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Voice and Valence in Q'anjob'al

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Voice and Valence in Q'anjob'al

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by

Ann Michelle Acker

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ABSTRACT OF THE DISSERTATION

Voice and Valence in Q'anjob'al

by

Ann Michelle Acker

Doctor of Philosophy in Linguistics

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Professor Pamela Munro, Chair

Grammatical voice is the thematic relationship between a verb and its arguments; for example, a transitive active verb has an agent subject and a patient object, while a passive verb has a patient subject. As an ergative language with frequent use of passive voice and a relatively rare antipassive, the Mayan language Q'anjob'al offers evidence against the typological claim that ergative languages tend to use antipassive more productively than passive. In addition to passive and antipassive, Q'anjob'al argument structure can be affected by agent focus and incorporating morphology. While these operations typically do not involve a change in the number of participants, unlike passive and antipassive, they do alter the syntactic realization of the participants and act as discourse strategies to highlight or background entities. I propose that the non-canonical alignment of the transitive agent with absolutive agreement seen in antipassive and incorporating constructions is highly marked, accounting for their relative rarity.

Passive voice is used in Q'anjob'al when the semantic patient outranks the agent in proximity, a dimension encompassing animacy, definiteness, and discourse

prominance. Assigning a structurally superior argument position to a less prominant argument than the internal argument in a transitive sentence is also marked, resulting in the preference for passive structures in such cases.

Incorporation, in which a transitive verb and its object combine to form an intransitive verb, is another option in Q'anjob'al to background the patient, an alternative to antipassive and agent focus. Q'anjob'al incorporation appears to involve a piece of structure larger than the nominal head often assumed to be involved in incorporation, as modification of the incorporated nominal by adjectives and conjunction is possible. Like antipassive, incorporation aligns the transitive agent with absolutive agreement and is relatively rare; however, incorporation differs from antipassive in that it never changes the meaning of the verb root, has no lexical restrictions, and usually does not occur with the omission of an argument.

Agent focus, a construction attested in many Mayan languages in which the verb takes special morphology when the subject of a transitive clause is focused, is an alternative strategy when the patient is more proximate than the agent. Though Q'anjob'al agent focus has sometimes been described as a type of antipassive, it differs from antipassive in that there is no case shift and no reduction in valence. The syntax of agent focus is best represented as a biclausal structure with a null copula in the matrix clause.

Passive and agent focus are less marked in Q'anjob'al, and therefore occur more frequently, than antipassive and incorporation because of the following features they share: preservation of the structural position of the internal argument, canonical alignment of the patient argument with absolutive case, no restrictions on the transitive verbs on which they may appear, and no unpredictable changes in meaning.

The dissertation of Ann Michelle Acker is approved.

Edward Keenan

Robert Kirsner

Jessica Rett

Harold Torrence

Pamela Munro, Committee Chair

University of California, Los Angeles

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Abbreviations

1/2/3	first/second/third person	ERG	ergative
A	ergative agreement	EXCL	exclusive
ABS	absolutive	EXCML	exclamation
ABST	abstract	EV	evidential
ALN	alienable	F	female
AN	animal	FACT	factive mood
AP	antipassive	FOC	focus
API	antipassive of incorporation	HON	honorific
B	absolutive agreement	IMP	imperative
CAUS	causative	IMPF	imperfective
CL	classifier	INC	incompletive aspect
COLL	collective	INCH	inchoative
COM	completive aspect	IND	indicative
COMP	complementizer	INF	infinitive
COND	conditional	INTNS	intensifier
D	deixis	ITER	iterative
DEF	definite	ITV	intransitive status
DEM	demonstrative	M	male
DEP	dependent	N	neuter
DET	determiner	NEG	negative
DIM	diminutive	NMZR	nominalizer
DIR	directional	OBJ	object
DIST	distributive	P	plural

PAST	past tense
POS	positional
POT	potential
PREP	preposition
PROG	progressive
PRON	pronoun
PRT	particle
PSV	-*lay* passive
PSV2	-chaj passive
PUNC	punctual aspect
REC	reciprocal
RDPL	reduplicant
RFLX	reflexive
S	singular
SUB	subject
TV	transitive status
VBZR	verbalizer

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Undertaking and completing this dissertation would not have been possible without the support and assistance of my graduate advisors, colleagues, family, and language consultants. I am truly privileged to be a part of the UCLA linguistics community, which is exceptional in its convivial and nurturing atmosphere no less than in its academic rigor. My doctoral committee members have been especially approachable and eager to share their expertise with me throughout the dissertation process and have been a pleasure to work with.

Jessica Rett taught my first graduate semantics course, and my interest in formal semantics is largely due to her excellent teaching and enthusiasm for the subject. She also advised on my master's thesis and inspired me to learn more about different semantic treatments of tense. Her commentary and literature suggestions are always spot-on despite the fact that I work on languages and phenomena very different from those she specializes in.

Ed Keenan has been a great help throughout my graduate career, also advising on my master's thesis and offering input on the project that became my dissertation from the earliest stages. Talking to Ed is always an adventure, and his knowledge is amazingly vast. He has been especially helpful regarding the typological context of my work on particular languages, and like Jessica, has encouraged me to look deeper into the meaning inherent in linguistic constructions, though often in less conventional ways.

In the past year I have also had the honor of adding Harold Torrence, our department's newest fieldwork expert, to my committee. Harold is just as knowledgeable about formal syntax as he is about fieldwork, and has helped me think more rigorously about the syntactic issues within my Q'anjob'al data and to identify and address potential problems with my syntactic account.

Robert Kirsner of the Germanic Languages department has been a great influence on my studies since my undergraduate days. His *Linguistic Theory and Grammatical Description* course introduced me to the Columbia School and Cognitive Grammar models, linguistic methods that I was not exposed to in the classes I took for my linguistics major. Both his course and my subsequent discussions with Bob have made me a more well-rounded linguist eager to search for answers in ways beyond the prescribed methods.

Pamela Munro, my mentor and committee chair, has been vastly more than one could wish for in an advisor and a colleague. We first met when I was an undergraduate student in her *American Indian Linguistics* course, which is in part an introduction to field linguistics with a native speaker, in my case Chickasaw elder Catherine Willmond. It was easily the most influential class I have ever taken. I learned not only the joys of fieldwork, but also the crucial importance of linguistic fieldwork and documentation, and I was inspired to adopt it as my life's work.

I have greatly enjoyed all of my interactions with Pam throughout my career, from being her student and advisee to TAing *American Indian Linguistics* to participating in the American Indian Seminar and our Nahuatl reading group. Pam has worked very closely with me and supported me in every way she could throughout my academic career and I am incredibly lucky to have her as a mentor and friend.

I owe a debt of gratitude to many others in our department. My colleagues in American Indian Seminar and the Syntax/Semantics Seminar have listened to innumerable talks based on parts of this dissertation and have given me much thoughtful and helpful feedback. I am also grateful to my fellow Q'anjob'al Field Methods class members, who contributed to the database

that provided much of the material for this dissertation and who helped me figure out many of the basics of the language.

Hilda Koopman provided much helpful feedback during the early stages of my dissertation research and also, along with Kie Zuraw, introduced me to linguistic fieldwork at the graduate level in our Tongan Field Methods course. Hilda was furthermore very helpful during my consequent field studies in Tongan, which also inform this dissertation.

I have also had the pleasure of working closely with fellow graduate student Kathleen O'Flynn on Q'anjob'al during the years following our Field Methods class. I am grateful for her insights throughout and I look forward to reading her forthcoming dissertation on Q'anjob'al conditionals.

I am indebted to my audience at the 40th Annual Meeting of the Linguistic Association of the Southwest, at which I presented preliminary work on Q'anjob'al voice morphology, as well as to the Harry and Yvonne Lenart Graduate Travel Fellowship for funding my trip to Guatemala to study Q'anjob'al.

Luis, my taxi driver in Guatemala, was a godsend. He shuttled me all the way to Santa Eulalia, a day's trip each way, helped me navigate the culture, took me to the best restaurants, and somehow got me to the home in Patzún I had planned to stay at with my colleague Mel Bervoets during the FAMLi conference even though I hadn't mentioned to him that I was supposed to be there. My trip would have been much less pleasant had I not met him.

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Finally, I am eternally grateful to my Q'anjob'al consultants for sharing their language and their homes with me – Federico Juan, Sandra Yeraldiny, Angelica Garcia Pascual, and Pedro Garcia Pascual in Santa Eulalia, Guatemala and Alejandra Francisco and Alejandra Juarez in Los Angeles – and to my Tongan consultants Piula Tonga and the late Saia Moala. None of this would exist without their work, insights, and hospitality, and I cherish every opportunity I have had to work with them.

I hope my efforts in writing this dissertation have yielded a work worthy of all those who have helped me along the way. It would undoubtedly be a much poorer work without each of their contributions, and all mistakes are my own.

Curriculum Vitae

Education

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Foster, Ann Michelle. 2011. A Quantitative Analysis of the Chickasaw Switch Reference Markers -*cha* and -*na*. MA Thesis. UCLA.

Foster, Ann Michelle and Marjorie Harness Goodwin. 2006. Correlates in Parental and Child Behavior: Homework Directives and Participation Structures at the Family Table. UCLA Sloan Center on Everyday Lives of Families Working Paper No. 55.

Conference presentations

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- *Graduate Research Mentorship Program* 2009-2010, $20,000
- *Graduate Summer Research Mentorship Program* 2009, $4,700
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- *Phi Beta Kappa* honors society, lifetime member
- *Alpha Mu Gamma*, lifetime member (honors society for excellence in language studies)
- California Scholarship Federation, lifetime member

Chapter 1

Background: ergativity, valence, and voice

1.1 Introduction

Investigating the grammatical structures of understudied languages improves scientific understanding of the richness of variation possible in human languages and contributes to comparative studies of language families, language history, and typology. Grammatical voice can be defined as the thematic relationship between a verb and its arguments; for example, a transitive verb in the active voice has an agent subject and a patient object. As each of the constructions discussed in this dissertation exhibits a different relationship between the verb and its syntactic arguments than the corresponding transitive, each can be considered a different type of voice.

As an ergative language with frequent use of passive voice constructions and relatively rare antipassive voice constructions, the Mayan language Q'anjob'al offers an argument against the notion advocated by various authors (including Dixon 1979 and Spencer 1995) that passive voice is rare in ergative languages, and that instead productive antipassive constructions are typical. In addition to passive and antipassive voice, the argument structure of Q'anjob'al verbs can be affected by agent focus and incorporating morphology. While agent focus and incorporation typically do not involve a change in valence or the number of participants, unlike passive and antipassive, they do alter the thematic alignment and syntactic realization of the participants and act as discourse strategies to highlight or background entities.

In this dissertation, I will describe and discuss the passive, antipassive, agent focus, and incorporation constructions in Q'anjob'al, and will present a formal analysis of their syntax and

semantics. This introductory chapter presents background on the topics of ergativity, valence, and voice in linguistic theory, as well as background on Q'anjob'al and the fieldwork conducted for this dissertation. Chapter 2 provides an overview of the Q'anjob'al linguistic forms to be discussed in depth throughout the rest of the dissertation. Passive and antipassive constructions will be discussed in Chapter 3, while Chapter 4 will address incorporation and Chapter 5 agent focus. While I discuss approaches to similar problems from the literature from a variety of formal backgrounds, my syntactic analysis throughout is within the generative grammar framework as described in Chomsky (1965), and in Chapter 5 I present an optimality theoretic analysis following the framework in Prince & Smolensky (1993).

1.2 Ergativity, valence, and voice

In ergative languages, the grammar marks transitive subjects in opposition to intransitive subjects and transitive objects. The transitive subject in such languages is known as the ergative argument, while the intransitive subject or transitive object is the absolutive argument. This pattern differs from that of accusative languages like English, in which the objects of transitive verbs receive accusative marking and subjects of both transitive and intransitive verbs are marked as nominative. These two patterns of alignment are schematized in Tables 1.I and 1.II below.

Table 1.I: Ergative alignment

	Subject	Object
Transitive	ergative	absolutive
Intransitive	absolutive	n/a

Table 1.II: Accusative alignment

	Subject	Object
Transitive	nominative	accusative
Intransitive	nominative	n/a

For example, the first person plural absolutive object in the transitive Q'anjob'al sentence in (1a) is marked identically to the absolutive subject in the intransitive (1b), as *on*. The corresponding first person plural subject of a transitive is marked differently, as the ergative *ku* in (1c).[1]

(1) a. X-**on** ha b'aj-a'.
COM-1PB 2SA scold-TV
'You scolded us.'

b. X-**on** way-i.
COM-1PB sleep-ITV
'We slept.'

c. X-ach **ku** b'aj-a'.
COM-2SB 1PA scold-TV
'We scolded you.'

In an accusative language like English, the transitive object is marked in contrast to all subjects, which receive the same marking regardless of the transitivity of the verb. Compare the examples in (1) to their English equivalents in (2). In both intransitive and transitive sentences, a first person plural subject is marked as nominative *we* (2b and c), while the transitive object is marked differently, as accusative *us* (2a).

(2) a. You scolded **us**.

b. **We** slept.

c. **We** scolded you.

Ergative alignment is similar to passive voice in an accusative language, in which the accusative object of the corresponding transitive, promoted to subject, is referenced with nominative case or agreement. Note that in the English sentences in (3), the patient or logical

[1] Other grammatical markers appearing in these and upcoming examples, such as aspect and status markers, are explained and discussed in detail in Chapter 2.

object of the passivized verb (*we* in (3a)) receives the same nominative marking as the subject of an intransitive in (3b), but the agent or logical subject of a passivized verb is marked differently, as the accusative *us* in (3c).

(3) a. **We** were scolded by you.

b. **We** slept.

c. You were scolded by **us**.

A language can be ergative in either its case system, in which the ergative/absolutive distinction is marked on nouns, or its verbal agreement, in which the verb is marked to agree with its arguments, or both.

Valence refers to the number of arguments associated with a verb (or other predicate), as stipulated in its lexical entry. For example, intransitive verbs have only one argument, the subject, and so can be said to have a valence of one or to be monovalent, while transitive verbs, with both a subject and an object, can be said to have a valence of two or to be bivalent. Passive constructions are monovalent, with the patient subject as the sole argument, though an agent may optionally appear in a prepositional phrase (like *by us* in (3c)).

The syntactic constructions discussed in this dissertation – passive, antipassive, agent focus, and incorporation – all affect the argument structure or valence of the transitive verb. Passive and antipassive most clearly reduce valence, as both operations result in constructions that can be used with only one argument, the subject;[2] optional oblique adjuncts, though possibly thematically related to the verb, are not arguments of the verb. In the case of passive, the subject

[2] The third argument in Q'anjob'al ditransitives is prepositional and optional; it is unaffected by the valence operations discussed in this dissertation.

is the same argument that would be the object of the corresponding transitive, while in the case of antipassive, the subject of the corresponding transitive becomes the subject of an intransitive.

In an ergative language like Q'anjob'al, the absolutive object of a transitive becomes an absolutive subject in the passive, as illustrated by (4b), while the ergative subject of a transitive becomes an absolutive subject in the antipassive.

(4) a. X-ach hin b'aj-a'.
COM-2SB 1SA scold-TV
'I scolded you.'

b. X-ach b'aj-lay (w-uj).
COM-2SB scold-PSV 1SA-by
'You were scolded (by me).'

In the transitive sentence in (5a), the first person plural subject is the ergative *ku*, while in the antipassive (5b), the first person plural subject is the absolutive *-on*.

(5) a. Ch-ach ku b'uch-u'.
INC-2SB 1PA despise-TV
'We despise you.'

b. Ch-on b'uch-waj hen.
INC-1PB despise-AP 2SA.at
'We despise you.'

In incorporation constructions, the incorporated object loses its status as a syntactic argument. The incorporating verb is therefore treated as intransitive and its sole argument, the subject, is absolutive in an ergative language. The Q'anjob'al incorporation construction corresponding to the transitive in (6a) is (6b); note that the second person singular subject is ergative (*-a*) in the transitive (6a) but absolutive (*-ach*) when the object is incorporated (6b).

(6) a. X-a waj (an) sakate.
COM-2SA gather CL.plant fodder
'You gathered fodder.'

b. X-ach waj-wi sakate.
COM-2SB gathered-API fodder

'You gathered fodder.'
Lit. 'You fodder-gathered.'

In the agent focus construction, found throughout the Mayan family, both of the participants associated with the transitive verb must be expressed, but only the absolutive argument (the transitive object) continues to control verbal agreement, resulting in a morphologically intransitive verb. The agent focus version of the transitive in (7a) is given in (7b). The verb in (7a) exhibits third person ergative agreement, *y-*, with the subject Xhun, while the verb in (7b) shows no ergative agreement. Agent focus can only be used to focus third-persons in Q'anjob'al.

(7) a. Ch-ach y-il naq Xhun.
INC-2SB 3A-see CL.M John
'John sees you.'

b. A naq Xhun ch-ach il-on-i
FOC CL.M John INC-2SB see-AF-ITV
'It's John who sees you.'

Voice refers to the thematic relationship between a predicate and its arguments. Voice alternations often affect valence, as in the case of passive voice reducing valence by one when compared to the corresponding active sentence with two arguments. Voice is also associated with changes in the syntactic and/or morphological realization of arguments, so in active voice the patient is the object, but in passive voice it is the subject. Voice constructions can also stipulate how entities demoted from argument status are realized; taking again the example of passive, the subject of the corresponding active, if expressed, must be the object of a prepositional phrase. As each of the constructions discussed in this dissertation exhibits a different relationship between the verb and its syntactic arguments than the corresponding transitive, signaled by differences in word order, agreement, and the syntactic realization of participants, each can be considered a different type of voice.

In addition to the Q'anjob'al voice constructions discussed in this dissertation, many other varieties of voice exist among the world's languages. Some of the more common voice constructions include causative, in which an intransitive verb gains a causer argument; reflexive and reciprocal, in which the subject and object of a transitive verb refer to the same entity; and middle, which has many different uses among languages but typically reduces valence and has a subject with elements of both agent and patient.

The realization of the participants corresponding to transitive subject and object in the different voice constructions discussed in this dissertation are summarized in Table 1.III below.

Table 1.III: Realization of participants in Q'anjob'al voice constructions

Active	Subject (ergative)	Object (absolutive)
Passive	Optional oblique	Subject (absolutive)
Antipassive	Subject (absolutive)	Optional oblique
Incorporation	Subject (absolutive)	Incorporated into verb (optional)
Agent Focus	Focus phrase	Object (absolutive)

1.3 Roadmap of the dissertation

An overview of Q'anjob'al, the fieldwork conducted to gather data for this dissertation, and the basics of Q'anjob'al grammar is provided in Chapter 2. Chapter 3 details the Q'anjob'al voice constructions listed in Table 1.III above: two passive voice constructions, the antipassive, incorporation, and agent focus. Passive and antipassive constructions and their distribution are discussed in greater depth in Chapter 3, where I show that animacy, definiteness, and discourse effects are shown to be relevant factors in Q'anjob'al's preference for passive voice. Chapter 4 handles incorporation constructions in Q'anjob'al and crosslinguistically, including a discussion of lexical and syntactic representations of such constructions. I conclude that a syntactic treatment of incorporation best handles the Q'anjob'al data. Agent focus is the subject of Chapter 5, which presents an Optimality Theoretic treatment of the choice between active,

passive, and agent focus constructions in Q'anjob'al. Chapter 6 presents a summary of the syntax and semantics of Q'anjob'al voice constructions and concludes this dissertation.

1.4 Literature background

The relationship between passive voice and ergativity is a longstanding topic in linguistic theory; a brief overview of ergativity in the literature as it relates to the Q'anjob'al data discussed throughout this dissertation follows. Hale (1970) proposed that ergative languages in the Australian family developed from accusative languages through grammaticalization of a passive construction, analyzing ergative case as developing from the oblique case used to express the agent in passive constructions. Estival and Myhill (1998) took a similar view, specifically that all ergative systems developed through a verbalization process affecting the non-verbal passive participle that reanalyzes the oblique agent argument, the prototypical subject of a transitive verb, as the grammatical subject.

In more recent work, Visser (2006) advocates the view that all languages are basically nominative/accusative, that ergative is a form of passive voice, and that languages analyzed as ergative have lost their active accusative constructions. Split-ergative languages, in which ergative patterns apply in only part of the grammar, have undergone such a loss only in the affected portions of the grammar. For example, a language may be ergative in its verbal agreement, but accusative in its case marking; or it may exhibit ergative alignment in some tenses, aspects, or moods and accusative alignment in others.

Visser's ergative-as-passive hypothesis holds that passive voice is syntactically transitive; both passive and active verbs assign an external theta-role to an argument in their specifier. Passive morphology functions by incorporating the external pronominal argument into the verb

as a clitic or agreement marker; in many languages, including English, this incorporated argument has no phonological realization. The incorporated pronominal argument may then be optionally doubled, appearing as an independent pronoun or DP, for example in an oblique phrase. As a consequence of this incorporation of the external argument in a passive, the internal argument is the only argument available to be realized as the syntactic and morphological subject. According to Visser, passive voice in accusative languages and ergative agreement patterns are built through the same syntactic operations. The ergative subject is an adjunct like the optional oblique agent in a passive, and both are associated with an external argument (possibly phonologically null) incorporated into the verb. When accusative patterns are lost, passive voice is reanalyzed as an ergative transitive pattern.

Researchers including Dixon (1979) and Spencer (1995) have argued that antipassive is closely associated with ergative languages, where it acts as the counterpart of passive voice in accusative languages. Spencer (1995) writes that his "impression is that where an ergative language has both alternations, it is more likely that the antipassive rather than the passive will be fully productive." Polinsky (2011), on the other hand, claims that there is "no principled correlation" between ergativity and antipassive, and that antipassive is simply more visible in ergative languages than in accusative languages because it causes a change in subject case marking or verbal agreement from ergative to absolutive. Polinsky (2011) lists 17 accusative languages and 31 ergative languages out of the World Atlas of Language Structures (WALS) sample that have an antipassive construction. Though the list does not indicate that antipassive is equally common in ergative and absolutive languages, a closer look at WALS reveals that productive antipassive and ergativity do not show a statistically significant correlation.

The body of literature on Q'anjob'al includes theoretical work by native speakers Eladio Mateo Toledo and Pedro Mateo Pedro, including Mateo Toledo's (2008) doctoral dissertation, which focuses on complex predicates in Q'anjob'al, but contains an extensive discussion of the voice alternations that are the topic of this dissertation. Pedro Mateo Pedro's contributions include a paper on Q'anjob'al nominalization (2009) and a paper co-authored by Coon on extraction constructions using the agent focus morpheme (2011). Further documentation of Q'anjob'al includes academic papers on the San Miguel Acatán dialect published by Zavala (1990, 1992), Spanish grammars (Baquiax Barreno et al. 2005, Mateo Toledo 1998, and Montejo and de Nicolás Pedro 1996) and two Q'anjob'al-Spanish dictionaries (Txolilal Ti' Q'anjob'al 2003, Diego de Diego et al. 1996), among others.

Chapter 2

An Overview of Q'anjob'al

2.1 Language and fieldwork background

Q'anjob'al (ISO code: kjb) belongs to the Q'anjob'alan subfamily of Mayan, spoken mostly in the Huehuetenango district of Guatemala. There are about 88,200 speakers worldwide (Lewis 2009), including sizable communities in the United States in Los Angeles, California, and Indiantown, Florida. The language features basic VSO word order and ergative verbal agreement. The dialect discussed in this paper represents the town of Santa Eulalia in the Huehuetenango district of Guatemala.

I conducted fieldwork to provide the data for this dissertation beginning in the 2011 UCLA field methods class with native speaker Alejandra Francisco, with whom I continued working for three years. I conducted further fieldwork in Santa Eulalia, Guatemala, in 2012 with Sandra Yeraldiny, Angelica Garcia Pascual, Pedro Garcia Pascual, and Federico Juan; and I began working with my current native speaker consultant, Alejandra Juarez, in Los Angeles in 2014. In addition to elicitation I collected a corpus of texts consisting of traditional stories, conversation, and a retelling of a picture book, supplemented with texts by others. I prepared the translations and analysis of the texts I collected with the assistance of native speakers.

2.2 Orthography

The practical orthography used in this dissertation is that presented in the grammar (Barreno et al. 2005) and dictionary (Txolilal Ti' Q'anjob'al, 2003) published by the Academia de

Lenguas Mayas de Guatemala (ALMG). There are 25 consonant phonemes and five vowel phonemes, presented in Tables 2.I and 2.II below. The phonemes are given in the International Phonetic Alphabet (IPA), and when the practical orthography differs from the IPA symbol, I have provided the orthographic letter or letter sequence in parentheses immediately following the IPA. There is an additional letter in the Q'anjob'al practical orthography, *h*, which does not represent a sound, but rather the absence of an initial glottal stop in an orthographically vowel-initial word. The glottal stop is therefore not represented by any letter at the beginning of a word in Q'anjob'al, but is represented by an apostrophe anywhere else in the word.

Table 2.I: Q'anjob'al consonant phonemes

	Labial	Dental	Alveolar	Palatal	Retroflex	Velar	Uvular	Glottal
Stop/ Affricate	p	t	ts (tz)	tʃ (ch)	tʂ (tx)	k	q	ʔ (')
Ejective		t'	ts' (tz')	tʃ' (ch')	tʂ' (tx')	k'	q'	
Implosive	ɓ (b')							
Fricative			s	ʃ (xh)	ʂ (x)	x (j)		
Nasal	m		n					
Lateral			l					
Flap			ɾ (r)					
Approxi-mant	w			j (y)				

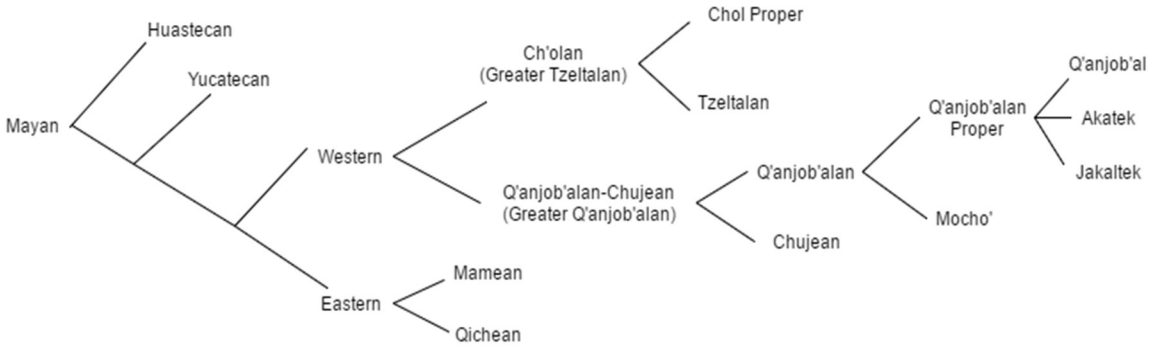
Table 2.II: Q'anjob'al vowel phonemes

i	u
ɛ	o
(e)	
ɑ (a)	

2.3 Genetic background

The Mayan language family consists of 29 living languages and two extinct languages spoken mostly in Mexico and Guatemala (Kaufman and Campbell 1985). Q'anjob'al is most closely related to the Guatemalan languages Akatek and Jakaltek, and these three languages form one branch of the Q'anjob'alan subfamily, with the other branch consisting of the Mexican language Mocho'. The Q'anjob'alan subfamily is situated within the larger Q'anjob'alan-Chujean, or Greater Q'anjob'alan, subfamily, together with the subfamily Chujean, consisting of Chuj, spoken around the Guatemala-Mexico border, and Tojolab'al, spoken in Chiapas, Mexico. Kaufman and Campbell (1985) group Greater Q'anjob'alan together with the Ch'olan (or Greater Tzeltalan) branch to form the Western branch. The relationship of Q'anjob'alan to the other Mayan branches is shown in Figure 2.I. (None of the individual languages within other subfamilies are shown.)

Figure 2.I: Q'anjob'alan within the Mayan family



2.4 Q'anjob'al grammar

2.4.1 Ergativity and pronominal agreement in Q'anjob'al

There are two sets of agreement morphemes in Q'anjob'al, ergative/genitive or A-class markers, and absolutive or B-class markers, as shown in Table 2.III.

Table 2.III: Agreement markers

	A (vowel-initial verb stems)	A (consonant-initial verb stems)	B
1S	w-	(h)in	(h)in
1P	j-	ko	(h/k)on
2S	(h)V	(h)a	(h)ach
2P	(h)ey-	(h)e	(h)ex
3	y-	(s)-	∅

As discussed in section 2.2, the initial *h* seen in the consonant-initial A markers and the B markers represents the lack of a glottal stop; therefore it is only written when there is no aspect marker cliticized to the agreement marker. Vowel-initial verbs beginning with *i* and *u* lower the initial vowel to *e* or *o* respectively when inflected for a second-person singular ergative subject; verbs beginning with other vowels retain the original vowel. For example, the root *il* 'see' in (1a) becomes *el* when inflected for a second person singular ergative subject in (1b), but the verb *antej* 'cure' does not change its vowel (2).

(1) a. Ch-w-il ix jujon k'u.
INC-1SB-see CL.F each day
'I see her every day.'

b. Ch-el ix jujon k'u
INC-2SA.see CL.F each day
'You see her every day.'

(2) a. X-ach w-ante-j.
COM-2SB 1SA-cure-TV
'I cured you.'

b. X-in hante-j.
COM-1SB 2SA.cure-TV
'You cured me.'

It is unclear what governs the choice of the *kon* allomorph of the first-person plural absolutive agreement marker in our data. There is some evidence that it represents an exclusivity

distinction, as described in the ALMG grammar (Barreno et al. 2005), but it is not used consistently among the speakers I have consulted.

The third-person ergative marker *s-* is not used for verbal agreement by any of the speakers I have consulted, though it does appear as a verbal marker in the ALMG grammar and sources including Montejo (1996) and Mateo Toledo (2008); my consultants only use this marker for nominal possession (see section 2.4.3), and third person ergative markers are null on consonant-initial verbs. However, verbs with third-person agreement, both absolutive and ergative, are typically followed by an overt third-person subject nominal (as in (3) below), consisting minimally of a classifier (see section 2.4.5 for more discussion on classifiers).

(3) a. X-maq' ix Malin naq winaq.
COM-hit CL.F Mary CL.M man
'Mary hit the man.'

b. X-maq' naq winaq ix Malin.
COM-hit CL.M man CL.F Mary
'The man hit Mary.'

2.4.2 Q'anjob'al verbs

The basic active verbal complex follows the order in (4), where B refers to absolutive agreement and A to ergative agreement.

(4) Aspect-B (A) verb-suffixes

Aspect markers can be *max* or *x-* for completive, *chi* or *ch-* for incompletive, *hoq* or *q-* for potential (irrealis), or null; the short forms are cliticized to the first pronounced agreement morpheme or, when no agreement markers are present, to the verb. Word boundaries in the data presented in this dissertation follow native speaker intuitions, which are in line with presentations in the literature including Baquiax Barreno, et. al. (2005), and Montejo and Nicolas

Pedro (1996). Ergative markers always form a unit with a vowel-initial verb, as in (5), but appear as separate words when the verb is consonant-initial, as in (6). Absolutive markers are always distinct from the verb, as illustrated in both (5) and (6), as well as the intransitive (7). Aspect markers cliticize to independent absolutive (as in (5)-(7)) or ergative markers (8), but they cliticize to the verb in the absence of such independent agreement markers (9) (see description in O'Flynn, in preparation).

(5) Ch-ach w-oche-j.
INC-2SB 1SA-like-TV
'I like you.'

(6) Ch-ach hin maq'-a'.
INC-2SB 1SA hit-TV
'I hit you.'

(7) Ch-ach way-i.
INC-2SB sleep-ITV
'You sleep.'

(8) X-in maq' jun naq winaq.
COM-1SA hit one CL.M man
'I hit a man.'

(9) X-maq' ix Malin naq winaq.
COM-hit CL.F Mary CL.M man
'Mary hit the man.'

Verbal suffixes include directional markers, discussed below in 2.4.2.1, sentence final status markers, discussed in 2.4.2.2, and detransitivizing passive or antipassive markers, discussed in Chapter 3, among others.

Transitive sentences with pronominal agreement are shown with a vowel-initial verb in (5) and a consonant-initial verb in (6), while an intransitive is exemplified in (7). Note that the object of the transitive sentences and the subject of the intransitive are both expressed with

absolutive (B-class) agreement. There are no A or B markers when the subject and object are both third person, and Q'anjob'al has no case marking, as exemplified in (8) and (9).

2.4.2.1 Directionals

Directional markers are clitics that follow the main verb. They are derived from verbs of motion and contribute "aspectual, trajectory, and adverbial" meaning (Mateo Toledo 2008:23). Directional constructions and their syntax and semantics are described in depth in O'Flynn (in preparation). There may be up to three directional following a main predicate, one from each of the sets in Table 2.III, in the order Set 1-Set 2-Set 3.

Table 2.IV: Q'anjob'al directionals (O'Flynn, in preparation)

	Motion Verb		Directional	
Set 1	*kan*	'to stay/be left behind'	*kan*	'left behind'
Set 2	*aj*	'to ascend'	*aj*	'up'
	ay	'to descend'	*ay*	'down'
	ok	'to enter'	*ok/uk/ik*	'in'
	el	'to go out/to move away'	*el/il*	'out/away'
	ek'	'to pass/to move around'	*ek'/ik'*	'across/around'
Set 3	*tit*	'to come'	*teq*	'towards here'
	toj	'to go'	*toq*	'towards there'

Two examples of the directional construction appear in (10). The first, the verbal complex *ch'q'eqb'ikanayoq* 'it got dark', has the Set 1 directional *kan* and the Set 2 directional *ay*, indicating that the darkness descended and stayed. The second example, *chmaqlayoktoq* 'were locked up', contains the passive suffix *-lay* and two directionals, *ok* from Set 2 and *toq* from Set 3, showing the relative order of these elements. This verbal complex could be more literally translated as 'were closed in towards there,' with the directionals contributing the sense that the

animals were enclosed and that the action happened away from some contextual point (typically the speaker).

(10) Axa y-et ch'-q'eq-b'i-kan-ay-oq kax ch-maq-lay-ok-toq no'.
next 3A-of INC-black-INCH-DIR-DIR-INF then INC-close-PSV-DIR-DIR CL.AN
'When it got dark the animals were locked up.'

2.4.2.2 Status markers

Status markers reflect the transitivity of the verb; intransitives are marked with the suffix *-i*, as in (7), while transitives receive the suffix -V' if they are root transitives (consonant final), as in (6), and *-j* if they are derived transitives (vowel final), as in (5) (examples repeated below).

(5) Ch-ach w-oche-j.
INC-2SB 1SA-like-TV
'I like you.'

(6) Ch-ach hin maq'-a'.
INC-2SB 1SA hit-TV
'I hit you.'

(7) Ch-ach way-i.
INC-2SB sleep-ITV
'You sleep.'

The root transitive status suffix is realized as *-o'* for verbs with *o* in the root (11a), *-u'* for verbs with *u* in the root (11b), and *-a'* for verbs with any other root vowel (11c).

(11) a. A y-ul te' na x-a b'on-o'.
FOC 3A-inside CL.wood house INC-2SA paint-TV
'It was the inside of the house that you painted.'

b. Ch-ach ku b'uch-u'.
INC-2SB 1PA despise-TV
'We despise you.'

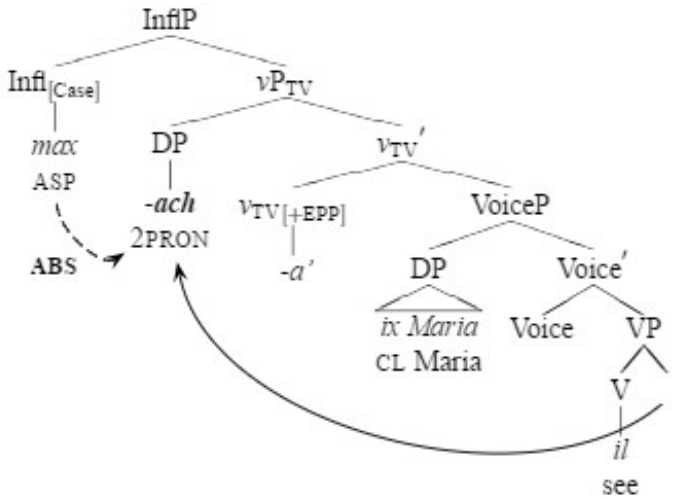
c. X-ach w-il-a'.
COM-2SB 1SA-see-TV
'I saw you.'

Except for *-j*, status markers only appear on clause-final verbs. Coon & Mateo Pedro (2011) treat these status markers as functional projections in the syntax, namely the head of vP, following Larson's (1998) VP-shell analysis, as illustrated in Figure 1.II, the structure for the sentence in (12). The syntactic structure of the basic Q'anjob'al clause will be revisited in Chapter 3.

(12) Max-ach y-il-(-a') ix Malin
COM-2SB 3A-see-TR CL.F Mary
'Mary saw you.'

(Coon & Mateo Pedro 2011:9a, gloss adapted)

Figure 2.II: Basic Q'anjob'al structure (Coon & Mateo Pedro 2011:9b)



2.4.2.3 Stative Predicates

Q'anjob'al stative predicates consist of non-verbal elements – numerals and quantifiers (13a), adjectives (13b), nouns (13c), positionals (13d), adverbs (13e), and the existential marker *ay* (13f) – and are referred to in Mateo Toledo (2008:49) as non-verbal predicates (NVPs). All stative predicates are intransitive and unmarked for aspect, and their pronominal subjects are

marked with an independent absolutive pronoun from the set of B-markers shown in Table 2.III following the predicate, as illustrated in (13a-e).

(13) a. Xiwil hex.
many 2PB
'You (all) are many.' (Mateo Toledo 2008:6, gloss adapted)

b. Miman hach.
big 2SB
'You are big.'

c. Mayul hin.
guard 1SB
'I am a guard.'

d. Tel-an hon.
lying-POS 1PB
'We are lying down.'

e. Yekal hon-on.
tomorrow 1PB-EXCL
'Our turn is tomorrow (but not yours).'
(Mateo Toledo 2008:38b, gloss adapted)

f. Ay xiwil kuywom.
exist many student
'There are many students.'

Q'anjob'al stative predicates have an interesting implication for the Mayan typological parameter given in (14), defined by Coon & Mateo Pedro (2011) following an observation made by Tada (1993) that Mayan languages follow one of two patterns: either the absolutive marker immediately follows the aspect marker, or it follows the verb stem. Coon & Mateo Pedro propose that the difference is caused by whether absolutive Case is assigned by $Infl^0$ or v^0. Q'anjob'al is a High-ABS language according to this typology, as in most cases the absolutive marker follows the aspect marker (as shown in the schema in (4) above).

(14) MAYAN ABSOLUTIVE PARAMETER

HIGH-ABS (set B on the aspect marker)	|absolutive assigned by $Infl^0$
LOW-ABS (set B realized on the verb stem)	|absolutive assigned by v^0

(Coon & Mateo Pedro 2011:8)

Q'anjob'al stative predicates follow the pattern shown by all predicates in Low-ABS languages, so it appears that Q'anjob'al instantiates both patterns identified by Tada (1993), High-ABS for verbal predicates and Low-ABS for non-verbal stative predicates.

2.4.2.4 Progressive constructions

The Q'anjob'al progressive is formed by embedding a clause under a progressive auxiliary verb. Progressives are derived from positionals: Mateo Toledo (2008:55, fn.5) reports the progressive auxiliaries *lan(an)* 'standing', *ipan* 'pushing', and *jalan* 'tangled', though my consultants use *yan* and *yanan* as well as *lanan*. Progressive verbs pattern with a number of predicate types in Q'anjob'al that take aspectless complement clauses, including modals, phase verbs, and verbs of knowledge, perception, and desire (Mateo Toledo 2008:309-310 provides a longer list of such constructions). Examples of the progressive construction appear in (14), while parallel modal and perception verb examples are in (15) and (16) respectively. In aspectless embedded clauses, Q'anjob'al exhibits a nominative-accusative pattern, with ergative marking both transitive and intransitive subjects (like a nominative); this pattern will be revisited in Chapter 6.

(14) a. Yanan hin b'ey-i.
PROG 1SA walk-ITV
'I'm walking.'

b. Yanan b'ey naq.
PROG walk CL.M
'He's walking.'

(15) Ch-je' hin b'ey jun mila.
INC-can 1SA walk one mile
'I can walk a mile.'

(16) a. X-w-il ha jay-i.
COM-1SA-see 2SA arrive-ITV
'I saw you arrive.'

b. X-w-il jay naq.
COM-1SA-see arrive CL.M
'I saw him arrive.'

2.4.3 Q'anjob'al nouns

Nouns in Q'anjob'al are usually preceded by classifiers denoting their noun class, though some nouns optionally or usually appear without classifiers. Nouns with classifiers are typically treated as definite unless preceded by the indefinite marker *jun* 'one'. A list of Q'anjob'al classifiers appearing in this dissertation, with examples, is given in (17). Mateo Toledo (2008:106, fn.20) gives the additional classifiers *tx'otx'* 'land', *ha* 'water', *q'aq'* 'fire', and *tz'am* 'salt'. Mateo Toledo (1998:86) explains that entities in texts are typically introduced as nouns with classifiers, and subsequently referred to with the classifier alone, like a pronoun.

(17)	naq	'male human'	naq Xhwan	'John'
	ix	'female human'	ix Malin	'Mary'
	xal	'old/respected female human'	xal ix	'the old woman'
	cham	'old/respected male human'	cham naq	'the old man'
	no'	'animal'	no' tx'i'	'the dog'
	an	'plant'	an sakate	'the fodder'
	tx'en	'rock' or 'metal'	tx'en karro	'the car'
	te'	'wood'	te' na	'the house'
	tx'an	'paper'	tx'an un	'the book'
	ixim	'corn'	ixim ixim	'the corn'

In addition to classifiers, the Q'anjob'al noun complex can include quantifiers such as the indefinite marker *jun* 'one' or its variants *jujun* and *junoq*[3], the animate plural marker *heb'*, adjectives, the demonstratives *ti' (la)* [4] 'this' and *tu' (la)* 'that', possessors, and modifying prepositional phrases. The order of elements in the nominal complex is given in (18), and some examples appear in (19). Surprisingly, the demonstratives commonly usually co-occur with the indefinite marker, as illustrated in (19f).

(18) (indefinite / quantifier) (*heb'*) (classifier) (adjective(s)) (possessive marker) noun (possessor) (prepositional phrase) (demonstrative (evidential))

(19) (a) jun (naq) winaq
INDEF CL.M man
'a man'

(b) no' miman tx'i'
CL.AN big dog
'the big dog'

[3] For a description and semantic analysis of the different uses of jujun and junoq, See Bervoets 2014.
[4] The particle *la* as seen in (19e) never appears except after a demonstrative. I gloss *la* as an evidential following Mateo Toledo (2009).

(c) masanil no' no' tu' .
all CL.AN animal DEM
'all those animals'

(d) heb' no' mis y-etoj miman tel
PL CL.AN cat 3A-with big tail
'cats with big tails'

(e) naq winaq tu' la
CL.M man DEM EV
'that man'

(f) jun winaq tu' la
INDEF man DEM EV
'that man'

As exemplified in (20), possession is marked on the noun with A-class or ergative markers, in the same vowel-initial and consonant-initial forms we see for ergative verbal agreement, and a separate noun denoting the possessor may follow the possessed noun, as in (20c) and (d).

(20) (a) w-aqan
1SA-foot
'my foot'

(b) hin lob'ej
1SA food
'my food'

(c) jolom naq winaq
head CL.M man
'the man's head'

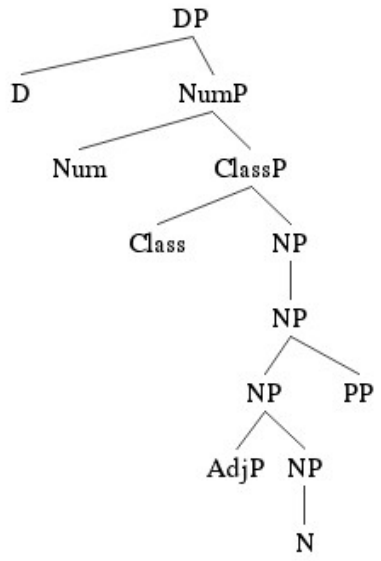
(d) y-aqan naq winaq
3A-foot CL.M man
'the man's foot'

Nouns that are ordinarily possessed, such as body parts and family members, have an alienable suffix when they are not possessed, as in *aqanej* 'foot' in (21).

(21) Ch-loq no' kaxhlan miman aqan-ej
INC-peck CL.AN chicken big foot-ALN
'The chicken pecks big feet.'

The structure of the Q'anjob'al noun phrase is given in Figure 2.III below, adapted from Kalin (2011). Kalin argues that noun phrases consisting only of the plural marker *heb'*, as well as those consisting of a bare classifier or a classifier with an overt noun, are all of the category Number Phrase (NumP), and that in subject noun phrases, the highest potentially overt plural marker or classifier must be pronounced, though words lower in the hierarchy may be dropped. Noun phrases that are not ergative subjects do not have this requirement, so, for example, a bare noun can appear as a direct object in some cases.

Figure 2.III: Q'anjob'al nominal structure



2.4.4 Q'anjob'al prepositions

Most prepositions in Q'anjob'al agree with their object using A-class (ergative) markers. An exception is the preposition *b'ay*, which can have many different uses and translations, including 'in', 'on', 'to', 'of', 'at', 'from', and 'for', as exemplified in (22)-(28).

(22) …xal Virgen [e] ay xal b'ay y-atut.
CL.F.HON Virgin exist CL.F.HON PREP 3A-house
'…the Virgin lived in her house.'

(23) …kax low no' b'ay sat tx'otx'…
then eat CL.AN PREP face earth
'…and they ate on the floor…'

(24) A naq winaq tu y-al naq b'ay y-istil,…
FOC CL.M man DEM 3A-tell CL.M PREP 3A-wife
'The man said to his wife,…'

(25) Ch-in xiw b'ay naq.
INC-1SB scared PREP CL.M
'I'm scared of him.' (Munro 2011:8, gloss adapted)

(26) Ch-in mulnaj b'ay jun banko.
INC-1SB work PREP INDEF bank
'I work at a bank.' (Munro 2011:10, gloss adapted)

(27) Maktxel b'ay x-a-man jun wonit?
who PREP COM-2SA-buy INDEF hat
'Who did you buy a hat from?' (Munro 2011:12, gloss adapted)

(28) X-in b'itni' b'ay ix Meaghan.
COM-1SA sing PREP CL.F Meaghan
'I sang for Meaghan.' (Munro 2011:13, gloss adapted)

Prepositions that agree with their objects using A-class markers are referred to in most of the literature, including Mateo Toledo (1998, 2008), Baquiax Barreno et al. (2005), and Montejo and de Nicolás Pedro (1996), as "relational nouns" (or "sustantivos relacionados"). Munro (2011) explains that this Mesoamericanist tradition has two justifications: the ability of these words to host ergative (possessor) agreement and the fact that many are homophonous with nouns denoting body parts or component parts. However, Munro argues convincingly that words in this class have the syntactic distribution and function of prepositions rather than nouns, and throughout this dissertation I will refer to them as prepositions. Following are some examples of prepositional phrases exhibiting ergative agreement with their objects.

(29) a. y-ul q'ab' xal
3A-in hand CL.F.HON
'in her hand'

b. y-in w-aqan
3A-at 1SA-foot
'at my foot'

c. y-etoj miman tel
3A-with big tail
'with big tails'

d. w-etoj
1SA-with
'with me'

e. pak'il (te') na
beside CL.wood house
'beside the house'

f. hin sataj
1SA in.front.of
'in front of me'

2.4.5 Causative constructions

Q'anjob'al has a causative suffix *-tzej* that adds a causer argument, as exemplified in (30).

(30) Xin low-tzej no' chej te' mansan.
COM-1SA eat-CAUS CL.AN horse CL.wood apple
"I fed the horse an apple.'

Causatives are more often formed with the main verb *a'* 'give' followed by a verb denoting the caused action; the main verb is inflected for ergative (A-class) agreement with its subject, the causer, as illustrated in (31-35). A noun phrase denoting the causer may follow either the first verb (31) or both verbs (32), and the causee always follows the verb denoting the caused action.

(31) X-y-a' naq Xhun b'ey ix Malin.
COM-3A-give CL.M John walk CL.F Mary
'John made Mary walk.'

(32) X-y-a' way ix Malin naq Xhun.
COM-3A-give sleep CL.F Mary CL.M John
'Mary made John sleep.'

A non-third person causer is referenced only with pronominal agreement on the main verb, as in (33).

(33) X-w-a' low ix.
COM-1SA-give eat CL.F
'I made her eat.'

If the caused action is transitive, the object will follow a full noun phrase denoting the causee, as in (34).

(34) X-w-a' low no' chej te' mansan.
COM-1SA-give eat CL.AN horse CL.wood apple
'I made the horse eat an apple.'

The verb denoting the caused action follows regular transitive and intransitive agreement patterns, with the causee as its subject; (35) shows the verb inflected for subject and object.

(35) X-y-a' naq hach j-oche-j.
COM-3A-give CL.M 2SB 1PA-like-TV
'He made us like you.'

Causatives can also be expressed in Q'anjob'al with an -uj phrase introducing the causer, as in (36).

(36) X-in low y-uj ix.
COM-1SB eat 3A-by CL.F
'She made me eat.'

2.4.6 Imperative constructions

In imperatives, an agreement marker follows the verb. Imperatives are marked with the suffix *-an* when they are intransitive (37), but not when they are transitive (38), (39), and (40). The morpheme *heq/-eq* can be used on both intransitive (37b) and transitive (38b), (39b), and (40) imperatives to denote a plural addressee; it is cliticized after the imperative suffix *-an* (37b) or after a verb root (39c), and otherwise appears as an independent word (38b), (39b), (40). Transitive imperatives with a pronominal object also have an agreement marker following the verb (39) and (40). The *heq* plural morpheme can either follow (39b), (40a) or precede (39c), (40b) a pronominal object suffix, but it must precede a nominal object (38b); note the ungrammaticality of (38c).

(37) a. B'itn-an!
sing-ITV.IMP
'Sing!' (to one)

b. B'itn-an-eq!
sing-ITV.IMP-IMP.PL
'Sing!' (to more than one)

(38) a. Xib'te-j naq winaq.
scare-TV CL.M man
'Scare the man!' (to one)

b. Xib'te-j heq naq winaq.
scare-TV IMP.PL CL.M man
'Scare the man!' (to more than one)

c. *Xib'te-j naq winaq heq.
scare-TV CL.M man IMP.PL
Intended: 'Scare the man!' (to more than one)

(39) a. Il-in!
see-1SB
'Look at me!' (to one)

b. Il-in heq!
see-1SB IMP.PL
'Look at me!' (to more than one)

c. Il-eq hin!
see-IMP.PL 1SB
'Look at me!' (to more than one)

(40) a. Xib'te-j hin heq!
scare-TV 1SB IMP.PL
'Scare me!' (to more than one)

b. Xib'te-j heq hin!
scare-TV IMP.PL 1SB
'Scare me!' (to more than one)

Chapter 3

Q'anjob'al valence alternations

3.1 Introduction

This chapter will discuss the basic syntactic structure of the Q'anjob'al clause and provide an overview of the four Q'anjob'al voice alternations discussed in detail in later chapters: passive voice, antipassive voice, incorporation, and agent focus.

3.2 Basic word order and syntax

Q'anjob'al is obligatorily VSO, as illustrated in (1a) and (b), except in derived structures, usually with special morphology, such as those discussed below in 2.3.

(1) a. X-maq' ix Malin naq winaq.
COM-hit CL.F Mary CL.M man
'Mary hit the man.'

b. X-maq' naq winaq ix Malin.
COM-hit CL.M man CL.F Mary
'The man hit Mary.'

The subject may appear preverbally without special morphology if topicalized, but a corefering classifier must still appear after the verb, as in (2).

(2) Ix Malin x-maq' ?(ix) naq winaq.
CL.F Mary COM-hit CL.F CL.M man
'*Mary* hit the man.'

The object can only appear preverbally with the focus marker *a wal*, as in (3).

(3) A wal naq winaq x-maq' ix Malin.
FOC FOC CL.M man COM-hit CL.F Mary
'It was the man who Mary hit.'

In this section I discuss different analyses of the basic VSO structure.

3.2.1 Mayan VSO as innovation

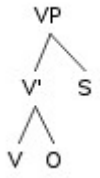
England (1991) notes that Mayan languages can have the following word orders: rigidly VSO (including Q'anjob'al), basically VOS (though VSO is also present), alternately VSO and VOS (usually also permitting VSO), alternately VOS and SVO, alternately VOS/VSO/SVO, and at least one (Ch'orti') with basic SVO. England provides the following analysis of Proto-Mayan structure:

TOPIC FOCUS [V O S] reordered-O

Word orders with preverbal arguments are therefore derived from focus or topic constructions, while VSO order like that in Q'anjob'al is derived from reordering the object. VSO appears to be an innovation, since it appears in geographically contiguous languages of two subfamilies, Mamean and Q'anjob'alan. Languages that allow both VOS and VSO offer a clue as to the source of the VSO innovation: VSO is used when the object is complex, animate, or definite, suggesting that these features of the object trigger a reordering rule. The languages with rigid VSO, then, England argues resulted from a reinterpretation of the reordered-object order as basic.

Aissen's account (1992) is similar to England (1991), but holds that Proto-Mayan had both VOS and VSO, with the difference sensitive to obviation, so that a more "proximate" (definite and/or animate) object becomes displaced and follows the subject. VSO languages like Q'anjob'al reanalyzed VSO as basic and lost VOS, as in England's account (1991). Aissen concludes that verb-initial syntax is basic throughout the Mayan family, and provides a structure with a VP-internal subject that is the rightward specifier of VP to account for VOS languages like Tzotzil, as schematized in Figure 3.I.

Figure 3.I: VOS syntax (Aissen 1992:2)

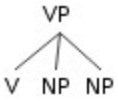


This analysis is straightforward for languages with basic VOS order, like Tzotzil, Aissen's particular language of interest, but for rigidly VSO languages like Q'anjob'al it is unclear that such an analysis is desirable. Even if basic VOS is the correct diachronic analysis, it seems unlikely that it would be synchronically correct for languages like Q'anjob'al in which VOS never appears as a surface order.

3.2.2 Flat structure analyses

Many authors have posited a flat structure for VSO languages, including Broadwell (2000, 2005) on the Mayan languages Kaqchikel and K'iche, Chung (1983) on Chamorro, and McCloskey (1979) on Irish. Such a structure is schematized in Figure 3.II.

Figure 3.II: Flat VSO structure



A flat structure account has the benefit that the surface order can be read straightforwardly off the syntax and no movement is required in basic sentences. There are two major types of evidence that can help determine whether or not flat structure is accurate. First, if a language contains evidence of the verb and direct object forming a VP constituent to the exclusion of the subject, it can be argued that the underlying order cannot be flat like that in Figure 2.II, since there is no such constituent in this structure.

However, Q'anjob'al has evidence of a VP constituent. For example, a VP may stand alone in answer to a question, as in (4) and (5), and VPs can be elided, as in (6).

(4) a. Tzeyetal wal chi je' y-uj naq Xhwan?
what good INC do 3A-by CL.M John
'What does John do best?'

b. K'ox-oq son.
hit-INF marimba
'Play marimba.'

(5) a. Tzeyetal ch-je' hoj?
what INC-do 2SA.by
'What do you do?'

b. K'ox-on son.
hit-AF marimba
'Play marimba.'

(6) a. Naq Xhwan ch-k'ox naq te' son palta
CL.M John INC-hit CL.M CL.wood marimba but
ix Malin k'amaq.
CL.F Mary NEG
'John plays marimba but Mary does not.'

b. Naq Xhwan ch-k'ox naq son palta ayin
CL.M John INC-hit CL.M marimba but 1S.PRON
k'am ch-je' w-uj.
NEG INC-do 1SA-by
'John plays marimba but I don't.'

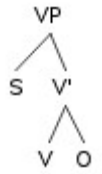
Secondly, subject/object asymmetries also provide evidence against a flat structure account, as flat syntax provides no explanation of why subjects and objects should behave differently in the syntax, since as sisters they are hierarchically identical. Q'anjob'al exhibits many subject/object asymmetries, including verbal morphology and agreement patterns as exemplified in 2.4.4, as well as agent focus constructions, which are required only when the subject, but not the object, is focused or otherwise extracted. (Agent focus is introduced in 3.8

below and discussed at greater length in Chapter 5.) Such evidence is fatal for a flat structure analysis of Q'anjob'al.

3.2.3 VSO as underlying SVO

Many accounts of VSO syntax posit underlying SVO syntax, with VSO derived by predicate fronting. Analyses along these lines include Bresnan (2001), McCloskey (1983), and Anderson & Chung (1977), all for Celtic languages. The syntax would look identical to Aissen's (1992) VOS analysis for Mayan, but with the subject as a leftward instead of a rightward specifier, as schematized in Figure 3.III.

Figure 3.III: SVO syntax



Positing underlying SVO for Q'anjob'al has similar potential problems to an underlying VOS analysis. It requires an underlying order that never surfaces, and it consequently requires movement to derive surface order. However, underlying SVO appears to require less movement than VOS, as only the verb has to move, whereas VOS would require either movement of both the verb and the subject or rightward movement of the object to derive surface order.

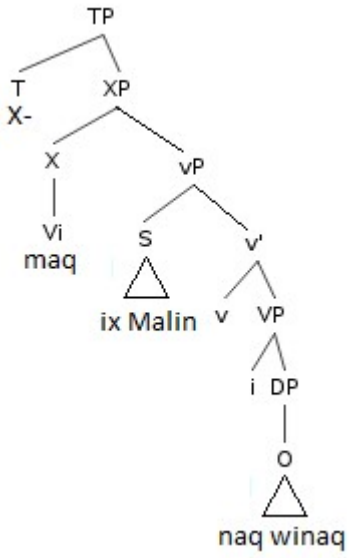
Celtic languages provide additional evidence for underlying SVO, as SVO surfaces in certain constructions. When aspect is independent of the verb, the order is Asp-S-V-O, suggesting that VSO is derived by movement of the verb to the position occupied by aspect when there is no overt aspect in the clause. Q'anjob'al, however, exhibits an Asp-V-S-O order, so

maintaining underlying SVO would require obligatory movement of V to a projection between aspect and subject.

SVO syntax is the most suitable analysis for Q'anjob'al as it explains the attested subject/object asymmetries and requires less convoluted movement than a VOS analysis à la Aissen (1992). Incorporating the VP-shell analysis of Larson (1998) and adding a functional projection XP to host the raised verb, the structure of a basic clause in Q'anjob'al can be schematized as follows, as also argued in Coon & Mateo Pedro (2011). Figure 3.IV is the structure for (1a), repeated below.

(1) a. X-maq' ix Malin naq winaq.
COM-hit CL.F Mary CL.M man
'Mary hit the man.'

Figure 3.IV: Structure of the basic Q'anjob'al clause



3.3 Voice and valence alternations

In simple matrix transitive clauses, agreement in Q'anjob'al acts as we would expect for an ergative language, with the subject receiving ergative (A-class) agreement and the object

absolutive (B-class) agreement, as exemplified in (7a and b). Subjects of intransitive verbs receive absolutive agreement, as in (7c).

(7) a. Ch-ach w-oche-j.
INC-2SB 1SA-like-TV
'I like you.'

b. Ch-ach hin maq'-a'.
INCL-2SB 1SA hit-TV
'I hit you.'

c. Ch-ach way-i.
INCL-2SB sleep-ITV
'You sleep.'

Some transitive verbs in Q'anjob'al may also appear without an overt object with no special morphology, but with ergative subject agreement, as in (8a); perhaps this is best analyzed as a null object construction.

(8) a. Ch-ku tzib'e-j.
INC-1PA write-TV
'We write.'

b. Ch-ku tzib'e-j tx'an un.
INC-1PA write-TV CL.paper book
'We write books.'

3.3.1 Passive voice

There are two passive morphemes: the productive *-lay* and the lexicalized *-chaj*. The most common way to form the passive is by affixing *-lay* to the verb root. In both *-lay* and *-chaj* passives, the patient is absolutive (B-class), and the agent, if present, is introduced by the preposition *-uj* 'by' marked with ergative (A-class) agreement, as usual for Q'anjob'al prepositions, following the same allomorphic rules for verbs, as described in 2.4.4.

3.3.1.1 Passives with *-lay*

In (9) and (10), active sentences appear in (a) and their *-lay* passive counterparts in (b). In both passive sentences below, the semantic agent is expressed as an object of the preposition *-uj* 'by'. The sentences in (9) illustrate the active/passive alternation with a nominal subject and object, which do not appear with verbal agreement, while those in (10) illustrate active and passive with pronominal agreement. Note that in both (10a) and (10b), the patient, 'you', is expressed with the absolutive marker *ach*.

(9) a. Xib'te-j no' miman tx'i' naq unin.
scare-TV CL.AN big dog CL.M child
'The big dog scared the boy.'

b. Xib'ti-lay naq unin (y-uj no' miman tx'i').
scare-PSV CL.M child 3A-by CL.AN big dog
'The boy was scared (by the big dog).'

(10) a. X-ach hin b'aj-a'.
COM-2SB 1SA scold-TV
'I scolded you.'

b. X-ach b'aj-lay (w-uj).
COM-2SB scold-PSV 1SA-by
'You were scolded (by me).'

3.3.1.2 Passives with *-chaj*

Passives formed with *-chaj* are morphosyntactically identical to those with *-lay*, but *-chaj* has a much more limited distribution and often forms new verbs with a special lexicalized meaning. According to Mateo Toledo (2008), *-chaj* passives also add modality, as illustrated by the minimal pair in (11). My consultants sometimes translate sentences with *-chaj* passives, such as that in (12), as including modality, but often decide on further reflection that the closest

translation has no modal element or that adding an overt modal better expresses the idea. The issue of whether modality is part of the meaning of *-chaj* passives will be revisited in 4.3.1.2.

(11) a. Max k'och-lay ixim nal (y-uj cham winaq).
COM shell-PSV CL.corn corn 3A-by CL.HON.M man
'The corn was shelled (by the old man).'

b. Max k'och-chaj ixim nal y-uj cham winaq.
COM shell-PSV2 CL.corn corn 3A-by CL.HON.M man
'The old man was able to shell the corn.'/
?'The corn could be shelled by the old man.' [5]
(Mateo Toledo 2008:70, 54 b, c)

(12) Ch-in mi-chaj y-uj heb' naq.
INC-1SB touch-PSV2 3A-by 3P CL.M
'They can catch up to me.'/ 'They catch me.'

Three of the *-chaj* passives that appear most frequently in our database appear in Table 3.I; all have lexicalized or partially lexicalized meanings, while *-lay* passives formed with the same roots have predictable, compositional meanings. The *-chaj* passives in Table 3.I, often used to translate active English sentences and translated into English using active voice with the agent as subject (as in (12)), do not have active counterparts in Q'anjob'al, since the verb root has a different meaning without the passive suffix. The only way to express concepts like those in (12), (13), and (14) is with a passive sentence.

Table 3.I: Passives with *-chaj*

Root	**Translation**	***-chaj* passive**	**Translation**	***-lay* passive**	**Translation**
il	'see'	il-chaj	'be found'/ 'be seen'	il-lay	'be seen'
mitx'	'touch'	mi-chaj	'be caught'/ 'be caught up with'	mitx'-lay	'be touched'
kuy[6]	'teach'/ 'study'	kuy-chaj	'be learned'	kuy-lay	'be taught'/ 'be studied'

[5] Mateo Toledo does not address why he marks the second interpretation with *?*, but presumably it is because the meaning of ability inherent in *-chaj* passives relates to the agent (Munro, p.c.). This aspect of the *-chaj* passive is discussed in detail in 4.3.1.2.

[6] *Kuy* can mean either 'study' or 'teach', creating ambiguity in sentences like (i), and *kuylay* shares this ambiguity. *Kuychaj*, on the other hand, only has the lexicalized meaning 'be learned'.

(13) X-mi-chaj naq elq'-om tumin y-uj heb' cham mayul.
COM-touch-PSV2 CL.M steal-AGT money 3A-by 3P CL.HON.M police
'The police caught the thief.'
Lit. 'The thief was caught by the police.'

(14) X-kuy-chaj iqti w-uj.
COM-study-PSV2 story 1SA-by
'I learned the story.'
Lit. 'The story was learned by me.'

Q'anjob'al passive constructions will be discussed in greater detail in Chapter 4.

3.3.2 Antipassive voice

Mateo Toledo (2008) identifies two antipassive morphemes: the "absolutive antipassive" *-waj* and the "antipassive of incorporation" *-wi*. The suffix *-wi* and its related incorporation constructions will be discussed in 3.3.3 below. In the antipassive formed with *-waj*, the subject is absolutive (B-class), causing a case shift from the ergative (A-class) agreement of the subject in the corresponding transitive. The patient, if present, is introduced by the preposition *-in* 'at', marked for person and number with an A-class prefix, like the preposition *-uj* 'by' used in passives. Like the passive morpheme *-chaj*, antipassive *-waj* can only appear on a restricted number of verbs, and many derived verbs formed with *-waj* have lexicalized meanings. Mateo Toledo lists 24 such verbs, six of which "are marginal and were not found in texts" (Mateo Toledo 2008:74) in the antipassive.

In (15)-(17) below, the sentences in (b) are the antipassive versions of the (a) sentences. As exemplified in (15b), the antipassive is mandatory when *b'on*, 'paint', is used with no overt

(i) X-kuy ix Malin heb' unin.
COM-study/teach CL.F Mary 3P child
'Mary studies the children.'/ 'Mary teaches the children.'

object, though many other verbs do not require an antipassive morpheme when there is no object (cf. (8a)). The sentences in (16) show the optionality of the patient, which can be expressed as an oblique in a prepositional phrase headed by *-in* 'at', agreeing with its object through ergative (A-class) marking. The sentences in (17) exemplify the case shift seen with *-waj* antipassives; the experiencer argument, 'we', is expressed with the ergative (A-class) agreement marker *ku* in the active sentence in (17a), but with the absolutive (B-class) marker *on* in the corresponding antipassive in (17b). My consultants claim there is no difference in meaning between the transitive (17a) and the antipassive (17b).

(15) a. Ch-b'on naq na.
INC-paint CL.M house
'He paints houses.'

b. Ch-b'on-waj naq.
INC-paint-AP CL.M
'He paints.'

(16) a. Ch-loq no' kaxhlan w-aqan.
INC-peck CL.AN chicken 1SA-foot
'The chicken pecks my foot.'

b. Ch-loq-waj no' kaxhlan (y-in w-aqan).
INC-peck-AP CL.AN chickan 3A-at 1SA-foot
'The chicken pecks (at my foot).'

(17) a. Ch-ach ku b'uch-u'.
INC-2SB 1PA despise-TV
'We despise you.'

b. Ch-on b'uch-waj hen.
INC-1PB despise-AP 2SA.at
'We despise you.'

Antipassive voice will be discussed in greater detail in Chapter 3.

3.3.3 Incorporation

Constructions such as that shown in (18b) are identified by Mateo Toledo (2008) as verbal incorporation. The same change in pronominal agreement that occurs with the "absolutive antipassive" *-waj* can be seen in (18). In the active version of the sentence, (18a), the agent, 'you', is marked with the ergative (A-class) marker *a*, while in the antipassive (18b), it is expressed with the absolutive (B-class) marker *ach*. In addition to the detransitivization implied by the change in pronominal agreement, Mateo Toledo's (2008) evidence that these are incorporation structures includes the requirement that the incorporated element be a bare nominal head and that it form a unit with the verb. In (19), the normally immediately post-verbal second person exclusive marker *hon* must follow the incorporated noun *sakate* 'fodder'.

(18) a. X-a waj (an) sakate.
COM-2SA gather CL.plant fodder
'You gathered fodder.'

b. X-ach waj-wi sakate.
COM-2SB gathered-API fodder
'You gathered fodder.'
Lit. 'You fodder-gathered.'

(19) Max-on waj-wi sakate hon. /*Max-on waj-wi hon sakate.
COM-1PA gather-API fodder EXCL
'We gathered fodder.'

(Mateo Toledo 2008:73, 64)

Incorporation structures like that in Q'anjob'al, in which the incorporated element remains a phonologically distinct element from the verb, will be discussed in greater detail in Chapter 5, with comparative data from the Polynesian language Tongan, another ergative language with a similar type of incorporation. Mateo Toledo (2008) describes the antipassive of incorporation as unrestricted in the transitive verbs it can appear on. However, in my fieldwork data, *-wi* is very limited and never appears unelicited. While Ms. Francisco accepts most

sentences using the antipassive of incorporation, she says that she would probably not use such constructions herself and prefers to reword them, usually as active sentences. Ms. Juarez has clear and consistent intuitions regarding the use of *-wi*, but she does not spontaneously volunteer incorporation constructions. Constructions using *-wi* also do not appear in my elicited texts.

3.3.4 Agent focus constructions

Syntactically, the agent focus (AF) marker *-on* detransitivizes the verb, but it is more similar to a passive than an antipassive in that the object retains its absolutive (B-class) marking, while the subject is expressed in a fronted focus phrase. Such constructions, as exemplified in (18b), cannot be used to focus non-third persons, and there is no ergative (A-class) marking.

(20) a. Ch-ach kaq-on naq Xhun.
INC-2SB hate-AF CL.M John
'John hates you.'

b. A naq Xhun ch-ach kaq-on-i
FOC CL.M John INC-2SB hate-AF-ITV
'It's John that hates you.'

Another environment in which *-on* frequently appears is in cases of transitive subject extraction, such as subject questions (21) and relative clauses (22).

(21) Maktxel x-in il-on-i?
who COM-1SB see-AF-ITV
'Who saw me?'

(22) Ix Malin y-ojtaq ix naq winaq tz'ib'-on tx'an un.
CL.F Mary 3A-know CL.F CL.M man write-AF CL.paper book
'Mary knows the man who wrote the book.'

In Q'anjob'al relative clauses, the head of the relative is initial and there is no relative pronoun. When the head of the relative is the subject as in (22), the verb inside the relative clause must appear in agent focus form, but when the object is relativized as in (23), the verb has no special voice morphology, though the status marker appears when the verb is clause-final.

(23) No' mis x-w-il-a' q'eqin xil no'.
CL.AN cat COM-1SA-see-TV black hair CL.AN
'The cat that I saw had black hair.'

-on is also used in non-finite embedded transitive clauses, but the verb remains marked for both ergative subject and absolutive object (24a and c). An embedded verb without the suffix *-on* is ungrammatical (24b). In non-finite embedded clauses, A-markers are used like nominatives, marking the grammatical subject of both transitive and intransitive verbs (25). (See Munro 2011 for further discussion of the distribution of *-on* and accusative case marking in Q'anjob'al.)

(24) a. Chi uj hach y-il-on ix Malin.
INC can 2SB 3A-see-AF CL.F Mary
'Mary can see you.' (Coon & Mateo Pedro 2011:13)

b. * Chi uj hin y-il ix Malin.
INC can 1SB 3A-see CL.F Mary
(Coon & Mateo Pedro 2011:12)

c. X-je'[7] hach j-il-on-i.
COM-can 2SB 1PA-see-AF-ITV
'We can see you.'

(25) a. X-'uj ha b'itn-i.
COM-can 2SA sing-ITV
'You can sing.'

b. X-je' ha ma'-lay (y-uj tx'en carro).
COM-can 2SA hit-PSV (3A-by CL.rock car
'You can be hit (by a car).'

The suffix *-on* is treated by some writers (including Norcliffe 2009 and Mateo Toledo 2008) as an agent focus marker and by others (Montejo & de Nicolas Pedro 1996, Coon & Mateo Pedro 2011) as an antipassive marker. Mateo Toledo (2008) considers agent focus a third voice alternation on a par with passive and antipassive. Q'anjob'al exhibits another use of *-on*, which Mateo Toledo (2008) glosses as a "discourse continuity marker." This *-on* is used in narratives and can appear in the same clause with aspect markers, unlike the embedded cases discussed in Coon & Mateo Pedro (2011). The different uses of *-on* will be discussed in greater detail in Chapter 6.

[7] The verbs *uj* in (20c) and *je'* in (20a) are synonyms, listed as separate verbs in Mateo Toledo (2008) with the same translation, 'to be possible'.

Chapter 4

Passive and antipassive voice

4.1 Ergativity and voice alternations

In ergative languages, as discussed in Chapter 1, absolutive marking is used for the subjects of intransitive verbs and the objects of transitive verbs, while the subjects of transitive verbs are ergative. For example, the first person plural absolutive object in the transitive Q'anjob'al sentence in (1a) is marked identically to the absolutive subject in the intransitive (1b), as *on*. The subject of a transitive is marked differently, as *ku* in (1c).

(1) a. X-**on** ha b'aj-a'.
COM-1PB 2SA scold-TV
'You scolded us.'

b. X-**on** way-i.
COM-1PB sleep-ITV
'We slept.'

c. X-ach **ku** b'aj-a'.
COM-2SB 1PA scold-TV
'We scolded you.'

This pattern of alignment is similar to passive voice in an accusative language, in which the accusative object of the corresponding transitive, promoted to subject, is referenced with nominative case or agreement. Note that in the English sentences in (2), the patient or logical object of the passivized verb (*we* in (2a)) receives the same nominative marking as the subject of an intransitive in (2b), but the agent or logical subject of a passivized verb is marked differently, as an accusative *us* in (2c).

(2) a. **We** were scolded by you.

b. **We** slept.

c. You were scolded by **us**.

Hale (1970) proposed that ergative languages developed from accusative languages through grammaticalization of the passive construction, and more recently Estival and Myhill (1998) and Visser (2006) similarly advocated the view that the ergative agreement pattern is a form of passive voice. However, passive voice is attested in a number of ergative languages, including Mayan languages, Eskimo, and Basque.

In antipassive constructions, as exemplified in (3b), the subject of the corresponding active sentence (3a) is realized as the sole grammatical argument. The object of the corresponding active sentence may be present as an oblique or prepositional argument, or may be omitted, like the agent in a passive construction.

(3) a. Ch-loq no' kaxhlan w-aqan.
INC-peck CL.AN chicken 1SA-foot
'The chicken pecks my foot.'

b. Ch-loq-waj no' kaxhlan (y-in w-aqan).
INC-peck-AP CL.AN chickan 3A-at 1SA-foot
'The chicken pecks (my foot).'

Dixon (1979) and Spencer (1995) have argued that antipassive is closely associated with ergative languages, where it acts as the counterpart of passive voice in accusative languages. Polinsky (2011) claims that there is no significant correlation between ergativity and antipassive.

As an ergative language with frequent use of passive voice constructions and a relatively rare antipassive, Q'anjob'al offers evidence against the typological claim that ergative languages tend to use antipassive more productively than passive.

4.2 Voice morphology in Q'anjob'al

As outlined in Chapter 2, Q'anjob'al argument structure can be affected by a number of voice constructions, including passive, antipassive, incorporation, and agent focus (AF). All of these voice alternations make the verb morphologically intransitive, and only AF requires the expression of two participants. Passive morphology can occur with the omission of the semantic subject, and antipassive morphology can occur with the omission of the semantic object. Both passive and antipassive verbs use B-class (absolutive) marking to agree with their subject. Patterns of passive and antipassive morphology and agreement are exemplified and discussed in greater detail below.

4.3 Q'anjob'al passives and antipassives

4.3.1 Passives

There are two passive morphemes in Q'anjob'al: the productive *-lay* and the lexicalized *-chaj*. In both *-lay* and *-chaj* passives, the internal argument of the corresponding transitive becomes the subject and the sole grammatical argument, while the external argument of the corresponding transitive is optionally expressed in a prepositional phrase headed by the preposition *-uj* 'by', marked with A-class (ergative) agreement, as usual for Q'anjob'al prepositions.

4.3.1.1 Passives with *-lay*

The most common way to form the passive is by affixing *-lay* to the verb root. The *-lay* passive is exemplified in (4b) and (5b), with the corresponding active sentences in (4a) and (5a). The sentences in (4) do not show pronominal agreement, since third-person agreement is null on consonant-initial verbs; the passive version in (4b) exhibits the *-lay* suffix on the verb, as well as demotion of the agent to an optional prepositional phrase. In the pronominal examples in (5), the second-person singular patient argument is referenced in both the transitive and passive sentences with the absolutive marker *-ach*. The agent is referenced by ergative agreement on the verb in the active sentence (5a), but appears in an optional prepositional phrase in the corresponding passive (5b).

(4) a. X-maq' ix Malin naq Xhun.
COM-hit CL.F Mary CL.M John
'Mary hit John.'

b. X-maq'-lay naq Xhun (y-uj ix Malin).
COM-hit-PSV CL.M boy (3A-by CL.F Mary)
'John was hit (by Mary).'

(5) a. X-ach hin b'aj-a'.
COM-2SB 1SA scold-TV
'I scolded you.'

b. X-ach b'aj-lay (w-uj).
COM-2SB scold-PSV (1SA-by)
'You were scolded (by me).'

4.3.1.2 Passives with *-chaj*

Mateo Toledo (2008) reports that *-chaj* is more restricted in distribution than *-lay*, appearing only on root transitives and some derived transitives that pattern like root transitives.

Mateo Toledo (2008) also describes *-chaj* as adding both a modal meaning of ability or possibility (like the English *-able* suffix) and an aspectual meaning of telicity.

Passives formed with *-chaj* are much rarer in our database and in my subsequent fieldwork than *-lay* passives, and many *-chaj* passives have lexicalized or partially lexicalized meanings. While my consultants accepted *-lay* passivization of any transitive verb, *-chaj* is much more restricted. There is some evidence of the aspectual meaning of telicity mentioned in Mateo Toledo (2008). The English translations provided by Alejandra Juarez for the minimal pairs in (6) suggest that there is a telicity distinction; the root verb *il* 'see' in (6a) describes an ongoing state or action without a necessary end point, while the corresponding *-chaj* passive in (6b) is telic, indicating a completed process or, as Mateo Toledo describes it, a "result state".

(6) a. X-y-il ix Malin naq Xhwan jun txolan.
COM-3A-see CL.F Mary CL.M John one time.period
'Mary saw John for an hour.' [8]

b. X-il-chaj naq Xhwan y-uj ix Malin jun txolan.
COM-see-PSV2 CL.M John 3A-by CL.F Mary one time.period
'Mary found John in an hour.'

Ms. Juarez also described the difference between the sentences in (7) as involving telicity, explaining that in the *-chaj* passive in (7a) "she already learned it", while in the corresponding transitive in (7b), "she is learning the story", despite the fact that both sentences have completive aspect. Unlike the *-uj*-phrases that introduce the agent in *-lay* passives, which are always optional, those in *-chaj* passives are obligatory for some verbs, including the one in (7a). It is not predictable whether a given *-chaj* passive requires expression of the agent.

[8] This could mean either that Mary met with John or that she watched him.

(7) a. X-kuy-chaj ab'ix *(y-uj ix Malin).
COM-study-PSV2 story 3A-by CL.F Mary.
'Mary learned the story.'
Lit. 'The story was studied by Mary.'

b. X-kuy ix Malin jun ab'ix.
COM-study CL.F Mary one story.
'Mary studied the story.'

However, the telicity of *-chaj* passives appears to be an implicature, as it is cancellable, as shown by the compatibility of such forms with progressive aspect in (8).

(8) Lanan kuy-chaj ab'ix w-uj.
PROG study-PSV2 story 1SA-by
'I'm learning the story.'
Lit. 'The story is being learned by me.'

The extent to which modality is an obligatory component of *-chaj* passives is also unclear and may be idiomatic. Mateo Toledo offers the minimal pair in (9).

(9) a. Max k'och-lay ixim nal (y-uj cham winaq).
COM shell-PSV CL.corn corn 3A-by CL.HON man
'The corn was shelled (by the old man).'

b. Max k'och-chaj ixim nal y-uj cham winaq.
COM shell-PSV2 CL.corn corn 3A-by CL.HON man
'The old man was able to shell the corn.'/
?'The corn could be shelled by the old man.'
(Mateo Toledo 2008:70, 54 b, c)

Mateo Toledo concludes on the basis of his English translation of sentences like (9b) that the *-chaj* passive carries a modal element, but my fieldwork suggests that *could* or *be able* in the English translation of a *-chaj* passive must be understood in a non-modal sense. Perhaps a less ambiguous translation of (9b) would be 'The old man managed to shell the corn' or, in the passive, 'The corn was shelled by the old man (amazingly)'. Q'anjob'al *-chaj* passives entail that the described action was completed, while the English *could* on a modal interpretation does not entail that the action denoted by the following verb was ever performed. The English

translation given in (9b) on a modal reading does not entail that the man shelled the corn, but the Q'anjob'al sentence does, as illustrated by the infelicitous (10).

(10) #X-k'och-chaj-el xim nal y-uj cham winaq palta maj
COM-shell-PSV2-DIR CL.corn corn 3A-by CL.HON man but NEG
k'och-el cham xim nal.
shell-DIR CL.HON CL.corn corn
Intended: 'The old man was able to shell the corn but he didn't shell it.'

In fieldwork I have found that *-chaj* passives sometimes imply that the action denoted by the verb was difficult or that its completion was surprising, but this pattern is not consistent, and often *-chaj* passives appear with no such implication. Some relevant examples are in (11) and (12); in (11b) the passive *uk'chaj* 'was drunk' carries an implication of drinking something unpleasant, while in (12b) and (12c) the passive *alchaj* 'was told' can include a sense of 'finally' or 'surprisingly'.

(11) a. Chi w-uk'-ay-toq.
INC 1SA-drink-DIR-DIR
'I drink it.' (neutral)

b. Ch-'uk'-chaj w-uj
INC-drink-PSV2 1SA-by
'I drink it.' (something nasty or something I don't like)
Lit. 'It was drunk by me.'

(12) a. X-w-al jun ab'ix.
INC-1SA-tell one story
'I told a story.'

b. X-'al-chaj jun ab'ix w-uj.
INC-tell-PSV2 one story 1SA-by
'I told a story (amazingly).'
Lit. 'A story was told by me.'
Context: The speaker is shy, the story is long, or the speaker is sick, and finally tells the story despite these difficulties.

c. X-'al-chaj wal jun ab'ix y-uj jun yalixh unin.
INC-tell-PSV2 INTNS one story 3A-by one small child
'The little child told a story (amazingly).'
Lit. 'A story was really told by the little child.'
Implicature: It's surprising that someone so young told the story.

Three verbs that appear as *-chaj* passives with lexicalized meanings in our database are presented in Table 4.I; *-lay* passives formed with the roots in Table 4.I have predictable, compositional meanings. Examples of two of the *-chaj* passives in Table 4.I are provided in (13) and (14). Morphologically and syntactically, they work exactly like *-lay* passives as shown in (4) and (5). However, the meanings for the *-chaj* passives given in Table 4.I cannot be expressed in Q'anjob'al without using passive voice, as suggested by the tendency to translate sentences using them into active sentences in English. The *-chaj* passive form of the root verb *mitx'*, *michaj*, also exhibits an allomorph of the root; productive *-lay* forms by contrast may include an epenthetic *i* between a consonant-final root verb and the suffix, but never alter the form of the root.

Table 4.I: Passives with *-chaj*

Root	**Translation**	***-chaj* passive**	**Translation**	***-lay* passive**	**Translation**
Il	'see'	il-chaj	'be found'/ 'be seen'	il-lay	'be seen'
mitx'	'touch'	mi-chaj	'be caught'/ 'be caught up with'	mitx'-lay	'be touched'
kuy[9]	'teach'/ 'study'	kuy-chaj	'be learned'	kuy-lay	'be taught'/ 'be studied'

(13) X-mi-chaj naq elq'-om tumin y-uj heb' cham mayul.
COM-touch-PSV2 CL.M steal-AGT money 3A-by 3P CL.M.HON police
'The police caught the thief.'
Lit. 'The thief was caught by the police.'

[9] *Kuy* can mean either 'study' or 'teach', creating ambiguity in sentences like (i), and *kuylay* shares this ambiguity. *Kuychaj*, on the other hand, only has the lexicalized meaning 'be learned'.
(i) X-kuy ix Malin heb' unin.
COM-study/teach CL.F Mary 3P child
'Mary studies the children.'/ 'Mary teaches the children.'

(14) X-kuy-chaj iqti w-uj.
COM-study-PSV2 story 1SA-by
'I learned the story.'
Lit. 'The story was learned by me.'

4.3.2 Antipassives

Mateo Toledo (2008) identifies two antipassive morphemes: the "absolutive antipassive" *-waj* and the "antipassive of incorporation" *-wi*. Of these two morphemes, only *-waj* is volunteered in our database, and it is used much less frequently than the productive passive *-lay*. In both *-waj* and *-wi* antipassives, the agent is absolutive (B-class), causing a case shift from the ergative (A-class) agreement of the agent in the corresponding transitive. Antipassives formed with *-waj* are arguably the only true antipassives in the language. Pseudoincorporation constructions with *-wi* will be discussed in Chapter 5, while agent focus constructions using *-on*, which have also been argued to be antipassive constructions, will be discussed in Chapter 6.

In antipassives with *-waj,* the patient, if present, is introduced by the preposition *-in* 'at', marked with A-class agreement as usual for prepositions. Antipassive voice is obligatory for some verbs when the object is omitted (as in 15b), though many more transitive verbs can appear without an object with no special marking (as in 16b). The example in (17) shows the optional oblique patient. An example with two pronominal arguments, showing the absolutive marking of the agent, is given in (18b), with the corresponding active sentence in (18a); this pair is also associated with a change in meaning, as occurs with many uses of the antipassive. In our database and my subsequent fieldwork, antipassive is not productive and much less frequent than passive.

(15) a. Ch-b'on naq na.
INC-paint CL.M house
'He paints houses.'

b. Ch-b'on-waj naq.
INC-paint-AP CL.M
'He paints.'

(16) a. Ch-y-uk' naq kapey.
INC-3S-drink CL.M coffee
'He drinks coffee.'

b. K'am ch-y-uk' naq.
NEG INC-3S-drink CL.M
'He doesn't drink.'

(17) a. Ch-loq no' kaxhlan w-aqan.
INC-peck CL.AN chicken 1SA-foot
'The chicken pecks my foot.'

b. Ch-loq-waj no' kaxhlan (y-in w-aqan).
INC-peck-AP CL.AN chickan 3A-at 1SA-foot
'The chicken pecks (at my foot).'

(18) a. X-in ha b'aj-a.
COM-1SB 2SA scold-TR
'You scolded me.'

b. X-ach b'aj-waj (w-in).
COM-2SB scold-AP 1SA-at
'You cursed (at me).'

4.4 Ergativity and voice in WALS

In order to evaluate Polinsky's claims (2011), I investigated the distribution of ergativity, antipassive, and passive in the WALS sample (Foster 2011). The sample includes 48 languages that are ergative in case marking, verbal agreement, or both and 237 languages that are accusative in case marking, verbal agreement, or both. These figures each include six languages with a mixed system (sometimes called split-ergative), accusative in one part of the grammar and ergative in another. Six of the languages Polinsky (2011) lists as ergative are described in WALS as exhibiting mixed ergativity, with accusative patterns in at least one part of the

grammar: Gooniyandi, Hunzib, Wardaman, West Greenlandic, Zoque (Copainalá), and Yidiny. Even when these six languages with mixed systems are counted as belonging to both the accusative languages and the ergative languages in the sample, however, there is a significantly larger percentage ($P< 0.0001$) of ergative languages with antipassive (65%) than accusative languages with antipassive (10%). According to the data in Polinsky (2011), only 16 of the 31 antipassives in ergative languages (52%) and 6 of the 17 antipassives in accusative languages (35%) (or 9 of the 23 (39%) if the six languages with mixed systems listed above are considered both ergative and accusative) are fully productive . There is therefore no statistically significant correlation between ergativity and productivity of the antipassive in languages that have antipassive ($P= 0.4170$). Passive voice is present in 16 of the 48 ergative languages (33%) and 111 of the 233 accusative languages for which the value is defined (47%) in WALS. Accusative languages have a higher tendency to have passive voice, but it is just under statistical significance ($P= 0.0805$).

4.5 Animacy

As a part of my fieldwork, I explored the interaction between passive voice and animacy by asking for preferences between active and passive versions of sentences (Foster 2011). Table 4.II shows the results of this investigation for the active verbs *maq'* 'hit', *tek'* 'kick', and *chi* 'bite'. Plants and supernatural entities, including *Ajaw* 'God' and *nawal* 'evil spirit', pattern as inanimates. Based on these results, the relevant animacy hierarchy in Q'anjob'al is as follows, with 'local' encompassing first and second persons, or discourse participants.

(19) local>animate>inanimate

When the more active participant is a local person, only active voice is grammatical, and when the more active participant is inanimate, only passive voice is grammatical, unless both participants are inanimate. A first person participant must always be the grammatical subject, except when the more active participant is a second person. This fact leads to obligatory passive voice when a first person participant is less active than a third person participant, but this fact may be a strategy to avoid ambiguity due to the homophony of the first person A and B markers used with consonant-initial verbs. When both participants are animate third persons, either passive or active is acceptable in most cases, though passive is often preferred, especially when the agent is indefinite. The implications of these results are discussed in more detail in the remainder of this chapter.

Table 4.II: Interaction between passive voice and animacy

		Active participant							
		1st person	2nd person	3rd person	Proper name	Kin	Human	Animal	Inanimate
Patient participant	1st person		**A**	**P**	**P**	**P**	**P**	**P**	**P**
	2nd person	**A**		P	=	P	P	P	**P**
	3rd person	**A**	**A**	P	=	=	**P**	**P**	**P**
	Proper name	**A**	**A**	P	=	P	P	P	**P**
	Kin	**A**	**A**	P	P	=	P	P	**P**
	Human	**A**	**A**	P	=	=	P	P	**P**
	Animal	**A**	**A**	P	=	P	=	P	**P**
	Inanimate	**A**	**A**	A	=	A	A	P	P

Key: A: active preferred, P: passive preferred, **A**: active mandatory, **P**: passive mandatory, =: passive and active equally acceptable

4.5.1 Cases in which active voice is prohibited

Some sentences in Q'anjob'al cannot be expressed in active voice, but must use either passive (*-lay*) or agent focus (*-on*) morphology; this pattern will be revisited with an analysis in Chapter 5. The acceptability of active voice is sensitive to the interaction of phonology (whether

the verb is consonant or vowel initial) and the person/animacy scale in (19). Speakers prefer to interpret arguments higher on the animacy scale as the agent in cases of ambiguity. When the two arguments of a transitive verb differ in animacy, there is a preference for the argument with higher animacy to surface as the grammatical subject. If one or both of the participants is either local or inanimate, expressing the less animate argument as an ergative subject can lead to ungrammaticality.

Active voice is impossible when a consonant-initial verb occurs with a first-person singular patient, possibly to avoid potential ambiguity due to homophony. In (20), the first person marker *-in* is only interpretable as the agent or ergative subject as in (20a), not as the absolutive object as in (20b), though *-in* can mark both A-class (ergative) and B-class (absolutive) first person agreement for consonant initial verbs (see Table 2.III). Since ergative third person agreement is typically null on consonant initial verbs in the dialect of Q'anjob'al described here, there is no ergative (A-class) marker available to disambiguate the third person as the agent.

(20) a. X-in maq' naq
COM-1SA hit CL.M
'I hit him.'

b. *X-in maq' naq
COM-1SB hit CL.M
Intended: 'He hit me.'

Inanimates also do not appear to be possible ergative subjects. Transitive verbs with inanimate causes as their logical subjects therefore must use either passive (21b) or agent focus (21c) morphology. The agent focus construction will be discussed in greater detail in Chapter 6.

(21) a. *X-y-a' taj q'a no' txay.
COM-3A-give cook fire CL.AN fish
Intended: 'The fire cooked the fish.'

b. Passive:

X-'a'-lay	taj	no'	txay	y-uj	q'a.
COM-give-PSV	cook	CL.AN	fish	3SA-by	fire

'The fire cooked the fish.'
Lit.: 'The fish was cooked by the fire.'

c. Agent focus:

Q'a	x-'a'-on	taj	no'	txay.
fire	COM-give-AF	cook	CL.AN	fish

'The fire cooked the fish.'

Semantically animate but grammatically inanimate supernatural entities like *nawal* 'evil spirit' similarly cannot appear as ergative subjects, again forcing the use of passive (22a) or agent focus (22b) morphology when they are logical subjects of a transitive verb. Such nouns are prohibited from appearing as ergative subjects. An attempt to treat *nawal* as an ergative subject, following the pattern of the transitive use of *ib'tej* 'scare' in (22c) with *naq unin* 'boy' as subject and *nawal* as object, results in (22d); the only way to interpret *nawal* in a transitive construction is as an object, in this case causing the construction to be interpreted as an imperative, with *naq unin* 'the boy' as the possessor of *nawal*.

(22) a. Passive:

X-ib'ti-lay	naq	unin	y-uj	nawal.
COM-scare-PSV	CL.M	child	3A-by	evil.spirit

'The boy was scared by the evil spirit.'

b. Agent focus:

Nawal	x-ib't-on	naq	unin.
evil.spirit	COM-scare-AF	CL.M	child

'The evil spirit scared the boy.'

c.

X-ib'te-j	naq	unin	nawal.
COM-scare-TV	CL.M	child	evil.spirit

'The boy scared the evil spirit.'

d. X-ib'te-j nawal naq unin.
COM-scare-TV evil.spirit CL.M child
'Scare the boy's evil spirit!'
Intended: 'The evil spirit scared the boy.'

4.5.2 Cases in which passive voice does not allow expression of an agent

When the agent is first or second (local) person in Q'anjob'al, it must be referenced with ergative agreement on the verb. If both participants are local, i.e. one first person and one second person, this rule still holds; there does not appear to be any difference in animacy between first and second persons in Q'anjob'al grammar. Sentences with a local agent can be passivized, but they do not have the expected meaning; the first or second person introduced in a prepositional *-uj*-phrase in such passives can only be interpreted as a cause, and not as an agent, as exemplified in (23). Just as active voice is marked or impossible when the patient is more animate than the agent, passive voice formed with *-lay* is not possible with a local agent.

(23) X-maq'-lay naq j-uj.
COM-hit-PSV CL.M 1PA-by
'He was hit because of us.'
Intended: 'He was hit by us.'

4.6 Definiteness

Q'anjob'al also prefers to use the passive voice when the agent is indefinite, marked with *jun* 'one', as in (24a). If both participants are definite, as in (25b), active voice is more often employed.

(24) a. Ch-'och-lay ix Malin y-uj jun naq winaq.
INC-like-PSV CL.F Mary 3A-by one CL.M man
'A man likes Mary.'
Lit: 'Mary is liked by a man.'

b. Ch-y-och-ej naq winaq ix Malin.
INC-3A-like-TV CL.M man CL.F Mary
'The man likes Mary.'

4.7 Topic maintenance: Discourse pragmatic uses of passive

In general Q'anjob'al tends to use passive when the agent is less animate than the patient (i.e. an animal agent with a human patient), as well as when the agent is indefinite. The fact that the passive is not obligatory in such contexts, or in any situations where both agent and patient are non-local and animate, allows the use of the passive for discourse pragmatic reasons. Passive voice can serve in Q'anjob'al, as it does in many accusative languages, to highlight a more prominent patient argument. In Q'anjob'al texts, this pragmatic device is used to maintain topic continuity between clauses as in (25) and (26).

(25) Ix Malin ch-na (b'a) ix ch-'och-lay ix y-uj naq Xhun.
CL.F Mary INC-think RFLX CL.F INC-like-PSV CL.F 3A-by CL.M John
'Mary thinks that John likes her.'
Lit. 'Mary thinks that she is liked by John.'

(26) X-k'ay-il naq Xhun masanil s-tumin y-etoj
COM-lose-DIR CL.M John all 3A-money 3A-with
x-b'eq-lay-kan naq y-uj y-istil.
COM-leave-PSV-DIR CL.M 3A-by 3A-wife
'John lost all his money and his wife left him.'
Lit. 'John lost all his money and was left by his wife.'

Q'anjob'al can also use passive voice as a sort of reverse topic continuity, to anticipate the subject of an upcoming clause by making the subject of the current clause the same, as in (27).

(27) Tay ch-koj-lay-el no' tx'i y-uj naq i ch-'el no'
then INC-scold-PSV-DIR CL.AN dog 3A-by CL.M and INC-go.out CL.AN
k'atan naq.
from CL.M
'Then he gets angry at the dog and it goes away from him.'
Lit.: 'Then the dog is scolded by him and goes away from him.'

Q'anjob'al also uses passive voice to introduce new referents to the discourse or avoid mentioning the same agent multiple times, as in (28), even when the agent is higher in animacy than the patient.

(28) Tay x-man no' xal masanil klase no' no':
then COM-buy CL.AN CL.HON.F all kind CL.AN animal
'She bought all different kinds of animals:

…man-lay no' kaxhlan, man-lay no' ak'ach,
buy-PSV CL.AN chicken buy-PSV CL.AN turkey
chickens were bought, turkeys were bought,

man-lay no'…no' tx'i', no' mis,
buy-PSV CL.AN dog CL.AN cat
dogs were bought, cats,

[e] man-lay no'…no' petx, kax man-lay [e] no'…no' txitx.
buy-PSV CL.AN duck then buy-PSV CL.AN rabbit
ducks were bought, and a rabbit was bought.' [10]

[10] There is no grammatical distinction in this sentence between plural and singular. Presumably the rabbit is translated as singular while the other animals are not in anticipation of a particular rabbit becoming an important character as the story progresses.

Chapter 5

Incorporation and pseudoincorporation in Q'anjob'al and crosslinguistically

5.1 Object incorporation and pseudoincorporation

5.1.1 Incorporation

Incorporation typically refers to a type of compounding in which an intransitive verb is derived from a transitive verb and its object forming a phonological unit, as in the example from Nahuatl in (1b).

(1) a. a:mo ø-ki-kwa naka-t
not 3SSUB-3SOBJ-eat meat-ABS
'he does not eat meat'

b. a:mo ø-naka-kwa
not 3SSUB-meat-eat
'he does not eat meat' (*Lit*. 'meat-eat')
(Canger 2015:33, gloss adapted)

Additional languages, including Q'anjob'al and other Mayan languages like Chuj, K'ichee', and Yucatec Maya, as well as ergative Malayo-Polynesian languages including Tongan, Niuean, Maori, and Fijian, have similar constructions, but the incorporated element remains phonologically distinct from the verb. An example of Q'anjob'al verbal incorporation is given in (2).

(2) …Y-et ch'-uqte-wi no heb', ab'-i.
3A-when INC-chase-API animal they hear.IMP-ITV
'[That is how they order things] when they hunt [*Lit*. animal-chase], you see'.
(adapted from Mateo Toledo 2008:60)

Though the incorporated element in Q'anjob'al is phonologically distinct from the verb, the subject receives absolutive (B-class) agreement, rather than the ergative marking it would receive in a transitive sentence. The fact that there is no overt agreement marker on the vowel-

initial verb *uqte* ‘chase’ shows that its subject is absolutive, as a third person ergative subject is marked with the prefix *y-* on vowel-initial verbs like *uqte* ‘chase’. In addition, the verb appears with the suffix *-wi*, Mateo Toledo’s (2008) “antipassive of incorporation”. Incorporation also changes the basic word order in Q’anjob’al, from VSO in a transitive sentence to VOS.

5.1.2 Mithun (1984): Four types of incorporation

In her influential typology of noun incorporation, Mithun (1984) identifies four basic types, the first of which, “lexical compounding” or Type I, exists in all languages with incorporation and encompasses the examples in (1) and (2) (i. e. both with and without phonological incorporation). All of Mithun’s types of incorporation involve this compounding or juxtaposition of a verb and its direct object, and types II-IV have additional features. Mithun’s four types of incorporation are implicationally linked, so that all languages exhibiting type IV also exhibit types I-III, all exhibiting type III also have types I and II but not necessarily type IV, and so on.

Type II involves the promotion of an oblique to object, along with the compounding of Type I. Yucatec Maya exhibits type II incorporation, as exemplified in (3b), in which *če’* ‘tree’ is incorporated and *in-kool* ‘my cornfield’ promoted from prepositional object (oblique) to direct object, while the first person subject remains ergative.

(3) a. k-in-č’ak-ø-k če’ ičil in-kool
INC-1SA-chop-it-IMPF tree in 1SA-cornfield
‘I chop the tree in my cornfield.’

b. k-in-č’ak- če’-t-ik in-kool
INC-1SA-chop-tree-TR-IMPF 1SA-cornfield
‘I clear my cornfield.’
(Bricker 1978, cited in Mithun 1984:49, gloss adapted)

Mithun's Type III is used as a discourse strategy to background a previously mentioned noun, and type IV can appear with a coreferential object that is more specific than the incorporated element.

Nahuatl uses type III, as in the exchange in (4). After *nakatl* 'meat' appears in the conversation as an independent object, it can be backgrounded by incorporation on subsequent mentions.

(4) A: Askeman ti-'-kwa naka-tl.
never 2SSUB-3OBJ-eat meat-ABS
'You never eat meat.'

B: Na' ipanima ni-naka-kwa.
1S always 1SSUB-meat-eat
'I eat it (meat) all the time'
Lit: 'I always meat-eat.'
(Merlan 1976, cited in Mithun 1984:58, gloss adapted)

The Australian language Gunwinggu offers an example of type IV incorporation, shown in (5). Mithun cites that the repetition of the noun stem *red* 'camp' in the independent object in (5b) is evidence that the incorporated noun stem "does not establish a discourse referent" (Mithun 1976: 867). However, there does not appear to be repetition of the stem *dulg* 'tree' in the independent object in (5a).

(5) a. …bene-dulg-naŋ mangaralaljmayn
they.two-tree-saw cashew.nut
'…They saw a cashew tree.'

b. …bene-red-naŋ redgereŋeni
they.two-camp-saw camp.new
'…They saw a camp which was freshly made.'
('They saw a new camp.')
(Oates 1964, cited in Mithun 1984:92-93)

Mithun offers no examples of type III or IV in either Mayan or Malayo-Polynesian languages.

5.1.3 Pseudoincorporation

The same pattern as that in Q'anjob'al – a phonologically distinct incorporated noun and an absolutive subject – can be seen in the Tongan example in (6b).

(6) a. Na'e inu 'a e kavá 'é Sione.
PAST drink ABS DEF kava ERG Sione
'John drank the kava.'

b. Na'e inu kavá 'a Sione.
PAST drink kava ABS Sione
'John kava-drank.'

(Churchward 1953, gloss adapted)

Incorporation constructions like that in Tongan differ from constructions like that in Nahuatl, as exemplified in (1), not only in that the incorporated element fails to form a phonological unit with the verb (as in Q'anjob'al, see (2)), but also in that the incorporated noun can be modified, as with an adjective in (7) or a conjunct in (8). Q'anjob'al also has constructions in which the incorporated element appears with modification; relevant examples are provided and discussed in 5.3. These constructions are often referred to in the literature as pseudoincorporation, a term adapted from Massam's (2001) pseudo noun incorporation (PNI).

(7) Na'e tā kītā fo'ou 'a Sione.
PAST hit guitar new ABS Sione
'Sione played a new guitar.' (Ball 2005:2, gloss adapted)

(8) Na'e tō manioke moe talo 'a Sione.
PAST plant cassava and taro ABS Sione
'Sione planted cassava and taro.' (Ball 2005:3, gloss adapted)

Ball (2005) shows that Tongan incorporated nominals can also appear with a noun conjunct, a modifying prepositional phrase, and a modifying subjunctive clause. Writers including Massam (2001) on Niuean and Chung and Ladusaw (2004) on Maori and Chamorro have used such modification facts to argue that the incorporated element in Malayo-Polynesian

languages is larger than a bare noun stem, namely at least an NP. However, the incorporated noun may not appear with the full range of DP structure; it cannot appear with a determiner or case marker, suggesting that it is no larger than NP.

Mithun's (1984) type IV includes some examples that could be considered pseudoincorporation from Caddo, in which an incorporated noun stem appears with an independent adjective or demonstrative, as in (9a), in which the incorporated stem forms a phonological unit with the verb. Mithun analyses this independent element as a noun phrase, and shows that adjectives and demonstratives can independently appear as noun phrases with a null nominal head in the language, as in (9b). (9a) also differs from the examples of incorporation discussed so far in this chapter in that the incorporated element is the logical subject rather than the object. Mithun concludes that the incorporated element is not a referential noun modified by the accompanying adjective or demonstrative, but rather that such examples are like the Gunwinggu case in (5) repeated below, in which a separate, more specific noun phrase appears with an incorporating verb. It is unclear that such an analysis would be adequate when the incorporating verb appears with a conjunct as in Tongan (as in (8)) and Q'anjob'al (Q'anjob'al data will be presented in 5.3).

(9) a. Ná: kan-n*ú*h-'a'.
that water-run.out-will
'That water will run out.'

b. Ná: 'iy*ú*h'a'.
that run.out.will
'That will run out.' (Chafe 1977, cited in Mithun 1984:79-80)

(5) a. …bene-dulg-naŋ mangaralaljmayn
they.two-tree-saw cashew.nut
'…They saw a cashew tree.'

b. …bene-red-naŋ redgereŋeni
they.two-camp-saw camp.new
'…They saw a camp which was freshly made.'
('They saw a new camp.') (Oates 1964, cited in Mithun 1984:92-93)

5.2 Comparison of incorporation with antipassive

5.2.1 Antipassive

As discussed in Chapter 4, Q'anjob'al has an antipassive construction formed with the suffix *-waj*. My native speaker consultants use this construction rarely, though it is obligatory in some cases (as in (10b)) and may sometimes change the meaning of the verb for some speakers (as in (11b)).

(10) a. Ch-b'on naq na.
INC-paint CL.M house
'He paints houses.'

b. Ch-b'on-waj naq.
INC-paint-AP CL.M
'He paints.'

(11) a. X-ach hin b'aj-a'.
COM-2SB 1SA scold-TV
'I scolded you.'

b. X-in b'aj-waj (h.en).
COM-1SB scold-AP 2SA.at
'I cursed (at you).' [11]

5.2.2 Morphological similarities

Both antipassive and object incorporation constructions affect the argument structure. In Q'anjob'al, both constructions result in a morphologically intransitive verb, with the subject

[11] Translations given by Alejandra Francisco. Alejandra Juarez does not feel these verbs have the semantic difference claimed here and translates both the transitive and antipassive version as 'offend.'

receiving absolutive case. As exemplified in Yucatec Maya in (3), repeated below, incorporation can also have different effects on the argument structure (Mithun's type II noun incorporation). In (3b), the incorporating verb is transitive, but the direct object is the location in which the action of tree chopping is performed, rather than the patient of the chopping action.

(3) a. k-in-č'ak-ø-k če' ičil in-kool
INC-1SA-chop-it-IMPF tree in 1SA-cornfield
'I chop the tree in my cornfield.'

b. k-in-č'ak-če'-t-ik in-kool
INC-1SA-chop-tree-TR-IMPF 1SA-cornfield
'I clear my cornfield.'
(Bricker 1978, cited in Mithun 1984:49, gloss adapted)

5.2.3 Semantic similarities

Mithun (1984) writes that incorporated objects in Mayan, Malayo-Polynesian, and other language families are non-referential entities that simply restrict or specify the meaning of the verb as having a certain type of patient; incorporated nouns are "neither specific or countable" (Mithun 1984: 850) entities. Incorporation constructions consequently tend to refer to "institutionalized" or generalized activities with no particular affected object. Incorporation constructions may also be lexicalized, as with Q'anjob'al *uqtewi no* 'hunt', literally 'animal-chase'. Consider again the Yucatec Maya example in (3); the incorporation construction in (3b) does not make reference to a specific tree or trees, in contrast to (3a), but rather refers to the general act of tree-chopping, or clearing land. Similarly in antipassive constructions, the patient is typically less affected than it is in the corresponding transitive and can be omitted from the sentence.

5.3 The Q'anjob'al suffix *-wi*

Among the valence-changing operations discussed in Mateo Toledo (2008) is a construction referred to as the "antipassive of incorporation." The construction, exemplified in (2) and again in (12b) and (13b) below, involves a suffix *-wi* on the main verb, absolutive expression of the subject, and the absence of a classifier preceding the incorporated element. (Some nouns, as *sakate* 'fodder' in (12a) can also appear without a classifier when they are not incorporated.)

(12) a. X-a waj (an) sakate.
COM-2SA gather CL.plant fodder
'You gathered fodder.'

b. X-ach waj-wi (*an) sakate.
COM-2SB gathered-API CL.plant fodder
'You gathered fodder.'
Lit. 'You fodder-gathered.'

(13) a. X-tayne-j naq unin te na.
COM-take.care-TV CL.M child CL.wood house
'The boy takes care of the house.'

b. X-tayne-wi (*te) na naq unin.
COM-take.care-API CL.wood house CL.M child
'The boy takes care of the house.'

Like antipassives formed with the suffix *-waj*, constructions with *-wi* occasionally have no overt theme argument, as in (14). Such examples are problematic because, although they use the incorporating suffix *-wi*, nothing is apparently incorporated.

(14) Ch-q'oq-wi aj-toq heb' naq y-in jun ostok tu.
INC-throw-API DIR-DIR PL CL.M 3A-at DET buzzard DEM
'They were throwing (things) upwards at that buzzard.'
(Mateo Toledo 2008:84b)

Mateo Toledo offers (15) as evidence that the semantic object is incorporated, as there is a ban on intervening material, such as the postverbal exclusivity marker *hon,* between the object and the verb. With non-incorporating verbs, *hon* precedes the object, as in (16). Directionals can appear between the main verb and the incorporated object, as in (17b). Mateo Toledo interprets this as incorporation treating the verbal complex including directional as the "predicate nucleus", though the voice suffix attaches directly to the main verb.

(15) Max-on waj-wi sakate hon. / *Max-on waj-wi hon
COM-1PB gather-API fodder EXCL[12] COM-1PB gather-API EXCL
sakate.
fodder
'We gathered fodder.'
Lit. 'We fodder-gathered.' (Mateo Toledo 2008:73, 64, gloss adapted)

(16) X-ko-lo' hon te pajich.
COM-1PA-eat EXCL CL.wood tomato
'We (not you) ate the tomato.'
(adapted from Mateo Toledo 2008:1)[13]

(17) a. Max s-man-kan el-teq naq ixim ixim y-et…
COM A3-buy-DIR DIR-DIR CL.M CL.corn corn A3-when
'He bought corn and the corn came out when…'

b. Max man-wi-kan el-teq ixim naq y-et…
COM buy-AP-DIR DIR-DIR corn CL.M A3-when
'He bought corn and the corn came out when…'
(adapted from Mateo Toledo 2008:26 a & b)

Mateo Toledo (2008) presents evidence that the incorporated element in Q'anjob'al constructions with *-wi* cannot be possessed or appear with a classifier in support of his claim that only bare nominal heads are incorporated. He does not show whether or not adjectival modification is possible, as in Tongan. Possessors and classifiers are cross-linguistically outside

[12] I gloss *hon* as an exclusivity marker following Mateo Toledo (2008). First person subject agreement as shown in Table 2.III is still required with the use of this morpheme.
[13] My adaptation for (16) and (17) omits a null third person absolutive agreement marker included by Mateo Toledo.

adjectives, as independent possessors and classifiers always appear further from the noun than adjectives do. Possessors and classifiers are also banned from modifying incorporated nouns in Tongan and other pseudoincorporating languages.

However, some forms of nominal modification are possible with *-wi* constructions in Q'anjob'al, as in Tongan. Q'anjob'al incorporation constructions can appear with adjectives (18) and conjuncts (19). Multiple adjectives are possible, as in (18b), and both adjectives and a conjunct can be seen in (19b).

(18) a. X-in waj-wi taqin ak'un.
COM-1SB gather-API dry grass
'I gathered dry grass.'

b. X-waj-wi taqin ak'un naq Xhwan.
COM-gather-API dry grass CL.M John
'John gathered dry grass.'

c. Ch'-uqte-wi mimej xiltaq no heb'.
INC-chase-API big hairy animal they
'They hunt big, hairy animals.'

(19) a. Ch'-uqte-wi chukchej k'al txitx heb'.
INC-chase-API deer and rabbit they
'They hunt deer and rabbit.'

b. Ch'-uqte-wi mimej chukchej k'al yalixh txitx heb'.
INC-chase-API big deer and small rabbit they
'They hunt big deer and small rabbit.'

Classifiers and possessors are not possible in such constructions, as Mateo Toledo shows (12b), and neither are demonstratives (20), numerals (21), quantifiers (22), prepositional phrases (23), or clauses modifying the incorporated noun (24), (25).

(20) a. X-y-uqte-j heb' juntzan no (tu). .
COM-3A-chase-TV they those animal DEM
'They hunted those animals.'

b. X-uqte-wi (*juntzan) no (*tu) heb'.
COM-chase-API those animal DEM they
'They hunted (*those) animals.'

(21) a. X-tayne-j naq winaq kab' te na.
COM-take.care-TV CL.M man two CL.wood house
'The man took care of two houses.'

b. X-tayne-wi (*kab') na naq winaq.
COM-take.care-API two house CL.M man
'The man took care of the (*two) house(s).'

(22) a. X-y-uqte-j heb' masanil no no. .
COM-3A-chase-TV they all CL.AN animal
'They hunted all animals.'

b. X-uqte-wi (*masanil) no heb'.
COM-chase-API all animal they
'They hunted (*all) animals.'

(23) a. Ch-tayne-j naq winaq te' na b'ay kajan hin.
INC-take.care-TV CL.M man CL.wood house PREP live 1SB
'The man takes care of the house where I live.'

b. Ch-tayne-wi na (*b'ay kajan hin) naq winaq.
INC-take.care-API house PREP live 1SB CL.M man
'The man takes care of the house (*I live in).' [14]

(24) a. Ch-y-uqte-j heb' no x-chi. .
INC-3A-chase-TV they animal INC-eat
'They hunt animals to eat.'

b. Ch-uqte-wi no (*x-chi) heb'.
INC-chase-API animal INC-eat they
'They hunt animals (*to eat).'

(25) a. Ch-tayne-j naq winaq te' na x-in man-a'.
INC-take.care-TV CL.M man CL.wood house COM-1SA buy-TV
'The man takes care of the house I bought.'

[14] *Chtaynewi na naq winaq b'ay kajan hin* is okay, but presumably the PP here is modifying the VP and not the incorporated noun (i.e. the location of the action of taking care of the house, rather than the location of the house).

b. Ch-tayne-wi na (*x-in man-a') naq winaq.
INC-take.care-API house (COM-1SA buy-TV) CL.M man
'The man takes care of the house (*I bought).'

5.4 The location of incorporation and some analyses

5.4.1 Background

Incorporation constructions have been the center of a debate in the literature, with some analyzing incorporation as a morphological process (Mithun 1984), some as a syntactic process (Baker 1988, Massam 2001), and others as a combination of these. For example, Ball (2005) describes incorporation in Tongan as a morphological process with syntactic effects.

Incorporation is problematic because it does not easily fit into traditional notions of morphological or syntactic processes. On the one hand, in languages like Nahuatl, incorporation forms new words that act like other verbs in the syntax. On the other hand, the incorporated nominal often seems to interact with the syntax, appearing with modification or being referred to later in a discourse, and there is a specific semantic relationship (i.e. patient) between the incorporated nominal and the verb. Constructions that otherwise resemble incorporation, but in which the noun and verb do not form a phonological unit, are especially problematic. Mithun (1984) defines such cases as incorporation by "juxtaposition," treating them as essentially the same as phonologically incorporating constructions. Incorporation that allows modification of the nominal element, or later reference to the nominal element in discourse, are the most problematic cases of all. According to the traditional view, syntax cannot look inside morphologically formed lexical items, so maintaining incorporation as a morphological process becomes difficult. In some languages, an incorporated nominal may be accompanied by elements traditionally analyzed as outside even an NP, including demonstratives in Southern Tiwa and Mapadungan, number in Hindi, and case in Hungarian (Massam 2009).

5.4.2 Lexicalist analyses

In lexicalist analyses of incorporation, verbs with incorporated objects are formed in the lexicon rather than in the syntax, resulting in a compound word that may have specific lexical properties.

5.4.2.1 Rosen (1989)

Rosen's (1989) account covers two types of noun incorporation (NI), one which can appear with "doubling", or an independent object (Mithun's type IV), and one which cannot. The former type ("Classifier NI"), illustrated with Mohawk in (26) creates a new transitive verb and does not alter the argument structure of the original verb, while the latter ("Compound NI"), illustrated with Kusaiean in (27) creates an intransitive verb, though in Kusaiean the two parts of the compound remain phonologically distinct. Rosen predicts that Classifier NI can occur with doubling and stranding of any nominal modifiers, including DP elements like possessors and demonstratives; there is always a syntactic object, though its head may be phonologically null. Compound NI cannot appear with a syntactic object, and hence has no doubling or stranding of modifiers.

(26) a. Kanekwar*ú*nyu waʔ-k-akyaʔtawiʔtsher-*ú*ni.
3N.dotted.DIST PAST-1S.3N-dress-make
'I made a polka-dotted dress.'

b. Kanekwar*ú*nyu waʔ-k-atkáhtho.
3N.dotted.DIST PAST-1S.3N-see
'I saw a dotted one.'

(Mithun 1984:870, gloss adapted)

(27) a. El twem-lah mitmit sahfiht sac.
he sharpen-PAST knife dull the
'He has sharpened the dull knife.'

b. El twetwe mitmit-lac.
he sharpen knife-PAST
'He has knife-sharpened.'

c. *Nga twetwe mitmit (sahfiht) sac.
I sharpen knife dull the
*'I knife-sharpen the (dull) Ø.'
(adapted from Lee 1975:271, cited in Rosen 1989:35)

Q'anjob'al most closely fits into Rosen's Compound NI category, as the verb is intransitive, as shown by its absolutive agreement with the subject only, and no doubling occurs. Stranding of possessors, classifiers, and demonstratives is also impossible. Rosen's account, however, presents a problem for languages like Q'anjob'al and Tongan, as Rosen predicts that Compound NI cannot occur with modification of the incorporated nominal, even by adjectives. For Rosen, either all types of nominal modifers should be able to appear with incorporation (if a language exhibits Classifier NI), or none should (if it exhibits Compound NI).

5.4.2.2 Ball (2005)

Ball (2005) argues that neither head movement (discussed in 5.4.3.1 below) nor syntactic incorporation of a phrase like NP (proposed in Chung & Laduslaw 2004) captures the empirical facts in Tongan. Simple incorporation in which a noun stem and a verb stem are compounded to create a complex verb is problematic because of the possible presence of nominal modifiers with incorporation constructions (as the adjective *fo'ou* 'new' in (7), repeated below). The compounding of a verb with an NP is also problematic because a nominalizing suffix can appear on the verb-noun compound created by incorporation only if there are no nominal modifiers (28).

(7) Na'e tā kītā fo'ou 'a Sione.
PAST hit guitar new ABS Sione
'Sione played a new guitar.' (Ball 2005:2)

(28) a. nu-kava-‘anga
drink-kava-NMLZ
‘place to drink kava’

b. *fakatau-fale-hinehina-‘anga
transact-house-white-NMLZ
Intended: ‘place for selling white houses’ (Ball 2005:8, 9a)

Ball explains that syntactic accounts are equally problematic. Treating incorporation as an adjacent V-NP structure presents multiple problems for the empirical data in Tongan. First, the incorporated noun and its modifiers must be immediately adjacent to the verb in Tongan; independent objects may scramble to produce a VSO order (29b) and must appear outside (i.e. to the right of) verbal particles (30a), while the incorporated noun with its modifiers cannot scramble (29d) and must appear inside (to the left of) verbal particles such as *nai* ‘maybe’ in (30b-d).

(29) a. Na'e tō 'a e manioke 'e Sione.
PAST plant ABS DET cassava ERG Sione
‘Sione planted the cassava.’

b. Na'e tō 'e Sione 'a e manioke.
PAST plant ERG Sione ABS DET cassava
‘Sione planted the cassava.’

c. Na'e tō manioke kano lelei 'a Sione.
PAST plant cassava good ABS Sione
‘Sione planted good cassava.’

d. *Na'e tō 'a Sione manioke kano lelei.
PAST plant ABS Sione cassava good
(Ball 2005:2, 3)

(30) a. Na'e kai nai 'a e ika 'e Sione?
PAST eat maybe ABS DET fish ERG Sione
‘Sione ate the fish, didn’t he?’

b. Na'e kai ika lahi nai 'a Sione?
PAST eat fish big maybe ABS Sione
‘Sione eats a lot of fish, doesn’t he?’

c. * Na'e kai nai ika lahi 'a Sione?
PAST eat maybe fish big ABS Sione

d. * Na'e kai ika nai lahi 'a Sione?
PAST eat fish maybe big ABS Sione

(Ball 2005:4-6)

Second, only postnominal modifiers are possible in incorporation constructions, indicating that the incorporated noun must be immediately adjacent to the verb, as illustrated by the incompatibility of incorporation with the prenominal modifier *ki'i* 'small' (31b), while incorporation is possible with the synonymous postnominal *iiki* 'small' (32).

(31) a. Na'e tō 'e Sione 'ene ki'i manioke.
PAST plant ERG Sione his small cassava
'Sione planted his small amount of cassava.'

b. * Na'e tō ki'i manioke 'a Sione.
PAST plant small cassava ABS Sione
Intended: 'Sione planted a small amount of cassava.'

(Ball 2005:7-8)

(32) Na'e tō manioke iiki 'a Sione.
PAST plant cassava small ABS Sione
'Sione planted a small amount of cassava.' (Ball 2005:9)

Finally, the fact that the nominalizing suffix cannot appear on an incorporating compound with postnominal modifiers (as in (27)) is problematic for this syntactic approach as well.

Like the adjacent V-NP approach, head movement also fails to account for the fact that only postnominal modification is possible in Tongan incorporation constructions; head movement predicts that prenominal modifiers should be able to be stranded by incorporation as easily as postnominal modifiers, but prenominal modifiers are ungrammatical with incorporation in Tongan.

Ball argues that incorporation is lexical, but that the newly created verb takes on the modification properties of both the original verb and the original noun, such that it can appear

with both nominal and verbal modification. He posits a lexical rule that takes a transitive verb with two arguments and a noun with "arguments" (his term for modifying adjectives, conjuncts, or clauses) and produces a compound with the external argument of the original verb and the modifiers of the original noun.

While Ball accounts for the distribution of modifiers of incorporated nominals in Tongan, a lexicalist account is undesirable when a syntactic account can handle the data equally well. If the types of nominal and verbal modification possible in incorporated constructions are independently possible for the noun and verb involved when there is no incorporation, the modification possibilities should fall out from the syntax rather than having to be stipulated within the lexicon. The fact that certain higher structures like possessors and case markers cannot appear with an incorporated nominal can be addressed by ensuring that nothing larger than an NP is incorporated, as in the syntactic approaches discussed below.

5.4.3 Syntactic analyses

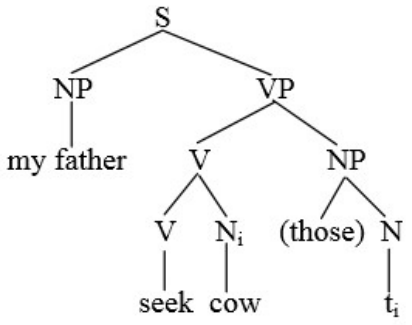
5.4.3.1 Baker's head movement

To handle data like that in (29) from Mapudungun, Baker (2009) develops a syntactic account of incorporation in which the incorporated noun head moves to form a unit with the verb, leaving a trace behind, as in Figure 5.I.

(29) a. Ñi chao kintu-le-y ta.chi pu waka.
My father seek-PROG-IND.3sS the COLL cow
'My father is looking for the cows.'

b. Ñi chao kintu-waka-le-y.
My father seek-cow-PROG-IND.3sS
'My father is looking for the cows.'
(Salas 1992:195, cited in Baker et al. 2005)

Figure 5.I: Head movement



(Baker 2009)

Baker's head movement process can strand nominal modifiers in some languages, like Mohawk (30), but not in others, including Mapudungun (31).

(30) Wa'-k-ather-a-hninu-' thikv.
FACT-1sS-basket-Ø[15]-buy-PUNC that
'I bought that basket.' (Baker et al. 2005: 6a)

(31) *Pedro ngilla-waka-y tüfachi.
Pedro buy-cow- IND.3sS this
Intended: 'Pedro bought this cow.' (Baker et al. 2005: 6b)

Therefore, the possibility of a demonstrative in the position occupied by *(those)* in Figure 5.I is language specific; it could appear in Mohawk (i.e. *thikv* 'that' in (30)) but not in Mapudungan (i.e. *tüfachi* 'this' in (31)). It could also not appear in Q'anjob'al or Tongan, though other types of nominal modifiers can.

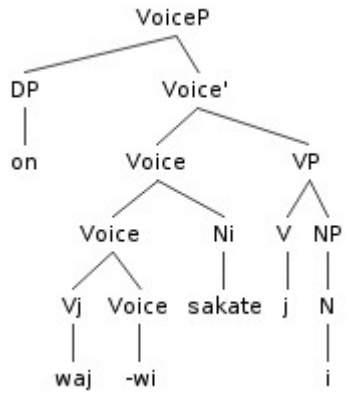
Because Q'anjob'al incorporation involves a voice suffix on the verb (*-wi*), adapting Baker's (2009) account would have to involve adjoining the noun head to the verb after the verb has adjoined with its suffix. It is easy to adapt Baker's account to prohibit classifiers, possessors,

[15]epenthetic vowel

and demonstratives if we assume that the nominal head is moved before larger syntactic structures like DP are projected. Figure 5.II shows how this account would work for the Q'anjob'al sentence in (14), repeated below.

(14) Max-on waj-wi sakate hon.
COM-1PB gather-API fodder EXCL
'We gathered fodder.'
Lit. 'We fodder-gathered.' (Mateo Toledo 2008:73)

Figure 5.II: Q'anjob'al head movement



Baker's account also handles the change to VOS word order in Q'anjob'al when incorporation takes place, as the incorporated object moves along with the verb to its initial position in the syntax. The order of elements is problematic in his account, as the verb head adjoins to the left of the voice head, while the noun head adjoins to the right. Lexical properties may be involved, such that the voice suffix *-wi* must appear to the right of the verb head that adjoins to it.

5.4.3.2 Massam (2001): pseudoincorporation

Massam (2001) proposes that pseudoincorporation in Niuean occurs when the NP object of a VP is merged with the V before any further movement of the VP takes place. Thereafter, the NP is moved along with the VP. (Niuean, like Tongan and Q'anjob'al, is a predicate initial language.) Massam's analysis accounts for the fact that Niuean, like Q'anjob'al and Tongan, appears to incorporate elements larger than a nominal head; incorporated nouns can appear with modifiers like adjectives and modifying clauses.

Massam claims that what looks like incorporation in Niuean is not what is commonly understood as noun incorporation (i.e. in Mithun (1984)), and coins the descriptive term pseudoincorporation. For Massam, all incorporation in Niuean is pseudoincorporation, whether the pseudoincorporated nominal is modified or not, because it is always derived through the same syntactic process. Niuean pseudoincorporation always involves an NP and not simply a nominal head, though in some cases the only overt material within a pseudoincorporated NP is a nominal head.

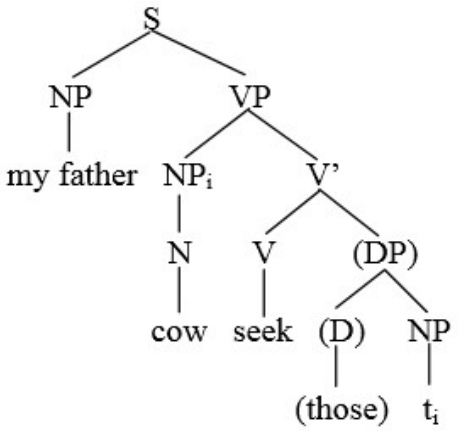
Massam's pseudoincorporation works well for the Q'anjob'al data, as it was developed to handle similar data from Niuean, in which a piece of structure larger than a nominal head appears to participate in incorporation. Like Baker's head movement, Massam's account would have to be somewhat modified for Q'anjob'al in that the NP would have to merge with Voice rather than V°. As with head movement, Massam's pseudoincorporation approach handles the VOS word order seen in Q'anjob'al incorporation constructions.

5.4.3.3 Baker's remnant movement

Baker (2009) shows that incorporation can also be treated as movement of the object NP to the specifier of the incorporating verb (a similar approach to that used for Dutch and Hungarian verb clusters in Koopman & Szabolsci (2000)). This approach has the potential benefit of simplifying the grammar by doing away with head movement, so that there is only one type of movement possible (phrasal).

Baker gives the following possible analysis for the sentence in (26b), mentioning only in a footnote (Baker 2009:5:fn.2) that the relative order of the verb and the incorporated nominal is problematic in this account.

Figure 5.III: Remnant movement for incorporation



(Baker 2009)

The relative order of the incorporated noun and the incorporating verb in this approach could also be a problem for Q'anjob'al, as the incorporated element comes after the verb as in Mapudungun. We can assume further movement of the verb, which we would want independently to get verb-initial order in Q'anjob'al, but we would also want the incorporated element to move along with the verb to capture the VOS order seen in incorporation.

5.5 Q'anjob'al incorporation

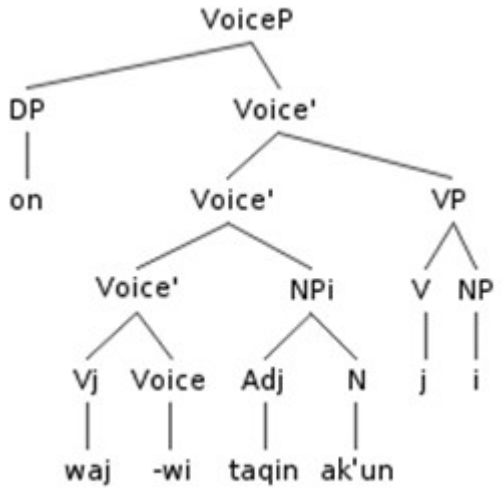
Massam's (2001) proposal appears to be the best fit for Q'anjob'al, though it does require some modification. It accounts for both nominal modifiers and VOS order, and it allows the prohibition of unattested nominal modifiers (like classifiers, possessors, and demonstratives), if the incorporated element is restricted to NP. The head-movement structure sketched above in Figure II would only have to be slightly modified to allow for the incorporation of a larger piece of structure than the head (namely NP), which is also consistent with the Adj-N order seen in Q'anjob'al incorporation. Figure 5.IV illustrates the structure of (17a), repeated below.

(17) a.

X-in	waj-wi	taqin	ak'un
COM-1SB	gather-API	dry	grass

'I gathered dry grass.'

Figure 5.IV: Q'anjob'al pseudoincorporation of NP



Chapter 6

Agent Focus in Q'anjob'al and other Mayan languages

6.1 Agent Focus

Agent focus (AF) is a construction attested in many Mayan languages in which the verb takes designated morphology (i.e. the suffix *-on* in Q'anjob'al) when the subject of a transitive clause is focused, as in (1b). The same morphology is typically used in other constructions involving extraction of the transitive subject, including wh-questions (2b, d) and relative clauses (3b).

(1) a. Ch-ach kaq naq Xhun.
INC-2SB hate CL.M John
'John hates you.'

b. A naq Xhun ch-ach kaq-on-i.
FOC CL.M John INC-2SB hate-AF-ITV
'It's John that hates you.'

(2) a. X-ach w-il-a'.
COM-2SB 1SA-see-TV
'I saw you.'

b. Maktxel x-ach il-on-i?
who COM-2SB see-AF-ITV
'Who saw you?'

c. X-in y-il ix Malin.
COM-1SB 3A-see CL.M Mary
'Mary saw me.'

d. Maktxel x-in il-on-i?
who COM-1SB see-AF-ITV
'Who saw me?'

(3) a. X-tz'ib'-ej naq jun tx'an un.
COM-write-TV CL.M IND CL.paper book
'He wrote a book.'

b. Ix Malin y-ojtaq ix naq winaq tz'ib'-on tx'an un.
CL.F Mary 3A-know CL.F CL.M man write-AF CL.paper book
'Mary knows the man who wrote the book.'

Agent focus has been described and analyzed in many languages, including Kaqchikel (Erlewine 2013, Broadwell 2000), Chol and Q'anjob'al (Coon & Mateo Pedro 2011), Yucatec (Gutierrez-Bravo & Monforte 2011, Norcliffe 2009), Ixil (Blunk 2008), Tzotzil (Aissen 1999), and Mayan languages in general (with particular discussion of Jakaltek, Tzotzil, and Tz'utujil) in Aissen (1992), among others.

As discussed by Norcliffe (2009), AF markers often have additional functions, which differ among language families. The wider distribution of AF verb forms is summarized in Norcliffe's Table 2.1, given as Table 6.I below. In Yucatec, the AF marker is also used in some subordinate clauses. In Q'anjob'alan, it is seen with what are at least historically embedded nonimalizations, as well as subordinate constructions. In many other languages of the Mamean and Greater Quichean branches, the AF marker is identical to the antipassive. In some languages of the Greater Quichean branch, antipassives formed using the AF marker are restricted to root transitive verbs

Table 6.I: Form and wider distribution of Mayan AF suffixes (Norcliffe 2009: Table 2.1)

Branch	Language	AF verb form	Wider distribution
Yucatecan	Yucatec	verb stem + -ik/-eh	subordinations
Greater Tzeltalan	Tzotzil	-on	?
Greater Kanjobalan	Jakaltek	-n	embedded nominalizations
	Akatek	-on	embedded nominalizations
	Chuj	-an	embedded nominalizations
Mamean	Ixil	-on/-n	antipassive
	Awakatek	-oon/-Vn	antipassive
	Mam	-(VV)n	antipassive
Greater Quichean	Sipakapense	-w	?
	Sakapultek	-Vw/-n	antipassive (root transitive)
	Tzutujil	-o(w)/-Vn/-n	antipassive (root transitive)
	Kaqchikel	-o/-n	antipassive (root transitive)
	K'iche'	-ow/-Vn	antipassive (root transitive)
	Poqomam	-w/-in	antipassive
	Poqomchi'	-w/Vn	antipassive
	Q'eqchi'	-o/-n	antipassive

6.2 Uses of the AF suffix *-on* in Q'anjobal

The Q'anjob'al reflex of the Mayan AF marker, *-on*, is discussed in Mateo Toledo (2008), where it is glossed in constructions other than transitive subject extractions as a 'dependent marker' or 'discourse continuity marker'. The three functions of the Q'anjob'al AF marker – transitive subject extraction, embedded non-finite transitive clauses, and "discourse continuity" – which Mateo Toledo treats as homophonous with three distinct glosses, are discussed in the present section.

In certain contexts, the Q'anjob'al suffix *-on* creates a morphologically intransitive verb; note the intransitive status marker on the verb in (1b) and the lack of ergative agreement in (2b & d), repeated below.

(1) a. Ch-ach kaq naq Xhun.
INC-2SB hate CL.AN John
'John hates you.'

b. A naq Xhun ch-ach kaq-on-i.
FOC CL.AN John INC-2SB hate-AF-ITV
'It's John that hates you.'

(2) a. X-ach w-il-a'.
COM-2SB 1SA-see-TV
'I saw you.'

b. Maktxel x-ach il-on-i?
who COM-2SB see-AF-ITV
'Who saw you?'

c. X-in y-il ix Malin.
COM-1SB 3A-see CL.M Mary
'Mary saw me.'

d. Maktxel x-in il-on-i?
who COM-1SB see-AF-ITV
'Who saw me?'

However, constructions with *-on* are syntactically transitive, with two obligatory arguments present in the syntax; no lexical argument of the transitive verb is suppressed, and the patient is not realized as an oblique and cannot be omitted. In transitive subject extraction constructions (focus (1b), wh-questions (2b, d), and relative clauses (3b), repeated below), the patient argument retains its canonical absolutive (set B) case (e.g. *ach* in (1b)), and the agent is expressed in a fronted position. Such constructions cannot be used to focus non-third person subjects.

(3) a. X-tz'ib'-ej naq jun tx'an un.
COM-write-TV CL.M IND CL.paper book
'He wrote a book.'

b. Ix Malin y-ojtaq ix naq winaq tz'ib'-on tx'an un.
CL.F Mary 3A-know CL.F CL.M man write-AF CL.paper book
'Mary knows the man who wrote the book.'

Mateo Toledo (2008) describes two other contexts in which a suffix *-on* appears. In addition to ergative subject extraction, *-on* is used in non-finite, or aspectless, embedded

transitive clauses, for example in the complements of the verbs of possibility *uj* and *je* (4) and (5), and in the complements of progressives (6). The progressive markers *lanan* and *yan* act as embedding verbs, though they do not host aspect markers. Mateo Toledo explains that *lanan* is derived from a positional consisting of the root *lan* and the positional suffix *-an* (Mateo Toledo 2008:55:fn.5). Positionals ordinarly do not host aspect markers. In these non-finite embedded contexts, the AF verb is marked for both ergative subject and absolutive object (4).

(4) a. Chi uj hach y-il-on ix Malin.
INC can 2SB 3A-see-AF CL.F Mary
'Mary can see you.' (Coon & Mateo Pedro 2011:13)

b. * Chi uj hin y-il ix Malin.
INC can 1SB 3A-see CL.F Mary
(Coon & Mateo Pedro 2011:12)

c. X-je' hach j-il-on-i.
COM-can 2SB 1PA-see-AF-ITV
'We can see you.'

Mateo Toledo (2008) glosses *-on* in such contexts as 'dependent marker.' In non-finite embedded clauses, A-markers are used like nominatives, marking the grammatical subject of both transitive and intransitive verbs (4a, 4c, 5).

(5) a. X-'uj ha b'itn-i.
COM-can 2SA sing-ITV
'You can sing.'

b. X-je' ha ma'-lay (y-uj tx'en carro).
COM-can 2SA hit-PSV (3A-by CL.rock car
'You can be hit (by a car).'

Examples of embedded non-finite transitives under a progressive marker are provided in (6a-c). Intransitives under a progressive are in (6d & e). As under the possibility modals *uj* and *je'*, intrasitives under a progressive have ergative subjects.

(6) a. Lanan hach hin laq-on-i.
PROG 2SB 1SA hug-AF-ITV
'I'm hugging you.' (Coon & Mateo Pedro 2011:14b)

b. Yan hin lo-on te' pajich.
PROG 1SA eat-AF CL.wood tomato
'I'm eating the tomato.'

c. Yan y-ant-on ix naq unin.
PROG 3A-cure-AF CL.F CL.M child
'She's curing the boy.'

d. Yan he way-i.
PROG 2PA sleep-ITV
'You guys are sleeping.'

e. Yan ha b'itn-i.
PROG 2SA sing-ITV
'You are singing.'

The suffix *-on* is required on transitive verbs in an embedded environment, but is never used for intransitives or derived intransitives. (See Munro 2011 for further discussion of the distribution of *-on* and accusative case marking in Q'anjob'al.)

The third use of a suffix *-on*, Mateo Toledo's (2008) 'discourse continuity marker', is used in narratives, where it "specifies discourse continuity and temporal coherence." It only occurs on transitive verbs, and they appear with full agreement and aspectual marking. Verbs with this *-on* suffix often occur after an adverbial. In example (7) below, there are two instances of this use of *-on*: on the first verb in clauses (b) and (c).

(7) a. Ch-y-il no' mis tu tol ch-toj-kan naq,
INC-3A-see CL.AN cat DEM COMP INC-go-DIR CL.M
'When the cat saw that he [the man] left,

b. tay ch-y-a'-**on**-ok no' gabacha kax x-kaw-i
then INC-3A-give-AF-DIR CL.AN apron then COM-knead-ITV
no'
CL.AN
'he [the cat] would put on his apron and knead,

c. kax chi watn-**on** no' lob'ej naq, ni y-ojtaq pax
then INC make- AF CL.AN food CL.M NEG 3A-know as.for
naq
CL.M
'and he [the cat] made his [the man's] food, and he [the man] didn't know.'

Though Mateo Toledo (2008:333:fn.4) uses three different glosses corresponding to the different uses of *-on* – transitive subject extraction, embedded non-finite transitives, and discourse continuity – and explicitly advises that the three should be distinguished, a unified account of the morpheme in all its uses is preferable, as the three different uses occur in distinct syntactic environments, yet have certain features in common. I gloss all occurences of *-on* as agent focus (AF), regardless of context. In all its uses, the suffix only occurs with underlyingly transitive verbs, and the object of the corresponding transitive verb retains its absolutive marking. All verbs suffixed with *-on* remain syntactically transitive with two obligatorily overt arguments, though the subject does not occur with ergative marking in subject extraction environments. In at least extraction and embedded contexts, verbs with *-on* are marked as morphologically intransitive, as they appear with the intransitive status suffix *-i* (as in 1b and 4c, repeated below).

(1) b. A naq Xhun ch-ach kaq-on-i.
FOC CL.M John INC-2SB hate-AF-ITV
'It's John that hates you.'

(4) c. X-je' hach j-il-on-i.
COM-can 2SB 1PA-see-AF-ITV
'We can see you.'

The features of *-on* constructions listed above are summarized and compared with those of other Q'anjob'al verbal constructions in Table 6.II. All the constructions with *-on* differ from those with the other verbal suffixes listed in that no argument of the corresponding transitive may be omitted. The object of the corresponding transitive also retains its canonical absolutive case in

all constructions with *-on*, as it does in passive constructions but not in either antipassive or incorporation constructions.

Table 6.II: Features of *-on* and other Q'anjob'al valence alternations

Morpheme	**Construction**	**Transitive Subject**	**Transitive Object**	**Aspect**	**Status**
-on	subject extraction	extracted (in focus phrase, wh phrase, or head of relative)	absolutive	yes	intransitive
	embedded transitive	ergative	absolutive	no	intransitive
	"discourse continuity"	ergative	absolutive	yes	? (missing data)
-lay	passive	omitted or oblique (*-uj* 'by')	absolutive	yes	intransitive
-waj	antipassive	absolutive	omitted or oblique (*-in* 'at')	yes	intransitive
-wi	object incorporation	absolutive	incorporated	yes	none[16]

6.3 Against Q'anjob'al AF as an antipassive

While Q'anjob'al *-on* constructions have sometimes been described as antipassive (Montejo & de Nicolas Pedro 1996, Kaufman 1990), they do not have the defining characteristics of an antipassive. Polinsky (2011) describes antipassive as a derived intransitive structure in which the object argument is "either suppressed (left implicit) or realized as an oblique complement." As illustrated above, *-on* does not treat the patient this way. Rather, the patient is an obligatory argument in AF constructions and is not oblique.

As discussed in Chapter 3, Q'anjob'al antipassives formed with the suffix *-waj* do realize the transitive subject as an optional oblique, as in (8b) and (9b).

[16]The intransitive status marker *-i* would not be pronounced after an identical vowel.

(8) a. Ch-loq no' kaxhlan w-aqan.
INC-peck CL.AN chicken 1SA-foot
'The chicken pecks my foot.'

b. Ch-loq-waj no' kaxhlan (y-in w-aqan).
INC-peck-AP CL.AN chickan 3A-at 1SA-foot
'The chicken pecks (at my foot).'

(9) a. X-in ha b'aj-a.
COM-1SB 2SA scold-TR
'You scolded me.'

b. X-ach b'aj-waj (w-in).
COM-2SB scold-AP 1SA-at
'You cursed (at me).'

In classic antipassive structures in ergative languages, as in the examples above, the transitive subject is realized as an absolutive argument, resulting in a case shift from ergative to absolutive. In (9b) the second-person subject is marked with the absolutive (B-class) *ach* instead of the ergative (A-class) *ha* in the corresponding transitive (9a).

In structures with *-on*, on the other hand, the patient argument retains the absolutive (B-class) marking it has in the transitive counterpart of the sentence, while the agent argument is either focused with no agreement marking in the case of matrix clauses or realized as ergative (A-class) in embedded non-finite and discourse continuity clauses.

In some Mayan languages, the AF construction does appear to be a true antipassive. For example, in Mam, the agent is expressed as an absolutive argument with absolutive agreement, *jussa-*, on the verb, and the patient is expressed as an oblique, an object of the prepositional phrase headed by *-e* 'at'.

(10) a qiina xhin juusa-na t-e chib'aj
FOC 1SB DEP 1SB-burn 3SA-at food
'It was I who burned the food.' (England 1983, gloss modified)

In matrix clauses, but not in embedded clauses, Q'anjob'al *-on* occurs with a reduction in verbal agreement markers, but it never causes case shift or reduces valence; the transitive subject and object must both be expressed, regardless of whether there is a loss of ergative marking. Therefore *-on* does not have the requisite features to be considered an antipassive.

6.4 AF, passive, and obviation (Aissen 1992)

As discussed in Chapter 2, verbs with inanimate agents cannot be used in the active voice and must use either passive (11b) or agent focus (11c) morphology

(11) a. *X-y-a' taj q'a no' txay.
COM-3A-give cook fire CL.AN fish
Intended: 'The fire cooked the fish.'

b. X-'a'-lay taj no' txay y-uj q'a.
COM-give-PSV cook CL.AN fish 3SA-by fire
'The fire cooked the fish.'
Lit.: 'The fish was cooked by the fire.'

c. Q'a x-'a'-on taj no' txay.
fire COM-give-AF cook CL.AN fish
'The fire cooked the fish.'

The Q'anjob'al pattern illustrated in (11) is similar to that of the Mayan language Tzotzil, as discussed by Aissen (1999a). Tzotzil differs from Q'anjob'al in that its AF construction is not obligatory in cases of subject extraction, with the result that in cases of subject extraction, either a transitive or an AF verb may be used. In Q'anjob'al, on the other hand, AF is always used in subject extraction constructions. Aissen finds that whether or not the subject is extracted, Tzotzil prefers to use a transitive verb when the subject is proximate (most prominent), as determined by having a higher position on the following scale than all other third-person arguments in the clause.

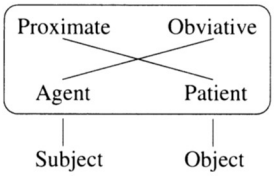
(12) definite human>individuated (indef.) human>definite nonhuman>
individuated (indef.) nonhuman>unindividuated

Aissen (1999a) analyses Tzotzil AF as an inverse verb form, following analyses of Algonquian languages. In languages with inverse verbs, third-person nominals are either proximate (most prominent) or obviate. Only one third-person argument in a clause can be proximate, while any other third persons are obviate. Languages have different criteria for determining obviation status, but syntactic, semantic, and discourse pragmatic properties are typically all relevant. Aissen (1999a) argues that in Tzotzil, obviation is based on the scale in (12), with arguments farther apart on the scale requiring the use of passive or agent focus morphology when the agent is of lower rank than the patient.

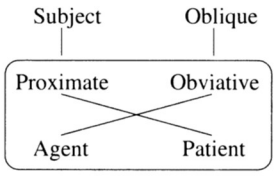
Aissen shows that languages have two possible strategies for expressing an inverse function, where the obviate argument is the agent and the proximate argument is the patient. In Figure 6.I, the inverse relationship is shown inside the box, which is identical in both cases. The subject is canonically mapped to both agent and proximate, but when an inverse function arises, only one of the agent and the proximate argument can be mapped to subject. A language may handle this function by treating the agent as the subject, the option shown on the left side of Figure 6.I, in which case the patient is expressed as the object. Alternatively, a language may choose to express the more proximate argument, the patient in the inverse function, as the subject, in which case the obviative agent will be expressed as an oblique; this option is shown on the right of Figure 6.I. Both options are available in both Tzotzil, which uses the option on the left of Figure I under agent extraction (the AF or inverse verb), and the option on the right of Figure 6.I (passivization) when there is no agent extraction.

Figure 6.I: Realization of the inverse function (Aissen (1999a) Figure 2)

Agent Focus:



Passive:



The distribution of passive, active, and AF verbs in Q'anjob'al is similar to that of Tzotzil as described in Aissen (1999a) and can be handled by a similar account. Q'anjob'al prefers, and in some cases requires, either passive or AF when the patient is the more animate argument, using AF under agent extraction and passive in other cases, like Tzotzil. Also like Tzotzil, Q'anjob'al allows either active or passive when arguments are close in animacy, or more specifically, when arguments are of neither the local nor the inanimate extreme of the scale in (12). In these cases, other, pragmatic effects influence the choice of passive voice or AF.

Aissen's (1999a) account can also explain why the object of the *-uj*-phrase in a sentence like (13) cannot be interpreted as an agent. Since passive is used to express an inverse function, the presence of a passive verb prohibits the agent from being of higher animacy than the patient, forcing the object of the *-uj*-phrase in a sentence like (13) to be interpreted as a cause.

(13) X-maq'-lay naq j-uj.
COM-hit-PSV CL.M 1PA-by
'He was hit because of us.'
Intended: 'He was hit by us.'

Aissen's account is a helpful description of the semantic function of the agent focus construction, but it does not explain the use of *-on* in other contexts, or the syntactic properties of constructions with *-on*. Some syntactic treatments of agent focus are detailed below.

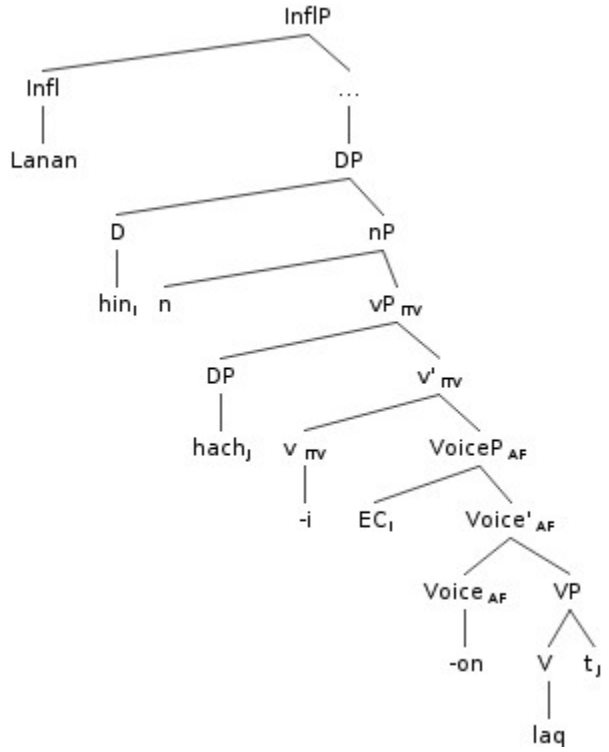
6.5 Q'anjob'al agent focus as Case assignment

Coon & Mateo Pedro (2011) propose a unified analysis of Q'anjob'al *-on* in extraction and non-finite embedded constructions (Mateo Toldeo's agent focus and dependent marker respectively). According to their analysis, *-on* serves to assign absolutive Case to the internal argument when the normal Case assigner, in their account $Infl^0$, is not able to assign Case. Since $Infl^0$ introduces aspect, it is understandably not present in embedded non-finite clauses, which never have aspect markers in Q'anjob'al. In the case of extraction constructions, $Infl^0$ is present, as indicated by overt aspect marking. Coon & Mateo Pedro suggest that if $Infl^0$ were allowed to assign absolutive case in such constructions, it would block movement of the transitive subject to a focus projection.

Coon & Mateo Pedro give a structure as in Figure 6.II, modified to account for the complete sentence, for the embedded transitive construction in (6), repeated below. Recall that the progressive marker acts as an embedding matrix verb, as discussed in 6.2.

(6) Lanan hach hin laq-on-i
PROG 2SB 1SA hug-AF-ITV
'I'm hugging you.' (Coon & Mateo Pedro 2011:14b)

Figure 6.II: Coon & Mateo Pedro's non-finite clause (nominalization) structure
(cf. Coon & Mateo Pedro 2011:16)

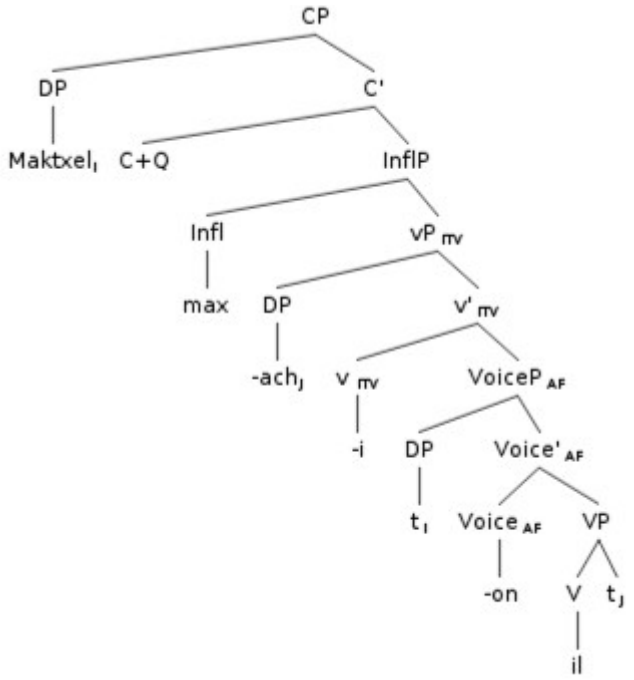


Coon & Mateo Pedro hold that v^0, the head of the projection introducing the status marker in Q'anjob'al, has an EPP feature attracting the internal argument to its specifier. In transitive clauses, the object receives absolutive case from $Infl^0$, and the subject ergative case from v^0. Presumably the absolutive argument undergoes further raising to derive surface structure, a process Coon & Mateo Pedro (2011:8:fn.9) describe as similar to clitic climbing in Romance. If the object must raise to receive Case in a transitive clause, it blocks extraction of the transitive subject. Essential to the analysis of Coon & Mateo Pedro is their treatment of transitive, but not intransitive, v^0 as phasal. In order for the transitive subject to be extracted (i.e. raise to the specifier of CP), it must first raise to the edge of vP, the position that the object raises to if it is unable to receive Case from I^0. As in embedded transitives, *-on* assigns absolutive case

to the internal argument in extraction constructions, allowing the transitive subject to raise to CP via vP in extraction constructions. An extraction construction is illustrated in the structure in Figure 6.III below, representing the sentence in (14).

(14) Maktxel max-ach il-on-i?
who COM-2SB see-AF-ITV
'Who saw you?' (Coon & Mateo Pedro 2009:19)

Figure 6.III: Coon & Mateo Pedro's transitive subject extraction structure
(cf. Coon & Mateo Pedro 2011:20)



6.6 AF as anti-locality

Erlewine (2013) argues that Coon & Mateo Pedro's (2011) analysis is incorrect for Kaqchikel at least. Erlewine proposes that Kaqchikel AF is not a case-assigning strategy, but rather a response to an anti-locality constraint. In Kaqchikel, not all cases of transitive subject

extraction require an AF verb.[17] For example, a preverbal adverb like *kanqtzij* 'actually' in (15b) makes an AF form not only unnecessary, but impossible.[18]

(15) a. achike x-tj-ö ri wäy?
who COM-eat-AF the tortilla
'Who ate the tortilla?'

b. achike kanqtzij x-u-tej(*-ö) ri wäy?
who actually COM-3SA-eat(*AF) the tortilla
'Who actually ate the tortilla?'
(Erlewine 2013:8, gloss adapted)

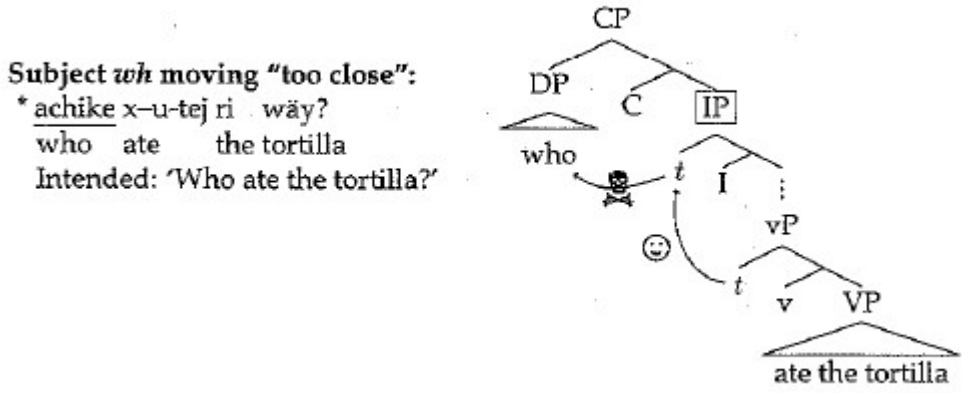
Based on this and similar evidence, Erlewine concludes that Kaqchikel has the following anti-locality constraint:

(16) Movement of specifier of XP must cross a maximal projection other than XP.
(Erlewine 2013:9)

In a sentence like (15a), AF occurs because the constraint in (16) prevents the movement of *achike* 'who' from the specifier of IP to the specifier of CP because it would not cross any intervening maximal projection. The specifier of CP is "too close" in Erlwine's terms to the specifier of IP for movement from the latter to the former to be grammatical.

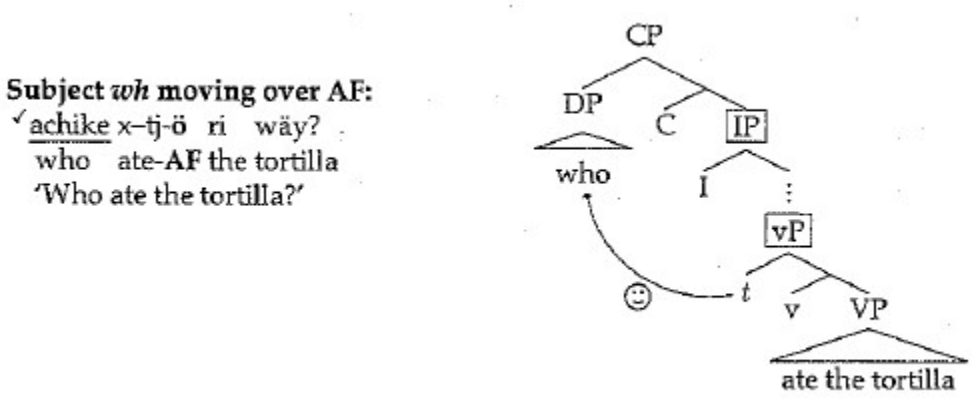
[17]This is also true for Yucatec as described in Gutierrez-Bravo & Monforte (2011) and Norcliffe (2009) and for Tzotzil as described in Aissen (1999), where AF is often optional in transitive subject extraction contexts.
[18]Pamela Munro (p.c.) points out that *kanqtxij* is probably a verb, but since a verb would also add a CP layer this difference does not affect Erlewine's account.

Figure 6.IV: Illegal movement (Erlewine 2013:10)



When the extraction of *achike* 'who' satisfies the anti-locality constraint in (16) by moving from its base position in the specifier of vP to the specifier of CP with no intermediate steps, AF morphology is triggered. According to Erlewine, AF allows extraction to bypass Spec-IP, satisfying anti-locality. Preverbal material satisfies the same constraint through CP-recursion, allowing movement to cross over an extra CP.

Figure 6.V: AF triggered by legal long-distance movement (Erlewine 2013:11)



6.7 Agent Focus as gapping/clefting

Blunk (2008), discussing Ixil, and Norcliffe (2009), discussing Yucatec, both analyze agent focus in extraction constructions as a type of clefting. In these analyses, subject extraction agent focus constructions are always biclausal, with a null copula in the matrix clause. Unlike Q'anjob'al, Ixil allows AF to focus non-third persons. The focused element is realized as an absolutive pronoun. Blunk offers the following paradigm. In a regular transitive sentence like (17a), the first person subject is expressed through an agreement marker on the verb, while in the AF constructions like (17b) and (17c) there is no verbal agreement with the subject, and the subject is instead expressed as an independent preverbal pronoun.

(17) a. Kat=un-tzok un si'-e'
COM=1SA-cut the firewood-ENC
'I cut the firewood.'

b. In kat=tzok-on un si'-e'
1SB COM=cut-AF the firewood-ENC
'It is I who cut the firewood.'

c. In ni=loch-on=axh
1SB INC=help-AF=2SB
'It is I who am helping you.' (Blunk 2008:1)

Blunk analyzes AF constructions in Ixil as consisting of a copular matrix clause with a transitive complement clause. The subject of the complement clause is a null pronoun anaphorically controlled by the (absolutive) subject of the matrix clause. Blunk shows that stative predicates (predicate adjectives, numerals, and positionals) in Ixil consist of only a predicate and an absolutive argument, with no aspect marking and no overt copula. An example of the Ixil predicate adjective construction is given in (18). Blunk treats AF constructions along similar lines, as having a null focus copula F_{cop} that takes a DP and a clausal argument.

(18) Nim-chit=in
big-very-1SB
'I am very big/tall.'

Similarly to Blunk (2008), Norcliffe (2009) treats focus constructions as clefts. In Norcliffe's description of Yucatec, either AF (19a) or a synthetic (19b) verb form may be used under transitive subject extraction. Note that in Yucatec, the AF form is characterized by the lack of aspect marking, rather than by the presence of a designated morpheme.

(19) a. T-in=kíin-s-ah le x-chìiwoli t-ui=chi'-ah-en=o'
PFV-1SA=kill-CAUS-COM the F-spider PFV-3A=bite-COM-1SB=D
'I killed the tarantula that bit me.'

b. T-in=kíin-s-ah le x-chìiwoli$_i$ _____$_i$=chi'-ah-en=o'
PFV-1SA=kill-CAUS-COM the F-spider =bite-COM-1SB=D
'I killed the tarantula that bit me.'
(Norcliffe 2009:3.30, 3.31)

Norcliffe's account relies on her treatment of A-markers (ergative) as pronominal, rather than agreement, for which she presents evidence including their ability to exhaust the clause (i.e. appear without lexical arguments) and their tendency to be interpreted anaphorically.

Norcliffe shows that this resumptive pronoun (RP)/gap alternation in Yucatec and other Mayan languages follows cross-linguistic tendencies for such alternations, with AF (gapping) highly preferred or obligatory with wh-questions and RP constructions preferred or obligatory with increased layers of embedding (in other words, the alternation is sensitive to island constraints). When third person intransitive subjects or transitive objects are extracted, no special verb form appears because third person ergative agreement is null (in Norcliffe's terms, already gapped).

6.8 A biclausal analysis of Q'anjob'al AF

The analyses in Blunk (2008) and Norcliffe (2009) may offer an alternate method of reconciling extraction and embedded transitive uses of Q'anjob'al agent focus, since under such an analysis both constructions would be biclausal.Q'anjob'al shares some properties with Ixil; notably, stative predicates in Q'anjob'al also appear with an absolutive argument, but no aspect marking or overt copula. In some cases in Ixil, AF is accompanied by an optional overt copula, surfacing as *a*, identical to the marker that precedes the focused element in Q'anjob'al AF constructions (as in 1b, repeated below)[19].

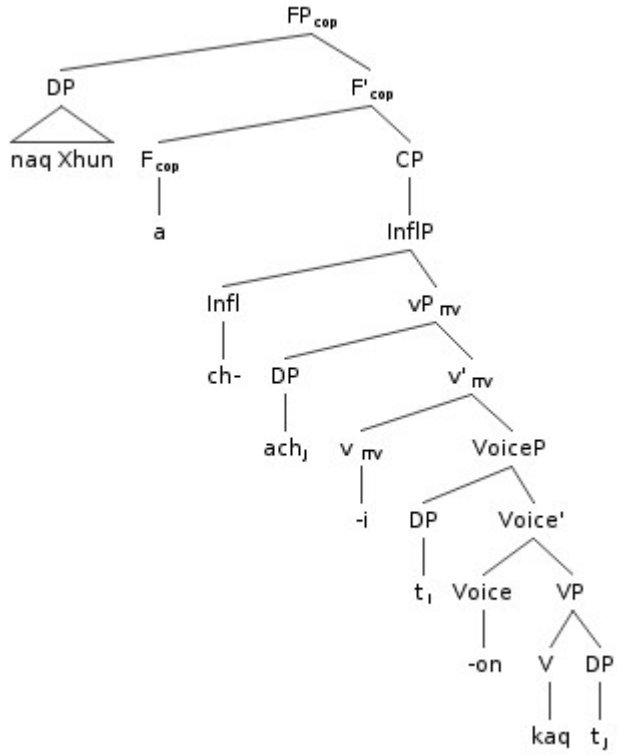
(20) (A)=in kat=vat=in-e'
F_{cop}-1SB COM=sleep=1SB-ENC
'It was I who slept.' (Blunk 2008:19b)

(1) b. A naq Xhun ch-ach kaq-on-i.
FOC CL.AN John INC-2SB hate-AF-ITV
'It's John that hates you.'

An analysis along the lines of those in Blunk (2008) for Q'anjob'al could produce a syntactic structure like that shown in Figure 6.VI for (1b).

[19]Independent prounouns in Q'anjob'al also begin with *a*, though they do not always appear in a focus position (eg. 1S *ayin*, 1P *ayon*, 2S *ayach*).

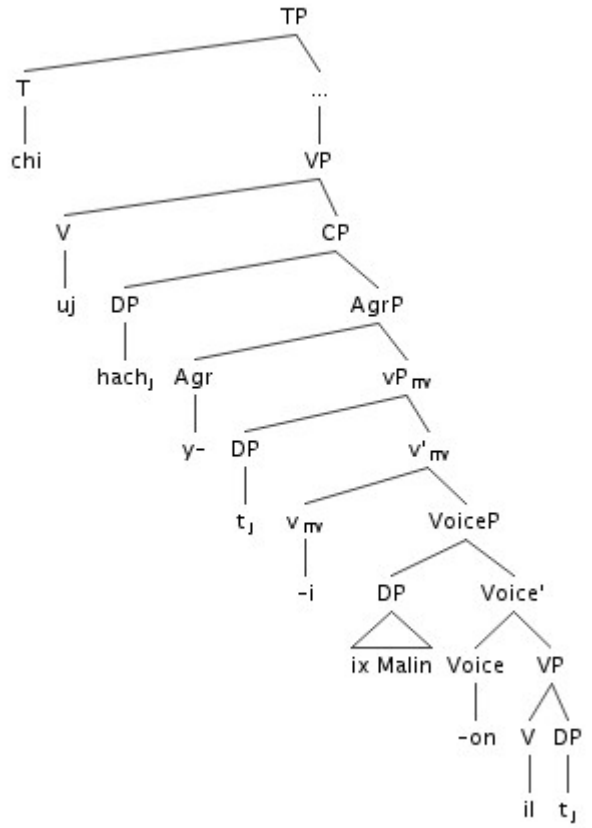
Figure 6.VI: Q'anjob'al AF as clefting (ex. 1b)



The structure for Q'anjob'al AF in a non-finite embedded clause would look very similar, and along these lines both extraction and embedding AF constructions can be considered to involve subordination. I have introduced ergative agreement in a functional projection under the embedded CP in Figure 6.VII, a proposed structure for Coon & Mateo Pedro's (2011) example, reproduced in (4a), repeated below.

(4)	a.	Chi	uj	hach	y-il-on	ix	Malin.
		INC	can	2SB	3A-see-AF	CL.F	Mary
		'Mary can see you.'					(Coon & Mateo Pedro 2011:13)

Figure 6.VII: Non-finite clause with AF (ex. 4a)



Norcliffe's (2009) analysis of Yucatec is similar to Blunk's and also informs the biclausal analysis of Q'anjob'al AF sketched in Figures 6.VI and 6.VII, but there are also some important differences between Q'anjob'al and Norcliffe's description of Yucatec. While Yucatec can be said to show a RP/gap alternation in which the AF form is an optional gapping strategy, Q'anjob'al shows no such alternation; AF is obligatory in all cases of subject extraction (and in non-finite embedded transitives). Also, embedded transitives cannot be considered an instance of gapping, as there is no gapped argument; all syntactic arguments of the embedded verb are overt and appear within the embedded clause. In embedded transitive constructions in

Q'anjob'al, there is also no argument in the main clause coreferential with an argument in the embedded clause, as there is in Norcliffe's treatment of Yucatec extraction.

A biclausal analysis of agent focus constructions such as those offered in Blunk (2008) and Norcliffe (2009) is promising for Q'anjob'al, as it potentially offers a way to unify extraction and embedding constructions using the AF morpheme *-on* without appealing to abstract Case assignment as in Coon & Mateo Pedro's (2011) analysis.

6.9 An Optimality Theoretic (OT) account of Q'anjob'al voice morphology

Aissen (1999b), building on Aissen (1997), proposes an OT analysis of the interaction between voice morphology and an animacy hierarchy. Aissen (1999b) adopts the following formalism for aligning prominence scales from Prince & Smolensky (1993), originally used to explain sonority in syllable structure.

(21) Alignment

Suppose given a binary dimension D_1 with a scale X > Y on its elements {X, Y}, and another dimension D_2 with a scale a > b > … > z on its elements. The *harmonic alignment* of D_1 and D_2 is the pair of Harmony scales:

H_X: X/a ► X/b ► … ► X/z

H_Y: Y/z ►… ► Y/b ► Y/a

The *constraint alignment* is the pair of constraint hierarchies:

C_X: *X/z >> … >> *X/b >> *X/a

C_Y: *Y/a >> *Y/b >> … >> *Y/z (Prince & Smolensky 1993:212)

Aissen (1999b) holds that scales of person/animacy, thematic role, syntactic expression (i.e. subject vs. non-subject), and prominence are universal, but that language-specific constraint rankings determine which candidates are optimal in a specific language.

In Q'anjob'al, a constraint prohibiting the alignment of inanimate with transitive subject must be high to prohibit sentences like (11a), repeated below (see 5.3 for discussion of this example).

(11) a. *X-y-a' taj q'a no' txay.
COM-3A-give cook fire CL.AN fish
Intended: 'The fire cooked the fish.'

Consequently, if we choose as the binary dimension in (21) the universal scale *subject>non-subject*, the reverse constraint hierarchy will prohibit the alignment of animate with non-subject of a transitive, leading to the impossibility of a first- or second-person oblique agent in a passive construction, as exemplified by (13), repeated below. These constraints in Q'anjob'al must be highly ranked to account for the data.

(13) X-maq'-lay naq j-uj.
COM-hit-PSV CL.M 1PA-by
'He was hit because of us.'
Intended: 'He was hit by us.'

A constraint prohibiting the alignment of subject with patient must be ranked rather low in Q'anjob'al to account for the ubiquitous use of passive. A constraint avoiding the alignment of non-discourse-prominent with transitive subject should be ranked relatively high, though violable. A preliminary ranking for Q'anjob'al constraints in this system is illustrated in the following tableau. Following Aissen (1999b), I use X to refer to a discourse-prominent entity and x to refer to a non-discourse-prominent entity. The constraints in the following tableaux are defined as:

*SUB/INAN: Do not have an inanimate transitive subject

*NON-SUB/LOC: Do not have a local agent that is not expressed as the subject

*SUB/x: Do not have a subject that is not discourse prominent

*SUB/PAT: Do not express the logical patient as the subject

Tableaux 6.III, 6.IV and 6.V below account for the facts illustrated in (11a) and (13); inanimates cannot be ergative subjects and local persons cannot be passive agents (obliques). When the patient is a local person outranking the agent in animacy, as in Table 6.III, *NON-SUB/LOC rules out an active sentence. Though both passive and AF violate *SUB/PAT in this case, this constraint is ranked low enough that both options remain optimal, and in fact are equally acceptable. Interpreting the object of the *-uj*-phrase in (13) as a passive agent would violate optimality by failing to express a local agent as the subject, as shown in Table 6.IV, so only a cause reading is available for the prepositional argument. Table 6.IV also explains why AF constructions can only be used to focus third persons, since *NON-SUB/LOC is ranked high, unifying this fact with the distribution of passives. Adding a constraint against passive voice under subject extraction high in the ranking could help disambiguate the choice between passive and agent focus, but as these both seem to be acceptable with certain animacy/thematic role combinations I have kept them relatively unranked.

Table 6.III: Verb with third person agent and first person patient

Input: V (Agt/3, Pat/1)	*SUB/INAN	*NON-SUB/LOC	*SUB/x	*SUB/PAT
Active (Agt/3/Sub, Pat/1/Obj)		*!		
☞ Passive (Agt/3/Obl, Pat/1/Sub)				*
☞ Agent Focus (Agt/3/Foc, Pat/1/Sub)				*

Table 6.IV: Verb with first person agent and third person patient

Input: V (Agt/1, Pat/3)	*SUB/INAN	*NON-SUB/LOC	*SUB/x	*SUB/PAT
☞ Active (Agt/1/Sub, Pat/3/Obj)				
Passive (Agt/1/Obl, Pat/3/Sub)				*!
Agent Focus (Agt/1/Foc, Pat/3/Sub)				*!

Table 6.V illustrates the ungrammaticality of (11a). Since *SUB/INAN is ranked high, inanimate arguments are prevented from ever surfacing as transitive subjects. Again, passive (11b) and AF (11c) are equally acceptable options, and violate none of the constraints presented here when the agent is inanimate and the patient animate.

(11) a. *X-y-a' taj q'a no' txay.
COM-3A-give cook fire CL.AN fish
Intended: 'The fire cooked the fish.'

b. X-'a'-lay taj no' txay y-uj q'a.
COM-give-PSV cook CL.AN fish 3SA-by fire
'The fire cooked the fish.'
Lit.: 'The fish was cooked by the fire.'

c. Q'a x-'a'-on taj no' txay.
fire COM-give-AF cook CL.AN fish
'The fire cooked the fish.'

Table 6.V: Verb with inanimate agent and animate patient

Input: V (Agt/Inan, Pat/An)	*SUB/INAN	*NON-SUB/LOC	*SUB/x	*SUB/PAT
Active (Agt/Inan/Sub, Pat/An/Obj)	*!			
☞ Passive (Agt/Inan/Obl, Pat/An/Sub)				
☞ Agent Focus (Agt/Inan/Foc, Pat/An/Sub)				

Table 6.VI addresses the pragmatic use of passive and AF verbs in discourse. I have only specified the arguments as animate third person, i.e. they are somewhere in the middle of the hierarchy in (11), repeated below.

(11) definite human>individuated (indef.) human>definite nonhuman> individuated (indef.) nonhuman>unindividuated

In this case, the deciding factor for whether or not active voice is grammatical will be the relative discourse prominence of the arguments; *SUB/x prevents the less discourse-prominent argument from being expressed as the subject, leading to passive and AF as the only two possible options. Though both passive and AF violate *SUB/PAT by expressing the patient as the subject, this violation is not as bad as expressing a non-discourse-prominent entity as the subject. In order to capture the fact that when discourse prominence is not at issue, Q'anjob'al tends to choose the more animate, more definite argument as the grammatical subject, constraints against the alignment of subject with, for example, animals and indefinites could be added. However, such constraints would have to be ranked relatively low, crucially lower than *SUB/x, to account for the distribution of voice morphology in discourse.

Table 6.VI: Verb with discourse-prominent patient and agent (both animate 3rd person)

Input: V (Agt/An/x, Pat/An/X)	*SUB/INAN	*NON-SUB/LOC	*SUB/x	*SUB/PAT
Active (Agt/An/x/Sub, Pat/An/X/Obj)			*!	
☞ Passive (Agt/An/x/Obl, Pat/An/X/Sub)				*
☞ Agent Focus (Agt/An/x/Foc, Pat/An/X/Sub)				*

Chapter 7: Summary and conclusions

In this dissertation, I have discussed and analyzed five voice alternations in Q'anjob'al: two passive constructions, the antipassive, object incorporation, and agent focus. All of these constructions manipulate the syntactic realization of a transitive verb's thematic arguments, and all make the verb morphologically intransitive, as it can only agree with one argument using the absolutive marking also seen in underived intransitives. This chapter consists of a summary of these five voice alternations, their syntactic features, and their distribution, and concludes with a general analysis of the distribution of these constructions as determined by their relative markedness.

Q'anjob'al's basic word order is VSO, and as an ergative language it references the transitive subject with ergative agreement and the transitive object with absolutive agreement. Absolutive agreement is also used to reference intransitive subjects, including in derived intransitives like the voice constructions discussed throughout this dissertation. Section 2.4.1 provides the details of Q'anjob'al word order and verbal agreement.

Q'anjob'al has two passive constructions, as discussed in 3.3.1 and 4.3.1. In both constructions, the verb agrees with the patient through absolutive marking (as in transitive constructions) and the agent, if present, is expressed in a prepositional phrase headed by *-uj* 'by'. One Q'anjob'al passive, using the suffix *-lay* on the verb, is productive and very commonly used, even to translate transitive English sentences. The other passive construction uses the verbal suffix *-chaj* and is limited in distribution and compatible with a restricted number of verbal roots. While the two passive constructions are syntactically identical, passives with *-chaj* often have different semantic and morphological features than *-lay* passives. They often add the implication

that the action denoted by the verb was difficult for the agent to perform, they often make the action denoted by the verb telic, and they sometimes unpredictably change the meaning of the root verb. In at least one case, the *-chaj* passive also occurs with an allomorph of the root verb it attaches to (*michaj* 'catch'/'catch up to' from the root *mitx'* 'hold'). Some *-chaj* passives require expression of the agent in a prepositional phrase, while no *-lay* passives do, and it is not predictable whether or not a particular *-chaj* passive will have this requirement.

The antipassive, discussed in 3.3.2 and 4.3.2, is formed with the verbal suffix *-waj*. The verb agrees with the agent using absolutive agreement, in contrast to the ergative agreement used to reference the agent in transitive constructions, and the patient is optionally expressed in a prepositional phrase headed by *-in* 'at'. The antipassive sometimes alters the meaning of the verb root for some speakers. It is sometimes obligatory when there is no overt object, but it occurs much less often in our database than either the *-lay* passive or the agent focus construction.

In object incorporation constructions, introduced in 3.3.3 and discussed in detail in Chapter 5, the verb is suffixed with the marker *-wi* and agrees with the subject of the corresponding transitive through absolutive marking, in contrast to the ergative marking the subject receives in a transitive sentence. The object of the corresponding transitive appears after the verb, but remains a phonologically discrete word. In some cases the object may be omitted when the verb is suffixed with *-wi*. The incorporated object can also appear with adjectives and conjuncts, though not with classifiers, possessors, demonstratives, numerals, quantifiers, prepositional phrases, or modifying clauses. There is also a ban on intervening material between the verb and the incorporated object. These facts suggest that the incorporated element is more syntactically complex than a root, but is no larger than NP.

Agent Focus (AF) constructions, introduced in 3.3.4 and discussed in depth in Chapter 6, are used when a transitive subject is extracted, for example when it is focused, in wh-questions, and in relative clauses. AF is formed with the verbal suffix *-on*, the verb agrees only with the transitive patient using absolutive marking, and the transitive subject appears in a fronted focus phrase headed by the focus marker *a*. Unlike the other voice constructions discussed in this dissertation, AF never occurs with a reduction in valency, as both the subject and object of the corrersponding transitive must be overtly expressed.

Both passive voice using *-lay* and agent focus can be used as repair strategies when transitive is not appropriate because of the relative animacy and/or discourse prominence of a verb's arguments. An optimality theoretic analysis of the choice of a transitive, *-lay* passive, or AF verb is presented in Chapter 6. In general, Q'anjob'al uses both *-lay* passives and AF very often, while the other voice constructions discussed above – the *-chaj* passive, antipassive, and incorporation – are relatively rare.

The syntactic and semantic features of the Q'anjob'al voice constructions offer an explanation of their distribution in the data. Passives with *-lay* and Agent Focus are less marked in Q'anjob'al, and therefore occur more frequently, than the *-chaj* passive, antipassive, or incorporation because of the following features they share:

- preservation of the structural position of the internal argument
- canonical alignment of the patient argument with absolutive case
- no restrictions on the transitive verbs on which they may appear
- no unpredictable changes in meaning or allomorphy of the root.

The other voice constructions each have a subset of these features, but only the *-lay* passive and AF share all of them. As it is syntactically identical to the *-lay* passive, the *-chaj*

passive also preserves the structural position of the internal argument and does not induce case shift; the patient is referenced with absolutive agreement just as it is in a transitive construction. However, the *-chaj* passive is more marked than the *-lay* passive because it is restricted in the roots it can attach to and it often causes unpredictable changes in meaning. Passive sentences with *-chaj* often have different connotations than their transitive counterparts, even when they do not change the basic meaning of the verb, while *-lay* passives are typically interpreted as paraphrases of their transitive counterparts.

Antipassive and object incorporation both cause a case shift, with the subject of the corresponding transitive referenced with absolutive agreement on the verb instead of the ergative marking they receive in a transitive sentence. Antipassive also disrupts the structural position of the internal argument, either omitting it or expressing it as an oblique in a prepositional phrase.

Only *-lay* passives and AF constructions among the Q'anjob'al voice alternations share all of the unmarked features in the bulleted list above, making them the most suitable repair strategies when a transitive construction is impossible or undesirable due to an inverse relationship between the two arguments of a transitive verb in animacy, definiteness, and/or discourse prominence. These shared features are responsible for the relative frequency of these two voice alternations in the data when compared to other possible voice alternations.

Introduction to appendices

The following stories told by Pedro Pascual Garcia were collected in Santa Eulalia, Guatemala in August 2012 and recorded in MP3 format. Angelica Garcia Pascual provided Spanish translations, and close English translations were prepared with the help of Alejandra Francisco in Los Angeles, California, in 2012-2013.

Appendix I: The Story of the Rabbit, as told by Pedro Pascual Garcia

1. Ok j-al y-ab'ix-al y-ib'an no' txitx – la historia del conejo.
   enter 1PA-tell 3A-story-ABST 3A-about CL.AN rabbit *la historia del conejo*
   We tell the story of the rabbit.

2. [E] y-et jun tiempo tu axal xal Virgen [e] ay
   3A-of one time DEM PRT CL.F.HON Virgin exist
   xal b'ay y-atut.
   CL.F.HON PREP 3A-house
   In that time, the Virgin lived in her house. [20]

3. Kax x-ok jun way-ich xal tol-ta x'-job'
   then COM-enter one sleep-NMZR CL.F.HON that-COND COM-raise
   xal no' no'
   CL.F.HON CL.AN animal
   She dreamt that she should domesticate animals,

4. [e] chi sipoj no' y-ul q'ab' xal ma ay
   INC abound CL.AN 3A-in hand CL.F.HON CONJ exist
   yax-ilal y-ul q'ab' xal.
   green-NMZR 3A-in hand CL.F.HON
   that they could abound and multiply in her hands.

5. Kay x-y-un y-al-lay b'ay xal.
   like COM-3A-do 3A-tell-PSV PREP CL.F.HON
   That's how she was told.

[20]The "Virgin" in this story is Saint Eulalia, the patron saint of Santa Eulalia, Guatemala.

6. Tay x-man no' xal masanil klase no' no':
then COM-buy CL.AN CL.F.HON all kind CL.AN animal
She started to buy all different kinds of animals:

7. man no' [no'] txitam, man-lay no' kaxhlan
buy CL.AN pig buy-PSV CL.AN chicken
she bought a pig, she bought a chicken,

8. man-lay no' ak'ach, man-lay no' [no'] tx'i',
buy-PSV CL.AN turkey buy- PSV CL.AN dog
she bought a turkey, she bought a dog,

9. no' mis, [e] man-lay no' [no'] petx,
CL.AN cat buy-PSV CL.AN duck
A cat, she bought a duck,

10. kax man-lay [e] no' [no'] txitx.
then buy-PSV CL.AN rabbit
and she bought a rabbit.

11. Axa x-y-un-xin x-waj-b'-on-ok-toq xal
then COM-3A-do-INTNS COM-gather-INCH-DEP-DIR-DIR CL.F.HON
masanil no' no' tu y-ul jun koral.
all CL.AN animal DEM 3A-in one pen
Then she put all the types of animals together in a pen.

12. Tay maj [maj] ch-a' b'a kaj-ay no' masanil
then NEG INC-give RFLX live-DIR CL.AN all
All the animals couldn’tmake themselves live together

13. porke ay no' [ij] chi-lej-ay-toq b'a ay no'
because exist CL.AN eat-REC-DIR-DIR RFLX exist CL.AN
ch-y-a'-lej owal.
INC-3A-give-REC fight
because they would eat each other and fight.

14. Entonses ch'ok-ch'ok k'al b'ay xaq koral no' y-uj
so different-RDPL always PREP build pen CL.AN 3A-by
xal axa y-et mal watx'j-i koral no' tu,
CL.F.HON next 3A-of already prepare-ITV pen CL.AN DEM
So different pens were built by her, and when the pens were already built,

15. entonses ju-jun k'al k'u x-beq'-lay-el-toq no' xol
so RDPL-one always day COM-leave-PSV-DIR-DIR CL.AN among
ak'un kax low no' b'ay sat tx'otx' ch-y-un
grass then eat CL.AN PREP face earth INC-3A-do
j-al-on-i.
1PA-say-DEP-ITV
every day she let the animals out into the grass and they ate on the ground, we say.

16. Axa y-et ch'-q'eq-b'i-kan-ay-oq kax ch-maq-lay-ok-toq no'
next 3A-of INC-black-INCH-DIR-DIR-INF then INC-close-PSV-DIR-DIR CL.AN
When it got dark the animals were locked up.

17. Axa y-et mayal [e] y-ay k'u-al jun tiempo-al
next 3A-of already 3A-exist day-ABST one time-ABST
And then one afternoon,

18. tay [e] y-il-ay-teq b'ay y-ul koral
then 3A-see-DIR-DIR PREP 3A-in pen
when she checked in the pen,

19. [no' no' no' txitx tu k'am no'] k'am no' txitx tu.
CL.AN CL.AN CL.AN rabbit DEM NEG CL.AN NEG CL.AN rabbit DEM
the rabbit wasn't there.

20. [E] yamta tol x'-el-a' no' ma b'ay x-toq
Maybe that COM-go.out-ITV CL.AN CONJ PREP COM-leave
no'.
CL.AN
Maybe he went out or he left somewhere.

21. Tay axa x-y-al-on xal xin, "Nani mejor maj xa
then next COM-3A-say-DEP CL.F.HON then now better NEG PRT
hin jaq-il-toq jun txitx ti.
1SA open-DIR-DIR one rabbit DEM
Then she said, "I'd better not let this rabbit out.

22. A jun j-ut nani mejor [e] maq-ay koral ti to'ol
FOC one 1PA-do now better close-DIR pen DEM only
q-in waj sakate," x-ab' xal.
POT-1SA gather fodder COM-say CL.F.HON
What we're going to do now is close this pen. I will just gather fodder," she said.

23. Yamta jun x-ab' xal tay maj xa ch-jaq-il-toq
maybe one COM-say CL.F.HON then NEG PRT COM-open-DIR-DIR
no' txitx tu.
CL.AN rabbit DEM
Maybe she said she wasn't going to let that rabbit out.

24. Axa y-et jun xa k'u-al tay kax [e] jaq-on-el-teq
next 3A-of one PRT day-ABST then then open-DEP-DIR-DIR
xal no' no' tu
CL.F.HON CL.AN animal DEM
The next day when she let the animals out,

25. jaq-lay-el-teq no' [no'] tx'ej, jaq-lay-el-teq no' [no'] mis
open-PSV-DIR-DIR CL.AN horse open-PSV-DIR-DIR CL.AN cat
tu,
DEM
the horse came out, the cat came out,

26. jaq-lay-el-teq no' tx'i', no' kaxhlan, jaq-lay-el-teq no'
open-PSV-DIR-DIR CL.AN dog CL.AN chicken open-PSV-DIR-DIR CL.AN
ak'ach, no' petx.
turkey CL.AN duck
the dog and the chicken came out, the turkey and the duck came out.

27. Tay axa y-et y-un xal y-oche-j xal maj
then next 3A-of 3A-do CL.F.HON 3A-want-TV CL.F.HON NEG
jaq-lay-el-teq no' [no' no'] txitx tu.
open-PSV-DIR-DIR CL.AN rabbit DEM
Then she didn't want to let the rabbit out.

28. Axa y-un-ej y-ek'-el-teq turnaj no' y-ul koral tu
next 3A-do-TV 3A-cross-DIR-DIR suddenly CL.AN 3A-in pen DEM
la.
EV
It tried to escape from its corral.

29. Kax y-ok mitx'-an xal y-in ne' no'.
then 3A-enter touch-POS CL.F.HON 3A-at tail CL.AN
Then she grabbed it by its tail.

30. Axa y-et y-ok mitx'-an xal y-in ne' no' tu
next 3A-of 3A-enter hold-POS CL.F.HON 3A-at tail CL.AN DEM
la,
EV
When she grabbed it by that tail,

31. Kax tuq-on-el b'a no',
then pull-DEP-DIR RFLX CL.AN
it pulled itself away,

32. xan [e] kan-kan nan ne' no' txitx tu y-ul q'ab' xal
CONJ stay-DIR half tail CL.AN rabbit DEM 3A-in hand CL.F.HON
and half the rabbit's tail was left in her hand.

33. Xan a no' txitx tu nani kutix no'
why FOC CL.AN rabbit DEM now cropped.tail CL.AN
That's why the rabbit has a cropped tail now.

34. Tix ch-y-un laq-wi jun ab'ix tu.
this COM-3A-do finish-API one story DEM
This is how the story ends.

Appendix II: The Story of the Cat, as told by Pedro Pascual Garcia

1. Ok j-al y-ab'ix-al no' mis *– la historia del gato.*
   enter 2PA-tell 3A-story-ABST CL.AN mis *– la historia del gato.*
   We tell the story of the cat.

2. Ay jun mojan heb' anima y-et tu.
   exist one couple 3P person 3A-of DEM
   Once there was a couple of people.

3. A naq winaq tu y-al naq b'ay y-istil,
   FOC CL.M man DEM 3A-tell CL.M PREP 3A-wife
   That man told his wife,

4. "Anani hin-toj mulnaj-il. Watx' ch-ot hin lob'ej,"
   "Now 1SB-go work-ABST good INC-2SA.make 1SA food
   "Now I'm going to work. Make me some good food,"

5. xhi ta naq b'ay ix xin.
   say PRT CL.M PREP CL.F PRT
   he said to her [and left].

6. Ax x-y-une-j isaq k'al ch-y-ut b'a ix,
   PRT COM-3A-do-TV lazy always INC-3A-do RFLX CL.F
   And then she always gets lazy;

7. tay k'am ch-watne-j ix lob'ej naq tu.
   then NEG INC-make-TV CL.F food CL.M DEM
   she didn't make his food.

8. Tay x-toj naq mulnaj-il.
   then COM-go CL.M work-ABST
   Then he went to work.

9. Axa y-et jay naq y-et chuman,
   next 3A-of come CL.M 3A-of lunch
   When he came home for lunch,

10. k'am lob'ej naq watx' y-ay-ji y-uj ix.
    NEG food CL.M good 3A-exist-DER 3A-by CL.F
    his good food made by her wasn't there.

11. Tay tit y-owal naq.
    then come 3A-fight CL.M
    Then he got mad.

12. To kax waykan ay y-et aq'b'al-il tu.
still? then sleep-DIR exist 3A-of night-ABST DEM
and then they went to sleep that night.

13. Axa y-et jun xa k'u-al-il,
next 3A-of one already day-ABST-ABST
The next day,

14. "Q-in-toj jun-el-xa mulnaj-il,
POT-1SB-go one-DIR-already work-ABST
"I'm going to work again,

15. pero watx' ch-hot hin lob'ej. Ta k'amaq
but good inc-2SA.make 1SA food if NEG
but make me some good food. If not,

16. hoq tit w-owal hen q-ach w-uqte-j pax-oq,"
POT come 1SA-fight 2SA.at POT-2SB 1SA-chase-TV back-INF
I will get mad at you and I will send you back,"

17. x-ab' naq b'ay ix.
COM-say CL.M PREP CL.F
he said to her.

18. Pero komo isaq k'alta ix,
but as lazy always CL.F
But because she was always lazy,

19. tay toj naq mulnaj-oq.
then go CL.M work-INF
then he went to work.

20. Tol maj watx'j-oq ta ay lob'ej naq qinib'-al-il
INTNS NEG prepare-INF POT EXIST food CL.M morning-ABST-ABST
jun-el-xa.
one-PRT-again
She didn't prepare his food in the morning again.

21. Tay chuman t'inan ch-jay naq low-oq.
then lunch supposed.to INC-come CL.M eat-INF
He was supposed to come home for lunch.

22. Tay xan a no' mis tu tol chot-an-ok-toq.
then INTNS FOC CL.AN cat DEM INTNS sit-POS-DIR-DIR
The cat was sitting.

23. No' mis tu ti q'a tol ch-y-ab' no'.
CL.AN cat DEM DEM fire INTNS INC-3A-listen CL.AN
That cat is near the fire and he listens.

24. Axa y-et jay naq winaq tu jun-el-xa
next 3A-of come CL.M man DEM one-PRT-PRT
When the man came again

25. y-et chuman y-et jun xa k'u-al.
3A-of lunch 3A-of one PRT day-ABST
for lunch the next day,

26. k'am pax lob'ej naq. "B'weno!"
NEG as.for food CL.M EXCLM
his food was not there. "All right!"

27. Tay tit xa y-owal naq
then come PRT 3A-fight CL.M
Then he got mad

28. x-y-uqt-on pax naq ix y-istil tu.
COM-3A-chase-AF return CL.M CL.F 3A-wife DEM
and he made his wife go back.

29. Nani pax-an y-ix b'a.
now return-POS 3A-woman RFLX
Now his wife went back.

30. "Xa w-il tzet hoq w-ut low hin b'a," x-ab'-i.
PRT 1SA-see what POT 1SA-do eat 1SA RFLX COM-say-ITV
"I'll see how I'll feed myself," he said.

31. Tay mal toj ix.
then already go CL.F
Then she left.

32. Tay axa y-et jun xa k'u-al-il
Then next 3A-of one PRT day-ABST-ABST
Then, the next day,

33. Y-aj wahan naq toj naq mulnaj-oq.
3A-go.up standing CL.M go CL.M work-INF
he got up and went to work.

34. Axa y-un-ej ax jay naq, ay xa ay lob'ej naq.
next 3A-do-TV PRT come CL.M exist PRT exist food CL.M
When he came home, his food was there.

35. Paqaqi y-ay-ji; pat naq y-ul motx,
stack.of.tortillas 3A-exist-DER tortilla CL.M 3A-in tortilla.warmer
There was a stack of tortillas, his tortillas were in the tortilla warmer,

36. i mal watx'-ji chib'ej naq i y-uk'ja naq
and already good-DER meat CL.M and 3A-atole CL.M
his meat and his atole were ready.

37. Watx'-xa y-ay-ji to xa k'ayaj k'ul naq.
good-already 3A-exist-DER PRT PRT shocked stomach CL.M
Everything was ready and he was shocked.

38. Tay toj to watne-j lo b'a naq to watx'-xa
then go PRT make-TV eat RFLX CL.M PRT good-already
y-ay-ji.
3A-exist-DER
He went to make food for himself and everything was ready.

39. Tay axa y-et jun xa k'u-al toj pax naq.
then next 3A-of one PRT day-ABST go return CL.M
The next day he left.

40. Tay, "tzet tu y-ay-ji?" xhi pax naq.
then what DEM 3A-exist-DER say as.for CL.M
Then, "What's happening?" he said.

41. Axa y-et jun xa k'u-al
next 3A-of one PRT day-ABST
The next day,

42. jay naq y-et chuman, watx' y-ay-ji lob'ej naq.
come CL.M 3A-of lunch good 3A-exist-DER food CL.M
when he came home for lunch, there was good food.

43. Ay tx'ix, ay pat-ej, ay y-il-on-i, ay masanil
exist tamale exist tortilla-ALN exist 3A-see-AF-ITV exist everything
There were tamales, there were tortillas, he saw there was everything,

44. ay uk'ja, tzet ch-low ta pax j-al-on-i.
exist atole what INC-eat if as.for 1PA-say-1P-ITV
there was atole, what he usually eats, we say.

45. Entonses x'-ok pensar naq y-et aq'b'al-il tu.
so COM-enter worry CL.M 3A-of night-ABST DEM
So that night he started worrying.

46. “Tzet makweltxel ch'-ul watn-on hin-lob'ej?
what who.INTNS INC-come make-AF 1SA-food
“Who is coming and making my food?

47. “Q-w-a' wal ab'erigwar,” x-ab' naq.
POT-1SA-give INTNS find.out COM-say CL.M
“I’m going to find out,” he said.

48. Tay nich ch-na-chaj-el y-uj naq tol a no' mis tu.
then can’t INC-think-PSV2-DIR 3A-by CL.M COMP FOC CL.AN cat DEM
He couldn’t figure out that it was the cat.

49. Ch-y-il no mis tu tol ch-toj-kan naq,
INC-3A-see CL.AN cat DEM COMP INC-go-DIR CL.M
When the cat saw that he left,

50. tay ch-y-a'-on-ok no' gab'acha kax x-kaw-i no',
then INC-3A-give-AF-DIR CL.N apron then COM-knead-ITV CL.AN
he would put on his apron and knead,

51. kax chi watn-on no' lob'ej naq, ni y-oqtaq pax naq.
then INC make-AF CL.N food CL.M NEG 3A-know as.for CL.M
and he [the cat] made his [the man’s] food, and he [the man] didn’t know.

52. Axa y-et jun tiempo-al tu la tay ch-olil-toq naq.
next 3A-of one time-ABST DEM EV then INC-roll?-DIR CL.M
On that day, he left in a hurry.

53. Jun xa k'u-al toj naq mulnaj-il
one INTNS day-ABST go CL.M work-ABST
The next day he went to work,

54. ay tok'al y-ok chuman tay tit naq.
exist only 3A-enter lunch then come CL.M
he left before lunch.

55. “Toj wal w-il-a' maktxel jun ix ch-watn-on hin
go INTNS 1SA-see-TV who one woman INC-make-AF 1SA
lob'ej,” x-ab' naq.
food COM-say CL.M
“I’m going to see what woman is making my food,” he said.

56. Tay tit naq k'ojon k'ul-al ch'an jay naq.
Then come CL.M slow stomach-ABST DIM? come CL.M
He slowly came home.

57. Mok'ok'i ch'an jay naq kawil b'entana xol ak'un.
very.slowly DIM? come CL.M close window among grass
He came very slowly, among the grass next to the window.

58. Ay y-ok tukan naq y-ul wentana.
exist 3A-enter stare CL.M 3A-in window
He stared in the window.

59. Yan watne-n no mis tu lob'ej naq.
PROG make-AF CL.AN cat DEM food CL.M
The cat was making his food.

60. Ay-ik' gab'acho no mis tu yan patli no
wear-DIR apron CL.AN cat DEM PROG make.tortillas? CL.AN
The cat was wearing an apron, making tortillas

61. lanan watne-n lob'ej no.
PROG make-AF food CL.AN
and making the food.

62. Tix y-ab'ix-al no mis y-et payxa tu.
this 3A-story-ABST CL.AN cat 3A-of old.days DEM
This is the story of the cat in the old days.

63. Kax ch-un laq-wi.
then INC-do finish-API
This is how it ends.

Appendix III: The Story of the Animals that Ate People, as told by Pedro Pascual Garcia

1. *La historia de los animals que comian a las personas antiguamente.*
   The story of the animals that ate people a long time ago.

2. Y-ab'ix-al tiltik y-etoj kab'nal.
   3A-story-ABST wildman 3A-with Lacandon
   The story of the wildmen, the Lacandones.

3. Y-et b'ay xa tu [e] ay y-et [chi chi] chib' heb' unin y-uj heb'
   3A-of PREP PRT DEM exist 3A-of grow 3P child 3A-by 3P
   j-ichemam.
   1PA-ancestor
   At that time, the children of our ancestors were growing.

4. man komon-oq ch'ib' unin sinke ch-kam-i.
   NEG how-IRR grow child without INC-die-ITV
   It was not easy to raise children without them dying.

5. Tzet y-uj? Porke chi-lay-ay-toq ju-jun k'al el
   what 3A-by because eat-PSV-DIR-DIR RDPL-one always go.out
   tx'aj y-ika heb'.
   finish 3A-steam.bath 3P
   Why? Because they were eaten every time they took a bath.

6. A heb' kab'nal tu x-ta'wi ma heb' tiltik tu
   FOC 3P Lacandon DEM COM-answer CONJ 3P wildman DEM
   ch-ul cha'-on heb' unin tu la kax
   INC-come get-AF 3P child DEM EV then
   chi-lay-ay-toq heb'.
   eat-PSV-DIR-DIR 3P
   Those Lacandones answered and those wildmen came to get those children, and they were eaten.

7. Axa y-et ta tx'aj y-ika heb', tay kax ch'-awj-i
   next 3S-of PRT finish 3A-steam.bath 3P then then INC-shout-ITV
   heb':
   3P
   When their bath was ready[21], they would call:

[21]According to Alejandra Juarez, the phrase *tx'aj yika* usually refers to the steam bath being ready to use, but in the context of the story it must mean that the children were done being bathed.

8. “Ul cha'-eq-ay-toq heb' unin.
come get-IMP.PL-DIR-DIR 3P child
“Come get the children.

9. [mayal] Mal ch'aj-lay heb'; mayal ay-teq heb' okoq,”
already wash-PSV 3P already exist-DIR 3P steam.bath
xhi la.
say EV
They are already washed; they are already finished,” they said.

10. Xin tay “joy” xhi ma “jay” xhi juntzan tiltik tu
then then *joy* say CONJ *jay* say all wildman DEM
la.
EV
Then all those wildmen said “joy” or “jay.”

11. Kax a heb' cha'-on-ay-toq heb' unin tu la.
then FOC 3P get-AF-DIR-DIR 3P child DEM EV
Then they got those children.

12. Kax axa heb' tol ch'-ul cha' heb'.
Then next 3P COMP INC-come get 3P
Then they came to get them.

13. Kax x-toj heb' xol techb'al komo ay xik' heb'.
Then COM-go 3P among roof how exist wing 3P
Then they went to the rooftops because they had wings.

14. Axa b'ay tu x-b'et chi-lay-ay-toq heb' unin tu la.
next PREP DEM COM-go eat-PSV-DIR-DIR 3P child DEM EV
And that’s where they went and the children were eaten.

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