in a Distributed Morphology framework. Chapter 5 is by far the most ambitious, abstract, and theoretical section of the thesis; there is a definite risk that I have bitten off more than I can chew. However, I believe that an analysis of the grammatical issues I am dealing with necessitates touching on all these issues and I welcome the challenge. Anytime one comes across a sufficiently narrowed focus of research that seems to be at the crossroads of so many theoretical paths one should never shy away in fear of having to confront complications. I believe that this thesis has sufficiently narrowed the focus of research to two particular aspects of agreement in Tuyuca, namely the morpheme /-g-/ and the inflectional ending of verbs, and it would be regrettable if I shyed away from the complicated problems that these pieces of Tuyuca morphosyntax point towards.

1. TUYUCA AND ITS PLACE

1.1. <u>The people and the land</u>

The Tuyuca people, as part of the larger Tukanoan language family and culture, belong to land on the border of Colombia and Brazil, which makes up part of the Amazon region. More specifically, they live along the Tiquié River and the Onça, Cabari, and Abiyú streams as well as along parts of the Papuri River (Barnes 1984, 1990, 1994)—all are areas of the Upper Rio Negro area and Vaupés River region. The language is spoken by fewer than 300 people in Colombia and 590 people in Brazil (Barnes 1984, 1990, 1994); see Figure 1. The Tuyuca have roughly 15 sibs, or tribes, and they are expert basket-weavers and canoe carvers.

The Tukanoan family, to which Tuyuca belongs, consists of twenty languages separated into three subbranches (see Appendix A for classification). Tuyuca is commonly called by native speakers Dokapuara or Utapinõmakãphõná. Other names include Tuiuca, Tuyuka, Tuyúka-tapuyo, Doch Kafuara, Dohká-poára or Doxkápuara (Stenzel 2006, Fabre 2005). Tuyuca has no reference grammar but articles written by Janet Barnes, a missionary linguist, over a period of twenty years contain much essential data. My analysis is based on her work (see references), as well as on Karn (1976, 1979).

The Tukanoan people are famous for their exogamous marriage patterns. Exogamy here is dependent on language identities. This results in a bilingual (at least) home environment where the maternal and the paternal languages are spoken. However,

the child identifies with the paternal language. This language is considered the prime determinate of ethnicity. Consequently, there is no distinction between an individual's language, ethnicity, and status in Tukanoan culture. If one identifies with the Tuyuca language then, one is also ethnically Tuyuca and assumes the social status that Tuyuca ethnicity has in the Tukanoan communities. In other words, the label Tukanoan is a cultural and social umbrella term which subsumes under it the various languages and cultures that are part of the Tukanoan family. This includes the Tukano language, from which the family derives its name, as well as the twenty or so other languages. Tukanoan people have a very keen linguistic sense for recognizing affiliations to their own languages. As far as I know, there are not many instances where linguists and native speakers of Tukanoan languages disagree about which languages belong to the family; though linguists disagree among themselves about the internal classification, specifically in regards to the split between the Eastern branch and the other languages (Appendix A). Tukanoan languages are closely related and share many similarities (Appendices B and C for some comparisons).

The Tukanoan social hierarchy of language/ethnicity reportedly has its origin in a Boreka-Desano creation myth communicated to me by Feliciano Pimenta Lana, a native Tukanoan who identifies with the Boreka dialect of the Desano language/ethnicity. According to his myth (personal communication) the beginning of the world consisted of all people riding inside a giant snake that swam the river waters. At some point the snake came on land and the more daring people that happened to be at the front of the snake decided to go outside into the world. The relative time at which people exited the snake

determined their status within the Tukanoan society. The first to emerge from the snake and explore the world were the Boreka-Desano group.

Portuguese and/or Spanish are spoken by most Tukanoan young adults and children. These colonial languages are taught in school and commonly used in commerce. The Tucano language, from which the family gets its name, is well known as a *lingua franca* for the Tukanoan people and may possibly be considered a prestige language along with Spanish and Portuguese. Most or all of the Tukanoan languages (Appendix A) are losing ground to Tucano, Spanish, and Portuguese. The future for Tuyuca[1] is the same as the other Tukanoan languages: encroaching economic and cultural forces in Brazil and Colombia are endangering the language and culture.

1.2. <u>The language and the family: Sources and influence</u>

Little is known about how agreement systems in Tukanoan languages work. For example, interactions between stress and tone/pitch-accent (de Lacy 2002 for Kubeo and Bowles unpublished 2007b for Wanano) may help mark distinctions in person categories. Gomez-Imbert (1996) and Gomez-Imbert and Kenstowicz (2000) show that a distinction between person categories in Barasano is partially coded by a tonal alternation such that 1st and 2nd person, [+person], are signaled by a High tone and 3rd person, [-person], is signaled by a falling tone HL (see also Barnes 1996 and Smith 1998 for analyses of Tuyuca prosody and its interaction with morphosyntax). Needless to say this area needs much more investigation. I do not consider prosodic factors in analyzing the agreement

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[1] During field work in Summer 2007 I had heard stories of a Tuyuca school in one of the communities. It was, reportedly, doing well and had sufficient funding.

system of Tuyuca because the relevant information is not fully available in written sources and the emphasis of this analysis is morphosyntactic.

The Tukanoan languages exhibit other typologically interesting phenomena that, if investigated properly, may add tremendously to our understanding of the typology of languages and to language universals. For example, Silva and Bowles (2007) note some possible inconsistencies in current typologies of noun classification systems compared to the function of noun classifiers in selected Tukanoan languages. Malone (1988) uses Barnes' evidential data from Tuyuca to give an historical account for the origin of evidential morphemes in a number of Tukanoan languages. De Haan (2001) uses the same Tuyuca data in work about the cross-linguistic grammatical origin of visual evidentiality; see also Palmer (2001) and Payne (1997) for use of Barnes' data. Various theoretical accounts have used data from Tukanoan languages to support their claims: Kaye (1971) attempts theoretical explanations of nasal harmony based on his field work of Desano, and Kaye (1970) is one of the first generative analyses of evidentials. Walker (2000, 2001) uses Barnes work on Tuyuca for an optimality theory account of nasal harmony and transparency. Smith (1998) uses Tuyuca data found in Barnes' work to make claims about noun-faithfulness and word stress in an optimality theoretic framework. Faller (2001) also uses Barnes' work in attempting to establish a hierarchy of evidential types. Lastly, Bowles (to appear) incorporates data from Barnes' work on evidentials to support claims about phrase structure hierarchies and the typology of fused tense-evidential morphemes in a generative/minimalist program framework.

2. THEORETICAL BACKGROUND

2.1. Introduction

It is commonly understood that there is no linguistic (or scientific) analysis that is completely free from theoretical persuasion or bias (Chomsky 2000, Fodor 1984, Greenberg 1970, Hanson 1969, Popper 1959, Quine 1960). For example, in compiling the Surrey Database of Agreement, Corbett (2003: 4) states "the notion of an atheoretical database is a chimera. We have to base ourselves on generally shared theoretical views…." Also, Newmeyer (1998) has argued that an understanding of how any particular language works in a descriptive typological-functional view can only arise from the more abstractly theoretical (generative) analysis of that language's formal structure. Campbell (2007 class notes) has highlighted the importance of recognizing one's commitment to the ontological[2] status of linguistic elements when writing reference grammars. That is, recognition of the existence and interaction of categories such as Noun, Verb, and Adjective presupposes some theoretical commitment to basic typological phenomena such as predication, case, modification, and argument structure. Different theories have different ways of explaining these language phenomena. In providing felicitous descriptions of a language L one does not want notation and jargon to 'get in the way' of a useful description. The tension between useful description and

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[2] By "ontology" I mean: (1) the general linguistic ontology found in Farrar and Langendoen (2003) and the rest of the GOLD and E-MELD projects, as well as (2) the narrow philosophical notion of the existence of a class of certain primitive objects. For example, most linguists make at the very least an ontological commitment to the existence of nouns, verbs, and sentences/clauses (see Quine 1960).

theoretical explanation[3] is also carried over into projects with less ambitious scope than databases or reference grammars, such as this one.

I take issue with certain inconsistencies in the description of Tuyuca. Namely, there seem to be obvious and systematic patterns of agreement marked on verb phrases that are not reflected in the interlinear glosses of primary data. I assume a particular theoretical framework about morphology and syntax (discussed in §2.2), in which revising these glossing inconsistencies leads to conclusions about the morphosyntax of Tuyuca that go beyond mere notational differences.

This thesis is about the agreement system of a language belonging to in a group of languages that is geographically situated in an area of the world not well documented. It is done explicitly in a functional-typological framework (Chapters 3, 4) but also assumes some particular insights from generative-formal theories (see §2.2) that are applied in Chapter 5. Because of the lack of general knowledge about grammatical systems of languages in the Amazonian region (compared to Indo-European languages), the morphemic glossing techniques and the information they convey take on more importance than the glossing techniques of languages with a larger body of critical literature, e.g., English or Spanish. The Tuyuca language data I am working with are entirely second-hand, coming from published articles by Janet Barnes and Gloria Jean Karn (see references). Their publications are the only materials based on first-hand field work that are widely accessible to the mainstream linguistic community; no other

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[3] See Woodbury (2003: 42) "… there is a dialectical relationship between corpus and apparatus – the corpus informs the analytic apparatus; but analysis – including everything you bring to the table when doing grammatical and lexical elicitation – in turn also informs the corpus." Campbell (2007 class notes) highlights the notion of the hermeneutic cycle: one's expectations or theory of a language is transformed by the primary data while at the same time the kind of primary data one looks for or collects is informed by what one's linguistic theory says is important for understanding a language and its organization. See also Lass (1997) and Himmelmann (1998) for discussion of hermeneutic explanation.

accessible documentation of the Tuyuca language exists. There are also no competing

analyses about the data from either native speakers or linguists (Karn sought the advice of

Barnes in her analysis and interlinear glossing of Tuyuca). To make matters worse,

Barnes is not consistent in the way she glosses the primary data.

For example, work published in English glosses the auxiliaries *tii* and *nĩĩ* as

English 'be' (Barnes 1984, 1990, 1994, 1996, 1999), but work published in Spanish gives

'ser' for *nĩĩ* and 'hacer' for *tii* (Barnes 1977, Barnes and Malone 2000). Translated into

English this should give 'be' for 'ser' and 'do/make' for 'hacer.' The negative result of this

inconsistency is someone only familiar with Barnes' English publications may assume

that *tii* and *nĩĩ* are morphophonemic alternates or that a syncretism in the paradigm of 'be'

is left unexplained; she gives no explanation for the pair nor does she draw attention to it

in her English publications. The reality is that they represent two different classes of

auxiliaries that influence the behavior of the Tuyuca inflectional system (see Chapter 4

and footnote 3 for more details).

2.2. <u>Morphosyntactic assumptions</u>

The theoretical model of morphology and syntax that I assume can be summed up

nicely by Baker's (1985: 375) Mirror Principle.

(I)   *The Mirror Principle*
        Morphological derivations must directly reflect syntactic derivations (and vice
        versa).

Linear relations between morphemes reflect syntactic embedding. For example, take the

sequence /gi/. The difference between analyzing *-gi* as the agreement morpheme versus *-i*

as the agreement morpheme (where *g-* would have to be some other morpheme) means

that two different syntactic structures are being implicated (see Chapter 4). Some uses of

the Mirror Principle can be found in Cinque (1999), which is a typological-generative

survey of languages using the Mirror Principle to establish a universal syntactic

hierarchy, and Rice (1997) which uses an approach similar to the Mirror Principle that

related semantic scope and morpheme order in Athapaskan languages. A typological-

functional parallel of the Mirror Principle can be found in Bybee (1985).

2.3. Additional comments on the organization of raw data

The decisions of how to organize the raw linguistic data (reflected in the

interlinear glosses) have already been made by Janet Barnes. It should be noted that her

interlinear glosses from the period of 1976 to 2000 are not entirely consistent.[4]

Furthermore, some of the publications contain only a translation of the Tuyuca data into

Spanish or English while other publications contain fairly detailed interlinear glossing.

No other substantial work exists to test her analytic decisions against, and access to

native speaker judgments about her analysis is hard to come by. While this makes things

philosophically difficult, and even linguistically hard, it does not make a significant

(re)analysis of Tuyuca agreement patterns impossible. I assume most of Barnes' initial

description is correct and generally accept her decisions about how to organize the data.

In fact, the motivation for my analysis partly comes from a suggestion in Barnes (1984:

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[4] See §2.1 here and Barnes (1984, 1994, 1996). Two phonemically distinct auxiliary verbs are glossed as 'be', implying they may be allomorphs. But in Barnes and Malone (2000) the same auxiliary verbs are glossed as Spanish 'hacer' and 'ser', translated into English as 'do/make' and 'be', respectively. Comparison with other Tukanoan languages shows that the auxiliaries are in fact semantically distinct and are not allomorphic, as Barnes (1984, 1994, 1996) seemed to imply.

258) about the need for further study in the possible separation of agreement morphemes from evidential morphemes.

A large part of this thesis concerns my reanalysis of the interlinear glossing of the existent Tuyuca data. I take advantage of Barnes' various morphemic glosses and the glosses found in Karn (1976, 1979),[5] as well as cross-linguistic work on other Tukanoan languages including sketch grammars, journal articles, and dictionaries. Although it may seem to some that taking liberties with the interlinear glossing of data is not productive, or that changing interlinear glosses is merely a matter of notational difference, I show in Part II that such liberties are productive, and in fact allowed by the Leipzig Glossing Rules. Also, I show that a "mere" change in notation by the placement of hyphens between morphemes can result in very dramatic differences of analysis – even if the Mirror Principle (and the entire body of generative theory that goes with it) is not assumed. In the work that follows I will always explicitly point out glosses that are the result of my analysis.

2.4. Literature overview

There are four groups of publications that are relevant to the analysis of Tuyuca agreement that I attempt here. Of these groups, none actually contain raw data from the language. (For all work on Tuyuca containing raw data see the references for Janet Barnes and Gloria Jean Karn).

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[5] Karn's (1976, 1979) interlinear glosses are problematic for many reasons but most obviously because she rarely glosses evidentials, instead glossing them as agreement. This is not impressive, as the evidential system in Tuyuca is one of the most complex and unique systems in the world; to not recognize the evidential system through interlinear glosses is missing an essential part of the grammar of Tuyuca and the general character of the typology of the evidentials.

2.4.1. The Summer Institute of Linguistics (SIL)

There are four SIL books focusing explicitly on a Tukanoan language and published under the *Studies in the Languages of Colombia* series. They are all roughly 200 pages long and read like small sketch grammars. The languages included are Barasano (Jones and Jones 1991), Cubeo (Morse and Maxwell 1999), Desano (Miller 1999), and Retuarã (Strom 1992). In addition to these texts, SIL also published a series titled *Estudios Tucanos* volumes 1-5 in the 1970s containing essential data and analysis covering phonetics/phonology, morphology, syntax, and discourse on several Tukanoan languages.

2.4.2. Other works on Tukanoan languages

What follows is not a complete bibliography. Instead, I list works that I am familiar with and that have provided significant cross-linguistic help in understanding Tuyuca. These include Ball (2004), Cook and Gralow (2001), Gomez-Imbert (1996, 2001, 2007), Gomez-Imbert and Kenstowicz (2000), Kaye (1970), Malone (1988), Payne (1990), Silva and Bowles (2007), Stenzel (2004, 2007), Sorensen (1969), and Waltz and Wheeler (1972). See also Fabre (2005) for a fairly comprehensive bibliography of Tukanoan language sources.

2.4.3. Typological studies

There is a lot of work related to agreement; I list what has been directly helpful: Corbett (1991, 2000, 2003, 2006), Comrie (1981), Givon (1984, 1990), Harris and Campbell (1995), Haspelmath et al. (2005), Mithun (2003) and Siewierska (2004).

2.4.4. <u>Generative studies</u>

In the generative framework agreement has become a crucial topic. I list here work that I find stimulating and interesting; though some of the work listed below has not positively influenced me, it has had an effect on my thinking about significant aspects of agreement and what kinds of language data provide relevant information: Baker (1985, 1996, 2003a, 2003b, 2008), Bejar (2002), Bobaljik (2006, 2007), Bošković (2007), Chomsky (1981, 1995, 2001, 2005), Cinque (1999), Csirmaz (2006), Halle and Marantz (1993, 1994), Harley and Ritter (2002), Jelinek (1984), Miyagawa (2005), Pesetsky and Torrego (2001, 2004, 2007), Rubin (2002, 2005), and Speas (2004a, 2004b, 2007). They all represent various, if not at times conflicting, analyses important to agreement in current (morpho)syntactic theory.

2.5. <u>Some terminology</u>

There is some variation in the way certain terms relevant to agreement systems are used. Different linguists use and define terms differently. Many of these terms include: *concord, agreement, government, controller, feature, value, domain, condition, target, probe, anaphoric pronoun, pronominal argument* and *agreement marker*. If, or when, I use these terms I explicitly define them and hopefully have made their use clear in the context in which I use them. Also, in Chapter 5 there is quite a bit of technical formalism that I use in order to sketch the theoretical significance of the results of my analysis. Understanding these formalisms is not crucial to understanding my analysis in Chapter 4, but a solid—at least introductory—background in Minimalist Syntax is

necessary to understand the potential issues relating to those sections and Chapter 5 in general.

2.6. <u>A note on glosses in the data</u>

I highly recommend looking at Appendix E. It is part of a larger project of mine (The Tuyuca Data Set) to collect all the published data on Tuyuca and apply "good practices" consistent interlinear glosses so that the data set can be formatted for digital archiving. For the purposes of this thesis, I have taken part of The Tuyuca Data Set and given two contrasting glosses for each example. The first set of glosses (with whole sequential numbers, e.g. 1, 2, 3...) represents what I have superficially modified from the work of Barnes and Karn (see references) to conform to the Leipzig Glossing Rules (LGR). The second set (numbered 1.1, 2.1, 3.1...) reflects the results of my analysis. I provide Appendix E as way to prevent possible confusion in reading various glosses of the same data in this thesis. For example, Chapter 3 contains glosses superficially modified to conform to LGR and comprise the first set in Appendix E. Chapter 4 contains multiple versions of glosses for the same data as a means to show how Barnes' collected work is itself inconsistent, and also to reflect different analyses and their interpretations. Chapter 5 contains data that reflect the application of my analysis and constitutes the second set in Appendix E. By providing an appendix that compares "before" and "after" glosses next to each other one can quickly reference my analysis of Tuyuca without having to troll through each chapter and risk being confused by various analyses of data.

2.7. <u>A note on data</u>

The data that comprise general knowledge of the Tuyuca language come from published, accessible sources. There are also quite lengthy recordings of religious (Christian) material from the Joshua Project (www.joshuaproject.net) that need to be transcribed. Most of the material comprising the accessible data for Tuyuca comes from narratives. It is common knowledge that narratives usually have some kind of scripted form or standard structure, e.g., beginning, middle, end, as well as the use of proverbs, metaphor, and other narrative techniques. Tuyuca is no exception (Karn 1976, 1979). Barnes' work contains a lot of dialogue, but it appears to be mainly dialogue between her and native Tuyucans. In other words, none of data appears to be representative of common daily discourse between native Tuyuca speakers. This does not pose an insurmountable problem, but it does mean that certain avenues of investigation can go so far. For example, in Chapter 5 I apply numerous diagnostic techniques in order to form hypotheses about the structure of Tuyuca. Namely, I try to see if Tuyuca is a configurational or nonconfigurational language by testing for the existence of pronominal arguments, which are full arguments of the verb that look like agreement markers. One way to test for this is to find sentences where a full subject/object NP co-occurs with subject/object agreement. In languages with pronominal arguments the full subject/object NP will be treated as an extra, dislocated, element. One test for this is to look at word order—if the subject/object NP has a variable and unpredictable position in the clause it *might* be dislocated. Another test is the presence of an intonation pause between the full subject/object NP and the rest of the clause. The problem for Tuyuca is that most of the data only shows the canonical S(O)V order—and even in the strictest word order

languages one can always find variable word orders due at lest to topic-focus factors (of course, pidgins may be an exception). But variable word orders do not really show up in the Tuyuca data, though one can reason that they must be allowed by the constraints of Tuyuca grammar; see especially §5.3.2 and footnote 23.

I will assume throughout this thesis that while the lack of a more complete set of data showing a richer set of phenomena puts limits on the depth of analysis, it does not make analysis impossible or unproductive. I take for granted that the data that exist are a fair characterization of the *basic* form of Tuyuca grammar and are a consistent reflection of the empirical facts. It would be nice to have a large-scale Tuyuca reference grammar, but this does not preclude a basic analysis. And a basic analysis does not limit the quality of interesting and significant results.

3. BASIC TYPOLOGICAL PROFILE

3.1. Introduction

The profile here is intended to introduce basic data from Tuyuca as presented in the published sources. The intention is to familiarize the reader with the language and to serve as the backdrop for the analyses I propose in Chapters 4 and 5. The profile here is not comprehensive and deals only with basic issues relevant to agreement, covering word order and agreement in nouns, verbs, auxiliaries, and evidentials. The interlinear glosses in the following examples are modified from Barnes' originals but do not reflect a substantial difference from her initial work; they merely conform to the Leipzig Glossing Rules (http://www.eva.mpg.de/lingua/index.html).

3.2. Word order in Tuyuca

Barnes (1984, 1999) classifies Tuyuca as exhibiting a flexible SOV word order. Sentence (1) has the referential animate noun 'father,' the other sentence (2) contains a pronominally possessed subject ('her dog'). Only sentence (1) meets the strict criteria established for determining basic word order (e.g., it is indicative, has full noun phrases, the subject is definite, agentive and human, the object is a definite patient, and the verb is an action with two arguments where there is an obvious transfer of activity and an obvious effect from agent to patient).

(1) Pakɨ yái sĩã-yígɨ.
     father jaguar kill-EVD.PST.SCD.3MSG
     'Father killed a jaguar.'

(2) Koó-ya-gɨ   díyi yɨɨ-re tutí-wi.
     3FSG-POSS.SG-NR.MSG dog   1SG-SPEC scold-EVD.PST.VIS.3MSG
     'Her dog barked at me.'

                                    (adapted from Barnes 1994: 327-329)

Because of the abundant use of pronominal agreement morphemes in Tuyuca, it is difficult to find data samples where the subject is named explicitly, i.e., is a bare definite noun. Tuyuca, like other Tukanoan languages is highly agglutinative with multiple suffixation of meaningful morphemes to the root. The verb phrase is the locus of most of the suffixation while the noun phrase is typically made up of smaller sets of morphemes and plays a smaller role in sentence construction than the VP. Postpositional case clitics are suffixed to NPs. The most common nominal elements consist of pronominal agreement markers, suffixed to the verb or auxiliary, signifying semantic and/or grammatical gender, number, or person.

Because of the lack of example sentences that meet the strict criteria for determining basic word order, it is difficult to establish whether or not Tuyuca is consistent with SOV, OV, and SV, but the small number of examples clearly show S(O)V typology. The data also seem to suggest the following orders: AdjN, and GenN. The WALS database (Haspelmath et al. 2005) classifies Tuyuca as having postpositional clitics (NPost). These orders are confirmed by (3) AdjN, (4) GenN, and (5) NPost.

(3) Sĩã-rí-dɨka   ñãñã-rí-dɨka
     illuminate-NR.INAN.SG-NCL.stick be.bad-NR.INAN.SG-NCL.stick

biki-dika.
old.object-CLF.stick
'A terrible, old flashlight.'

(4) Koó-ya-gi   kɨ̃́-ya-gɨ-kõrõ   nĩ́ĩ-ĩ.
     3FSG-POSS.SG-NR.MSG 3MSG-POSS.SG-NR.MSG-alike be-EVD.PRES.VIS.3MSG
     'Her animal is the same as his animal.'

(5) Wese=pɨ.
     field=LOC
     'To/at the field.'

                                        (adapted from Barnes 1994: 328-330)

The linear order of elements in (3)-(5) conform to the general predictions of the order of elements in the standard SOV, OV, and SV typologies (e.g., Greenberg 1966, Comrie 1981, Givon 1984, Song 2001) . This provides more evidence that in spite of the small number of prototypical word order sentences showing SOV order that it is in fact a correct generalization. Additionally, Tuyuca appears to have a very strict SOV order. Although Barnes classifies it as having "flexible" word order none of the available data actually shows examples of discourse dependent alternatives such as verb or object fronting with full NP subjects, i.e., VSO, OSV; see Appendix E.

3.3. Some features of agreement in Tuyuca

I review here some aspects of agreement on different categories showing how they interact on a basic level (i.e., subject-verb agreement). I do not cover the nominative (null) and accusative (/-re/) case system of Tuyuca because there is not a large degree of morphological case marking in Tuyuca that deals with subjects and direct objects (e.g., examples 2 and 5).

Tuyuca agreement features can be found marked on nouns (Tables 1 and 2), personal pronouns (Table 3), verbs (Table 4), auxiliary verbs, and agreeing tense-evidentials (Table 5). These are not all the possible elements, but for purposes of space I limit the analysis to crucial items. Since agreement is obligatory in all clauses in Tuyuca, examples of agreement can be seen in any clause or sentence given throughout this thesis.

3.4. <u>Nouns</u>

Agreement in nouns is marked in its most general form by masculine *-i* or *-ɨ*, feminine *-o*, and plural *-a*; although these can code more information for person and/or gender depending on the morphosyntactic environment. They all have nasal counterparts determined by phonological context that do not differ in grammatical features.

A difference in marking gender on nouns appears in Table 1 between (1.a) and (1.b) with the additional /k/ preceding the gender marker in (1.a). In plurals, the final vowel can signal plurality (1.c). Tuyuca also, however, has lexicalized plurals (1.d) that require a singularizing suffix (1.e). In general, agreement features of the head noun determine agreement with other clausal elements.

Table 2 shows the isolated agreement morphemes in Tuyuca that are suffixed to nouns—I compare Tuyuca with other Eastern Tukanoan languages that exhibit similar patterns. In these other languages such nominal agreement markers have been analyzed as noun classes (Retuarã by Strom 1992) and noun suffixes (Wanano by Stenzel 2004); there is also the potential that they are a type of pronominal noun classifier or perhaps a pronominal clitic.

Table 1

Nouns in Tuyuca

	Tuyuca Nouns with Gender			Tuyuca Nouns in Plural				
	1.a	1.b			1.c		1.d	1.e
M	*Pa'k**ɨ*** 'father'	*bãbɨ* 'child'	*ba'**i*** 'brother'	SG	*juká* 'vulture'	*ãnã̌* 'viper'	*wa'i* 'pieces'	*-wɨ̃* singular
F	*Pa'**ko*** 'mother'	*bã'b**õ*** 'child'	*bai'j**o*** 'sister'	PL	*juká-**a*** 'vultures'	*ãnã̌-**ã*** 'vipers'	*bũbĩã* 'grandmas'	

Table 2

Noun agreement in East Tukanoan[6]

	MSG	FSG	PL
Tuyuca	-kɨ/-i	-ko/-o	-a
Cubeo	-ki	-ko	-wa
Desano	-gi	-go	-rã
Retuarã	-ki	-ko	-rã
Wanano	-ʉ/-kʉ	-o/-ko	-a/-nã

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[6] Included here is Cubeo, whose most common noun agreement suffixes include *-ki* 'masculine singular', *-ko* 'feminine singular', and *-wã* 'plural' (Morse and Maxwell 1999: 77); Desano suffixes *-gi* 'masculine singular', *-go* 'feminine singular', *-rã* 'animate plural' (Miller 1999: 35); Retuarã noun class suffixes: *-ki* 'masculine', *-ko* 'feminine', *-rã* 'animate plural' (Strom 1992: 47); Wanano bare nominal roots ending in *-u* 'masculine,' *-o* 'feminine,' *-a/-nã* 'animate plural' and Wanano nominal suffixes *-ku* 'masculine', *-ko* 'feminine', and *-a/-nã* 'animate plural' (Stenzel 2004: 128).

Table 3

Personal pronouns in Tuyuca

1ˢᵗ Person	Singular	yɨ'ɨ	
	Plural	exclusive	ĩ'sã
		inclusive	bãdĩ
2ⁿᵈ Person	Singular	bɨ́ɨ	
	Plural	'bɨã	
3ʳᵈ Person	Singular	masculine	kɨ́ɨ
		feminine	ko'o
	Plural	'kɨã	

Table 4

Agreement for dependent verbs

	DEPENDENT VERB SUFFIXES		
	Animate		
	Singular		Plural
	Masculine	Feminine	
PRESENT	-gɨ	-go	-ra
PAST	-rigɨ	-rigo	-rira
REC.PAST	-arigɨ	-arigo	-arira
FUTURE	-ɨdɨ	-odo	-adara

Table 5

Evidential paradigm for Tuyuca

	VISUAL	NONVISUAL	APPARENT	SECONDHAND	ASSUMED
PAST					
OTHER	-wɨ	-tɨ	-yu	-yiro	-hĩyu
3MSG	-wi	-tɨ	-yi	-yigɨ	-hĩyi
3FSG	-wo	-to	-yo	-yigo	-hĩyo
3PL	-wa	-ta	-ya	-yira	-hĩya
PRES					
OTHER	-a	-ga	___	___	-ku
3MSG	-i	-gi	-hĩi	___	-ki
3FSG	-yo	-go	-hĭo	___	-ko
3PL	-ya	-ga	-hĩra	___	-kua

<center>3.5. <u>Personal pronouns</u></center>

The final vowels on the personal pronouns group generally to mark the distinction between singular -ɨ and plural -ã; see Table 3. Two exceptions stand out from the singular/plural pattern: first person plural has an inclusive form and the third singular has a feminine form that correlates with the pattern for agreement on nouns. Examples (6) and (7) show the use of personal pronouns.

(6)   **Kĩ́ã**-rẽ   ĩñã-dɨga-ri-yigo.
       3PL-SPEC see-DES-NEG-EVD.PST.SCD.3FSG
       '(She) did not want to see them.'

(7)   **Koó**-ya-gɨ   díyi **yɨ́ɨ**-re   tutí-wi.
       3FSG-POSS.SG-NR.MSG dog 1SG-SPEC scold-EVD.PST.VIS.3MSG
       'Her dog barked at me.'

<div align="right">(adapted from Barnes 1994: 330)</div>

<center>3.6. <u>Verbs</u></center>

Agreement on verbs, Tables 4 and 5, is typically marked through suffixing an obligatory agreeing-evidential to the end of the verb stem. The form of the agreeing-evidential is contingent on the agreement feature values of the head noun of the clause and constitutes subject-verb agreement. In the situation where an auxiliary verb accompanies the main verb (in which case I refer to the main verb as a *dependent verb*, i.e., dependent on the auxiliary), the evidential is suffixed to the auxiliary while the dependent verb expresses subject-verb agreement through a different class of morphs that also agree with the head noun. In these clauses the agreement feature values of the verb and auxiliary will be virtually the same, both agreeing with the head noun of the clause. This can be seen in Table 4, which represents my organization of the morphemes as

found in the original sources; see Barnes (1977, 1984, 1994, 1996, 1999), Barnes and

Malone (2000), and Karn (1976, 1979). To summarize, verbs that depend on an auxiliary

must still agree with the subject/head noun of the clause, the morphs in Table 4 are used

for this purpose; agreement on lexical verbs is suffixed to the end of the evidential morph

and are placed in bold in Table 5.

3.6.1. Order of constituents in the verb phrase

Barnes (1999) notes that "modality indicators are suffixes which follow the verb

root and precede an evidential, imperative or interrogative ending. These mood indicators

include: negative, probability/conditional, contraexpectation, desiderative, ability, and

emphatic." Assuming the universal morpheme order in Cinque (1999, see Appendix D)

we can derive the following order form Barnes' statement: [V-Modal/Mood[7]]. Barnes and

Malone (2000) state that "Los modos irreal, frustrativo, desiderativo y potencial... siguen

al tema verbal y a los sufijos de aspecto." In other words, the desiderative, frustrative,

and potential moods follow the verb root and the aspect suffix. From this statement we

can derive the overall [V-Aspect-Modal/Mood] order. Typically, no more than two

elements occur between the verb root and the evidential ending, which are the only

obligatory parts of the verb phrase. This order of verbal suffixes in Tuyuca appears to be

fixed as [V-(Asp)-(Mod/Mood)-Evd]; elements in parenthesis are optional. The evidential

is a 'fused' or 'portmanteau' form (i.e., contains multiple kinds of grammatical information

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[7] Barnes makes no semantic distinction between mood and modality. For consistency I will follow her
assumption in this Chapter, though I think she is wrong. A clear distinction between mood and modality
can be defined as the difference between variables ranging over the speaker's opinion of a world (modality),
and variables ranging over the world itself (mood).

in one morpheme), encoding person, number, gender, tense, and the speaker's source of information; see 3.8 for more details on evidentials.

3.7. Auxiliary verbs

There are two Tuyuca auxiliary verbs, *tii-* 'do/make' and *nĩĩ-* 'be.' They only occur in declarative clauses when they have an agreeing-evidential suffixed to them. In (8-11) the main verb is suffixed with an agreement morpheme from Table 4, while the auxiliary carries the agreeing-evidential (examples are as they appear in the original texts except I superficially changed the interlinear glossing to conform to the Leipzig Glossing Rules).

(8)   we'se   tãdã-'rã **tii**-'kua
          chagra cortar-PL **hacer**-EVD.PRES.ASM.3PL
          'seguramente están rozando
          (preparando un terreno)'
          'They are clearing the field' (my translation)

(9)   yɨ'ɨ waa-'gɨ   **tii**-'wɨ
          yo remar-MSG **hacer**-EVD.PST.VIS.1/2
          'yo estaba remando'
          'I was rowing' (my translation)

(10)   wáa-ri-gɨ   **nĩ́ĩ́**-wi
          go-RESLT-3MSG **be**-EVD.PST.VIS.3MSG
          'He went.'

(11)   díiga apé-gɨ   **tií**-i
          soccer play-MSG **do/make**-EVD.PRES.VIS.3MSG
          'He is playing soccer.'
               (adapted from Barnes 1984: 259 and Barnes and Malone 2000: 442)

<div align="center">3.8. Evidentials</div>

The Tuyuca evidential paradigm is relatively large and complex, and has been used by many (e.g., Faller 2001, Palmer 2001) as an exemplary case of an evidential system.[8] The evidential paradigm consists of the general distinctions between direct (VISUAL) and indirect (NONVISUAL, APPARENT, SECONDHAND, and ASSUMED), shown in Table 5. These categories encode a general distinction between 3rd person and OTHER (1/2 person). The OTHER (1/2 person) category makes no distinction between singular, plural, feminine, or masculine. On the other hand, the 3rd person does make this distinction.

3.8.1. Types of evidentials in Tuyuca

The morphosyntactic distribution of the five types of evidentials (Table 5) is the consistent between all the subtypes of eviential. That is, all types (and subtypes) may occur in the same environment: obligatorily suffixed to the end of the verb stem or auxiliary in declarative clauses. Tense, which is fused with the evidential, is marked for the whole clause whether it is suffixed to the main verb stem or the auxiliary. In (12a-c) the evidential is suffixed to the main verb. When there is an auxiliary the evidential attaches directly to it (12d-f). Both types of constructions for Tuyuca can be seen in (12).

(12) a.   tutí-**wi**   b.   heá-**wa**
           scold-EVD.PST.VIS.3MSG   arrive-EVD.PST.VIS.3PL
           'barked'   '(they) arrived'

      c.   sı̃ã-**yígɨ**   d.   apé-gɨ   **tií-i**
           kill-EVD.PST.SCD.3MSG   play-MSG do-EVD.PRES.VIS.3MSG
           '(he) killed'   '(He) is playing'

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[8] Payne (1997: 256) says "This language [Tuyuca] has one of the most complex systems of evidentiality I have seen. It has the added complexity of having evidentiality interwoven with the verbal participant reference system and the tense system."

e. wáa-rigɨ **nɨ́ɨ́-wi**
    go-3MSG be-EVD.PST.VIS.3MSG
    '(He) went'

f. bué-go   **tií-a**
    study-MSG do-EVD.PRES.VIS.1/2
    '(I am/you are) studying'

(adapted from Barnes 1984, 1994)

The order of morphological affixes for the verb is given in the formula in (13) and for auxiliaries in (14); see also 3.6.1. Optional elements are in parentheses and obligatory elements are not. The verb root and the tense-evidential-agreement morpheme are obligatory. (The '+' symbol indicates a strict surface ordering relation in which V always comes before AUX and there is no intervening material).

(13) [V$_{ROOT}$-(ASP)-(MOD)/(MOOD)-EVD.TENSE.AGR]
(14) [V$_{ROOT}$-AGR] + [AUX -(NEG)-(REC.PST)-EVD.TENSE.AGR][9]

The five evidential categories generally split between one direct form and four indirect forms, as mentioned above. The [± 3rd person] forms are grouped under PST and PRES tense, as can be seen in Table 5. Barnes' original work shows two evidential categories that are not found in the common literature: APPARENT and SECONDHAND. These may be replaced by the more common INFERRED and HEARSAY, respectively. There

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[9] Notice I have been placing the category TENSE as occurring after EVIDENTIAL. I give no arguments for this ordering here and assume it throughout Chapters 3 and 4. Chapter 5 contains the thrust of the argument for placing TENSE after EVIDENTIAL; however, it should be noted that the two categories are morphologically fused (portmanteau) and any argument for an ordering relation must rely on an abstract characterization.

is no evidence that Barnes' labels refer to categories independent from the more common names. I will continue to use her labels for consistency.

Lastly, the final vowels on the evidentials (Table 5) correlate with the gender and plural marking patterns in Tuyuca in general (Tables 1, 2, 3 and 4); analyzing these final vowels as separate agreement morphemes results in a very pervasive pattern throughout the entire language. And in fact Barnes herself acknowledges the pattern, stating that "Since the person, number, and gender information is carried mainly by the final vowel, it would seem that the evidential information is carried by the rest of the morpheme... this area needs further study" (Barnes 1984: 258). I investigate this pattern in more depth in Part II.

3.8.2. Defective forms in the evidential paradigm

In the evidential paradigm, Table 5, the NONVISUAL category in PST.1/2 and PST.3MSG both share the final vowel /ɨ/. Compare this to the VISUAL category PST.1/2 and PST.3MSG forms: they alternate between /i/ ~ /ɨ/. Segmental phonology of Tuyuca shows that /i/ ~ /ɨ/ alternations are phonemic (Barnes and Takagi de Silzer 1976). If the difference in vowel alternation in the VISUAL category marks a distinction between $[+ 3^{rd}]$ and $[-3^{rd}]$ persons, then the loss of alternation in the NONVISUAL category suggests a syncretism of the agreement values in the two forms that do not show the alternation.

Further problems arise when looking at the VISUAL PRES.1/2 and VISUAL PRES.3MSG forms. They appear not to have an evidential at all but to be composed simply of the vowel agreement morpheme. This really only holds, however, in the PRES.3SG morphs; the PRES.1/2 is deviant. A pragmatic and functional explanation arises for the

dropping of a form that refers to the source of information, if and only if it is assumed that during natural speech all speech participants are located in the same spatio-temporal domain and have equal access to the reference of event times and world situations. In this context the source of visual information is explicit to all speech participants and need not be specified. Thus, dropping the visual evidential morpheme is economical as it need not be redundantly stated to the speech participants that the source of information is visual; (see 5.5.2 for another explanation). However, this does not explain the other present tense visual forms of 3FSG and 3PL. These issues are important but they do not directly affect the analysis of agreement and so I ignore them in this thesis. Lastly, the OTHER evidentials clearly do not fit the final vowel pattern so pervasive in the 3$^{\text{rd}}$ person forms. For this reason I ignore the OTHER evidential forms.

4. "G" CLASS AGREEMENT

4.1. Introduction

There is a systematic pattern of agreement in Tuyuca by which the final vowel of certain classes of morphemes functions as the agreement marker cross-referencing the head noun of the clause (see Chapter 3). I investigate here the consequences of analyzing the final vowel agreement markers as separate from a specific set of morphemes, namely what is usually analyzed as the nominalizer, dependent verb agreement, and gerund morphemes. The usual analysis of these morphemes (i.e. the analysis of Barnes and Karn) rests on viewing them as portmanteau forms – typically fusing gender and person with a specific grammatical function of the "g" class morpheme. The goal of this chapter is to treat these "g" class morphemes as morphologically separable from the final vowels that encode the agreement feature values. If this separation is valid then a consistent analysis of the segmentable parts of what is assumed to be a portmanteau form will result. In other words, the "g" class morphemes will have consistent grammatical functions in specific and predictable morphosyntactic environments, as will the agreement morphemes. If this is so, then I believe I will have made a strong argument for analyzing agreement as a separate morpheme within this limited set of Tuyuca morphology. Additionally, this separation reveals some precise and interesting functions of the small set of "g" class morphemes that have not received adequate attention. If such an argument is valid then it may necessitate a reconsideration of other Tukanoan languages in this regard.

Nevertheless, I limit analysis to Tuyuca and make no explicit comparisons between my conclusions here and the conclusions in work on other Tukanoan languages.[10]

4.2. The basic data

Much of the analysis of Tuyuca data in this chapter will concern the interlinear glosses originally given in Barnes' work (see references). As a prelude to the analysis, I quote from the Leipzig Glossing Rules (http://www.eva.mpg.de/lingua/index.html): "Glosses are part of the analysis, not part of the data. When citing an example from a published source, the gloss may be changed by the author if they prefer different terminology, a different style or a different analysis." I make explicit the places in which I change Barnes' original interlinear glosses, but it should be noted that by and large I follow her analyses and conclusions. A difference in analysis, however, will not change the form of the basic data. It is to these data I now turn.

Barnes (1994) and Barnes and Malone (2000) (BM from here after) analyze a specific set of morphemes that function to reduce the valency of the verb or turn it into a noun, which results in a reduction (or elimination) of the number of arguments of the verb. Table 6 shows this set of morphemes, a large portion of which can also be seen functioning as agreement markers on dependent verbs (lexical verbs that are dependent on an auxiliary in the same clause; see Table 4). Table 7 shows the full paradigm of agreement morphology for depenent verbs and is partly based on Barnes (1996) and on my observations of data in the rest of Barnes' work, as well as Karn (1976, 1979).

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[10] See Ramirez (1997) for comparison of what I call "g" class morphemes. I thank Thiago Chacon for pointing out some general similarities between my analysis and Ramirez's (1997).

Table 6

Nominalizer/Deverbalizer agreement[11]

	NOMINALIZERS/DEVERBALIZERS				
	Animate			Inanimate	
	Singular		Plural	Non-count	Place
	Masculine	Feminine			
PRESENT	-gɨ, ŋĩ	-go, ŋõ	-ra, rã	-re	-ro, -rõ
PAST	-rigɨ	-rigo	-rira	-rige	-riro
REC.PAST	-arigɨ	-arigo	-arira	-arige	-ariro
FUTURE[12]	-idi	-odo	-adara	-adare	-adaro

Table 7

Agreement paradigm for dependent verbs

	DEPENDENT VERB SUFFIXES			
	Animate			Inanimate
	Singular		Plural	-ro
	Masculine	Feminine		
PRESENT	-gɨ	-go	-ra	
PAST	-rigɨ	-rigo	-rira	
REC. PAST	-arigɨ	-arigo	-arira	
FUTURE	-idɨ	-odo	-adara	

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[11] These nominalizers are also used in the construction of relative clauses, in which the restricting clause is nominalized and the agreement marker refers to the head noun of the main clause. I am not concerned here with relative clauses.

[12] The future is a different matter from the other tenses and I will not deal with it here; though I include it so the paradigms can be seen in their entirety.

Examples (15)-(17) show the nominalizing or deverbalizing function of morphemes from Table 6. (18)-(21) show the unanalyzed interpretation of morphemes from Table 7—I argue that these morphemes (in bold) can be decomposed and analyzed as an agreement morpheme (the final vowel) and either an aspect, classifier, gerund, or nominalizer morph (the /-g-/ element). Tuyuca systematically uses the morphs in Table 7 in [V + AUX] combinations;

(15)   bue-gɨ
estudiar-MSG
study-NR.MSG
'professor'

(16)   wɨɨ-ri-wɨ
volar-SUS-CLS:vehículo
fly-NR-CLF:vehicle
'ariplane'

(17)   yaa-'re
comer-SUS
eat-NR
'food'

(18)   bué**go** tií-a
'(I) am studying.'

(19)   díiga apé**gɨ** tií-i
'(He) is playing soccer.'

(20)   wáa**rigɨ** nɨ́ɨ́-wi
'(He) went.'

(21)   wesé sóe**rigɨ** nɨ́ɨ́-wɨ
'(He) burned his field.'

(adapted from Barnes 1984: 259)

In spite of the fact that some of Barnes' original data provide no morpheme-by-morpheme gloss to examples like (18)-(21), nor to any data in her very important and widely cited (1984) paper on evidentials, these examples provide interesting evidence about how progressive and perfect aspect are formed in Tuyuca. Barnes notes for (18) and (19), which constitute an event the speaker is witnessing at the time of the speech act report, "a progressive construction is used" (Barnes 1984: 259). For (20) and (21) she states that "Visual evidentials are used in a compound construction to describe the end result of a state or event when the state or event itself was not seen but the end result was" (Barnes 1984: 259). By this latter description Barnes is referring to a perfective aspect (Barnes and Malone 2000: 442).

It is not clear how the visual evidential is responsible for both the progressive in (18), (19) and the perfective in (20), (21); especially when the auxiliary appears to be partly responsible for these aspectual interpretations. It is true that there are many cases in which evidentials have originated from reanalyzed aspectual-like morphemes, such as participles (Harris and Campbell 1995 and Campbell 1991) in Estonian and resultatives (Csató 2000, Johanson 2000, Shroeder 2000) in Turkish. In fact, Malone (1988: 139) has analyzed evidentials in Tukanoan as originating from aspectual morphemes: "Nonvisual paradigms appear to have developed from a progressive (or other) aspectual gerundial construction... [and] the '+/- direct' paradigms appear to have developed at some later stage from an old perfect construction plus evidential suffixes...." There is even a small set of homophonous pairs in Tuyuca that retain both an evidential and an aspectual meaning. The forms *g-i, g-o*, and *g-a* can be progressive or perfective aspect and they are part of the evidential paradigm in Table 8.

Table 8

Present tense evidentials in Tuyuca

	VISUAL	**NONVISUAL**	APPARENT	SECONDHAND	ASSUMED
PRES					
OTHER	-a	**-ga**	___	___	-ku
3MSG	-i	**-gi**	-hĭi	___	-ki
3FSG	-yo	**-go**	-hĭo	___	-ko
3PL	-ya	**-ga**	-hĭra	___	-kua

However, as I will soon show, there is no environment in which *g-i, g-o*, and *g-a*
have simultaneous evidential and aspectual interpretations. The meanings of the
morphemes are entirely dependent on morphosyntactic environment. This situation is
similar to what has occurred in both Estonian and Turkish, where the reanalyzed
morpheme still retains its original meaning in *specific* environments, while the evidential
meaning is also restricted to other *specific* environments. For example, in Estonian the
participle interpretation is found in subordinate clauses and the reported speech evidential
is found suffixed to finite verbs in main clauses and subordinate clauses in both past tense
/-vat/ and present tense /-nud/. In Turkish /mIş/ is an indirect past tense-evidential with
finite verbs, but signals resultative aspect with nonfinite verbs. Tuyuca is very different
from Turkish and Estonian in that it has a lot more evidential morpheme types and
subtypes that make many direct/indirect distinctions. In Estonian and Turkish a small set
of aspectual-like morphemes underwent the historical process of reanalysis and,
subsequently, came to have an evidential interpretation in restricted morphosyntactic
environments. But in Tuyuca the evidence is weak that only *g-i, g-o*, and *g-a* (either as
aspect or nominalizer/gerund) were reanalyzed and extended to make up the entire
Tuyuca paradigm (see Malone 1988 for Proto-Tukanoan aspect and Harris and Campbell
1995 for technical exposition of 'reanalysis' and 'extension'). Evidentials, cross-
linguistically, interact with aspect and in some cases signal an imperfective, perfective, or
progressive aspect (see Johanson and Utas 2000, Stenzel 2004, Sumbatova 1999 for
Turkic languages, the Eastern Tukanoan language Wanano, and Kartvelian languages,
respectively). In many cases of historical reanalysis of aspect to evidential there are cases
of ambiguity between aspectual or evidential interpretations. But the homophonous pairs

of nonvisual evidentials and aspectuals in Tuyuca (*g-i*, *g-a*, *g-o*), while left unexplained

for now, never appear in environments where they can be simultaneously or ambiguously

interpreted as evidential *and/or* aspect. Barnes and Malone (2000) analyze progressive

aspect as deriving from a gerund morpheme suffixed to the main verb—in collaboration

with an auxiliary that has an evidential suffixed to it. They do not mention any aspectual

role of the evidential. And while it may be true that at least some Tuyuca evidentials

originated from aspectual morphemes, they do not appear to play any aspectual role. In

Tuyuca, the morphosyntactic distribution for evidentials and progressive and perfective

aspect is completely different. As I will show, an auxiliary is needed to construct a

progressive or perfective. In this case, the aspect is suffixed directly to the verb stem. As

I argue in the rest of this chapter, partly following Barnes and Malone (2000), the

morphosyntactic construction of progressive and perfective aspect does not support

evidence that the aspectual interpretations are in fact due to the presence of an evidential.

4.2.1. <u>Progressive aspect in Tuyuca</u>

   A more precise interlinear glossing of (18) and (19) can be seen in (22) and (23)

but are not my final gloss.

(22) bué-go   tií-a
    study-FSG do-EVD.PRES.VIS.1/2
    '(I am) studying.'

(23) díiga apé-gɨ tií-i
    soccer play-MSG do-EVD.PRES.VIS.3MSG
    '(He) is playing soccer.'

The glosses above are consistent with other interpretations given by Barnes in various publications. They are also generally consistent with Karn's (1976, 1979) glosses of Tuyuca texts and with glosses found cross-linguistically within the Tukanoan family (e.g., Cook and Gralow 2001, Strom 1992, Stenzel 2004). I have separated what is called the nominalizer and/or gerund by Barnes from the lexical verb. These are the *dependent verb* agreement suffixes of Table 7, also discussed in sections 3.6, 3.7, and 3.8. They only appear on the lexical verb when it is a *dependent verb*: that is, when the main lexical verb is accompanied by an auxiliary the latter takes the fully specified agreement morph (gender, person, and number) and the evidential, whereas the dependent verb takes an underspecified agreement suffix (gender, number) shown in Table 7; both dependent verb and auxiliary agree with the head noun of the clause—but they differ in the specification of this agreement. The distribution of the morphemes in Table 7 is restricted to the specific morphosyntactic environment of a dependent verb. Glossing the auxiliary *tií* as 'do' is consistent with BM glosses of this morpheme as Spanish *hacer* 'to do/make.' Partly following BM, I argue that the progressive interpretation is due to the presence of the auxiliary *tií* in combination with a morpheme from Table 7 suffixed to the lexical verb. However, I will eventually argue that one can isolate the agreement markers, in the form of the final vowel, from the rest of the morphemes in Table 7.

BM briefly discusses the progressive aspect and give a morphological template for it, which I modify by adding tense (tiempo) in (24) and providing an English translation beneath it in (25).

(24)   [tema verbal + sufijo de género/número/animado] + [*tii* + evidencial+tiempo]
(25)   [verb root + gender/number/animate suffix] + [*tii* + evidential+tense]

BM state that, in general, aspect in Tuyuca is formed in three ways: (a) from a combination of the gerund (seen in Table 9) and auxiliary verb, (b) an independent aspect morpheme between verb root and evidential, or (c) subordination suffixes.[13]

> El aspecto progressivo se forma por medio de un gerundio más el verbo
> auxiliar tii - 'hacer' flexionado para la categoria evidencial. El gerundio
> está integrado por un tema verbal más un sufijo que indica el género,
> el número y el condición animada o inanimada del sujeto.
> (Barnes and Malone 2000: 440)

What is crucial here is the first strategy (a): combining the gerund and auxiliary. BM go on to say that the gerund is integrated with the verb root and the suffix that indicates gender, number, and person as seen in the template in (24). BM give a paradigm for the gerund, which I adapt in Table 9. Notice that Table 9 corresponds equivalently with Table 10 and partially with Table 11 (alo see Tables 6 and 7 for more detailed comparison).[14] It also partially corresponds with PRESENT tense NONVISUAL evidentials from Table 8, which I will deal with later. With respect to the correspondence of gerunds in Table 9 with the morphs in Tables 10 and 11, it seems that one set of morphemes is responsible for the general function of making verbs more nominal; assuming one interprets gerunds, nominalized verbs, and progressive/perfective aspect as less 'verby.'

In most of Barnes' work the morphemes in Tables 6, 7, 9,10 and 11 are generally glossed as agreement morphemes, though she recognizes their aspectual, nominalizer, and gerund functions. The goal here is to see if deverbalizing functions can be isolated to particular morphemes, which may warrant an interlinear glossing that reflects more precisely these grammatical functions. So far, it seems that progressive aspect, gerunds

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[13] "El aspecto se indica ya sea por una combinación del gerundio y un verbo auxiliar, o por sufijos que siguen al tema verbal y preceden a la terminación evidencial, o a los sufijos de subordinación" (BM: 442).
[14] Interestingly, BM note that "a los sufijos de subordinación"—suffixes of subordination used to construct relative clauses—can be used for constructing aspect in Tuyuca. The morphemes in Tables 6 and 11 are also employed in making relative clauses and have almost the same form as those in Tables 7, 10 and 8.

Table 9

Gerunds

Class	Number	Gender	
Animate	Singular	Masculine	-gɨ
		Feminine	-go
	Plural		-ra
Inanimate			-ro

Table 10

Present tense agreement for verbs

	DEPENDENT VERB SUFFIXES			
	Animate			Inanimate
	Singular		Plural	-ro
	Masculine	Feminine		
PRESENT	-gɨ	-go	-ra	

Table 11

Present tense nominalizer agreement

	NOMINALIZERS/DEVERBALIZERS				
	Animate			Inanimate	
	Singular		Plural	Non-count	Place
	Masculine	Feminine			
PRESENT	-gɨ, ŋĩ	-go, ŋõ	-ra, rã	-re	-ro, -rõ

and nominalizers are easily segmentable into an isolated agreement morpheme suffixed to various aspect, classifier, gerund, and nominalizer morphemes. For example, I see no reason why -*gɨ* cannot have the four glosses in (28), one as aspect, one as classifier, one as gerund and one as nominalizer—it may be the case that gerund and nominalizer are the same, but I treat them differently to see if they have different distributional properties.

(28)
a.   g-ɨ   b.   g-ɨ   c.   g-ɨ   d.   g-ɨ
       ASP-MSG   GER-MSG   NR-MSG   CLF-MSG

Instead of progressive aspect being built from the gerund, now /-g-ɨ/ can be interpreted as an aspectual morpheme with agreement *when it is in the correct environment.* This is similar to English: we do not say that progressive aspect comes from the composition of an auxiliary with a gerund, or that gerund comes from deleting the auxiliary of a progressive. Instead, English -*ing* functions as either progressive or gerund in a particular morphosyntactic environment. The environments for the interpretations in (28) will be made more explicit in later sections. I turn now to a more precise morphological analysis of (20) and (21).

4.2.2. Perfective aspect in Tuyuca

The perfective aspect is the term for an event that has had a clear 'end result.' Given the similarity of the 'end result' constructions to other aspectual constructions as described by BM and as seen in (22)-(25) I interpret the 'end result' meaning in (20) and

(21) as the perfective aspect. More explicit versions of (20) and (21) can be seen in (29) and (30) but are not my final gloss.

(29)   wáa-ri-gɨ   nɨ̃ɨ̃́-wi
        go-RSLT-MSG be-EVD.PST.3MSG
        'He went.'

(30)   wesé sóe-ri-gɨ   nɨ̃ɨ̃́-wɨ
        field burn-RSLT-MSG be-EVD.PST.3MSG
        'He burned his field.'

Again, the glosses are consistent with glosses made in Barnes' other work and with other Tukanoan works. Barnes (1984: 259) says that "In this construction, the main verb is suffixed by the 'resultative' morpheme *-ri* and gender-number morpheme. The evidential is suffixed to the auxiliary verb *nɨ̃ɨ̃́*." In other glosses she never shows the RSLT interpretation of /-ri/ (see Table 7 and examples (20) and (21)). Instead, /-ri/ is glossed as part of the deverbal agreement marker. Although she mentions that an end result interpretation is assigned to constructions in (29) and (30) she does not communicate this through her glosses. Lastly, there is a different auxiliary, *nɨ̃ɨ̃́*, used in these sentences (compare *tiɨ́* in (22) and (23)).

        I have explicitly shown in my glossing of the data the resultative morpheme and separated it from /-gɨ/, which has the aspectual interpretation here. It is reasonable that agglutination of a resultative morpheme followed by an aspectual morpheme that can be interpreted as progressive would yield a perfective reading; adding the glossing conventions in (28) to (30) gives (31).

(31)   wesé sóe-ri-g-ɨ   nɨ̃́ɨ̃́-wɨ
         field burn-RSLT-ASP-MSG be-EVD.PST.3MSG
         'He burned his field.'

Here I still use ASP for the morpheme that appears to yield a consistent perfective

interpretation in the correct morphosyntactic environment; I will continue to do so in

order to keep the analysis from making too strong a claim. Only native speaker

judgments can verify the claim that /-g-/ is progressive or perfective in these

constructions; but it seems clear that it is some form of aspectual marker. Under these

conventions, (29) would look like (32). Barnes also shows that /-a-/ is the recent past

morpheme that can agglutinate to the perfective aspect, but fails to explicitly gloss it in

some instances (see Table 6) while glossing it in others. In (33) and (34) I show what

some of the data looks like with my glossing conventions.

(32)   wáa-ri-g-ɨ   nɨ̃́ɨ̃́-wi
         go-RSLT-ASP-MSG be-EVD.PST.3MSG
         'He went.'

(33)   Padé-ri-**a-ri-g-o**   yɨɨ mãkṍ   nɨ̃́ɨ̃́-yo
         work-NEG-**REC.PST-RSLT-ASP-PST.FSG** 1SG daughter be-EVD.APR.PST.3FSG
         'The one who did not want to work is my daughter.'

(34)   Yaá-ri-**a-ri-g-ɨ**   nɨ̃́ɨ̃́-ã-wɨ̃́
         eat-NEG-**REC.PST-RSLT-ASP-MSG** be-REC.PST-EVD.PST.VIS.3MSG
         'Evidently he did not eat (the food is still here).'
         Literally: 'Evidently he was a non-eating one'
                                         (adapted from Barnes 1994: 333-4)

Barnes includes the extra translation in (34) to highlight the deverbalizing nature

of the morphology. One difference between my gloss of (33) and (34) and Barnes' is that

I explicitly separate the resultative /-ri/, which she recognizes but rarely separates, and I separate the agreement marker from /-g-/. This latter separation results in the necessity of assigning a morphological label to /-g-/. My argument is that in this morphosyntactic environment the interpretation for /-g-/ is deverbalizing and aspectual; whereas, in another environment it may function as a nominalizer or a gerund. What my analysis implies is a more detailed syntactic structure, given the assumptions of the Mirror Principle.

The different functional interpretations of /-g-/ in these examples can be unified by a general theme of deverbalization: making a verb less 'verby' or more nominal. The glosses in (33) and (34) can be cumbersome but I believe they are more accurate and reflect the actual function of the morphology. However, the function of /-g-/ must be consistent and predictable in order for the more intricate glossing to be warranted. I show in the next section, 4.3, that the environments for the different functions are in fact highly predictable.

Lastly, I have so far been dealing only with the /-g-/ element in present, past, and recent past tenses. I will continue to do so even though the full paradigms of Tables 6 and 7 include morphemes that vary from /-g-/. If a consistent analysis for /-g-/ can be worked out then this analysis can be extended to account for the varying forms found in Tables 6 and 7; specifically the plural animate and inanimate categories, as well as the future tense, which seems to be entirely different from the other tenses.[15]

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[15] The direction for dealing with the "variant" forms of the paradigms should be fairly obvious: they all share two categories in common with one phoneme: inanimate and/or plural animate appears to be coded by initial /-r-/ where the other categories have initial /-g-/. The future tense in all categories has a /-d-/ where /-g-/ and /-r-/ occur but it appears to have a significantly different form from the other tenses, suggesting a different historical path.

4.3. <u>Specifying predictable environments</u>

The most obvious predictable environments for interpreting /-g-/ are the aspectual (progressive and perfective) ones. What appears to be the most highly restricted environment of the two is the perfective, which requires an obligatory resultative morpheme to directly precede it. I have found no data in which a perfective interpretation of the clause occurs without the resultative morpheme. One might assume that the resultative plus aspectual /-g/ formed the perfective. But there is more. The auxiliary *nĩĩ* 'be,' compared to *tii* 'do/make,' must also occur in tandem with the resultative marked aspect. Applying the glossing conventions given in (28) to (25) we can derive (35) for the perfective formula. The progressive data show that the auxiliary co-occurring with aspectual /-g-/ is *tii* 'do/make.' On analogy to (35) we get (36) for the progressive.

(35)   *PERFECTIVE ASPECT*:
       [V$_{STEM}$ + /-g-/ + gender/number/animate suffix] + [nĩĩ + evidential]

(36)   *PROGRESSIVE ASPECT*:
       [V$_{STEM}$ + /-g-/ + gender/number/animate suffix] + [tii + evidential]

The formulas in (35) and (36) appear to hold for all the data I have seen in all of Barnes' works (see references), as well as in Karn (1976, 1979). Progressive and perfective aspect are predictable. Aspectual /-g-/ has a consistent analysis as an independent morpheme—separate from resultative and subject agreement.

4.4. <u>Animate possessive noun classifier is not a gerund</u>

This section is a very late addition. I had originally argued that there was evidence for a possessive gerund in Tuyuca. Its environment was defined as [NP + GEN + /-g-/ + gender/number suffix]. However, explaining how an NP, usually a pronoun, came to acquire a gerund—suffixed to a genitive case—was problematic. The combination of only recently reading Baker's (2005) paper on gerunds and taking another look at Barnes' (1990) analysis of animate classifiers resulted in my change of mind.

(37) - (43) show a genitive case marker (underlined) directly preceding /-g-/. The genitive has the singular value for number, even in instances of referential plurality; see (42).

(37) Koó-<u>ya</u>-**g-ɨ**   kɨɨ́-<u>ya</u>-**g-ɨ**-kõrõ   nɨɨ́-ɨ̃.[16]
3FSG-GEN.SG-CLF.AN-MSG 3MSG-GEN.SG-CLF.AN-MSG-alike be-EVD.PRES.VIS-3MSG
'Her (animal) is the same as his (animal).'

(38) Koó-<u>ya</u>-**g-ɨ**   díyi yɨɨ-re   tutí-w-i.
3FSG-GEN.SG-CLF.AN-MSG dog 1SG-ACC scold-EVD.PST.VIS-3MSG
'Her dog barked at me.'

(39) mɨ̃ɨ́-<u>ya</u>-**g-ɨ**
2SG-GEN.SG-CLF.AN-MSG
'your (animal)'

(40) bãríya-<u>ya</u>-**g-ɨ**
mary-GEN.SG-CLF.AN-MSG
'Mary's male creature (dog, bird, ...)'

(41) mɨ̃ɨ́-ya-**g-o**
2SG-GEN.SG-CLF.AN-FSG
'your female creature (dog, hen, ...)'

(42) mɨ̃ɨ́-<u>ya</u>-**r-a**
2SG-GEN.SG-CLF.AN-PL

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[16] This is not an auxiliary.

'your creatures'

(adapted from Barnes 1990, 1994)

(43) kɨ̃,   poterimacãrã-<u>ya</u>-**g-ɨ**,   kɨ̃,   Coãmacɨ,
      3MSG, indian.people-GEN.SG-CLF.AN-MSG, 3MSG, Coãmacɨ,
      'he, Coámacɨ, belonged to us Indian people'

(adapted from Karn 1976: 1)

Tuyuca possessives come in three varieties: (44a) a noun/pronoun followed by the genitive singular /-ya-/ or genitive plural /-ye-/ plus a noun classifier, (44b) just the genitive singular plus noun classifier, or (44c) noun/pronoun plus noun – where the second noun is a kinship term. In all cases the first noun is the possessor and the second possessed; (glosses are modified from BM to conform with LGR and are translated into English by me).

(44)
a.   pakɨ-ya-wi   b.   ya-wi   c.   yɨɨ-pakɨ
     father-GEN.SG-CLF:house   GEN.SG-CLF:house   1SG-father
     'father's house/ house of father'   'my house'   'my father'

(adapted from Barnes and Malone 2000: 446)

(37) - (43) most closely resemble (44a), except in (37) - (43) the classifier is a general animate classifier with subject agreement marked; see Table 12. Tukanoan languages do not typically express this kind of restricted subject agreement in the noun classifier system (see Silva and Bowles 2007; see Gomez-Imbert 2007 for arguments that classifiers do constitute agreement in Tatuyo).

Table 12[17]

Animate classifiers

	DEPENDENT VERB SUFFIXES		
	Animate		
	Singular		Plural
	Masculine	Feminine	
PRESENT	-gɨ	-go	-ra
PAST	-rigɨ	-rigo	-rira
FUTURE	-idɨ	-odo	-adara

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[17] Notice Table 12 is a subset of nominalizer morphs in Table 6 and dependent verb agreement and aspect morphs in Table 7.

There is good reason to believe that Tukanoan noun classifier systems are developing into a noun class system similar to those found in Bantu languages (Grinevald and Seifart 2004). Barnes (1990: 289) characterizes the classifier forms in (37) - (43) as tensed animate noun classifiers; *-gɨ* = present tense masculine singular, and *-go* = presenttense feminine singular, and *-ra* = present tense plural. Barnes goes on to say that when these noun classifiers are suffixed to verbs they function as nominalizers. I argue that /-g-/ in Table 12 and (37) - (43) functions as an animate possessive noun classifier.

The distribution of the possessive forms created from this morphology is restricted by the typical distribution of possessive nouns or noun phrases they attach to. The environment for morphemes in Table 10 is (45).

(45)   *ANIMATE POSSESSIVE CLASSIFIER*:
          [NP + GEN.SG + /-g-/ + gender/number suffix]

4.5. The gerund

There is, instead of (45), another environment for the gerund: as a modifier of a stative verb of the type glossed 'be.bad' or 'be.big.' The environment includes a copula *nɪ̃ɪ̃* and a stative verb where the gerund can function as the predicate adjective, as in (46)-(47). An interesting example showing how the predicate adjective gerund (in bold) and the animate classifier (underlined) interact is shown in (48).

(46)   pai-**g-ɨ**
          be.big-GER-MSG
          '(is) big'

(47) Nãñã-**ŋ-ɨ**   nɨ́ɨ́-ri-hɨ̃-ɨ̃
be.bad-GER-MSG be-NEG-EVD.PRES.APR-3MSG

       kãmẽ-rí-a-y-i.
       reciprocate-NEG-REC-PST-EVD.PST.APR-3MSG
       'Apparently he is not bad, apparently he did not reciprocate (wound for wound).'

(48) Kɨ̃́-ya-<u>g-ɨ</u>   mɨ̃́-yá-<u>g-ɨ</u>   nẽmõ-r̃õ   pai-**g-ɨ**
       3MSG-GEN.SG-CLF.AN-MSG 2SG-GEN.SG-CLF.AN-MSG more-ADVR be.big-GER-MSG

       nɨ̃́ɨ̃-ɨ̃̂.
       be-EVD.PRES.VIS-3MSG
       'His animal is bigger than your animal.'

Here, *nɨ̃ɨ̃-ɨ̃* is not an auxiliary and *pai-g-ɨ* functions as the predicate adjective (see (49)),

while *Kɨ̃́-ya-g-ɨ* and *mɨ̃́-yá-g-ɨ* show the possessive classifier of (45).

    The formula for the predicate adjective gerund is (49). I also include a formula for

nominalizer /-g-/ in (50), for which some data was provided in (15)-(17). The

nominalizers seem, initially, to have a different distribution than the gerunds, requiring

no stative verb. For this reason I treat nominalizers separately from gerunds. I leave open

the idea that gerund and nominalizer are the same thing.

(49) *PREDICATE ADJECTIVE GERUND*:
     [V$_{STATIVE}$ + /-g-/ + gender/number/animate suffix]

(50) *NOMINALIZER*:
     [V$_{ROOT}$ + /-g-/ + gender/number/animate suffix]

4.6. <u>Conclusion</u>

    The /-g-/ class of morphemes shares the consistent and unified function of

"deverbalizing" a verb (assuming progressive/perfect aspect, gerunds, and nominalizers

are deverbalized forms). This class receives specific interpretations based on restricted morphosyntactic environments. I have separated the agreement markers from the /-g-/ class of morphemes in order to more precisely isolate their functions. But it seems clear that the gender/number/animate suffixes used to mark agreement are obligatory on all these forms. I believe I have given sufficient evidence that interlinear glosses in Tuyuca need to reflect the precise functions of the morphemes in Tables 6, 7, 8, and 9—and that isolating /-g-/ results in a more detailed and consistent morphology for Tuyuca. Barnes herself recognizes virtually all of the functions dealt with here, but is inconsistent in her glossing and analysis, typically only indicating the agreement values or using the label nominalizer for the /-g-/ class morphemes. I have argued that the "nominalizer" label is not precise enough. It does not capture the aspectual interpretations, nor does it indicate the possessive animate classifier, nor the predicate adjective gerund. This makes my analysis appealing because it is easy to test. Given the predicted interpretations based on the morphosyntactic environments I have proposed here, one need only find instances where the /-g-/ class morpheme behaves counter to my predictions. For convenience I group the predicted environments together in Table 13. Lastly, taking into account the typological similarity between the Tukanoan languages, I believe my arguments necessitate another look at agreement in other Tukanoan languages based on the results in this chapter and in Table 13.

Table 13

Predicted environments for "g" class morphemes

(35)	*PROGRESSIVE ASPECT*: [V_{STEM} + /-g-/ + gender/number/animate suffix] + [tii + evidential]
(36)	*PERFECTIVE ASPECT*: [V_{STEM} + RSLT + /-g-/ + gender/number/animate suffix] + [nĩĩ + evidential]
(45)	*ANIMATE POSSESSIVE CLASSIFIER*: [NP + GEN.SG + /-g-/ + gender/number suffix]
(49)	*PREDICATE ADJECTIVE GERUND*: [V_{STATIVE} + /-g-/ + gender/number/animate suffix]
(50)	*NOMINALIZER*: [V_{ROOT} + /-g-/ + gender/number/animate suffix]

5. AGREEMENT AND EVIDENTIALS

5.1. Against conflating agreement and evidentials

The goal of this chapter is to survey some theoretical consequences of separating agreement morphology from evidential morphology in Tuyuca. I discuss what evidentials are, their grammatical category, types of evidentials, and their relation to tense, aspect, person, and subject agreement. The same general premise that worked in Chapter 4 also works here, i.e., that there is a systematic and predictable pattern of final vowels that correlates with the distribution of person, gender, and number features—most generally *-i* = masculine, *-o* = feminine, and *-a* = plural—and that these agreement markers are isolable from the rest of the morphology. The analysis of separating agreement from evidentials is straightforward and simple; it requires little argumentation. Instead, the bulk of this chapter deals with the significant impact Tuyuca evidential morphology may have on current syntactic generative theory. I try to limit dependence on technical terminology in order to communicate the basic ideas and keep the general typological format of the thesis. But an understanding of the basic tenets of X-bar theory, Principles-and-Parameters theories, Distributed Morphology theory, and Minimalist Program attitudes is helpful; see Carnie (2002, 2008), Chomsky (1995, 2001), Epstein and Seeley (2007), Hornstein, Nunes, and Grohmann (2005), Lasnik and Uriagereka with Boeckx (2005), Pesetsky and Torrego (2002), Radford (2006), and Uriagereka (1998). By far the most technical sections are 5.4, 5.4.1 and 5.4.2.

5.1.1. <u>What are evidential morphemes?</u>

Evidential morphs are inflectional morphemes that refer to the source of evidence

of the speaker's proposition. Different analyses of evidentials group them under different

grammatical categories. The first kind of analysis makes use of the distinction between

evidentials as Mood (Cinque 1999) or Modality (Chung 2005, Matthewson et al. 2006).

Other accounts analyze the evidential as either fused with or relating to the category

Aspect (Johanson and Utas 2000, Malone 1988, Stenzel 2004, Sumbatova 1999). The

general typological conclusions about evidential morphology and evidentiality in

general,[18] seem to be that it is either an independent category (Aikhenvald 2006, Speas

2004a, 2004b, 2007) or part of the Tense-Aspect-Mood system, and that individual

languages express evidentiality in a variety of ways (see footnote 15).

This variety is constrained and principled. Speas (2004b, 2007) argues that it is

reasonable to conclude that the concept of "evidence" is itself not a grammatical

primitive—in the sense that the types of evidence coded in evidential morphemes is

limited to a few basic types that can be organized along a direct and indirect partition

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[18] There is a difference between *evidential morphemes* and *evidentiality*. The latter can be expressed in any language; as seen in these English examples.

     a. I see that John washes his car.
     b. I see John washing his car.

In (a) and (b) the complex interaction between the tense and aspect, as well as the different lexical properties of the verb *see*, interact to give different interpretations of the *evidential* base of the proposition. In (a) the intuitive interpretation is that the speaker infers from some indirect kind of evidence – contrary to directly watching John wash his car – that John in fact washes his car. In (a), the evidence may be indirect, in that the speaker always notices that John's car is clean. Based on this, the speaker infers that John washes his car, but the proposition does not entail that the agent of *washes* is actually John; it may be somebody John hires. In (b), the interpretation is that the speaker has direct visual evidence that John is washing his car, which entails that John is the agent of *washing*. The difference between (a) and (b) can also be reduced to the difference of the verb *see*; in (a) it has an indirect base and can be substituted by other verbs such as *understand*, *know*, *hear*, and even perhaps *feel*. This is only possible for (b) with the verb *hear*, and perhaps *feel*. But clearly, English has no evidential morpheme equivalent to the inflectional type seen in Tuyuca (**§3.8**). See Drubig (2001) for an analysis of English and German epistemic modality as expressing degrees of evidentiality.

(Faller 2001, Willet 1988). Although there are disputes about the number of types of evidentials, they tend to fall into five or seven basic types: Visual, Nonvisual, Inferred, Hearsay, Secondhand, Apparent, and Assumed. Some of these terms may overlap, or other people may use different terminology, but the general typological constraints seem to define a very specific boundary. For example, one does not see any type of evidential morpheme that refers to evidence based on religious ceremony, religious text, proverbial sayings, or legal discourse; though these are reasonable pragmatic sources for basing one's evidence about propositions. The conclusion seems to be that the semantic domain of evidentials is limited to the sensory-perception. Dreams, visions, feelings, and general objects of imagination, however, are not coded in evidential morphemes – unless one counts rational inference as a feeling or a vision. Only sensory evidence based on sight (or lack of), hearing (or lack of), and possibly touching or smell; in the extreme perhaps one could argue for taste. Even in the extreme, one finds a highly constrained boundary for the types of evidence used, and thus, can conclude that "evidence" is not a grammatical primitive. The type of "evidence" coded in evidential morphemes is cross-linguistically constrained and has a principled, albeit poorly understood, distribution.

5.1.2. Evidentials with inherent 1st person features?

The interaction between evidential morphemes and 1st person pronouns is well-attested (Aikhenvald 2006). It is clear that in cases where the speaker and grammatical subject are the same, and no overt 1st person marker is present, the evidential still refers to the source of evidence for the speaker. In this way one might argue that evidential

morphemes do in fact have unpronounced 1st person pronominal features, but the kinds of evidence and datum that should be used to show this is still not clear.

What is without dispute is that evidential morphemes are inflectional, and because of this can inflect for subject agreement, including 1st person. Furthermore, evidential morphemes are known to be expressed in some languages as portmanteau forms that simultaneously code source of evidence and tense. Data for portmanteau forms that simultaneously code source of evidence and subject agreement are weakly attested (see the morphs under the 1/2 and VISUAL categories in Table 5 and discussion of them in §3.8.2 and §5.5.2).

5.1.3. Fused tense-evidentials and inflection for agreement

A survey of the World Atlas of Language Structures (Haspelmath et al. 2005) for languages with tense-evidentials resulted in a count of twenty-four. To this number I added five additional languages that were not in the WALS database, for which I provide the source references; results are shown in Table 14 (see also Bowles to appear). OV and VO refer to word order and Φ-F refers to whether or not subject agreement features (gender, number, and person) are inflected on the tense-evidential.

The typological origin (i.e., grammaticalization or reanalysis) of evidentials in general appears to be verbal in nature. For example, verbs with the meaning of 'say' can be become hearsay or quotative evidentials (Campbell 2004 and references therein). The origin of tense-evidentials, on the other hand, isn't always the fusion of an evidential morpheme with a tense morpheme. For example, Fleck (2007) shows the origin of tense-evidentials in Matses to be nominalizers. As discussed in section 4.2, Harris and

Table 14

Basic typology for tense-evidential[19,20]

	NAME	OV	VO	Φ-F	LANGUAGE FAMILY	REFERENCE
1	Abkhaz	✓			N.West Caucasian	Cinque (1999: 155)
2	Armenian	✓			Armenian	
3	Barasano	✓		YES	Tukanoan	
4	Bulgarian		☑		Slavic	
5	Carapana	NO INFO			Tukanoan	
6	Carib	✓			Cariban	
7	Chechen	✓			Nakh-Daghestanian	
8	Ekari	✓			Trans-New Guinea	
9	Estonian		☑		Finno-Ugric	Campbell (1991)
10	Evenki	✓			Altaic	
11	Gagauz	NO INFO			Altaic	
12	ʔGeorgian	✓		YES	Kartvelian	Bejar (2001)
13	Godoberi	NO INFO			Nakh-Daghestanian	
14	Haidi	✓			Haida	
15	Hunzib	✓			Nakh-Daghestanian	
16	Ingush	✓			Nakh-Daghestanian	
17	Khowar	✓			Indic	
18	Kurmanji	NO INFO			Iranian	
19	Ladakhi	✓			Sino-Tibetan	
20	Laz	✓[21]			Kartvelian	
21	Matses	✓		YES	Panoan	Fleck (2007)
22	Persian	✓			Iranian	
23	Salar	NO INFO			Altaic	
24	Sherpa	✓			Sino-Tibetan	Woodbury (1986)
25	Tariana	✓			Arawakan	
26	Tucano	✓		YES	Tukanoan	
27	Turkish	✓			Altaic	
28	Tuyuca	✓		YES	Tukanoan	
29	Yakut	✓			Altaic	

[19] Word order (OV and VO) is included because during the sampling I noticed that an overwhelming majority of tense-evidential languages were head-final. The results of this sample are by no means definitive, but they do suggest that there may be a correlation between tense-evidentiality and head-finality. So far, the only explanation for why head-final languages would be more likely to fuse tense and evidential morphemes is that the highly suffixal nature of head-final languages could provide the conditions under which fusion is more likely; Lyle Campbell (p.c.) and Mauricio Mixco (p.c.). This is as far as I pursue the matter here.

[20] Table 14 is not meant to be exhaustive. That is, virtually all the Tukanoan languages have tense-evidential morphemes (only 4 of the 20 are shown). The Altaic, Nakh-Daghestanian, and Kartvelian families probably have more languages that could be shown.

[21] WALS has no information on Laz, but Harris and Campbell (1995: 216) state that "In Laz word order is relatively free... but the unmarked order is SOV."

Campbell (1995) and Campbell (1991) show that Estonian tense-evidentials come from reanalysis of fused tense-participle endings in subordinate clauses. The Turkish resultative /mIş/ appears to have been reanalyzed as an indirect past tense-evidential with finite verbs, while nonfinite verbs still yield the resultative interpretation (Csató 2000, Johanson 2000, Shroeder 2000). Finally, Malone (1988: 139) states for Tuyuca that "Nonvisual paradigms appear to have developed from a progressive (or other) aspectual gerundial construction... [and] '+/- direct' paradigms appear to have developed at some later stage from an old perfect construction" (see also §4.2). Interestingly, if one compares the present tense nonvisual evidentials (Tables 8) to my analysis of perfective and progressive forms (Table 13), as well as to the present tense forms of Barnes' nominalizers, dependent verb subject agreement markers, and gerunds (Tables 6, 7, 9, 10, and 11) there is a striking equivalence in form. My analysis, then, could corroborate Malone's claim about the aspectual and gerundial origin of evidentials (with obvious extension and phonological change in the paradigm). Aspectual morphemes from which evidentials were derived still have their aspectual interpretation in restricted morphosyntactic environments. This is similar to the Turkish or Estonian examples of reanalysis, where one form was reanalyzed but still retained its original meaning.

5.1.4. Evidentiality as agreement

Another possibility is to consider agreement morphemes as sub-classifying evidentiality among one of its other features, i.e. gender, person, and number. But this is an unattested feature of agreement (Corbett 1991, 2000, 2003, 2006, Comrie 1981, Siewerska 2004, Song 2001). Deciding what kind of empirical evidence would support

such a claim is highly problematic. A more reasonable conjecture is to assume all

evidential morphemes can agree with subjects without having to show overt subject

agreement inflection. The approach that assumes an unpronounced 1st person feature

inherent to evidentials (§5.1.2) assumes a deep interaction between evidentials and

agreement. It does not classify evidential morphemes as agreement morphemes

themselves. But it does recognize, based on empirical data that shows well-attested

interactions between evidentials and 1st person, that the category Evidential shares some

common behavior with the category Tense in terms of deixis and interactions with

pronouns (see Speas 2004a, 2004b, 2007). Tuyuca evidentials do not primarily function

to mark agreement with the subject of the clause, just as tense does not. Instead,

evidentials code the deictic source of evidence for speaker proposition just as Tense

codes the deictic source of time for an event and speech act. Technically, in this approach

evidence is not a grammatical primitive, and so evidentials cannot actually "code the

source of evidence." Instead, they code the *source of situation for a discursive and*

evaluative event (Speas 2007). Here, evidentiality can be distinguished from mood and

modality in the following way. If a clear distinction between mood and modality can be

defined as the difference between variables ranging over the speaker's opinion/attitude of

the world (modality), and variables ranging over the world itself (mood), then

evidentiality can be defined as variables ranging over the situations in the world. Tense,

to draw a parallel, is then defined as variables ranging over times and/or events. One

conjecture is that the category Evidential may agree with other categories in terms of

worlds, events, times, and situations—and perhaps 1st person. Either way, the

gender/number/person endings on tense-evidentials in Tuyuca are marking agreement

with the subject and do not play a role in evidentiality (see §3.8 and §5.3 for detailed arguments).

5.1.5. Concluding remark: Conflating agreement and evidentials

The general conclusion that can be drawn is that subject agreement (gender, number, and person) is separate from evidentiality. By factoring out the common agreement morphs one can easily see the variation in form between present and past tense, as well as between types of evidential. The focus here will be on those evidentials with 3rd person values. Table 15 is an application of the general premise of this thesis to evidential morphology (see Chapter 4 for arguments concerning other parts of the morphology). One benefit from separating agreement from evidential is that one can easily see the variation in morphology between the two tenses. The agreement morphemes do not vary from present to past tense; but the evidential does. I take this as straightforward evidence that tense is fused with the evidential and not with agreement.

Although the notational innovation for separating the agreement marker from the evidential is not very interesting, the theoretical issues arising from it are. Namely, where universal syntactic hierarchies of functional structure have been proposed the usual order is Evidential over Tense (E > T) (Cinque 1999; see Appendix D). But analysis of the interaction between agreement and evidentials in Tuyuca, assuming Minimalist constraints on agreement and clause structure as well as the basic intuition that TP should constrain tense and subject-verb agreement, results in a surprising reversal of two functional categories, placing Evidential under Tense (T > E). I also attribute this surprising result partly to the fused nature of the evidential morphology in terms of

Table 15

Revised Tuyuca paradigm

	VIS	NVIS	APR	SCD	ASM
PAST					
OTHER(1/2)	-w-ɨ	-t-ɨ	-y-u	-yir-o	-hĩy-u
3MSG	-w-i	-t-i	-y-i	-yig-ɨ	-hĩy-i
3FSG	-w-o	-t-o	-y-o	-yig-o	-hĩy-o
3PL	-w-a	-t-a	-y-a	-yir-a	-hĩy-a
PRESENT					
OTHER(1/2)	-a	-g-a	___	___	-k-u
3MSG	-i	-g-i	-hĩ-i	___	-k-i
3FSG	-y-o	-g-o	-hĩ-o	___	-k-o
3PL	-y-a	-g-a	-hĩr-a	___	-ku-a

defining sisterhood relations that license fusion. Tuyuca seems to provide evidence that other languages with fused tense-evidentials may also require the T > E order.

5.2. Basic issues

In Chapter 4 I assumed that gender/number/person morphology suffixed to verbs was subject agreement and that Tuyuca clauses do not need to express an overt subject. Reference to various types of definite or indefinite subjects is made through subject agreement marked on the verb stem (see Alexiadou and Anagnostopoulou 1998, Chomsky 1981, and Jelinek 1984 for discussion of nonovert subjects). However, it is typologically possible to express a full argument subject through what is called a *pronominal argument*, which looks like an agreement marker. Straightforward diagnostic techniques (Baker 2003b) can be applied to determine whether an element is a pronominal argument or not. More importantly for Tuyuca, I will argue that *if* the final vowels do not pattern as pronominal arguments—being agreement markers instead—*then* fused tense-evidentials must occur lower than TP. The premise behind this is simple: subject-verb agreement and tense morphology is marked for the entire clause, which means the clause must be constructed before agreement can be marked on it. In standard Minimalist accounts, agreement morphology "co-occurs" with tense (and case) morphology. In other words, the syntactic assignment of agreement (and case) is tied-up with the tense of the clause. I will present two models. One is based on a Cinque hierarchy (1999, Appendix E), the other is my model. I argue that both models can explain the data but mine does it in a less complex, more elegant way.

5.2.1. <u>A note on why T > E is important</u>

Why is the order ⟨T, E⟩ or ⟨E, T⟩ important if the two categories are fused? The first answer is that assuming a lexically inserted fused tense-evidential morpheme brushes the issue of order aside. It does not provide an explanation for why the categories Tense and Evidential can be fused in the first place. In all cases of languages with evidential morphology only a small number of them fuse with Tense morphology (Table 12 for a nonexhaustive set of tense-evidential languages). It may in fact be the case that the Tuyuca lexicon inserts a fused tense-evidential morpheme into the syntax, but this does not explain how this morphology developed (tense-evidential is not a grammatical or lexical primitive, it must have some historical development for which the interaction between morphology and syntax are partly responsible).

Additionally, investigating the ordered relation between T-E and seeking an explanation for how tense-evidential morphemes develop relates to concerns of meta-theoretical significance. Simply put, the investigation of morphological (and morphosyntactic feature) change in languages will shed light on the nature of the kinds of parameters by which languages may vary (Kemenade 2007; but see Baker 2008, Chapter 5, for arguments that purely syntactic parameters exist—and §5.4 here for a brief note on, and explication of, Baker's syntactic parameters). An explanation of how tense-evidential morphology is derived not only relies on a solid explanation for the interface between morphology and syntax, but also on a clearly articulated notion of language change and reanalysis in the formally oriented Minimalist Program. Until recently, language change and reanalysis was the proving ground for functionalist theories of language. But collaboration and competition between theories that constitute the two dominant

paradigms of linguistic research, broadly construed as Functionalist and Formalist (see Newmeyer 1998 for detailed definition of these terms), can only be a catalyst to progress in understanding how languages work. I do not pretend to have a "solid explanation" for the morphology-syntax interface or a "clearly articulated notion" of reanalysis in formalist terms, but I believe that investigating the ordered relation between T-E and the morphological instantiation of this relation will contribute to both an "explanation" and an "articulation" of morphosyntactic reanalysis.

5.3. Tuyuca does not have pronominal argument suffixes

5.3.1. Setting the stage

In languages that have pronominal argument suffixes an apparent agreement marker is actually a full argument of the verb: it influences valency and is marked for case. In languages that do not have pronominal argument suffixes there is a co-occurrence restriction in the distribution of *agreement markers*, *pronominals*, and *definite nominal arguments*. This restriction on the co-occurrence of, for example independent pronouns and full NP arguments, can be seen from examples in German and English adapted from Mithun (2003: 236-237)—read with no intonational pauses:

(51) *German*   *English*
      a. **Er** beobachtet.   b. **He** watches.
         Mein Vater beobachtet.   **My father** watches.
         Er$_i$ beobachtet **die Kinder**$_k$.   **He**$_i$ watches **the children**$_k$.
         *****Mein Vater**$_i$ **er**$_i$ beobachtet.   *****My father**$_i$ **he**$_i$ watches.
         *****Er**$_i$ beobachtet **sie**$_j$ **die Kinder**$_j$.   *****He**$_i$ watches **them**$_j$ **the children**$_j$.

As seen in (51) there is a restriction on allowing subject or object NPs to co-occur with a pronoun for which the reference is the same. However these examples are perfectly acceptable with appropriate intonational pauses related to discourse and topic-focus phenomena, signaled by placement of the comma in (52). There are similar data in Spanish and Portuguese (53), which are *pro*-drop languages, i.e., they do not need to overtly express the subject. Instead, they rely on subject agreement morphemes to recover subjects that are not full NPs.

(52) *English*
    a.   My father, he sees.
    b.   He sees them, the children.

(53) *Spanish*   *Brazilian Portuguese*

    a.   Mi Papá vio los niños.   f.   Meu Pai viu criança.
         'My father sees the children.'   'My father sees the children.'

    b.   (El) vio.   g.   (Ele) viu.
         '(He) sees.'   '(He) sees.'

    c.   Vio los niños.   h.   Viu criança.
         '(He/she) sees the children.   '(He/she) sees the children.'

    d.   *Mi papá$_i$ el$_i$ vio los niños$_j$.   i.   *Meu pai$_i$ ele$_i$ viu criança$_j$.
         'My dad he sees the children.'   'My dad he sees the children.'

    e.   Mi Papá$_i$, el$_i$ vio los niños$_j$.   j.   Meu Pai$_i$, ele$_i$ viu criança$_j$.
         'My dad, he sees the children.'   'My dad, he sees.'

German, English, Spanish, and Portuguese are very different from languages such as Walpiri, which treats all instances of fully specified referential noun phrases as nonessential. Jelinek (1984) calls this the *Pronominal Argument Hypothesis*. For example, the Ergative case-marked subject in (54a) 'the child' and in (54b) 'the man' are

adjoined, or *dislocated,* material not needed for core predicate-argument structure. They

are similar to the fully referential nominals in (53e-j) and (52a-b). The difference between

Walpiri and English, Spanish, and Portuguese is that the agreement on the verbs in (52),

(53a-b), and (53f-g), i.e. *watch-s*, *vi-o*, *vi-u*, does not force the definite subject noun

phrase, i.e., *father*, *papá*, *pai*, or the subject pronoun, i.e. *he*, *el*, *ele*, to be interpreted as

adjoined or dislocated material – as they are in (53e-j) and (52a-b).

(54)   *Walpiri* (adapted from Hale cited in Jelinek 1984: 60)
         a.   Kurdu-ngku ka-ZERO-nyanu   ngarrka-ø nya-nyi
                 child-ERG   PRES-3SG.NOM-REFL man-ABS see-NONPAST
                 'He$_i$ the child$_i$ sees himself$_i$ (as) a man.'

         b.   Kurdu-ø ka-ZERO-nyanu   ngarrka-ngku nya-nyi
                 child-ABS PRES-3SG.NOM-REFL man-ERG see-NONPAST
                 'He$_i$ the man$_i$ sees himself$_i$ (as) a child.'

Baker (2003b: 1) says of Jelink's (1984) analysis of Walpiri that

> [the] article introduced the Pronominal Argument Hypothesis into
> Principles and Parameters-style theories. In brief, her idea was that some
> languages have obligatory pronominal agreements/clitics that count as the
> arguments of verbs and other predicators. Full NP's in such languages are
> thus never themselves arguments; when present at all they have the status
> of optional adjuncts of some kind.

Baker himself goes on to show that full NP's in languages with pronominal argument

suffixes are *dislocated*; they are introduced into the syntactic derivation in adjunct

positions and not as part of the verb phrase. From this, he applies the notion of

dislocation as a diagnostic for judging whether or not certain agreement suffixes are in

fact subject arguments of the verb: if agreement forces subject NPs to be dislocated in a

language L, then L is nonconfigurational. He concludes that there are languages that fall

in between those exhibiting the properties of German, English, Spanish, and Portuguese on one hand, and Walpiri, Mohawk, and Nahuatl on the other. The former set represents the configurational languages, the latter the nonconfigurational. In between the two extremes are partially configurational languages like Chichewa, Kinande, Slave, and perhaps Najavo. The goal here is to determine where Tuyuca fits in this typology: is it configurational, partly configurational, or nonconfigurational.

5.3.2. <u>A look at Tuyuca subjects</u>

The diagnostic of subject *dislocation* can be applied to Tuyuca. With dislocated (or adjoined) subjects there is variability in the basic word order. For Tuyuca, this means that if one can find instances in which the canonical S(O)V order is violated without causing ungrammaticality, then this *might* be a case of a dislocated subject. However, even noncanonical word order is not a guarantee of dislocation, other diagnostics factor in; word order is just a good place to start. Unfortunately, relevant data for noncanonical word order do not exist in published sources—which is reflective of the data set, not the language. Despite the lack of noncanonical word order in the data set,[22] this should not undermine the suggestiveness of the word order constraints in Tuyuca—they are still reliable. Thus, there are no instances in which a fully referential definite NP occurs postverbally, nor do subject pronouns ever deviate from the S(O)V pattern in Tuyuca data (55)-(62). This suggests that word order is an important organizing principle in Tuyuca syntax. (Glosses reflect the analysis in Chapter 4, the separation of agreement from

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[22] There are actuall a few examples but they do not appear to be relevant to the purposes here. Also, because most of the nominative-accusative case marking in Tuyuca is covert, analyzing variable word order clauses is not productive – more data need to be collected.

evidentials, and conformity to the Leipzig Glossing Rules. I have also made more explicit

the postpositional clitic representation, by using the equal sign as the boundary for clitic

"=" (Leipzig Glossing Rules 2006), of what Barnes calls the possessive morpheme and I

interpret to be the genitive case /=ya/; see (58), (60), (61).

(55) **Pakɨ** yái sĩã-yíg-ɨ.
father jaguar kill-EVD.PST.SCD-3MSG
'Father killed a jaguar.'

(56) **Pakɨ** yái-re[23] sĩã-yíg-ɨ.
father jaguar-ACC.DEF kill-EVD.PST.SCD-3MSG
'Father killed the jaguar (that had been killing the chickens).'

(57) **Mɨ̃ pakɨ** wĩmá̃-ŋɨ nɨ̃́ɨ-ŋɨ[24] wií sóe-yiri[25]?
2SG father child-M be-Dɨ.MSG house burn-INT.EVD.PST
'When your father was a child, did he burn down the house?'

(58) **Koó**=ya-g-ɨ **díyi** yɨ̃-re tutí-w-i.
3FSG=GEN.SG-CLF.AN-MSG dog 1SG-ACC.DEF scold-EVD.PST.VIS-3MSG
'Her dog barked at me.'

(59) **Ɨmɨ̂-á̃** **pɨa-rá̃** heá-w-a.
man-PL.AN two-PL.AN.QUANTITY arrive-EVD.PST.VIS-3PL
'Two men arrived.'

(60) **Kɨ̃́ɨ**=ya-g-ɨ mɨ̃́ɨ=yá-g-ɨ nẽmõ-r̃õ
3MSG=GEN.SG-CLF.AN-MSG 2SG=GEN.SG-CLF.AN-MSG more-ADVR

pai-g-ɨ nɨ̃́ɨ-ɨ̂.
be.big-GER-MSG be-EVD.PRES.VIS-3MSG
'His animal is bigger than your animal.'

(61) **Koó**=ya-g-ɨ kɨ̃́ɨ=ya-g-ɨ-kõrõ
3FSG-GEN.SG-CLF.AN-MSG 3MSG=GEN.SG-CLF.AN-MSG-alike

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[23] This is an accusative case marker but it also works to signal definite reference, compare with (55). The behavior of this morpheme in Tuyuca, and in other Eastern Tukanoan languages, is still somewhat of a puzzle.

[24] Barnes (1994: does not explain what she means by condition consequence for *nɨ̃́ɨ-ŋɨ*. It clearly agrees with -*ŋɨ* in *wĩmá̃-ŋɨ* 'masculine child.' I leave the issue open for now.

[25] This is also part of the set of miscellaneous forms not covered here. More specifically, it belongs to the paradigm of interrogative evidentials. As far as I know, interrogative evidentials are extremely rare.

nı̃́ı̃-î̃.
be-EVD.PRES.VIS-3MSG
'Her animal is the same as his animal.'

(62)　**Díayi** yɨ́-re　　baka-rí-t-i.
dog　1SG-ACC.DEF bite-NEG-EVD.PST.NVIS-3MSG
'The dog did not bite me.'

All examples show the canonical word order, S(O)V, where subjects are in their expected position and subject agreement markers on the verb or auxiliary (or both) explicitly express features that refer to the subject. In all of the sentences or clauses in (55)-(62) the full NPs in subject position, whether nouns or pronouns, can be dropped with no syntactic loss of subject reference, i.e. the subject reference is recoverable from the agreement marked on the verb or auxiliary.

(63)　Nẽ́ẽ́-bia-to-hã-yig-ɨ.
grab-close-trap-EMPH-EVD.PST.SCD-**3MSG**
'(He) grabbed (the flea) and trapped it (in his mouth)'

(64)　Sã́ɨ̃-bosá-dɨga-ri-w-**i**.
buy-BEN-DES-NEG-EVD.PST.VIS-**3MSG**
'(He) did not want to buy it for another.'

(65)　wáa-ri-g-ɨ　　　nı̃́ı̃-w-**i**
go-RSLT-PERF-MSG be-EVD.PST.VIS-**3MSG**
'(He) went.'

(66)　Yaá-ri-a-ri-g-ɨ　　　　nı̃́ı̃-ã-w-**î̃**
eat-NEG-REC.PST-RSLT-PERF-MSG be-REC.PST-EVD.PST.VIS-**3MSG**
'(He) did not eat/was a non-eating one.'

(67)　wesé sóe-ri-g-ɨ　　　nı̃́ı̃-w-**ɨ**
field　burn-RSLT-PERF-MSG be-EVDPST.VIS-**3MSG**
'(He) burned his field.'

(67)　apé-g-ɨ　　　tií-**i**
play-PROG-MSG　do-EVD.PRES.VIS-**3MSG**

'(He) is playing'

(68)   sĩã-yíg-ɨ
        kill-EVD.PST.SCD-**3MSG**
        '(He) killed'

(69)   heá-w-**a**
        arrive-EVD.PST.VIS-**3PL**
        '(they) arrived'

(70)   bué-g-o   tií-**a**
        study-PROG-FSG do-EVD.PRES.VIS-**1/2**
        '(I am/you are) studying'

Additional evidence that subjects are not dislocated in Tuyuca comes from the lack of intonational pauses between a definite subject and the clause with repetitive agreement. Barnes and Takagi de Silzer (1976) and Barnes (1996), both works on general Tuyuca phonology, give no indication that data exist to suggest that intonational pauses can be isolated and interpreted as marking some clause boundary, or other syntax-discourse boundary. In fact, nothing is even hinted at in any work on Tuyuca (see Barnes, Karn, and Smith in references).

Furthermore, object agreement in Tuyuca is optional and does not occur frequently. Nonconfigurational languages have obligatory object agreement, but partially configurational languages allow optional object agreement. However, Tuyuca object agreement does not appear to behave as it does in partially configurational languages like Kinande (Baker 2003). That is, the presence of an object marker (OM) on an object NP does not dislocate that OM marked NP. All NPs in Tuyuca with an OM still retain their canonical object position: SOV.

(71)   Pakɨ **yái**   sĩã-yíg-ɨ.

father jaguar kill-EVD.PST.SCD-3MSG
'Father killed a jaguar.'

(72)   Pakɨ **yái-re**   sĩã-yíg-ɨ.
father jaguar-ACC.DEF kill-EVID.PST.SCD-3MSG
'Father killed the jaguar (that had been killing the chickens).'

(73)   Díayi **yɨ̃-re**   baka-rí-t-i.
dog   1SG-ACC.DEF bite-NEG-EVD.PST.NVIS-3MSG
'The dog did not bite me.'

(74)   Koó=ya-g-ɨ   díyi **yɨ̃-re**   tutí-w-i.
3FSG=GEN.SG-CLF.AN-MSG dog 1SG-ACC.DEF scold-EVD.PST.VIS-3MSG
'Her dog barked at me.'

(75)   **Kɨ̃́ã-rẽ**   ĩñã-dɨga-ri-yig-o.
3PL-ACC.DEF see-DES-NEG-EVD.PST.SCD-**3FSG**
'She did not want to see them.'

Additionally, outside of topic-focus, the referentiality of an object NP does not seem to play a role in determining its position (71)-(72), nor does the presence or absence of an overt subject NP (75).

5.3.3. Concluding remark: Tuyuca is configurational

Providing arguments and evidence against dislocated subjects (and objects) in Tuyuca has two major results: (i) through providing relevant data for dislocation we can conclude that Tuyuca is a *pro*-drop, or null-subject, language; (ii) lack of evidence for dislocated subjects implies that Tuyuca is configurational – i.e. the positions of core grammatical functioning elements such as NP subject, NP object are predictably consistent and verbal predicates inherently retain information about the lexical structure *and* the phrase structure (and actually, being *pro*-drop entails configurationality). It is not yet clear exactly what *pro*-drop mechanisms are involved in Tuyuca (Alexiadou and

Anagnostopoulou 1998), but it seems reasonable to assume that the unpronounced subject

nominal, *pro*, is packaged together with agreement (gender, number, person) and case

(nominative). Following standard Minimalist accounts (Carnie 2002, 2008, Chomsky

1995, Hornstein, Nunes, and Grohmann 2005, Lasnik and Uriagereka with Boeckx 2005,

Pesetsky and Torrego 2002, Radford 2006, and Uriagereka 1998; see also Baker 2003a,

2003b, 2008), Tense (T) has two features: nominative case and the Extended Projection

Principle (EPP). The latter feature is essentially the abstract notion of a common

descriptive observation: sentences, or clauses, must have subjects. The technique of

allowing the EPP results, basically, in reserving a slot for subjects in the syntactic

hierarchy – technically the specifier of the Tense Phrase (TP). In these terms, and

following in particular Baker 2003b, Tuyuca is like other languages in that the agreement

(Agr) features—gender, number, person—are parasitic on *either* the case or EPP

dimension of T. Specifically, I assume that Tuyuca is similar to Spanish or Greek because

its Agr features are parasitic on the case feature of T. According to this structure then, all

subjects in Tuyuca are lexically endowed with a nominative case feature by default of

occupying the subject argument position of the predicating verb, and are related to T

because they need to fill the empty nominative subject slot in TP for the configurational

syntactic structure; see (76). This is a reasonable thesis for Tuyuca *pro*-drop and I adopt it

here, though the evidence at this point is based on a small range of data from published

sources; see references for Barnes and for Karn.[26]

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[26] For example, a full descriptive analysis of clitics in Tuyuca is needed in order to show that it patterns
with Greek and Spanish in full clitic doubling—where clitics can co-occur with NPs, pronouns, or stand on
their own; see (5), (58), and (60). Analysis of expletive structures in Tuyuca needs to be done—as it stands
the data suggest that Tuyuca does not have overt expletives. Unaccusatives in Tuyuca also need to be
looked at for definiteness effects, but initially no definiteness restrictions seem to occur; see (59) and (69).
Also, a full analysis of Case in Tuyuca is needed.

5.4. <u>A note on auxiliary agreement</u>

Baker (2008: 155) proposes a typology that differentiates Bantu-like (or Niger Congo, NC) languages from Indo European-like (IE) languages in terms of two agreement parameters. The NC languages generally have the value "yes" for the *Direction Agreement Parameter* that relies on the syntactic relationship of DP/NP asymmetrically c-commanding F (functional head—for the purposes here T). The IE languages generally have the value "yes" for the *Case Dependency of Agreement Parameter* that relies on agreement between F and DP/NP if and only if F values the case feature of the DP/NP. The parameters for NC and IE languages mutually exclude each other (IE languages value "no" for the *Direction Agreement Parameter* and NC languages value "no" for the *Case Dependency of Agreement Parameter*), but the parameters themselves are not mutually exclusive. For example, Baker proposes that Turkish values "yes" and Georgian and Walpiri "no" for both parameters.

The general conclusion in 5.3.3 is covered by the *Case Dependency of Agreement Parameter*, specifying that Tuyuca agreement is packaged with nominative case. If, or when, Tuyuca data showing deviations from canonical SOV word order were found, such as OSV or OVS, the *Case Dependency of Agreement Parameter* would ensure that such word order changes would not change agreement patterns. Only the NP which is valued for nominative case, and probed by T[27], would exhibit normal agreement—not a fronted Prepositional Phrase or oblique NP. In terms of Baker's (2008) general typology, Tuyuca should not exhibit *full multiple agreement* on both the auxiliary and finite verb with the

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[27] A syntactically higher functional category head, such as the Tense head, is said to probe down into the syntactic structure and "look" for features that it needs to value. In this kind of theoretical machinery, T is said to be *unvalued* for Case, and a subject NP is *valued* for Case. An unvalued head T probes for a valued head NP; see Chomsky (2001) and Pesetsky and Torrego (2001, 2004, 2007), or the textbooks by Hornstein, Nunes, and Grohmann (2005), Lasnik and Uriagereka with Boeckx (2005), or Radford (2006).

subject NP. However, this kind of agreement is licensed by IE languages when, and only when, the verb is an adjective-like participial; Baker (2008: 210). Baker's conclusion is that IE languages allow only one finite T that assigns nominative case. Other instances of T must be of the participial type. The question that arises for Tuyuca is whether or not the verb in [VERB-AGR_subject ... [AUX-T.EVD-AGR_subject] constructions is an adjective-like participial. This question can be answered, following Baker, by looking at an asymmetry in the agreement features: the verb is not as fully specified as the auxiliary—the verb has gender and number features while the auxiliary has gender, number, and person features. I quote Baker (2008: 210) in full

> it must be acknowledged that [complex tense constructions] do show a limited form of double agreement even in IE languages. But this never happens when the lower verb is a fully verbal finite form. It only happens when the lower verb is an adjective-like participle, which agrees with the subject in number and gender but not in person

This means that Tuyuca V-AUX constructions contain only one finite T head that values nominative case and a lower participial T head. The auxiliary moves to the finite T head where it is marked for agreement with the nominative case-valued subject (at spec,TP) in gender, number and person (and where the evidential morphology is fused with the finite T head). The verb moves to the participial T head where it agrees with the subject in only gender and number. This is a reasonable hypothesis for Tuyuca and adds to the evidence that Tuyuca grammar patterns more like IE languages than NC languages, according to Baker's typology.

One last issue is the status of the relation between Tuyuca and languages that value "yes" for both syntactic parameters, e.g., Turkish. Baker (2008: 168) notes that "one can readily imagine a language in which T cannot agree with NP unless NP c-

commands T *and* T values the case of NP." In Turkish, an SOV language, nonspecific indefinite subjects are found to the immediate left of the verb in a noncanonical OSV. When this happens the normal SOV subject-verb agreement, with person and number features marked on the verb, does not show up. The lack of alternate SOV orders in the available Tuyuca data does not yet allow an analysis along these lines. But one thing seems sure: Tuyuca values "yes" for the *Case Dependency of Agreement Parameter*.

5.5. Tuyuca, agreement, and tense-evidentials

It is important to know if Tuyuca is configurational because if the agreement markers suffixed to verbs and auxiliaries were in fact adjoined nominal arguments/pronominal arguments – not part of the argument structure of the predicate verb – then I believe certain constraints on agreement and clause structure would not result in the T > E ordering relation between the Tense and Evidential categories in Tuyuca. If the agreement markers were actually arguments, they would not mark a clause boundary, as agreement morphemes do.

Subject nominals in Tuyuca, definite and indefinite NPs or *pro*, are lexically inserted into the predicate-argument structure of the verb. In other words, verbs come to have a specifier position from direct combination with another phrase (NP) that has been formed independently. This direct combination is known as External Merge; compare to Internal Merge or movement, which is how TP gets its specifier position (Baker 2008, 2003a, Chomsky 1995, Hornstein, Nunes, and Grohmann 2005). It is within this structure that subject nominals receive their semantic/thematic/theta roles as Agent or Theme. From here, according to standard Minimalist accounts, the subject raises to check features

associated with agreement and case in or near the domain of Tense, and in the process

subject-verb agreement and nominative case are satisfied. As noted previously in 5.3.3, it

is reasonable to assume for Tuyuca that agreement features of subject NPs are packaged

together with nominative case. Simplifying a great deal in (76), the result is that subject

NPs with case and agreement features ([+case, +gender, +person, +number]) raise to TP,

which is licensed by the (nonfinite) verb raising to T for tense. Verb movement to T is

correlated with the EPP, which extends the projection of TP to form a specifier (spec,TP)

to which subject NPs may move to fill the nominative subject slot. Agreement features

are transferred to the nonfinite verb from the subject NP in spec,TP position as seen in

(76).

(76)
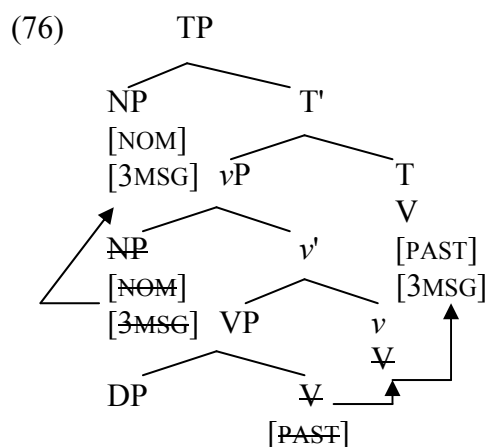
The tree in (76) is a fairly simple representation of an SOV word order containing

a subject NP with 3MSG agreement features and a verb in past tense that realizes subject

agreement morphology. The complication that must be introduced is that Tense and

Evidential categories are fused in Tuyuca. In 5.2.1 I argued that in spite of the possibility

that Tuyuca syntax treats tense-evidentials as lexically indecomposable (simply stating

this is not an enlightening proposal because it brushes aside the issue of how the fused

morphology got to be that way), the concern here is with the hierarchical ordering

relation between Tense and Evidential categories despite history (but see §5.5.1 for a

syntactic structure that shows a fused T-E head. I assume that structure there and work

backwards to give its derivation based the ordering relation in §5.5.2). The basic

intuition, referring to (76), is that TP constrains the whole clause in terms of subject-verb

agreement: agreement marks the boundary of clause. If agreement is marked on a fused

tense-evidential it seems reasonable that this fusion would be required to happen *before*,

or *simultaneously* with, subject agreement on the verb. But if E is above T in terms of

Cinque (1999; see Appendix D), the derivation may occur in the following way, shown in

(77): the lexical verb moves to T—where tense, EPP, and subject agreement are satisfied.

The verb then "waits" for the evidential features at E, here referred to as [η-F] (Eta-F), so

that fusion can occur. The phonological (PF) spell-out of the fused tense-evidential is

thus made up of features from both the TP and CP domains. [η-F] is the location where

features determining the type of evidential are sent to spell-out, while the empty bracket

space at T shows the location where features of tense and subject agreement are sent to

spell-out: the bold sequence, **sia-[ ]-i**, represents surface, E(xternal)-Language, order—

the empty space is where the tense-evidential belongs. There is never a case in which the

empty bracket space, i.e. the tense-evidential, is located at the end of the of the verb stem,

represented in (78). I assume the forms in (78) are ungrammatical because they never

occur in the data, nor does Barnes or Karn ever mention the possibility of (78).

There is nothing inherently wrong with the derivation in (77) but some questions

arise from considering it. The first question that comes to mind is 'Why doesn't the verb

(77) a. **Pakɨ** yái **sîã-yíg-ɨ**.

father jaguar kill-PST.EVD.SCD-3MSG
'Father killed a jaguar.'

b.
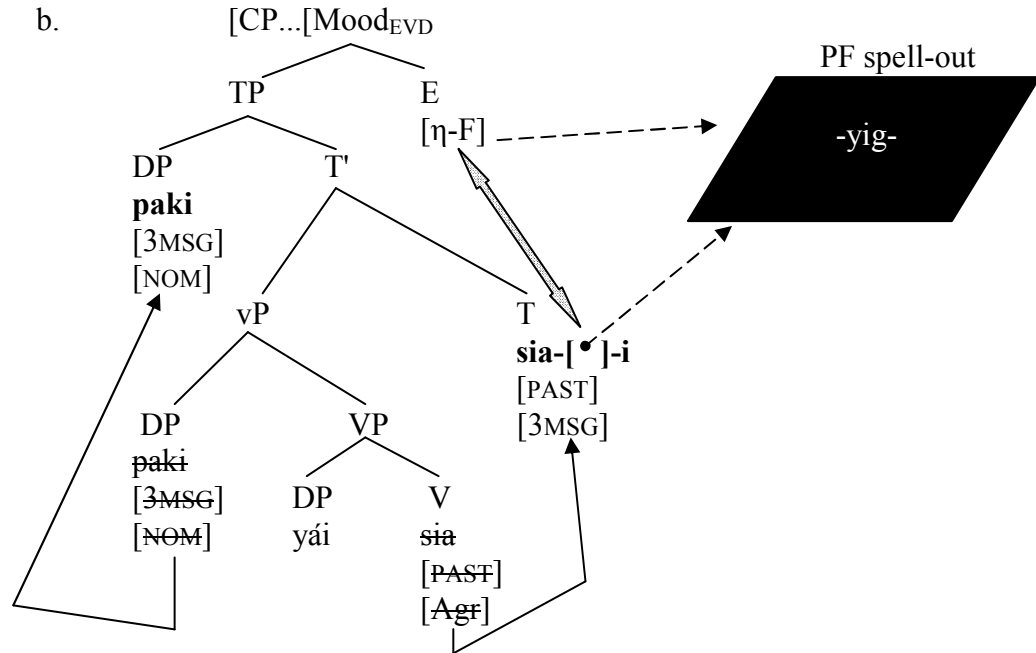
(78) a. *sia-i-[ ]
      b. *sia-i-yig
      c. *[V$_{ROOT}$ - AGR$_{subject}$ - [T$_{past/present}$-E$_{\eta\text{-F}}$]]]

raise from T to E?' This is not possible because the kinds of features that would motivate

such movement have not been attested and do not seem likely to exist. Also, considering

the tripartite structure of the clause as CP-TP-VP domains (see Carnie 2008), then one

might ask if evidential morphology, and Evidentiality in general, belong to the TP or CP

domain (or both)? In other words, do evidential morphemes (i) relate the predication of

VP to some speech time and denote the truth-conditionality of the event relative to some

specific world (the TP domain), or (ii) do they relate the speaker's level of confidence

about the truth or reliability of the tensed proposition and denote attitude or intention

beyond the truth-conditionality of the event (the CP domain)? The derivation in (77)

implies that features from both the TP (tense) and CP (η-F) domains are involved; see

§5.1.4. Lastly, considering a phase analysis (Chomsky 2001, 2005) one might wonder if a

different order between T-E would result in different phases. But even if E were under TP

the phase domain would still be CP. The question of phases appears to have no bearing

on this issue—if one assumes only v*P (transitive verbs) and CP as phases. Tense and

Evidentiality belong to the CP phase. But the basic intuition that subject-verb agreement

and tense morphology mark clause boundaries and are thus constrained by the TP domain

is a separate issue from phases. Based on the intuition of clause boundaries, I argue that a

simpler model than (77) exists. One that, under the general rubric of economy in the

Minimalist Program, appears to be less computationally complex and less costly in terms

of requiring only one spell-out location. It also exploits locality conditions that license

sisterhood relations needed to morphologically fuse two categories and requires less

Merge (External/Internal) operations. My model also restrains the morphology of subject-

verb agreement, tense, and evidential to TP and does not require features from CP in

order to spell-out. I argue that tense-evidentials inflected for subject agreement are

"extensions" of the verb phrase and relate the predication of VP to some speech time and

discourse situation of the event, relative to some specific world.

5.5.1. <u>A less costly model</u>

  The model proposed here assumes one location for the spell-out of tense-

evidentials. It conforms to the probable assumption that tense-evidentials are directly

inserted as one lexically indecomposable form. (79) incorporates crucial assumptions

about the diachronic nature of the morpheme as well as the opposite ordering relation

between T-E in (77). I assume the fused T-E and work backwards in order to address the

initial ordering relation in §5.5.2. Whether speakers derive the fused T-E for every

sentence derivation, or the fused T-E is stored in the lexicon is beyond this thesis. What is

at issue is the ordering relation despite derivational or language history.

(79)   a.   **Pakɨ** yái **sĩã-yíg-ɨ**.
              father jaguar   kill-PST.EVD.SCD-3MSG
              'Father killed a jaguar.'

       b.
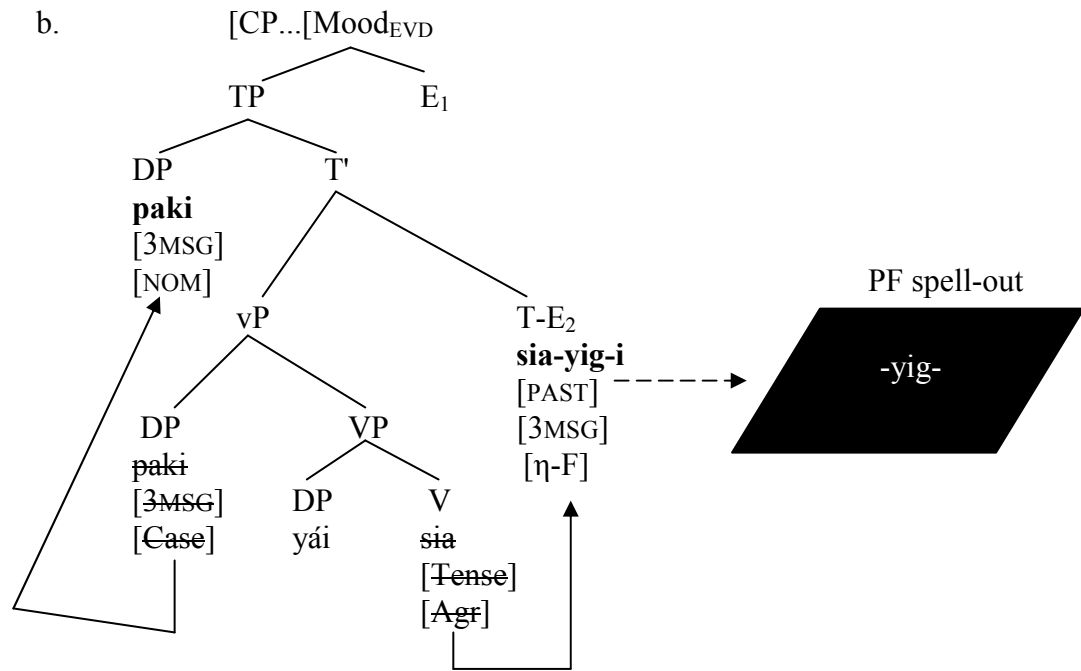
Accepting the model in (77), compared to (79), means also accepting the Cinque

hierarchy[28] as it is (Appendix D), and accepting the existence of a functional category

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[28] Cinque's (1999) functional hierarchy is one of the first generative works to take the syntax of evidential morphemes serious. It is based on a large set of cross-linguistic data and is not intended to provide in-depth

intervening between Evidential and Tense: [Mood$_{evidential}$ [Mod$_{epistemic}$ [T (Past) ...

[T(Future) [...]]]]. In order to fuse E and T then, Modality$_{epistemic}$ will also have to be

fused.[29] There is nothing inherently wrong with this assumption, but again, I argue that

(79) is less costly. First, it captures the notion that tense-evidentials may be directly

inserted from the lexicon. Second, it constrains subject-verb agreement and tense

morphology to the TP domain. Third, it has simple conditions for establishing a

sisterhood relation between T-E that are necessary for morphological fusion in a

Distributed Morphology theory.

5.5.2. <u>Fusion and distributed morphology</u>

Fusion is the combination of morphosyntactic and morpho-phonological features

of two *terminal sister nodes into one terminal node* in which only one vocabulary item

can be inserted (Halle and Marantz 1993). As the latter note, fusion is different from

head-to-head movement or merger because these latter syntactic processes do not

combine terminal nodes. At least two terminal nodes remain when head-to-head

movement and merger have applied, whereas *fusion results in one terminal node*. A

general structure for fusion is shown in (80), adapted from Kandybowicz (2006: 139).

The standard syntactic definition for sisterhood follows: **y** *is a sister of* **z** *if there is a* Y*,*

such that Y *immediately dominates both* **y** *and* **z** (Carnie 2008: 35). In (80a) **y** and **z** are

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analyses of each language in the data set. See Kaye (1976) for the first generative, pre X-bar theory, analysis of evidentials.

[29] There is some evidence that Tuyuca expresses modality independently of evidentiality. Barnes makes no distinction between Mood and Modality, thus possibly conflating the two independent categories. If this is true, then modality cannot be fused with evidential and tense. This issue is beyond the scope of this thesis, and the evidence required to test it would necessitate native speaker judgments. It must wait another day.

(80) a. X — FUSION OF **y** AND **z** → b. X

a. X
 #x#   Y
      #y#   #z#

b. X
 #x#   Y
      #yz#
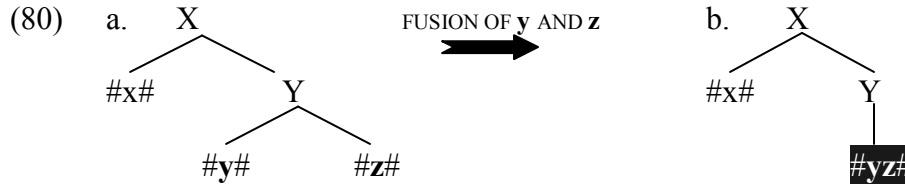
sisters; they can also be the product of head-to-head movement or merger, which 'feeds' fusion, according to Halle and Marantz (1993).

The syntactic position of evidentials is typically regarded as above TP (Cinque 1999). In (81a) I show the structure that results from adopting Cinque's hierarchy in a Spec-Comp-Head order, while (81b) represents an alternate model in which the Evidential Phrase (ηP) is the complement of TP in a Spec-Comp-Head order; here the subject argument is represented by the lowercase Greek letter alpha 'α' in spec,TP.[30]

(81) a [CP... [Mood$_{evidential}$

Modal$_{epistemic}$ η

TP   Ø

α T

b. CP

TP   C

α

ηP   T

vP η

c. CP

TP   C

α

ηP   T

#η# #T#
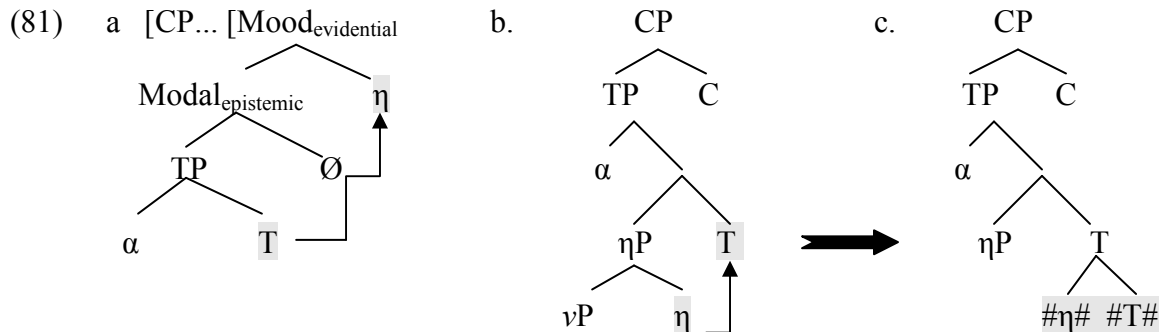
In (81a) the Cinque hierarchy is kept intact and shows that a sisterhood relation between Tense and Evidential can only occur when T moves to the empty Mood$_{evidential}$ − given the restriction on lowering of elements in the antisymmetry framework of Kayne (1994) that Cinque adopts. If Modal$_{epistemic}$ is occupied, then a sisterhood relation between
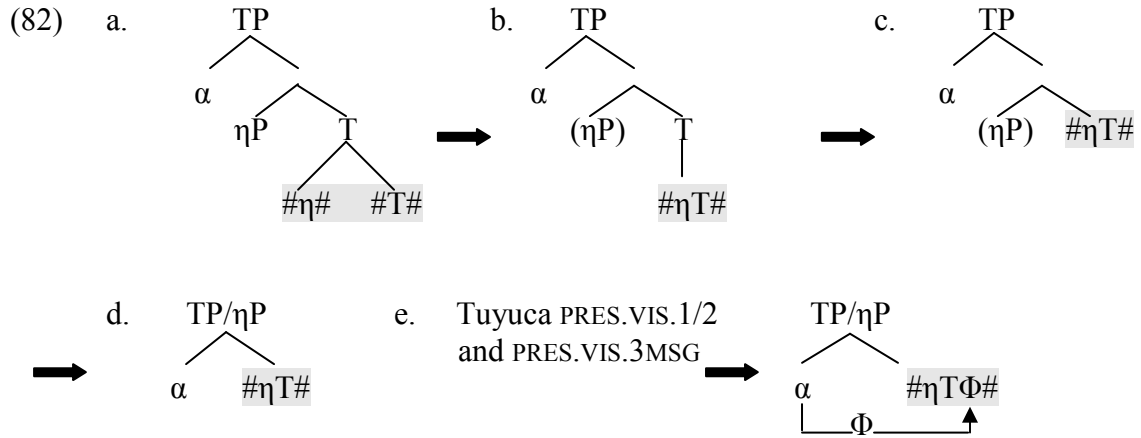
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[30] I leave open for now the issues and consequences resulting from adopting a strict LCA—in which the orders of (23) would be derived from a Spec-Head-Comp order. See Li (2005: 160) for a modified version of the LCA, the MLCA, in which the universal order is Spec-Comp-Head, SOV.

T-E results from Internal Merge (move) of T to E. I do not pursue (81a) model. In (81b),

where the evidential is base-generated below Tense, the sisterhood relation arises from

the evidential head moving to the tense head. In terms of movement and merger, (81b)

requires less total Merge operations than (81a)—even if Modal$_{epistemic}$ is occupied all the

time in Tuyuca, which it is not, (81b) still has a more local relation between T and E;

'local' understood here intuitively.[31] For example, in (81a) TP externally merges with

Modal, which then externally merges with Mood. Then, T must internally merge with

Modal (when the modal head is empty) and then must internally merge again with Mood.

At this point fusion can happen. (81b) shows that the ηP (Eta Phrase) complement of TP

has externally merged with TP, then all the η head has to do is internally merge with the

T head. It is here that fusion can occur. In other words, locality conditions that license

sisterhood in (81b) are more local than (81a). Another benefit of (81b) is that any Aspect

Phrase that may interact with Tense and Evidentiality is "closer" to the evidential

morpheme (assuming AspP is under TP universally; see Cinque 1999 and Appendix D).

In languages where there is a complex interaction of tense, evidential, and aspect

morphology, the structure in (81b) is more accommodating. Additionally, the option of

something similar to (81b) has been argued for by Chung (2005: 162), who amends

Cinque's (1999) analysis of the Korean evidential and proposes a structure in which

Tense has scope over Evidential. Additionally, something similar to (81b′) is assumed in

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[31] Formally in (81b-c) T and η are in a minimal domain (MinD) and are equidistant iff MinD is defined as the "set of categories immediately contained or immediately dominated by projections of the head" where the head here is T and the target of movement is spec,TP. This equidistance or closeness of tense and evidential heads is specifically constrained by the movement of the subject to spec,TP from which the subject agreement features are morphologically marked on the tense head that is occupied by the verb. In this way, the locality of T-E is constrained by subject agreement marking (and case). (81a) does not have this kind of locality for T-E. Also, (81b-c) require an operation OP that is 'smaller' than an operation OP′ in (81a) iff *smaller* is defined as Internal Merge/Move with the shortest path (crossing least number of nodes and/or categories); Collins (1997: 23, 77), Hornstein, Nunes, and Grohmann (2005: 149).

Ince's (2006) analysis of Turkish sluicing, where he allows an $Evid^0/T^0$ that projects the EvdP/TP. This is easily derived from (81b′), renumbered (82a), leading to the fused tense-evidential in (82d); α is in spec,TP and ηP is the complement of TP in a Spec-Comp-Head order.

(82)   a.
```
        TP
       /  \
      α    ηP
          /  \
        ηP    T
            /  \
          #η#   #T#
```
b.
```
        TP
       /  \
      α    (ηP)
          /   \
        (ηP)   T
                |
              #ηT#
```
c.
```
        TP
       /  \
      α   (ηP)  #ηT#
```

d.
```
    TP/ηP
    /   \
   α    #ηT#
```
e. Tuyuca PRES.VIS.1/2 and PRES.VIS.3MSG
```
    TP/ηP
    /   \
   α    #ηTΦ#
   |_Φ_____↑
```

The derivations in (82) explain the Tuyuca morphology of tense-evidentials in a straightforward way. (82d) is the final, derived, form of most tense-evidentials, and (82e) represents the special case where tense, evidential, and agreement morphology are all fused.

The question arises whether it is semantically feasible for Evidential to be under Tense. I have no adequate answer why, semantically, T should scope over E (but see arguments in Chung 2005). However, it seems possible that there may in fact be two E positions in the functional hierarchy – one for the CP domain and one for the TP domain. In this case, a higher speech act E_1 has scope over T_1 (conforming to Cinque's 1999 hierarchy), while T_1 has scope over a lower predicational E_2 (conforming to my hierarchy for fused tense-evidentials). In this way E_1 = Mood$_{evidential}$ or Modal$_{epistemic}$ and E_2 = ηP

(Eta Phrase). The conjecture is that η works in tandem with T to deictically refer to the general "context" of the source of evidence for the proposition in the following way. T deictically refers to *time*, i.e., the event time, speech time, and reference time, η deictically refers to the *situation*, i.e., the evaluative situation, discourse situation, and reference situation (see Cinque 1999 and Reichenbach 1947 for notions of *time*; see Speas 2004, 2007 for *time* and *situation*, as well as *accessibility* and *inclusion* conditions between the two). With the notions of *time* and *situation* coupled with the hypothesis of T $> E_2$, then the semantic question is whether or not Universal Grammar—or a general property of cognition and the mind—specifies a relation between situations and times. In other words, are times composed of situations, or *vice versa*.

I am cautious about assigning a grammatical category to E_2 for many reasons. Most of all, there is not much consensus about the category of E, either as Mood, Modal, Aspect, or Evidential. Another possibility would be a Modifier Phrase ($Modif_{evidential}$) in terms of Rubin (2002, specifically Chapter 3). This analysis would have the benefit of creating a Modifier shell around the evidential features, which can then be defined by locating its placement in the functional hierarchy of Cinque (1999): in the speech act domain, i.e., above TP, the $Modif_{evidential}$ would be equivalent to $Mood_{evidential}$. In the predicational domain, i.e., under TP, the $Modif_{evidential}$ would be equivalent to something like $Asp_{evidential}$ or Evidential Phrase. Work in this direction needs to be verified with more cross-linguistic data from languages with fused tense-evidentials or fused aspect-evidentials; see Bowles (to appear) for arguments similar to the ones here.

5.6. A note on reanalysis of aspect

The aspectual origin of direct and indirect evidentials is well attested (Csató 2000, de Haan 2001, Johanson 2000, Malone 1988, Shroeder 2000). In languages such as Georgian, Eastern Armenian, Wanano, and Svan evidential morphs have been analyzed as being fused with a perfect, perfective, or imperfective aspect (Boeder 2000, Kozintseva 2000, Stenzel 2004, Sumbatova 1999, respectively).

Bowles (to appear) uses data from Tuyuca, Estonian, and Georgian to argue for the existence of E_2. I argue that although reanalysis from the Aspectual position to the $Mood_{evidential}$ position in Cinque's (1999) functional hierarchy is possible, the process is less syntactically costly if there is an E_2 (ηP or Eta Phrase) position under TP to which reanalysis from AspP can go. According to the sisterhood condition of morphosyntactic fusion only categories in a sister relation can fuse, and if the order is $[E_1 > ... > [T > [E_2 > [A]]]$, then E_2 and A heads are sisters and can fuse. Additional support for this can be found in Chung's (2005) T > E ordering in Korean, and Ince's (2006) assumptions about a Turkish fused tense-evidential head, $Evid^0/T^0$. The addition of E_2, while needing more cross-linguistic support, appears to satisfy numerous issues. Namely, it is the least damaging to the very well-supported Cinque hierarchy (Appendix D), while explaining Tuyuca data in the least costly way. It also has the potential to explain more data than Cinque (1999) in terms of the well-supported interaction between mood, modality, evidentiality, tense, and aspectuality.

5.7. <u>Conclusion</u>

The argument for a second evidential position in a hypothesized universal functional hierarchy will need to be supported cross-linguistically. Time will tell if the argument is valid or not. But I believe that one of the two models I presented will turn out to be correct – either (77) and (80a) or (78) and (80b)-(81). What is important here is recognizing the significant theoretical possibilities once agreement and evidential morphology are separated. It goes far beyond a notational innovation, implicating core mechanisms of the syntax of Tuyuca clause structure—if one assumes that derivational and inflectional order reflect syntactic embedding (see §2.2). My analysis makes possible questions concerning the validity of models of derivation found in (77), and (79)-(81).

In this chapter I have given initial evidence that Tuyuca is a *pro*-drop language, which entails that it is configurational. This means, specifically, that Tuyuca syntax is more similar to Spanish, Portuguese, and Greek than it is to Mohawk, Nahuatl, or Walpiri. This conclusion implicates other Eastern Tukanoan languages. It also breathes life into an intriguing and complicated question about language contact: Is Tuyuca similar to Spanish and Portuguese because most speakers of Tuyuca are also speakers of Spanish and Portuguese, or are the similarities chance?

What I have done generally in this chapter is to present an initial theoretical analysis (belonging to the Minimalist Program) of a language that has not previously been subjected to such linguistic machinery. The result is, in some sense, surprising because of the "conservative" nature of Tuyuca syntax (surprising only if one expects that Amazonian languages should have syntax significantly different than Indo-European syntax). Word order constraints strictly limit the interpretation of definite/indefinite NPs

as subject or object; when no overt NP subject appears then subject agreement markers suffixed to the evidential or verb stem allow the subject to be recovered. Objects must always be specified by an overt NP, and definite objects are marked by overt accusative case. What is most interesting, typologically, about the Tuyuca language is its evidential system. It is a complicated and highly integrated inflectional system that is based on recovering the source (deictically) of a speaker's proposition. It interacts with tense and agreement in interesting and enlightening ways.

6. THE END RESULT

The Eastern Tukanoan languages, to which Tuyuca belongs, have been documented and analyzed just enough to *not* warrant immediate need of funding for more documentation.[32] There are materials on many of the languages that date from the 1970s to the present, and a handful of dedicated linguists and students continue to work on documenting them (e.g., Thiago Chacon, Patience Epps, Elsa Gomez-Imbert, Henri Ramirez, Wilson Silva, and Kristine Stenzel, and many people at SIL). Collectively, the Tukanoan family (and the Vaupés river region which they inhabit) has one of the most complicated and interesting systems of evidentiality found in the world. There is definitely an imbalance between interest in Tukanoan inflectional systems (and phonology) and interest in their documentation and preservation. Only a handful of formal analyses (in generative syntax and optimality theory) of the languages can be found covering only three topics: *evidentiality* in Tuyuca and Desano—see Bowles (to appear), Faller (2001), and Kaye (1970); *nasal harmony* in Desano and Tuyuca—see Kaye (1970, 1971), Silva (2008), Walker (2000, 2003); and *pitch-accent/tone* in Barasano and Tuyuca—see Gomez-Imbert and Kenstowicz (2000), Smith (1998), and also de Lacy (2002). The theoretical interest generated by Tukanoan languages, judging by the frequency with which primary documentary materials and theoretical articles are

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[32] This is based on reviews of a grant proposal for documenting three Tukanoan languages (Desano, Cubeo, and Tuyuca) written to the National Science Foundation's Documenting Endangered Languages Program in 2007.

cited, appears to far outweigh current interest in documenting and revitalizing Tukanoan languages (see sections 1.2 and 2.4 for more information on literature). I hope theoretical interests can lead to more activity in documentation, revitalization, and a general humanitarian awareness of preservation for the languages and region.

I have provided an analysis of agreement in Tuyuca based on one simple premise, which was derived from a basic observation of the data and stimulated by an observation in Barnes (1984) and a paper by Malone (1988). There is a systematic and predictable pattern correlating final vowels and agreement features. Generally, this pattern is *-i* = masculine, *-o* = feminine, and *-a* = plural. These final vowels are realized on many nouns, most pronouns, and various types of subject agreement on the verb-stem, gerunds, nominalizers, animate classifiers, and evidentials (Chapter 3). The basic idea was to attempt an analysis of Tuyuca morphology with the guiding assumption that final vowels are morphologically isolable agreement markers (Chapter 4). The hypothesis was that through separating agreement from the rest of the morphology a consistent and reasonable analysis of the segmentable pieces would result. I showed in Chapter 4 that this was possible, and that in fact, an interesting pattern emerged for a single morpheme /-g-/; and by implication its phonetic/phonologic variants. It has systematic and predictable interpretations as perfective and progressive aspect, nominalizer/gerund, and animate classifier—based on its relative morphological position and its coordination with other syntactic material, specifically the auxiliaries 'do/make' and 'be' (Table 13 and examples (35)-(36), (45), and (49)-(50)). Additional support that the morpheme /-g-/ is a progressive and perfective aspect, comes from Malone's (1988) conclusion that Tuyuca evidentials historically come from an old perfective and progressive aspect (§5.1.3).

Interestingly, the present tense non-visual category in the evidential paradigm looks exactly like the combined aspectual + agreement forms I argue for in Chapter 4; compare present tense non-visual forms in Table 8 to the environments for present perfect and progressive aspect in Table 13 and present tense morphemes in Tables 6, 7, 9, 10, and 11; see especially discussion in §4.2, but also §5.1.3.

I have also provided what I believe to be significant avenues of theoretical investigation in Chapter 5. Whether my particular theoretical proposals turn out to be correct, I believe I have contributed some important questions that need to be asked (and hopefully answered) about the nature of fused tense-evidential morphology. Namely, what are (or were) the syntactic constraints that licensed their fusion in the first place (§5.2.1 and §5.5), and what are the most elegant models that can be proposed to explain their status and behavior (§5.5.1 and §5.5.2). Also, I have given the basic foundation for more work in the typology of fused tense-evidentials; there are some data that suggest there may be a distinct set of typological features that sets tense-evidential languages, or potential tense-evidential languages, apart from other languages with evidential morphology that is not or cannot be fused with tense (§5.1.3). In another area, the evidence for Tuyuca being a nominative case *pro*-drop language is strong (§5.3 and §5.4). No other linguistic work has given support for, or made a proposal for, a Tukanoan language being *pro*-drop. This is an important advancement in generative typology. It means that Tuyuca has a syntax more like Spanish (and other Indo-European languages) or Turkish than Walpiri, Georgian, or Niger-Congo languages. It also means that, given the similarity of the Eastern Tukanoan branch, languages such as Wanano, Tucano, Retuara, and Desano may be of the same type as Tuyuca. Additionally, the fact that

Tuyuca now has at least a basic analysis of its *pro*-drop mechanisms means that analyses of other Tukanoan languages have a starting place—in either arguing against or supporting my initial claims.

The most practical contribution this thesis makes to the study of Eastern Tukanoan languages is one of consistency. I have gathered the numerous – sometimes disparate – descriptions, glosses, analyses, and insights that Janet Barnes has made about Tuyuca into a more cohesive format. In a small way, this thesis represents a unique kind of documentation—not one of primary linguistic data drawn from native speaker sources, but one that attempts to make a consistent characterization of a language from published sources that are both difficult to acquire and difficult to read. The work of Barnes (and Karn) reflects an increase in knowledge of Tuyuca grammar over a period of more than thirty years. Different publications employ different morpheme-by-morpheme glosses (some with no morpheme gloss), taking for granted in many cases previous knowledge of Tuyuca grammar—in particular the knowledge that agreement is coded by a very systematic final vowel pattern on both nominal and verbal categories, but also that evidentials are fused with tense. The practical benefit gained from this thesis is a more integrated, condensed, and accessible version of a basic sketch of how Tuyuca grammar works without the hours of labor required to find and get copies of some of the basic publications on Tuyuca. The importance that Tuyuca data have for theoretical and typological discussion of evidentials is far too valuable. Most references that use data from Tuyuca only cite Barnes' (1984) seminal paper; but the data in that paper are not even accompanied with basic morpheme-by-morpheme glosses! (See (18)-(21) for examples of what the published data look like). Furthermore, the references cited here

were painstakingly gathered for the benefit of those linguists who want to know more about the language than the very few articles published in the *International Journal of American Linguistics* and the few chapters published in edited volumes.

Lastly, and finally, this thesis may also contribute to future field work. I hope that anyone who reads it will find Tuyuca a stimulating and interesting language with much to offer the linguistic community. Hopefully, the questions I have asked and the conclusions I have made can help any future field worker decide what are the important grammatical questions to ask – what parts of the grammar need to be most understood and what parts can contribute to our general knowledge of the human capacity to learn and use languages? There is much about Tuyuca grammar that I have not even mentioned, I highly recommend the original sources (see references for Barnes and Karn; but see also Fabre 2005). I can only hope that more interest in the theoretical and typological importance of these languages can increase focus on this region of the world and ignite interest in the preservation of the languages, way of life, culture, and natural environment of the people.

APPENDIX A

TUKANOAN FAMILY CLASSIFICATION

There is no definitive classification of the Tukanoan family as yet. Classifications can be found in Barnes (1999), Campbell (1997), Gomez-Imbert and Kenstowicz (2000), Ramirez (1997), Sorenson (1967, 1973), Stenzel (2004), and Waltz and Wheeler (1972). A modified version of Barnes (1999), Campbell (1997), and Stenzel (2004) is represented here. See also Stenzel (2006) for sociolinguistic data on Tukanoan languages.

- ♦ WESTERN BRANCH   COUNTRY
  - a) Western North
    - i)   Koreguaje   Colombia, Ecuador
    - ii)   Secoya   Colombia, Ecuador
    - iii)   Siona   Colombia, Ecuador
  - b) Western South
    - i)   Orejón   Peru

- ♦ CENTRAL BRANCH
  - i)   Cubeo   Brazil, Colombia
  - ii)   Retuãra/Tanimuca   Brazil, Colombia

- ♦ EASTERN BRANCH
  - a) Eastern North
    - i)   Piratapuya   Brazil, Colombia
    - ii)   Tucano   Brazil, Colombia
    - iii)   Wanano   Brazil, Colombia
  - b) Eastern Central
    - i)   Bará/Waimajã   Brazil, Colombia
    - ii)   Carapana   Brazil, Colombia
    - iii)   Desano   Brazil, Colombia
    - iv)   Siriano   Brazil, Colombia
    - v)   Tatuyo   Brazil, Colombia
    - **vi)   Tuyuca**   Brazil, Colombia
    - vii)   Yurutí   Brazil, Colombia
    - viii) Pisamira   Brazil, Colombia
    - ix)   Taiwano/Eduuria   Brazil, Colombia
  - c) Eastern South
    - i)   Barasano/Taiwano   Brazil, Colombia
    - ii)   Macuna   Brazil, Colombia

APPENDIX B

TUKANOAN LEXICAL COGNATES

PORTUGUESE	CUBEO	DESANO	TUCANO	WANANO	TUYUCA	SPANISH	ENGLISH
Cabelos	poßa	puari	poáli	poáli	poa	pelos	hair
Pai	(hi)pakɨ	pagɨ	pakɨ	paki(ro)	pa'kɨ	padre	father
Mãe	(hi)pako	pagó	pakó	póko(ro)	pa'ko	madre	mother
Filho	(hi)makɨ	maɲɨ	Makɨ	makɨ(no)	(wĩ')mãkɨ̃	niño	boy
Filha	(hi)mako	maɲo	Mako	makó(no)	(wĩ')mãkõ	niña	girl
Velho	bɨkɨ(kɨ)	bɨgɨ	Bukɨ	bukɨ(ro)	Bɨ̃kɨ	viejo	old
Mulher	nomĩo	noméo	numió	Numino	nũmĩõ	mujer	woman
Agua	okó	dʰeko	akó	kó	o'ko	agua	water
Peixe	myá	wai	wa-i	wa-í	wa'i	pescado	fish
Mandioca	kuíka	kĩ	ki	ke		?	manioc
Remo	hialoye	wehabɨ	wahápi	waháyoro		remo	paddle
Preto	ɲĩmĩnõ	ɲĩrĩ	ñyinsé	ñi-íriro	ɲĩ̃	negro	black
Cachorro	deyimi	diadɨ	dia-í	di-yero	Diaji	perro	dog

Barnes (1984, 1990, 1994, 1996,) Barnes and Malone (2000), Bowles (2007a), Giacone (1965), Miller (1999), Morse and Maxwell (1999), Stenzel (2004).

- o Items in parenthesis may be classifiers.

- WANANO and TUCANO data from Giacone (1965) – his list was not written in IPA, I have replaced instances of "kk" with /k/, "ê" with /ɨ/, and "u" with /w/ where they occurred. See also Stenzel (2004) for WANANO comparison.

- CUBEO and DESANO material was collected by me (Bowles 2007a) and Wilson Silva in summer 2007. See also Miller (1999) for DESANO and Morse and Maxwell (1999) for CUBEO comparisons.

- TUYUCA data is from Barnes and Malone (2000); also Barnes (1984, 1990, 1994, 1996).

- See Waltz and Wheeler (1972) for (Proto-)Tukanoan cognate sets.

APPENDIX C

POTENTIAL NOUN CLASSIFIER COGNATES

	Barasano	**Desano**	**Carapana**	**Tuyuca**	**Wanano**
Shape/Type					
rope/thread/string	bã	da	ӡa	da	da
Path	bã	bã		bã	bã
cylindrical: straight/rolled-up	hoti	tũrũ		tũdũ	di
cylindrical: curved/hallow	rahe	tore		(póro)	paro
Rounded	a/ga/ka	ru/diu		gã	ka
Bunch	bitia/huri/to	tõ			ki
long, flat	hai	bĩhĩ	pãĩ	pĩ	pħĩ
Stacked	Tuti	turi	tuti	tutí	thu
concave/pot like	ti/ri	soro, koro		ri	to/ro
Material/Essence					
river/stream	ya/sa	ya		bã	bã
Tree	i/gi/ki	gi/yuki	yuki	gi	ki
Basket	bi/bo	koro	pii	pi	pħĩ
Leaf	hũro	pũ		pũ	pħũ
Palm	Dõ			wõ	

Barnes (1990), Bowles (2007a), Jones and Jones (1991) Metzger (1998), Miller (1999), Silva and Bowles (2007), Stenzel (2004

APPENDIX D

CINQUE HIERARCHY

[Mood$_{speech\ act}$ >[Mood$_{evaluative}$ >[**Mood$_{evidential}$** >[Mod$_{epistemic}$ >[**T(Past)**>[**T(Future)** >[

Mood$_{irrealis}$ >[Mod$_{necessity}$ >[Mod$_{possibility}$ >[Asp$_{habitual}$ >[Asp$_{repetitive(I)}$ >[Asp$_{frequentive(I)}$

>[Mod$_{volitional}$ >[Asp$_{celerative(I)}$ >[T(Anterior) >[Asp$_{terminative}$ >[Asp$_{continuative}$ >[Asp$_{perfect(?)}$

>[Asp$_{retrospective}$ >[Asp$_{proximative}$ >[Asp$_{durative}$ >[Asp$_{generic/progressive}$ >[Asp$_{prospective}$ >[

Asp$_{SgCompletive(I)}$ >[Asp$_{PlCompletive}$ >[Voice >[Asp$_{celerative(II)}$ >[Asp$_{repetitive(II)}$ >[

Asp$_{frequentive(II)}$ >[Asp$_{SgCompletive(II)}$ > **VERB$_{ROOT}$**

(adapted from Cinque 1999:106)

Where Mood$_{speech\ act}$ is farthest from the verb root and Asp$_{SgCompletive(II)}$ is closest to the

verb root.

APPENDIX E

DATA SET

Tuyuca data here are adapted from Barnes (1994). No entry for the second gloss means that the gloss was not substantially different from the first or it deals with data I have not considered. The following is only a partial list of all data in Barnes (1994), which contains (84) examples. I use data from this work because it is the publication that has the most detailed interlinear glosses. The numbering here is consistent with that found in the original, except or course, the second entry.

It should be noted that the first entries actually contain more information in the interlinear gloss than Barnes has provided in her original (1994) paper. This additional information is entirely consistent with Barnes' analysis in her (1994) paper and elsewhere. For example, she glosses evidentials only as EV, but the tables she provides for evidentials include the type or evidential, tense, and agreement features cross-referenced with the morpheme. One has to constantly refer back to the tables to in order to get the evidential, tense, and agreement information. I include this information; see §2.3 and §2.6 for more discussion of Barnes' data, the techniques used here, and the motivation for creating a consistent and up-to-date data set for Tuyuca. Some of the examples here can be found in the text, but much of it cannot.

1.   Nẽế-bia-to-hã-yigɨ.
grab-close-trap-EMPH-PST.EVD.SCD.3MSG
'He grabbed (the flea) and trapped it (in his mouth)'

1.1.   Nẽế-bia-to-hã-yig-ɨ.
grab-close-trap-EMPH-PST.EVD.SCD-3MSG
'(He) grabbed (the flea) and trapped it (in his mouth)'

2.   Sãĩ-bosá-dɨga-ri-wi.
buy-BEN-DES-NEG-PST.EVD.VIS.3MSG
'He did not want to buy it for another.'

2.1.   Sãĩ-bosá-dɨga-ri-w-i.
buy-BEN-DES-NEG-PST.EVD.VIS-3MSG
'(He) did not want to buy it for another.'

3.   Díayi-a-ye-mãkẽ-rẽ.
dog-PL.AN-POSS.PL-things-SPEC
'The dogs' things (as object of the verb).'

3.1.   Díayi-a-ye-mãkẽ-rẽ.
dog-PL.AN-GEN.PL-things-ACC.DEF
'The dogs' things (as object of the verb).'

4.   Pakɨ   yái   sĩã-yígɨ.
father jaguar kill-PST.EVD.SCD.3MSG
'Father killed a jaguar.'

4.1.   Pakɨ   yái   sĩã-yíg-ɨ.
father jaguar kill-PST.EVD.SCD-3MSG
'Father killed a jaguar.'

5.   Pakɨ   yái-re   sĩã-yígɨ.
father jaguar-SPEC kill-PST.EVID.SCD.3MSG
'Father killed the jaguar (that had been killing the chickens).'

5.1.   Pakɨ   yái-re   sĩã-yíg-ɨ.
father jaguar-ACC.DEF kill-PST.EVID.SCD-3MSG
'Father killed the jaguar (that had been killing the chickens).'

6.   Nõã-re   ĩñã́-rĩ   mɨ̃́?
who-SPEC see-INT.PST.EVD.VIS 2SG
'Whom did you see?'

6.1.   Nõã-re   ĩñã́-rĩ   mɨ̃́?
who-ACC.DEF see-INT.PST.EVD.VIS 2SG
'Whom did you see?'

7.   Nõõ̃=pɨ   wáa-hõã-rĩ   pakɨ?
where=LOC go-CMPL-INT.PST.EVD.VIS father
'Where did your father go?'

8.   Wese=pɨ heá-ri?
    field=LOC arrive-INT.PST.EVD.VIS
    'Did you go to the field?'

9.   Mɨ̃́ɨ pakɨ wĩmã́ŋɨ nɨ́ɨ́-ŋɨ   wií sóe-yiri?
    2SG father child-M be-CONDITIONCONSEQUENCE.MSG house burn-INT.PST.EVD
    'When your father was a child, did he burn down the house?'

10.   Sĩã-rí-dɨka   ñãñã-rí-dɨka
    illuminate-NR.INAN.SG-CLF_{stick} be.bad-NR.INAN.SG-CLF_{stick}

    bɨkɨ́-dɨka.
    old.object-CLF_{stick}
    'A terrible, old flashlight.'

11.   Wekɨ́-ya-bu   kɨtá-bu   bɨkɨ́-bu.
    tapir-POSS.SG-CLF_{heap} excrement-CLF_{heap} old.object-CLF_{heap}
    'An old pile of [tapir] excrement.'

12.   Ti-bú   kɨtá-bu   õmẽ́ busé-ri-bu
    that-CLF_{heap} excrement-CLF_{heap} steam rise-NR.INAN.SG-NCL_{heap}
    'That heap of fresh excrement.'

13.   Koó-ya-gɨ   díyi yɨɨ-re   tutí-wi.
    3FSG-POSS.SG-NR.MSG dog 1SG-SPEC scold-PST.EVD.VIS.3MSG
    'Her dog barked at me.'

13.1.   Koó=ya-g-ɨ   díyi yɨɨ-re   tutí-w-i.
    3FSG=GEN.SG-CLF.AN-MSG dog 1SG-ACC.DEF scold-PST.EVD.VIS-3MSG
    'Her dog barked at me.'

14.   Ɨmɨ̃-ã́   pɨa-rã́   heá-wa.
    man-PL.AN two-PL.AN.QUANTITY arrive-PST.EVD.VIS.3PL
    'Two men arrived.'

14.1.   Ɨmɨ̃-ã́   pɨa-rã́   heá-w-a.
    man-PL.AN two-PL.AN.QUANTITY arrive-PST.EVD.VIS-3PL
    'Two men arrived.'

15.   Día=wesa.
       river=beside
       'Beside the river.'

16.   Wese=pɨ.
       field=LOC
       'To/at the field.'

17.   Kɨ̃́-ya-wɨ   yukusóro mãmã-wɨ́-pɨ
       3MSG-POSS.SG-CLF.hollow canoe   new.object-CLF.hollow-LOC

       hoó-re   sã́ã-ñã.
       bananas-SPEC put.in-IMP
       'Put the bananas in his new canoe.'

17.1.   Kɨ̃́=ya-wɨ   yukusóro mãmã-wɨ́=pɨ
       3MSG=GEN.SG-CLF$_{hollow}$ canoe   new.object-CLF$_{hollow}$=LOC

       hoó-re   sã́ã-ñã.
       bananas-ACC.DEF put.in-IMP
       'Put the bananas in his new canoe.'

18.   Kɨ̃́-ya-gɨ   mɨ̃́-yá-gɨ   nẽmõ-r̃õ   pai-gɨ́
       3MSG-POSS.SG-NR.MSG 2SG-POSS.SG-NR.MSG more-ADVR be.big-NR.MSG

       nɨ̃́ɨ̃-ɨ̃́.
       be-PRES.EVD.VIS.3MSG
       'His animal is bigger than your animal.'

18.1.   Kɨ̃́=ya-g-ɨ   mɨ̃́=yá-g-ɨ   nẽmõ-r̃õ
           3MSG=GEN.SG-CLF.AN-MSG 2SG=GEN.SG-CLF.AN-MSG more-ADVR

       pai-g-ɨ   nɨ̃́ɨ̃-ɨ̃́.
       be.big-GER-MSG be-PRES.EVD.VIS-3MSG
       'His animal is bigger than your animal.'

19.   Koó-ya-gɨ   kɨ̃́-ya-gɨ-kõr̃õ   nɨ̃́ɨ̃-ɨ̃́.
       3FSG-POSS.SG-NR.MSG 3MSG-POSS.SG-NR.MSG-alike be-PRES.EVD.VIS.3MSG
       'Her animal is the same as his animal.'

19.1.   Koó=ya-g-ɨ   kɨ̃́=ya-g-ɨ-kõr̃õ

3FSG-GEN.SG-CLF.AN-MSG 3MSG=GEN.SG-CLF.AN-MSG-alike

nɨ̃ɨ̃-ɨ̃.
be-PRES.EVD.VIS-3MSG
'Her animal is the same as his animal.'

20. Kɨ́ã-mẽnã   yaá-ri-wo.
3PL-ACCOMPANIMENT eat-NEG-PST.EVD.VIS.3FSG
'She did not eat with them.'

21. Áñɨ̃́-rõ̃   basá-ri-ya.
good-ADV sing-NEG-PRES.EVD.VIS.3PL
'They do not sing well.'

22. Díayi yɨɨ-re   baka-rí-ti.
dog   1SG-SPEC bite-NEG-PST.EVD.NVIS.3MSG
'The dog did not bite me.'

22.1.   Díayi yɨɨ-re   baka-rí-t-i.
dog   1SG-ACC.DEF bite-NEG-PST.EVD.NVIS-3MSG
'The dog did not bite me.'

23. Nãñã-ŋɨ   nɨ̃ɨ̃́-ri-hɨ̃ɨ̃   kãmẽ-rí-a-yi.
be.bad-NR.MSG be-NEG-PRES.APR.3MSG reciprocate-NEG-REC-PST.EVD.APR.3MSG
'Apparently he is not bad, apparently he did not reciprocate (wound for wound).'

23.1.   Nãñã-ŋ-ɨ   nɨ̃ɨ̃́-ri-hi-ɨ̃
be.bad-GER-MSG be-NEG-PRES.EVD.APR-3MSG

kãmẽ-rí-a-y-i.
reciprocate-NEG-REC-PST.EVD.APR-3MSG
'Apparently he is not bad, apparently he did not reciprocate (wound for wound).'

24. Kɨ́ã-rẽ   ĩñã-dɨga-ri-yigo.
3PL-SPEC see-DES-NEG-PST.EVD.SCD.3FSG
'She did not want to see them.'

24.1.   Kɨ́ã-rẽ   ĩñã-dɨga-ri-yig-o.
3PL-ACC.DEF see-DES-NEG-PST.EVD.SCD-3FSG
'She did not want to see them.'

25. Yaa-ré   kṹṹ-bosa-ri-a-hĩ̆ya.
    eat-NR.INAN place-BEN-NEG-REC-PST.EVD.3PL
    'Apparently they didn't put out any food (for us).'

26. Bué-ruku-ri-wɨ.
    study-HAB-NEG-PST.EVD.VIS.1/2
    'I did not study constantly (I studied but not constantly).'

27. Bué-ri-ruku-wɨ.
    study-NEG-HAB-PST.EVD.VIS.1/2
    'I constantly did not study (I was constant in not studying).'

28. Sĩnĩ̆-dɨgá-ri-ri?
    drink-DES-NEG-INT.PST.EVD.VIS
    'Didn't (whoever) want to drink?'

29. Wáa-ri-hã-ñã!
    go-NEG-EMPH-IMP
    'Don't go!'

30. Kɨ́ã-rẽ   yaa-ré   eka-rí,   kɨ́ã-rẽ   tɨ́ã-ri,
    3PL-SPEC eat-NR.INAN give.food-NEG 3PL-SPEC serve.drink-NEG

    tii-hã́-yira.
    do-EMPH-PST.SCD.3PL
    'They did not give them anything to eat or drink.'
    OR 'Not giving them food, not giving them drink, they did.'

31. Yaá-ri-pakɨ   kãnĩ̆-hṍã-wi.
    eat-NEG-CONC.MSG sleep-CMPL-PST.EVD.VIS.3MSG
    'Although he did not eat, he fell asleep.'

32. Atí-ri-hĩŋɨ̆   mũmɨ́ ñêé̆-ri-yigɨ.
    come-NEG-since.MSG sweet receive-NEG-PST.EVD.SCD.3MSG
    'Since he did not come, he did not receive any candy.'

33. Padé-ri-a-rigo   yɨ̆ mã̆kṍ   nɨ́ɨ́-yo.

work-NEG-REC.PST-NR.PST.FSG 1SG daughter be-PST.APR.3FSG
'The one who did not want is my daughter.'

33.1. Padé-ri-a-ri-g-o yɨɨ mãkõ nĩĩ-y-o.
work-NEG-REC-RSLT-PERF-FSG 1SG daughter be-PST.APR-3FSG
'The one who did not want is my daughter.'

34. Ãnõ heá-ri-rigɨ Bogotá=pɨ wáa-hõã-yigɨ.
here arrive-NEG-NR.PST.MSG Bogota=LOC go-COMPL-PST.SCD.3MSG
'The one who did not arrive here went to Bogotá.'

34.1. Ãnõ heá-ri-ri-g-ɨ Bogotá=pɨ.
here arrive-NEG-RSLT-PERF-MSG Bogota=LOC

wáa-hõã-yigɨ
go-COMPL-PST.SCD-3MSG
'The one who did not arrive here went to Bogotá.'

35. Dokapúrara-ye bué-ri-odo ñãmɨ̃ã heá-odako.
Tuyuca-language study-NEG-NR.FUT.FSG tomorrow arrive-FUT.EVD.3FSG
'The woman who will not be studying the Tuyuca language will arrive tomorrow.'

36. Yaá-ri-a-rigɨ nĩĩ-ã-wɨ̃
eat-NEG-REC-NR.PST.MSG be-REC-PST.VIS.3MSG
'Evidently he did not eat (the food is still here).'
Literally: 'Evidently he was a non-eating one'

36.1. Yaá-ri-a-ri-g-ɨ nĩĩ-ã-w-ɨ̃
eat-NEG-REC-RSLT-PERF-MSG be-REC-PST.VIS-3MSG
'(He) did not eat.'

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