

“Indeed, it takes only a single system of grammar to provide continuous torture for life.”

In Praise of Folly, 1509

ERASMUS

Chapter 2

All about Chol

This chapter will offer a description of the language Chol and the people who speak it. In §2.1 I will present demographic and ethnographic information about the *Choles* with whom I lived and worked during the summers of 2002 and 2003. §2.2 will describe Chol's phonemic inventory, the orthographic conventions adopted for this thesis, as well as some of Chol's regular phonological processes. In §2.3 I will discuss prominent Chol morphological characteristics, such as head-marking and ergativity. Next, in §2.4 I will describe the structure of nouns and verbs, including agreement affixes, aspect, voice, and mode. §2.5 will illustrate the various processes for modifying verb and noun stems in Chol. Finally, in §2.6 I will examine Chol constituent order within the context of constituent order typology more generally, and then illustrate some of the syntactic representations that have been proposed to account for Chol's cousin, Tzotzil.

2.1 The language and its speakers

2.1.1 Genetic affiliation

The Mayan language family consists of about thirty languages, spoken by approximately 3,500,000 people in Mexico, Guatemala, and Belize (Lois and Vapnarsky 2003, 3). These languages, descended from Proto-Mayan, are divided into five ma-

lor sub-groups (Campbell and Kaufman 1985, 188), shown in Figure 2.1.¹ Chol belongs to the Cholan sub-family, along with Chontal, Chortí, and the now-extinct Choltí.

2.1.2 Lak ty'añ

The language Chol is spoken today by between 100,000 and 200,000 people in the state of Chiapas in southern Mexico (Vásquez Alvarez 2002, xvii), highlighted in Figure 2.2.² The majority of Chol speaking communities are found in the *municipios* of Tila, Palenque, Sabanilla, Salto de Agua, and Tumbalá shown in Figure 2.3. The data for this thesis was collected in a small village called Campanario within the *municipio* of Tila.

Chol speakers call their language *lak ty'añ*, literally ‘our word’ or ‘our speech’. The label *ch'ol* or *chol*³ is used to refer both to the language and to the people who speak it. The origins of this term are not entirely clear. It is thought, however, that the label was externally imposed and is related to the root *chol* for ‘cornfield’ or ‘*milpa*’. Attinasi (1973, 1) notes that:

Slashing (/cho-bal/) with a machete to clear jungle-forest for cornplanting, and /ixim/, maize corn itself, are both quasi-sacred to the Chol people; it is not unlikely that at the time of first contact they would have identified themselves to others as people of the *milpa*. Even today, the most frequent euphemism for the often pejorative “Indian” is *campesino* “peasant, fieldworker.”

¹Adapted from Craig (1979).

²Maps from Vásquez Alvarez (2002).

³Throughout this thesis ‘Chol’ will be written without the apostrophe (see §2.2.2 on orthography) to reflect English pronunciation. Attinasi (1973, 3) writes that,

In the regions of the Eastern Dialects (Tumbalá, Salto de Agua, Palenque), the language and people are called ‘Ch’ol’ with glottalization. In the western region (Tila, Sabanilla), the name is simply ‘Chol’. Since the name ‘Chol’ is not really a Chol word, the indeterminacy of the name presents no linguistic problem.

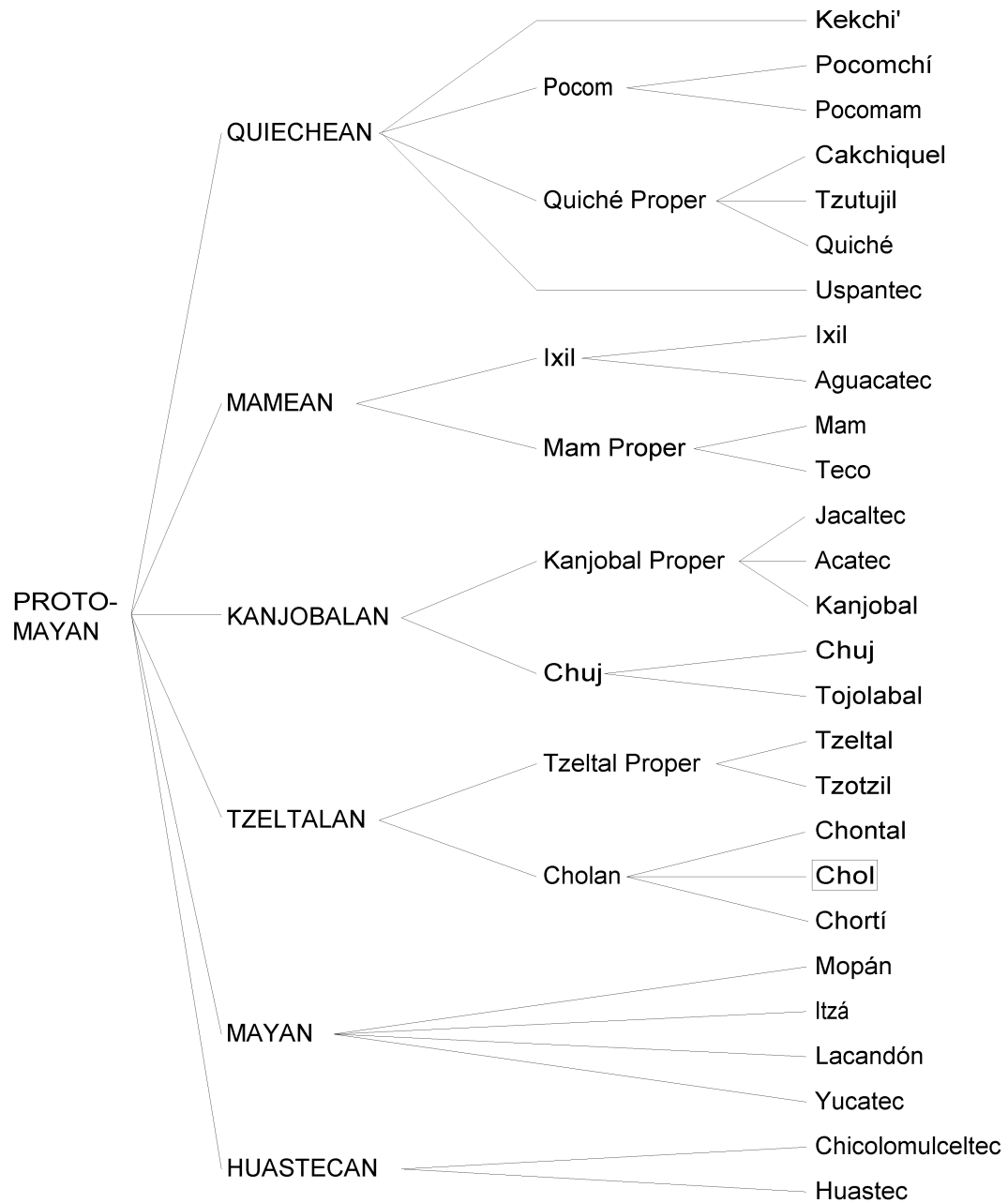


Figure 2.1: The Mayan language family



Figure 2.2: Mexico with the state of Chiapas highlighted

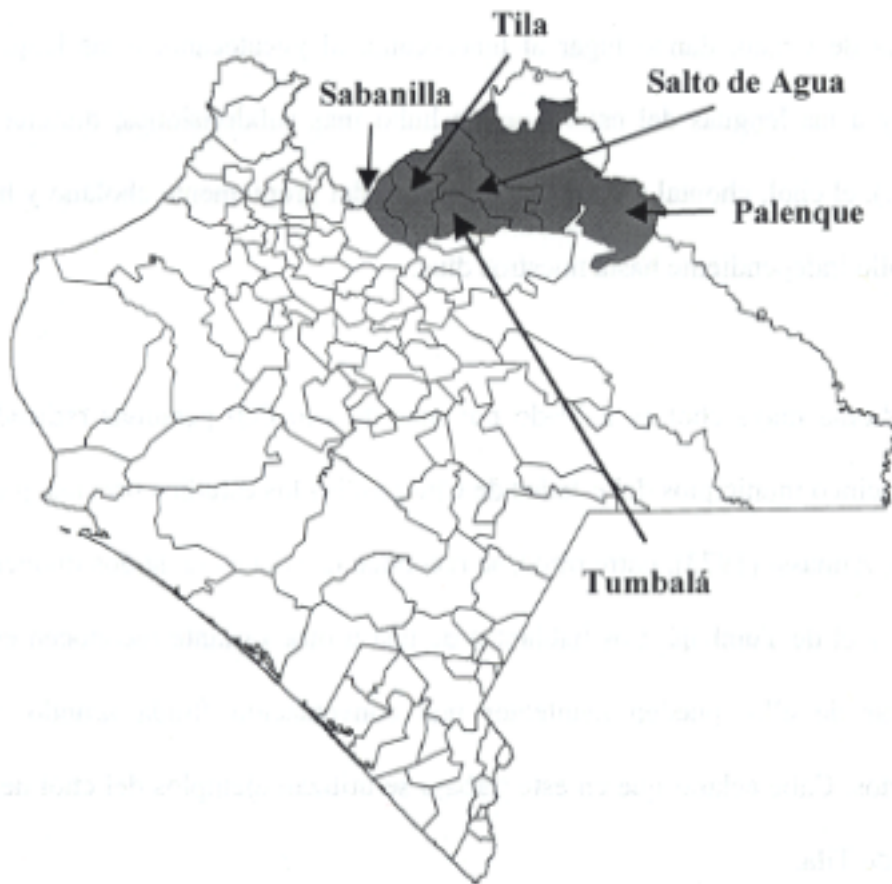


Figure 2.3: *Municipios* in Chiapas with large Chol speaking populations

When speaking Spanish, Choles often refer to their native language simply as *idyoma*, from the Spanish word for language. *Ladinos*,⁴ on the other hand, frequently call Chol and other indigenous languages *dialectos* (dialects). Labeling Chol a dialect wrongly implies that it is simply a degenerate version of Spanish and not a full-fledged language. This term reflects the belief held by many Ladinos (and not a small number of Choles) that indigenous languages are inferior to Spanish or are somehow not “real” languages. The Chol word for a *Ladino* is *kaxlañ* (from Spanish *Castellano*, Castilian); Choles call themselves *lakpi'ilob*, literally ‘our friends’ or ‘our *compadres*’.

2.1.3 Choles

Most rural Choles are subsistence farmers whose staple crops include corn and beans. Many also cultivate squash, greens, bananas, and various other fruits. Chickens and turkeys are raised and either sold or eaten during festivals. Some families raise cattle, pigs, and other livestock, mostly destined for sale in the market. Income from the sale of goods is used to cover transportation costs, and to purchase clothes and school supplies, soap and toiletry items, dishes and other kitchen utensils, veterinary and agricultural supplies, medicine and doctor’s visits, as well as prepared foods and non-local fruits and vegetables.

In rural Chol country, children learn Chol as their first language and continue to speak it in the home and within the community. However, the growing need to travel outside of the village for work and higher education, the increasing number of Spanish-broadcasting televisions and radios, as well as the stigma often associated with speaking an indigenous language, have all made learning Spanish desirable, if not a necessity, for many Choles. In Campanario, many men and a number of younger women speak competent, if not fluent Spanish.

⁴The Spanish word *Ladino* refers to Mexicans who do not identify as indigenous. This label generally has less to do with ethnic make-up than with socio-economic status, lifestyle, and language.

For most children, Spanish education begins in the school. Rural villages usually have at least a primary school, and some have a secondary school as well (often this is a *telesecundaria* where lessons are given through a television placed at the front of the classroom). For further (or better) education it is generally necessary to travel to another town, though associated costs are usually prohibitive. Primary school instruction begins in Chol and shifts to Spanish by around the fourth grade. In my experience, many of the older children in Campanario clearly understood Spanish but were reluctant to speak it, perhaps due to shyness or lack of practice. Although in Mexico it is theoretically mandatory to attend through secondary school, many students, especially girls (who often marry young), do not continue past the sixth grade. The cost of books, school supplies, and often the necessity of transportation makes further education unfeasible for many.

2.1.4 Dialects of Chol

Three different dialects of Chol are generally recognized: Sabanilla Chol, Tumbalá Chol, and Tila Chol. Tila Chol may be further divided into northern and southern dialect regions. In spite of these differences, there is a high level of mutual intelligibility between speakers of different dialects (Aulie and Aulie 1978, xvii). Many differences explicitly recognized and discussed by Chol speakers are lexical. For example, when asked what distinctions exist between Tila Chol and Tumbalá Chol, Tila speakers will invariably cite the fact that in Tumbalá they call rocks *xajlel* instead of *tyuñ* and depart with the farewell *samoñix* instead of *koñix*. Although syntactic and phonological differences doubtless exist as well, a complete analysis of dialectal variation in Chol is beyond the scope of this thesis, which will focus on the Tila dialect.

2.1.5 Previous work

Chol has received relatively little scholarly linguistic attention compared to many of the other Mayan languages. Most of the published linguistic materials (those by

Viola Warkentin, Ruby Scott, Arabelle Whittaker, and Wilbur and Evelyn Aulie, among others) are the products of years, often decades, of missionary work conducted in various Chol-speaking communities. As a result of their efforts, a number of publications related to Chol (linguistic and non-linguistic) are available, and may be found on the SIL webpage (www.sil.org). Although many of the missionaries have been trained in linguistics, their primary goal is to translate the New Testament into Chol and to teach Chol speakers to read it. They have thus produced much in the way of descriptive work, though they have dealt very rarely with its theoretical implications.

Linguistic materials include two works on Chol phonology: Warkentin and Brend (1974) and Koob Schick (1979); various grammatical studies: Schumann (1973), Attinasi (1973), Attinasi (1976), Hoopert and Warkentin (1977), Warkentin and Scott (1980), Meneses Méndez (1987), and Montejo López (1999); as well as four dictionaries: Torres Rosales (1974), Aulie and Aulie (1978), INEA (1992), and Montejo López (2001). Most recently, Vásquez Alvarez (2002), a native Chol speaker, has published a thesis on Tila Chol verbal morphology to which this thesis will refer frequently. Additionally, a number of bilingual Chol–Spanish texts are published by the Chiapas State Government ranging from folk tales to creation stories and poetry. Whittaker and Warkentin (1965) have published a Chol–English book of collected stories called *Chol Texts on the Supernatural*.

2.2 Phonology

This section will offer a brief sketch of the sounds found in Chol, as well as some of the regular phonological processes which they undergo. A more detailed discussion of syllable structure and roots will follow in Chapter 3.

2.2.1 Phoneme inventory

Chol has a phonemic inventory of twenty consonants, including five ejectives and one glottal stop, shown in Table 2.1. As Vásquez Alvarez (2002) notes, other studies

of Chol have produced different lists of phonemic consonants. This discrepancy has been the result of the mis-analysis of certain allophones as separate phonemes (for example, /ñ/ and its allophone [n]), as well as the inclusion of sounds found in words borrowed from Spanish (e.g. /g/ or /f/), which Vásquez Alvarez (2002, 2) rightly argues do not play a significant role in Chol's phonological system.

	Labial	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Plosive	p		(t)	ty	k	'
Ejective	p'	ts'	ch'	ty'	k'	
Implosive	b					
Nasal	m			ñ		
Fricative		s	x			j
Affricate		ts	ch			
Approximant	w			y		
Lateral approximant		l				

Table 2.1: Chol consonants

Chol has six phonemic vowel sounds, represented in Table 2.2 below. Though none have disputed this basic six-vowel inventory, Warkentin and Brend (1974) note an interesting relationship between the vowels /a/ and /ä/, discussed in §2.2.4.

	Front	Center	Back
High	i	ä	u
Mid	e		o
Low		a	

Table 2.2: Chol vowels

2.2.2 A note on orthography

The orthography adopted for this thesis is a standard Chol orthography, based mainly on Spanish writing conventions. This is the alphabet taught in schools and

found in many grammars and recent Chol literature.⁵ Although the abundance of di- and tri- graphs is a drawback (often obscuring the CVC nature of roots), I have adopted it so that my informants could become more involved in the transcription process.

2.2.3 Consonants

Chol's five ejective consonants are contrastive with their non-ejective counterparts in all positions. Compare for example, Chol *ty'añ* 'word' and *tyañ* 'lime', or *buts'* 'smoke' and *buts* 'sprout'.

In Chol and other Mayan languages there are no truly vowel-initial roots; all have a glottal onset (cf. Haviland 1981, England 1983, Vásquez Alvarez 2002). This initial glottal stop is lost, however, with the addition of certain prefixes. For example, *'otyoty* 'house' becomes *k-otyoty* 'my house' when possessed. This loss is perhaps not surprising given that it has been argued that the Mayan glottal stop is not always a full-fledged consonant. For example, Lois and Vapnarsky (2003, fn. 3) write that words like *ja'as* 'banana' and *cha'añ* 'for' should be analyzed as conforming to the canonical CVC root form, claiming that the vowel is a "glottalized vowel" since it behaves formally as a single syllable nucleus. England (1983, 35) also argues that in Mam, "Glottal stop has structural characteristics of both consonants and vowels."

Chol's only voiced consonant, /b/, has been analyzed as [ʔ] or [p] word-finally, and described as "weakly pre-glottalized elsewhere" (Attinasi 1976, 215) or "preceded by a glottal stop" when following a vowel (Warkentin and Brend 1974, 89). These descriptions hint at the implosive nature of /b/, which has also been noted for other Mayan languages.⁶ In Mam, for example, "The imploded bilabial /b'/ is always voiced in initial or medial position but is devoiced finally" (England 1983, 26).

⁵Alternate symbols found in the literature include use of a wedge or /ü/ for the high central vowel /ä/; /t/ for /ty/ and /n/ for /ñ/; /c/ or /qu/ for /k/; and /h/ for /j/. /š/ and /č/ have also been used to represent /x/ and /ch/. Many linguists who work on Mayan languages use the symbol '7' to represent a glottal stop.

⁶Thanks to Matt Pearson for this observation.

A non-palatalized /t/, sometimes considered a separate phoneme (cf. Warkentin and Scott 1980), contrasts with /ty/ in only one case that I am aware of: the minimal pair of *ta'*, a perfective marker and *tya'*, 'shit'. In some dialects of Chol, however, the perfective *ta'* is pronounced as *tsa'* so it is possible that [t] is simply an allophone of /ts/. Alternatively, Chol's /ty/ corresponds to /t/ in many Tzotzil and Tzeltal cognate words; compare Tzeltal *mut* and Chol *muty* 'chicken' or Tzeltal *tat* and Chol *tyaty* 'father'. Perhaps a change from a proto-form */t/ to /ty/ in Chol was blocked in the case of the perfective *ta'* to avoid undesirable homophony with *tya'* 'shit'.⁷ In any case, because /t/ does not play a central role in Chol's phonological system, I have listed it only in parentheses.

In addition to the twenty above consonants, the sounds /f/, /g/, /d/, /r/ and non-palatalized /n/ and /t/ occur frequently in Spanish loan words such as *falda* 'skirt', *kwando* 'when', and *rosa* 'pink'.

2.2.4 Vowels

Two prominent phonological properties distinguish Chol from its close relatives: the sixth vowel /ä/, and the so-called infix *-j-*. These properties, I argue, are both properties of vowels, historically related to similar phenomena found in nearby members of the Yucatecan family in which "... all roots share a general template CVC that is associated with a matrix in which both Cs are completely determined but V only partially so" (Lois and Vapnarsky 2003, 18). In the Yucatecan languages (Yucatec, Itza', Mopan, and Lacandon), qualities of the vowel, such as length and height, become determined in the process of stem formation. As I will discuss here, Chol also appears to employ some of these characteristics.

a vs. ä

Whereas other members of the Tzeltalan sub-family (Chontal: Turner 1967; Tzotzil: Haviland 1981; Tzeltal: Shklovsky, p.c.) have only the five vowels /a/, /e/, /i/, /o/, and /u/, Chol possesses a sixth: /ä/. This sixth vowel, however, is limited in its

⁷I am grateful to Matt Pearson for both of these suggestions.

distribution: Warkentin and Brend (1974, 92) note that whereas the other five vowels may occur initially (after a glottal onset), medially, or finally, /ä/ “occurs initially only in onomatopoeic words.” Furthermore, although many roots do contain the vowel /ä/ (for example *tyäk'* ‘add’), it is difficult to find a semantically unrelated minimal pair in which the vowel differs only in height. There is no word **tyak'*, for example, but note the semantically related *tyak'iñ* ‘money’, from the same root. Also compare *pak'* ‘seed’ with *päk'* ‘plant’.

In the Yucatecan languages of Itza', Mopan, and Lacandon, the high central vowel /ä/ appears in transitive stems, while the low central vowel /a/ is used to form intransitive stems. Although “[t]he height distinction does not affect the other vowels,” Lois and Vapnarsky (2003, 18) argue that “the alternation between /ä/ and /a/ should arguably be sufficient to set a pattern in this direction.” In Chol, an analogous pattern is observed. For example:⁸

<i>pak'</i>	‘seed’	<i>päk'</i>	‘to plant’
<i>ñak</i>	‘game’	<i>ñäk</i>	‘to bother’
<i>x-pay</i>	‘messenger’	<i>päy</i>	‘to call’

These pairs, along with /ä/’s limited distribution, suggest that aside from such transitivity distinctions, /ä/ historically did not play a significant role in Chol’s phonological system.

-j-

Chol is the only member of the Tzeltalan branch which has been claimed to have an infix (Haviland, p.c.). Most previous authors have analyzed -j- (which always appears between the root vowel and the final consonant: CVjC) as a detransitivizing infix (cf. Warkentin and Scott 1980, Aulie and Aulie 1978, Vásquez Alvarez 2002). It appears in intransitive verb constructions, as shown in (2.1b)⁹ and is also used in the formation of numeral classifiers (see §2.5.1).

⁸Examples from Aulie and Aulie (1978), my translation.

⁹For a list of abbreviations and special symbols, please see Appendix A.

- (2.1) a. *tyi'* *mek'-e-y-oñ*
 PERF.3E hug-VT-EPN-1A
 ‘She hugged me.’
- b. *tyi* *mej^k'-i-y-oñ*
 PERF hug.PASS-VI-EPN-1A
 ‘I was hugged.’

Following Attinasi (1976), I argue that this so-called infix should instead be considered a process of vowel lengthening.¹⁰ Analyzed as such, Chol may be compared to Yucatec, in which a long vowel distinguishes intransitive from transitive stems (Lois and Vapnarsky 2003, 19). This and other valence-changing operations will be discussed in greater detail in §2.4.2. Although Attinasi (1973) represents lengthened vowels as V:, I will keep the traditional orthography: Vj.

2.2.5 Phonological operations

This section will examine the most widespread sound change operations found in Chol. Chol’s aversion to adjacent vowels, even across word boundaries, necessitates a number of phonological operations. In this section, insertion, replacement, and deletion will be discussed as strategies for breaking up vowel clusters. Finally, I will describe distant assimilation and vowel harmony, also found frequently in Chol word formation.

Epenthesis

Epenthesis is the process by which one sound is inserted to break up two other sounds. In Chol, *-y-* is placed between a root or stem-final vowel and a suffix with an initial vowel, as in example (2.2). In example (2.3) we find further evidence for the semi-vocalic nature of the glottal stop, as an epenthetic *-y-* is inserted to separate it from the following vowel.

- (2.2) *ta'-ix* *jul-i-y-oñ*
 PERF-ALR arrive-VI-EPN-1A
 ‘I arrived already.’

¹⁰Recall that our symbol /j/ has the IPA value /h/.

- (2.3) *tyi bo'-y-i-y-ety*
 PERF tire-EPN-VI-EPN-2A
 'You (became) tired.'

Additionally, *-j-* appears between vowel-final roots and vowel-initial suffixes. However, since roots native to Chol are usually of the form CVC (see Chapter 3) this only occurs in Spanish loans, as in examples (2.4)¹¹ and (2.5).

- (2.4) *ma'añ mi-k mulañ-Ø jiñi kixtyañoj-ob*
 NEG.EXT IMPF-1E like-3A DET SP.person-PL
 'I don't like those people.'

- (2.5) *solteroj-oñ-tyo*
 SP.bachelor-1A-STILL
 'I am still a bachelor.'

On this matter I follow Attinasi (1976, 76), who proposes that the Spanish loanwords have been borrowed with a final /j/ to conform to the Mayan syllable pattern, and that this /j/ is only clearly heard upon the addition of a vowel-initial suffix. This would explain the unusual discrepancy between “epenthesis” following vowel-final stems (which involves /y/) and following these vowel-final roots (which are under this analysis not really vowel-final at all).

Glottal stop replacement

When the final vowel of a function word (e.g. aspectual auxiliary, preposition) appears adjacent to the initial vowel of the following stem, one of the vowels is dropped and replaced by a glottal stop ($VV \rightarrow V'$). In example (2.6),¹² the third person ergative prefix *i-* has been deleted from the verb stem *majlel* as well as the noun stem *cholel*, and glottal stops have been affixed to the aspectual *mi* and the preposition *tyi* respectively.

¹¹*kixtyaño* ‘person’ is from the Spanish *cristiano* ‘Christian’.

¹²Gender is not distinguished in Chol pronouns or person agreement markers. Though ambiguous outside of context, third person arguments will be arbitrarily translated as either feminine, masculine, or neuter.

- (2.6) *mi'* *majl-el* *tyi'* *cholel* *a-papa*
 IMPF.3E go-NOM PREP.3E field 2E-father
 'She's going to your father's field.'

Deletion

Where two vowels are separated by only a glottal stop, deletion of the glottal stop and one of the vowels often occurs ($V \text{ ' } V$ or $V' V \rightarrow V$). This is not surprising, given the observation in §2.2.3 above that the glottal stop exhibits characteristics of vowels, and that vowel clusters in Chol are disfavored. All of the cases listed below are extremely common, but generally not heard in careful speech.

- (2.7) *baki 'añ* → *bakañ* ('where' + EXT)
ta'-äch → *täch* (PERF + AFF)
ta'-ix → *tax* (PERF + ALR)

Assimilation

In non-careful speech, vowels in certain suffixes (and enclitics) may undergo partial or total distant assimilation, in which the attached vowel adopts some or all of the features of the vowel in the preceding root. Partial assimilation of the enclitic *-ix* is shown in example (2.8b), where the high front unrounded vowel /i/ assimilates in backness and roundness to the root vowel /o/. In (2.8c) the enclitic vowel undergoes full assimilation.

- (2.8) a. *mach k-om-ix*
 NEG 1E-want-ALR
 'I don't want it anymore.'
- b. *mach k-om-ux*
 NEG 1E-want-ALR
 'I don't want it anymore.'
- c. *mach k-om-ox*
 NEG 1E-want-ALR
 'I don't want it anymore.'

Vowel harmony

Many Chol suffixes contain harmonic vowels—vowels which acquire part or all of their value from the vowel in the preceding root. To form a transitive stem, for example, a harmonic vowel (represented henceforth as a lowercase italicized *v*) is employed. Three alternations of the transitive perfective suffix *-v* are shown in example (2.9) below.

- (2.9) a. *tyi'* *mek'-e-y-oñ*
 PERF.3E hug-VT-EPN-1A
 'She hugged me.'
- b. *ma'añ* *tyi'* *k'ux-u-Ø* *i-waj*
 NEG.EXT PERF.3E eat-VT-3A 3E-tortilla
 'He didn't eat his tortilla.'
- c. *tyi* *k-mañ-ä-Ø* *cha'-p'ej* *kilo* *koya'*
 PERF 1E-buy-VT-3A two-NC.round SP.kilo tomato
 'I bought two kilos of tomatoes.'

In the above cases, the transitive suffix acquires all of its features from the vowel in the preceding root. A case of partial harmony, however, occurs when the root vowel is /a/ and the root-final consonant is non-fricative. In these instances the vowel height changes, while the other features are retained (the vowel is raised). Compare the fully harmonic vowel in (2.10a) with the raised vowel in (2.10b).

- (2.10) a. *tyi'* *tyaj-a-Ø* *k'amañ*
 PERF.3E find-VT-3A sickness
 'He became sick.'
- b. *tyi'* *jap-ä-Ø* *kuley*
 PERF.3E drink-VT-3A SP.koolaid
 'She drank koolaid.'

2.2.6 Stress

In standard declarative sentences, stress falls on the final syllable of each word. The most common way to form a yes/no question in Chol is by moving the stress to the

first syllable of the word and using a falling intonation through the phrase, as shown in (2.11).¹³

- (2.11) a. *maystraj-oñ-íx*
SP.teacher-1A-ALR
'I'm already a teacher.'
- b. *máystraj-ety-ix?*
SP.teacher-2A-ALR
'You're already a teacher?'



Figure 2.4: Virginia's nephew, William

¹³For more detail on stress, as well as definitions of word-hood in Chol, see Warkentin and Brend (1974, 93).

2.3 Morphological characteristics

Typology is the classification of languages based on their morpho-syntactic properties. Typologies are considered worthwhile insofar as they may be employed to make useful predictions about other components of the language (e.g. constituent order). Two basic types of typologies have been especially important to the study of language: morphological typology and word order typology (Comrie 1989, 42). Morphology is the study of the internal structure of words. In this section I will discuss morphological typology of the Mayan language family and examine morphological properties and processes of Chol. Constituent order typology and syntactic structure will be discussed in §2.6.

2.3.1 Indices of synthesis and fusion

Comrie (1989, 46) proposes two indices along which languages may be classified based on their morphological properties. The first is the *index of synthesis*, which measures the average number of morphemes per word. The second, the *index of fusion*, measures the degree to which these morphemes may be separated into distinct units. Each will be discussed in turn below.

Index of synthesis

(*Isolating* \longleftrightarrow *Synthetic*)

Languages in which words generally consist of many morphemes are placed on the synthetic end of the continuum, whereas isolating languages, in which words are usually monomorphemic, are placed at the other extreme. Chinese languages are probably the best known examples of isolating languages. Chol, on the other hand, is highly synthetic. In (2.12), for example, an entire proposition is expressed by a single word. In example (2.13) most words consist of more than one morpheme.

- (2.12) *alob-oñ-tyo*
 boy-1A-STILL
 ‘I am still a boy.’

- (2.13) *weñ-äch ta' k-wiñ ch'ujbi-be-Ø i-ty'añ jiñi k-papa*
 good-AFF PERF 1E-well obey-APP-3A 3E-word DET 1E-papa
 'I obeyed my father('s words) well.'

Index of fusion

(*Agglutinative* \longleftrightarrow *Fusional*)

The second index proposed by Comrie is the index of fusion. This index measures the degree to which meaningful units are segmentable into distinct forms. Languages in which there is frequently not a one-to-one ratio between forms and meanings, or in which it is difficult to make clear divisions between morphemes, are placed on the fusional end of the scale. Arabic is an example of a fusional language. On the other side are agglutinative languages, such as Turkish, in which words are easily separable into their component single-meaning morphemes. Chol probably lives closer to the agglutinative side of the continuum. In examples (2.12) and (2.13) above, nearly every morpheme expresses one unit of meaning and is clearly discernable from the next. Exceptions such as *ma'añ* (from *mach* and *'añ*) and *täch* (from *ta'* and *-äch*), however, are not uncommon.

2.3.2 Head-marking

Chol and other languages of the Mayan family are head-marking (see Nichols 1986): grammatical relations are marked on the head of the phrase, rather than on its dependents. Verbs and nouns in Chol employ the same two sets of agreement affixes to mark relations between heads and their dependents: ergative prefixes (traditionally labeled “Set A” by Mayanists) and absolutive suffixes (“Set B”), shown in Table 2.3. The uses of these affixes for nouns and verbs will be discussed in turn below. The meanings of the terms “ergative” and “absolutive” will be explained in §2.3.3.

The ergative prefixes are subject to the following sound change rules:

$k- \rightarrow j- / ___k$

$a- \rightarrow aw- / ___V$

$i- \rightarrow y- / ___V$

	Ergative “Set A”	Absolutive “Set B”
1st person	<i>k-</i>	<i>-oñ</i>
2nd person	<i>a-</i>	<i>-ety</i>
3rd person	<i>i-</i>	<i>-Ø</i>

Table 2.3: Ergative and absolutive agreement affixes

Verbs

In a Chol clause no morphological case is marked on overt nominal arguments. Instead, arguments are cross-referenced on the verb using agreement affixes. On a transitive verb, for example, the subject is cross-referenced using an ergative prefix, while the object is cross-referenced with an absolutive suffix. In example (2.14), none of the three overt nominals take any case morphology.¹⁴ Instead, the grammatical relations of the verb’s two arguments, *pisil* and *joñoñ*, are cross-referenced on the verb. The oblique *ja’* receives its abstract case from Chol’s all-purpose preposition, *tyi*.

- (2.14) *tyi* *i-wuts’-u-Ø_j* *pisil_j* *x-’ixik_i* *tyi* *ja’*
 PERF 3E-wash-VT-3A clothes CL-woman PREP water
 ‘The woman washed clothes in the water.’

Because agreement is head-marked on the verb, overt subject and object pronouns are optional and used only for emphasis (analogous to stress in English). Chol’s pronouns are shown in Table 2.4. As in other Mayan languages (Lois and Vapnarsky 2003, 5), the independent pronouns are formally related to the absolutive suffixes.

¹⁴In this case, grammatical relations are determined by word order: VOS, discussed in §2.6.1.

		Singular	Plural
1	(INC)	<i>joñoñ</i>	<i>joñoñla</i>
	(EXC)		<i>joñoñlojoñ / joñoñloñ</i>
2		<i>jatyety</i>	<i>jatyetyla</i>
3		<i>jiñ</i>	<i>jiñob</i>

Table 2.4: Pronouns

Nouns

Chol also marks grammatical relations of nominals on the head noun using the same two sets of agreement affixes listed above. Possession, for example, is head-marked on the possessed noun with an ergative prefix. When overt, the possessor directly follows the possessed noun and receives no marking, as shown in example (2.15).

- (2.15) *'uts'aty-Ø_j i_j-jol ñeñe'_j*
pretty-3A 3E-hair baby
‘The baby’s hair is pretty.’

In a predicate nominal construction, the theme of the stative predicate is cross-referenced on the head noun with an absolutive suffix, as illustrated in example (2.16). Note that Chol possesses no overt copula.

- (2.16) *wiñik-ety*
man-2A
‘You are a man.’

Both types of agreement morphology may appear on the same noun, as shown in example (2.17), where the ergative prefix *i-* marks possession and the absolutive suffix *-ety* marks the theme of the predicate nominal.

- (2.17) *i-chich-ety*
3E-elder.sister-2A
‘You are his big sister.’

Plural agreement

Both sets of agreement affixes use the same plural markers, shown in Table 2.5, on verbs and predicative nominals. This is demonstrated in examples (2.18) and (2.19).

1st person (inclusive)	-la
1st person (exclusive)	-lojoñ / -loñ
2nd person	-la
3rd person	-ob

Table 2.5: Plural agreement affixes

- (2.18) *tyi wäy-i-y-oñ-la*
 PERF sleep-VI-EPN-1A-PL
 ‘We slept.’

- (2.19) *x-’ixik-oñ-la*
 CL-woman-1A-PL
 ‘We are women.’

Within the first person plural, a distinction is made between plural inclusive (speaker, addressee, and perhaps others) and plural exclusive (speaker and others but not the addressee). Exclusive plural is marked with the suffix *-lojoñ* or its contracted form *-loñ*. *la* is used to mark inclusive first person plural, as well as second person plural. When *la* marks plural of an ergative person, it may appear either as a prefix to the ergative marker or as a suffix, as shown in example (2.20).

- (2.20) a. *tyi la-k-mäñ-ä-Ø koya’*
 PERF PL-1E-buy-VT-3A tomato
 ‘We bought tomatoes.’
- b. *tyi k-mäñ-ä-Ø-la koya’*
 PERF 1E-buy-VT-3A-PL tomato
 ‘We bought tomatoes.’

Third person plural is marked with the suffix *-ob*. Because *-ob* marks plural for both ergative and absolutive persons, and because the same agreement marker may

not appear twice, the following sentence in (2.21) is ambiguous when read outside of context. Here, the plural *-ob* could be co-indexed with the subject, the object, or both.

- (2.21) *tyi' jats'-ä-Ø-y-ob*
 PERF.3E hit-VT-3A-EPN-PL
 'He hit them.'
 'They hit him.'
 'They hit them.'

2.3.3 Ergativity

All languages distinguish between intransitive verbs, which involve a single argument (S), and transitive verbs, which require two or more arguments (A = subject, O = object) (Dixon 1979, 6). Dixon (1979, 6) argues that “all languages work in terms of these three primitive relations.” Languages vary, however, in how they distinguish between S, A, and O. Languages in which S and A are treated the same (but different from O) are called nominative-accusative. English and most other Indo-European languages use this type of agreement system to mark grammatical relations. In example (2.22), the English subject of transitive and intransitive sentences are both marked with the nominative pronoun *she*, while the object of the transitive sentence is marked with the accusative *her*.

- (2.22) a. **She** hugged her.
 b. **She** cried.
 c. *Her cried.

In contrast, ergative-absolutive languages are those in which the object of a transitive verb (O) is marked the same as the single argument of an intransitive verb (S), but differently from the subject of a transitive verb (A). Ergativity has been estimated to occur in about one quarter of the world's languages (Dixon 1979, 2). Though not encountered in the more familiar European languages, ergative characteristics are found across the globe: Examples include Basque (isolate), many of

the Caucasian languages, Tongan and Samoan (Polynesian), the majority of Pama-Nyungan (Australian) languages, Pări (Western Nilotic) in Africa, languages of the Eskimo-Aleut family in North America, as well as Tsimshian in British Columbia and Chinook in Oregon, languages of the Carib and Arawak families in South America, and most languages of the Mayan family (Dixon 1979). In Chol, for example, the equivalent of (2.22) are the sentences shown in (2.23), where the subject of the transitive *mek'* is marked with the ergative third person *i-*. The object of *mek'* and single argument of the intransitive *'uk'* are both marked with the absolutive third person zero morpheme.

- (2.23) a. *tyi i-mek'-e-Ø*
 PERF 3E-hug-VT-3A
 'She hugged her.'
- b. *tyi 'uk'-i-Ø*
 PERF cry-VI-3A
 'She cried.'
- c. **tyi y-uk'-i*
 PERF 3E-cry-VI
 'She cried.'

The difference between ergative-absolutive and nominative-accusative agreement systems is summarized in Table 2.6 below.

Nom-Acc		Erg-Abs	
A	O	A	O
S			S

Table 2.6: Agreement systems

Split ergativity

Although all members of the Mayan family employ a primarily ergative-absolutive pattern to mark grammatical relations, many languages show an ergative split: certain constructions use a nominative-accusative pattern, while others are ergative-absolutive. In Mayan, splits are based predominantly on subordination and aspect

(Lois and Vapnarsky 2003, 6). For Chol, an aspectual split is present whereby perfective constructions show an ergative-absolutive pattern and non-perfective constructions show a nominative-accusative pattern. Intransitive verbs in the perfective are marked with absolutive suffixes, as shown in example (2.24b), and intransitive verbs in the imperfective and progressive aspects are marked with ergative prefixes, as in example (2.24c).

(2.24) a. transitive

tyi *i-jats'-ä-y-oñ*
 IMPF 3E-hit-VT-EPN-1A
 'She hits me.'

b. intransitive perfective (= ergative-absolutive)

tyi *jul-i-y-oñ*
 PERF arrive-VI-EPN-1A
 'I arrived.'

c. intransitive imperfective (= nominative-accusative)

mi *k-jul-el*
 IMPF 1E-arrive-NOM
 'I arrive.'

However, when verbs appear in a subordinate clause as the complement of an aspectual auxiliary, they are not marked for person. In these constructions, the absolutive person marker is attached to the aspectual auxiliary. The verb appears in its participle form subordinated by the preposition *tyi*, as shown in examples (2.25) and (2.26). These constructions will be discussed in greater detail in §2.4.1. A summary of the ergativity split in Chol is given in Table 2.7.

(2.25) *muk'-oñ* *tyi* *jul-el*
 IMPF-1A PREP arrive-NOM
 'I arrive.'

(2.26) *choñkol-Ø* *tyi* *'uk'-el*
 PROG-3A PREP cry-NOM
 'He's crying.'

Ergative-absolutive	Nominative-accusative
perfective	
subordinated non-perfective	non-perfective

Table 2.7: Summary of the ergativity split

2.4 The structure of nouns and verbs

In the following section I will briefly outline the structure of nouns and verbs in Chol, highlighting prominent similarities and differences between the two. The functions of the ergative and absolutive affixes, which appear on both types of stems, are summarized in Table 2.8.

Ergative	Absolutive
subject of transitive verb	object of transitive verb
possessor/relator of noun	theme of stative predicate

Table 2.8: Functions of ergative and absolutive affixes

While the majority of Chol noun stems may appear minimally in their bare, uninflected forms,¹⁵ a basic verbal construction in Chol consists at least of a derived verbal stem,¹⁶ inflected for person, and preceded by an aspectual auxiliary.¹⁷ Additional verbal morphology includes a variety of valence-changing or “voice” suffixes (some of which may also appear on nouns). Second position modal enclitics may occur with both nominal and verbal stems. Aspect, voice, and mode will be discussed in the sections that follow.

¹⁵Exceptions are limited to a small class of inalienably possessed nouns.

¹⁶Stem formation will be discussed in §4.2.

¹⁷A few stative verb stems, including those formed from the roots *'om* ‘want’, *mejl* ‘be able to’, and *'uj* ‘know’, and *'ub* ‘feel’, do not mark for aspect.

2.4.1 Aspect

Perhaps the clearest difference between verb and noun stems in Chol is that noun predicates cannot be marked for aspect. To express temporal notions, an adverb must be employed. This is shown in examples (2.27) and (2.28).

(2.27) *wajali wiñik-oñ*
 before man-1A
 ‘I was a man.’

(2.28) **tyi wiñik-oñ*
 PERF man-1A
 ‘I was a man.’

Verb stems, on the other hand, obligatorily mark for one of three aspects: perfective, imperfective or progressive. Like many other members of the Mayan family, such as Jacaltec (Craig 1979) and Mam (England 1983), Chol has no morphological means to mark tense, which Comrie (1985, 1) defines as the “grammaticalization of location in time.” Tense is a deictic category, a category whose reference is determined with respect to some specific context or situation, or a specific point in time. Aspect, on the other hand, focuses on the temporal nature of the event itself without tying it to any deictic center. It is the grammaticalization of “the internal temporal constituency of a situation” (Comrie 1976, 3). In English, for example, a language with both tense and aspect, the progressive aspect may appear in either the past tense (*It was snowing*) or the future tense (*It will be snowing*).

In Chol, tense notions like past and future are marked with temporal adverbs like *wajali* ‘before’, *’abi* ‘yesterday’ and *’ik’ä* ‘tomorrow’. In (2.29), for example, the imperfective aspectual clitic *mi* occurs with the temporal adverb *wajali*, indicating that the event took place in the past, but lasted over an extended period of time. Contrast this with the perfective example in (2.30). The fact that *mi* may be used to describe the nature of a past event indicates that we are indeed dealing with aspect, not tense, as claimed by some previous authors (cf. Warkentin and Scott, 1980).

(2.29) *wajali mi' bä'ñañ-Ø ja'lel*
 before IMPF.3E fear-3A rain
 'He used to be afraid of the rain.'

(2.30) *tyi' bä'ñ-ä-Ø ja'lel*
 PERF.3E fear-VT-3A rain
 'The rain scared him (just now).'

In Tila Chol, perfective aspect is marked with *tyi* or *ta'*;¹⁸ imperfective is marked with *mi* or *muk'*;¹⁹ and progressive with *choñkol*.²⁰ The perfective aspect is used to indicate that the action is completed and should be viewed “in its entirety”; the imperfective aspect marks an action as incomplete, or as an “ongoing process”; and the progressive aspect indicates that an action takes place over a period of time, and implies an “ongoing, dynamic process” (Payne 1997, 239-40). Chol aspect markers are summarized in Table 2.9 below.

Perfective	<i>tyi</i>	<i>ta'</i>
Imperfective	<i>mi</i>	<i>muk'</i>
Progressive	<i>choñkol</i>	

Table 2.9: Chol aspect

Vásquez Alvarez (2002, 92) claims that the different perfective and imperfective markers are *allomorphs* of the same morphemes: “the perfective *tyi* and the imperfective *mi* have different allomorphs for pronominal and modal suffixation (*tsa'* or *ta'* and *muk'* of *mu'* respectively)” (Vásquez Alvarez 2002, 92).²¹ The allomorph forms, he claims, may take inflection, whereas *tyi* and *mi* may not.

Based on the different structural features of the aspect auxiliaries, I depart from Vásquez Alvarez (2002) in his claim that the *muk'* and *ta'* forms are simply allomorphs of *mi* and *tyi* respectively. Instead, I argue that *mi* and *tyi* are clitics²²

¹⁸Other dialects use *tsa'*.

¹⁹*mu'* frequently appears as an alternate of *muk'*

²⁰*woli* and *yakal* mark progressive in other Chol dialects.

²¹My translation from: “el perfectivo *tyi* y el imperfectivo *mi* tienen un alomorfo diferente para la sufijación pronominal y modal (*tsa'* o *ta'* y *muk'* o *mu'* respectivamente)...” (Vásquez Alvarez 2002, 92).

²²I am grateful to Matt Pearson for this suggestion.

while *muk'*, like the progressive *choñkol*, behaves more like a verb. The claim that *mi* and *tyi* are clitics is supported first by the fact that they themselves may not take any of the second position clitics discussed in §2.4.3 below. Second, they are of the form CV rather than the CVC shape associated with full root forms (see Chapter 3), and finally it is often unclear where to draw the orthographic word boundary between these aspect markers and the verb, both to me and to native Chol speakers. In a sentence like the one given in (2.31), for example, native speakers are unsure of whether the ergative affix forms a word with the aspect marker or with the verb stem.

- (2.31) a. *mi* *k-mulañ-Ø* *tyumuty*
 IMPF 1E-like-3A egg
 ‘I like eggs.’
 b. *mi-k* *mulañ-Ø* *tyumuty*
 IMPF-1E like-3A egg
 ‘I like eggs.’

The properties of the imperfective, progressive, and perfective aspects will be discussed in turn below.

Imperfective

As discussed in §2.3.3 above, clauses in the non-perfective aspects exhibit a nominative-accusative pattern. Compare the transitive clause in example (2.32) with the intransitive shown in example (2.33), both marked with the imperfective clitic *mi*.

- (2.32) *mi* *k-mañ-Ø* *tyumuty*
 IMPF 1E-buy-3A egg
 ‘I buy eggs.’

 (2.33) *mi* *k-wäy-el* *tyi* *'ab*
 IMPF 1E-sleep-NOM PREP hammock
 ‘I sleep in a hammock.’

In contrast, the auxiliary form *muk'* (previously considered an allomorph of *mi*) may not co-occur with nominative-accusative marking on the verb, as shown by the ungrammaticality of (2.34).

- (2.34) **muk'* *k-wäy-el* *tyi* *'ab*
 IMPF 1E-sleep-NOM PREP hammock
 'I sleep in a hammock.'

Instead, when the imperfective auxiliary form *muk'* is used, person is marked on the aspectual marker and the main verb appears in its nominal form,²³ subordinated by the preposition *tyi*, as shown in example (2.35a). The clitic *mi* is unable to appear in such a construction, as shown by the ungrammaticality of example (2.35b).

- (2.35) a. *muk'-oñ* *tyi* *wäy-el* *tyi* *'ab*
 IMPF-1A PREP sleep-NOM PREP hammock
 'I sleep in a hammock.'
- b. **mi-oñ* *tyi* *wäy-el* *tyi* *'ab*
 IMPF-1A PERF sleep-NOM PREP hammock
 'I sleep in a hammock.'

Muk' may also select a complement containing a “verbal noun”, one of a set of nouns in Chol which are used to express “verbal” information (see §3.2.1), as shown in example (2.36). The ungrammaticality of (2.36a) demonstrates the structural differences between the *mi* and *muk'* forms: *mi* may not host any morphology and is thus unable to serve as an auxiliary verb.

- (2.36) a. **mi-Ø* *tyi* *woj* *tyi* *'abälel* *jiñi* *ts'i'*
 IMPF-3A PREP bark PREP night DET dog
 'The dog barks at night.'
- b. *muk'-Ø* *tyi* *woj* *tyi* *'abälel* *jiñi* *ts'i'*
 IMPF-3A PREP bark PREP night DET dog
 'The dog barks at night.'

Additionally, the auxiliary *muk'* is used in conjunction with Chol's second position enclitics. For example, in (2.38a) the auxiliary *muk'* along with the affirmative modal enclitic *-äch* serve as a pro-verb response to the question in (2.37). *Mi*, however, may not appear in this construction (2.38b).

²³The nominality of these forms will be argued for in §4.1

QUESTION:

- (2.37) *mi a-mulañ-Ø muty?*
 IMPF 2E-like-3A chicken
 ‘Do you like chicken?’

ANSWER:

- (2.38) a. *muk’-äch*
 IMPF-AFF
 ‘Yes.’
 b. **mi-äch*
 IMPF-AFF
 ‘Yes.’

Progressive

The Tila Chol progressive aspect marker, *choñkol*, has the distributional properties of both *mi* and *muk’* combined. As shown in example (2.39), person may be marked either on the aspect marker in a subordinated verb construction, or on the main verb. These two forms have no apparent difference in meaning.

- (2.39) a. *choñkol aw-uch’-el*
 PROG 2E-eat-NOM
 ‘You are eating.’
 b. *choñkol-ety tyi ’uch’-el*
 PROG-2A PREP eat-NOM
 ‘You are eating.’

Additionally, *choñkol* may appear with a “verbal noun” like *k’ay*, as in example (2.40).

- (2.40) *choñkol tyi k’ay tyaty-muty*
 PROG PREP song father-chicken
 ‘The rooster is crowing.’ (lit.: ‘The rooster is doing song.’)

Also like *muk’*, the progressive aspect marker may serve as a pro-verb answer to a question, as in example (2.42).

QUESTION:

- (2.41) *choñkol-Ø tyi 'uk'-el i-ñeñe'?*
 PROG-3A PREP cry-NOM 3E-baby
 'Is her baby crying?'

ANSWER:

- (2.42) *choñkol-äch*
 PROG-AFF
 'Yes.'

The fact that *choñkol* exhibits properties of both *mi* and *muk'* (i.e. may appear in a nominative-accusative *or* ergative-absolutive pattern) suggests perhaps that it is a recently grammaticalized form, also supported by its longer CVCCVC shape (though it is sometimes heard shortened to *choñ*). The origins of *choñkol* deserve further exploration.

Perfective

Tila Chol has two perfective aspect markers: *tyi* and *ta'*. Constructions in the perfective aspect differ markedly from the two non-perfective aspects discussed above. All intransitive perfective constructions mark for person with absolutive suffixes, following the ergative-absolutive agreement pattern. Compare, for example, the transitive sentence in (2.43) with the intransitive (2.44).

- (2.43) *tyi k-pok'-o-Ø ch'ejew*
 PERF 1E-wash-VT-3A dishes
 'I washed dishes.'

- (2.44) *tyi chäm-i-Ø jñi chityam*
 PERF die-VI-3A DET pig
 'The pig died.'

In the perfective neither of the aspect markers *tyi* or *ta'* may be marked for person and no subordinated verb constructions are possible, as shown by the ungrammaticality of (2.45b).

- (2.45) a. *tyi* *'uch'-i-Ø* *aj-Nena*
 PERF eat-VI-3A CL-Nena
 ‘Nena ate.’
- b. **tyi/ta'* *tyi* *'uch'-el* *aj-Nena*
 PERF PREP eat-NOM CL-Nena
 ‘Nena ate.’

Like *muk'* and *choñkol*, however, the perfective *ta'* (but not *tyi*) may take clitics, and may serve as a pro-verb response to (2.46), as shown in example (2.47).

QUESTION:

- (2.46) *tyi* *a-ch'äm-ä-Ø* *tya'k'iñ?*
 PERF 2A-receive-VT-3A money
 ‘Did you receive the money?’

ANSWER:

- (2.47) a. *ta'-äch*
 PERF-AFF
 ‘Yes.’
- b. **tyi-äch*
 PERF-AFF
 ‘Yes.’

In the texts told by Virginia’s father Abram and her husband Irineo (transcribed in Appendices B–E), the perfective *ta'* frequently appears with no enclitics. Virginia claims that this is not good Tila Chol, and that she doesn’t know “where they picked that up,” since it sounds to her like Tumbalá Chol. Abram also frequently uses the perfective marker *laj*, found in Petalcingo Tzeltal (Shklovsky, p.c.). Because I spend most of my time around women, and have never heard *ta'* used without an enclitic, this discrepancy is perhaps due to the greater mobility of men in rural Chol country. Chol-speaking men are more likely to have had contact with speakers of other dialects, and perhaps for this reason have picked up some of their verbal habits. In Tila Chol at least, it seems safe to conclude that *tyi* is a clitic and *ta'* is generally an auxiliary, analogous to the imperfective *mi* and *muk'* respectively.

“Periphrastic aspects”: prospective, inceptive, and terminative

Vásquez Alvarez (2002, 112) identifies three additional aspects which he labels periphrastic: “prospective, inceptive, and terminative, which are derived from verbs though they function as simple verbs” (Vásquez Alvarez 2002, 112).²⁴ The prospective “marks pre-state reference,” where “[e]vent realization is not entailed” (Bohnenmeyer 1998, 707; cited in Vásquez Alvarez 2002, 112), inceptive “expresses the starting point of an event” (Payne 1997, 240), and terminative “serves to assert the post-state of an event” (Bohnenmeyer 1998, 350; cited in Vásquez Alvarez 2002, 119).

These aspects, I claim, are *not* periphrastic but instead are grammaticalized versions of verb stems derived from the roots *kej* ‘begin’, *tyech* ‘begin’, and *’ujty* ‘finish’. Though Vásquez Alvarez (2002, 115) cites examples of these particles appearing as the sole aspectual marker in a verb phrase, analogous constructions proved ungrammatical for speakers in Campanario. There, these periphrastic aspects must occur following one of the three main aspect markers discussed above, as shown in examples (2.48) and (2.49).

(2.48) *mi ke la-k-tyaj-Ø wokol*
 IMPF PROSP PL.INC-1E-find-3A problem
 ‘We begin to find problems.’

(2.49) **ke la-k-tyaj-Ø wokol*
 PROSP PL.INC-1E-find-3A problem
 ‘We begin to find problems.’

Summary of aspect

As the summary in Table 2.10 shows, three basic types of aspect markers may be identified: non-perfective auxiliary markers which may mark for person and appear with a subordinated main verb (*muk’* and *choñkol*); the perfective marker which may serve as a pro-verb but may *not* appear with a subordinated main verb (*ta’*); and finally, the clitics *mi* and *tyi* which may not take any additional morphology.

²⁴My translation from: “. . . el prospectivo, el inceptivo y el terminativo, que se derivan de verbos que aún funcionan como verbos simples” (Vásquez Alvarez 2002, 112).

	take clitics	serve as pro-verbs	take abs. suffixes	pattern nom.-acc.
<i>mi</i>				✓
<i>muk'</i>	✓	✓	✓	
<i>choñkol</i>	✓	✓	✓	✓
<i>tyi</i>				
<i>ta'</i>	✓	✓		

Table 2.10: Distributional properties of aspect markers

In Chapter 4 I will further discuss aspect marking in Chol, focusing particularly on the two different structural options available for forming intransitive constructions in the non-perfective aspects.

2.4.2 “Voice” morphology

In this section I discuss various valence and relation “adjusting” operations found in Chol.²⁵ Valence and relation adjusting operations, often called “voices”, are the means a language has to “adjust the relationship between semantic roles and grammatical relations in clauses” (Payne 1997, 169). The term “valence” refers to the number of arguments obligatorily present in a verbal construction. In English, for example, the verb *sleep* has a valence of one, as in *The cat slept all day* (but not two, **The cat slept you*). The verb *read*, on the other hand, may have either a valence of one, as in *Yesterday I read*, or of two in *I read the book*.

The English passive is an example of voice morphology. According to traditional transformational grammar, English passive constructions are thought to be derived from active constructions:²⁶ the object *becomes* the subject and the former subject is *moved* to an oblique (non-obligatory) position. For example, the verb *hug*, with a valence of two (*Laurel hugged the cat*) takes only one argument in its passive form *The cat was hugged (by Laurel)*. The passive not only decreases the valence,

²⁵But see §4.2.1 for why this might be an inappropriate label.

²⁶Though this has been rejected in more recent versions of the framework, e.g. Minimalism.

but also adjusts the relationship between the arguments and the verb: *the cat*, the original object, moves into a subject relationship with the verb. This type of transformational analysis is supported by the fact that English passive constructions are more marked, or take more morphology, than their active counterparts.

In Chol, however, this is not obviously the case. Rather than being derived from the active form, I argue in Chapter 4 that some of what have been considered “voices” and other verbal forms (including active) are in many cases created directly from the root. All verbal stems, including active, require a suffix before they are able to inflect for person and number. Because I claim that a distinction between nouns and verbs is not relevant at the root level, it does not make sense to discuss whether valence morphology attaches to nominal or verbal stems; rather, valence morphology *creates* verbal stems. In this section we will briefly examine morphological active, passive, antipassive, applicative, and causative operations. Because most of the non-perfective suffixes may be analyzed as nominalizations of the perfective forms (see §4.2.1), only perfectives will be discussed here.



Figure 2.5: Morelia with her cousin Daisy

Active

Active verbs in the perfective aspect are formed with a -V suffix: transitive verbs, such as the one shown in example (2.50) below, take a harmonic vowel, -v, while intransitives like the one in (2.51) are formed with the suffix -i.

- (2.50) *tyi k-mek'-e-y-ety*
 PERF 1E-hug-VT-EPN-2A
 'I hugged you.'

- (2.51) *tyi yaʝl-i-y-oñ*
 PERF fall-VI-EPN-1A
 'I fell.'

As discussed above in §2.2.5, roots of the form CaC take the harmonic suffix -a unless the final consonant is a fricative, in which case they take the suffix ä-, as shown in example (2.52).

- (2.52) *tyi' jats'-ä-y-oñ*
 PERF.3E hit-VT-EPN-1A
 'She hit me.'

Passive

In Chol “passive” constructions, the patient or undergoer of the action is the only argument of the verb. An agent may be overtly realized as an oblique phrase using the preposition *tyi*. In CVC roots where the final consonant is a non-fricative, the root vowel is lengthened to form an intransitive stem (see §2.2.4 above). This stem now inflects like a regular perfective intransitive with the suffix -i, as illustrated in example (2.53).

- (2.53) *tyi mejk'-i-y-oñ* (*tyi k-mama*)
 PERF hug.PASS-VI-EPN-1A (PREP 1E-mother)
 'I was hugged (by my mother).'

CVC roots with a fricative final consonant, on the other hand, take the suffix -le to form the passive.

- (2.54) *tyi k'ux-le-y-oñ* (*tyi jiñi ts'i'*)
 PERF bite-PASS-EPN-1A (PREP DET dog)
 'I was bitten (by that dog).'

These constructions will be discussed in greater detail in §3.2.1.

Antipassive

Whereas a passive construction demotes the *subject* of a clause, antipassive constructions omit the *object* from the argument structure. In Chol the resulting form of what has been called the antipassive is nominal in nature and analogous to English gerund constructions ('I did some shopping').²⁷ This construction in Chol is marked with the suffix *-oñ*, which then takes the nominal suffix *-el*. The resulting nominal form requires the assistance of a light (semantically empty) verb, as shown in example (2.55), or one of the aspectual auxiliaries which may mark for person (see §2.4.1), as shown in example (2.56).

- (2.55) *tyi k-cha'l-e-Ø mǎñ-oñ-el*
 PERF 1E-do-VT-3A buy-AP-NOM
 'I did some shopping.'

- (2.56) *choñkol-Ø tyi mǎñ-oñ-el*
 PROG-3A PREP buy-AP-NOM
 'She's (doing) shopping.'

Applicative

The applicative is a valence increasing operation which "brings a peripheral participant onto center stage by making it into a direct object" (Payne 1997, 186). Applicative in Chol is marked by the suffix *-be* in the perfective aspect. In example (2.57a), *joñoñ*, the recipient/benefactee of the event, is expressed as an oblique phrase using *cha'añ*. In (2.57b), the applicative is used and the recipient/benefactee advances to an argument position and agrees with the absolutive suffix on the verb.

²⁷Because these forms are nominal, it is unclear whether "antipassive" (typically applied to verb forms) is really the appropriate label.

- (2.57) a. *ili x-'ixik tyi' män-ä-Ø koya' cha'añ joñoñ*
 this CL-woman PERF.3E buy-VT-3A tomato for 1PRON
 'That woman bought tomatoes for me.'
- b. *ili x-'ixik tyi' män-be-y-oñ_i waj joñoñ_i*
 DET CL-woman PERF.3E buy-APP-EPN-1A tortilla 1PRON
 'That woman bought me tortillas.'

Note here that the applicative suffix *-be* is mutually exclusive with the active suffix *-ä*. This supports my claim that both forms are created from the root (rather than the applicative being derived from the active).

Example (2.58) exhibits an applicative construction with what has been called “possessor ascension” or “external possession” (Vásquez Alvarez 2002, 289). Here, the first person possessor of *'ok* ‘leg’, marked with the ergative prefix *k-*, has been raised to the direct object position and is thus cross-referenced with the first person absolutive suffix on the verb stem.

- (2.58) *tyi' k'ux-be-y-oñ_i k_i-ok ts'i'*
 PERF.3E bite-APP-EPN-1A 1E-EPN-leg dog
 'The dog bit my leg.'

Applicative constructions are frequent in Chol, which has only one inherently ditransitive verb: *'ak* ‘give’ (Vásquez Alvarez 2002, 278).

Causative

Causative is another valence-increasing operation which adds an argument by introducing a “causer” of the event. Chol has both lexical and morphological means to express causativization. The latter strategy operates on intransitive verbs and employs the suffix *-sä* in the perfective, as shown in example (2.59). Transitive verbs have recourse to lexical causativization, which will not be discussed here.

- (2.59) *jiñi x-'ixik tyi' 'uch'-sä-Ø y-alobil*
 DET CL-woman PERF.3E eat-CAUS-3A 3E-child
 'The woman fed her children.' (lit.: 'The woman caused her children to eat.')

These constructions will be further examined in Chapter 4.

2.4.3 Second position clitics

Chol possesses a variety of “second position” enclitics, listed with their abbreviations in Table 2.11. These clitics generally express modal information, described below.

<i>-ix</i>	‘already’	ALR
<i>-tyo</i>	‘still’	STILL
<i>-ba</i>	interrogative	INT
<i>-ik</i>	subjunctive	SUBJ
<i>-ku</i>	assertive	ASV
<i>-äch</i>	affirmative	AFF
<i>-ka</i>	dubitative	DUB
<i>-bi</i>	reportative	REP

Table 2.11: Second position clitics

-ix can be roughly translated as ‘already’ or ‘sooner than expected’, while *-tyo* means ‘still’ or ‘later/longer than expected’. Vásquez Alvarez (2002, 126, 129) analyzes these two clitics as markers of completive and incompletive aspect respectively. However, the fact that each may appear in both perfective and non-perfective constructions, shown in examples (2.60) and (2.61), supports my claim that they are in fact modal: they describe the speaker’s attitude toward the event, e.g., whether it occurred sooner or later than expected. John Haviland (p.c.) also rejects the classification of these enclitics as aspectual, labeling them instead as “perspectival” (having to do with the speaker’s perspective of the event).

(2.60) *ta'-ix jul-i-y-ety*
 PERF-ALR arrive-VI-EPN-2A
 ‘You arrived already.’

(2.61) *muk'-ix a-majl-el*
 IMPF-ALR 2E-go-NOM
 ‘You’re going already.’

-ik is used to mark subjunctive, while the interrogative *-ba* is rarely heard in this dialect.²⁸ The differences between the affirmative or assertive *-ku* and *-äch* are unclear at this point, though both are used to affirm or emphasize a statement. *-ka* and *-bi* carry epistemic information: *-ka* is used to express doubt while *-bi* is used to report hearsay or events to which the speaker was not a witness. This latter clitic is found with great frequency in traditional narratives.

Second position clitics in Chol are found in both verbal and nominal constructions, generally attached to the first word in the clause (negative and existential particles, auxiliary, or nominal), as shown in the following examples. Halpern (2001) notes, however, that:

[I]n perhaps all languages with [second position] clitics, certain sentence-initial constituents have to be ignored for the purpose of determining the second position. . . Such *skipping* is generally assumed to indicate that the skipped constituents are in some sense invisible to the clitic, or outside the domain relevant for the calculation of second position (Halpern 2001, 113).

This appears to be the case in example (2.65) where the clitic “skips” over the adverb *wajali*. Exactly what the “relevant domain” is here remains to be determined for Chol.

(2.62) *maystraj-ety-ix*
 SP.teacher-2A-ALR
 ‘You’re already a teacher.’

(2.63) *muk'-oñ-äch tyi 'e'tyel*
 IMPF-1A-AFF PREP work
 ‘Yes I did work.’

(2.64) *ma'añ-ik tsajñ-oñ tyi k-otyoty...*
 NEG-SUBJ go.and.return-1A PREP 1E-house
 ‘If I hadn’t returned to my house...’

²⁸Changes in tone and stress pattern, discussed in §2.2.6 are more frequently employed to form yes/no questions

- (2.65) *wajali 'añ-bi juñ-tyikil x-ñek...*
 before EXT-REP one-NC.people CL-ñek
 ‘(They say) once there was a *xñek...*’

More than one clitic may affix to the same word, as in example (2.66).

- (2.66) *muk'-ix-bi ke i-choñ-Ø y-otyoty*
 IMPF-AREADY-REP PROSP 3E-sell-3A 3E-house
 ‘They say she is already going to sell her house.’

2.5 Modifiers

In this section I will describe ways in which noun and verb stems in Chol may be modified. For noun stems, determiners, numeral classifiers, and adjectives will be discussed. For verbs, we will examine modification from adverbs, positionals, and affectives.

2.5.1 Noun modification

Bare modifiers in Chol typically precede the nouns they modify. In a complex NP, the order of modifiers is *determiner - numeral classifier - adjective - noun*, as shown in example (2.67). Each will be examined below.

- (2.67) *'ili cha'-kojty 'i'ik' muty k-cha'añ*
 this two-NC.animal black chicken 1E-NC.for
 ‘These two black chickens are mine.’

Determiners

The set of demonstrative pronouns in Chol includes *'ili* ‘this’ and *'ixä* ‘that’. Chol does not have a definite determiner. Instead, the third person pronoun *jiñ* is frequently suffixed with the proximate *-i* (used to indicate greater salience or relevance) to form *jiñi*. *Jiñi* is similar in distribution to the demonstrative pronouns, but has more to do with salience than with spatial location. An analogous from English might be the use of *this* in the colloquial *I saw this guy yesterday...*

- (2.68) *ili baso k'äänk'ään, ixä baso yäyääx*
 this SP.cup yellow that SP.cup green
 'This cup is yellow, that cup is green.'

Numeral classifiers

The Mayan obsession with shape, form, and spatial orientation is exemplified in Chol's elaborate system of numeral classifiers. Numeral classifiers appear obligatorily suffixed to numerical expressions quantifying nouns, as seen in example (2.69), as well as to the question word *jay* 'how many', in example (2.70). The classifier *-tyikil* in the first example is used for people and human-like creatures (e.g. the *xñek*; see Appendix D). *-p'ej* is used with spherical things, as shown in the second example, but it is also found with nouns that denote more abstract concepts, such as kilograms or hours.

- (2.69) *ta' i-sub-oñ juñ-tyikil ñoj weñ-bä i-pusik'al*
 PERF 3E-tell-1A one-NC.people very good-REL 3E-heart
 'A person with a good heart told me.'

- (2.70) *jay-p'ej koko aw-om*
 how.many-NC.round SP.coconut 2A-want
 'How many coconuts do you want?'

Other numeral classifiers include *-kojty*, for four-legged animals and, more recently, cars, airplanes and bicycles; *-k'ejl* is for flat things such as tortillas, leaves, pages and compact discs; and *-ts'ijty* is used to count long skinny things such as ears of corn, bananas, fingers, and pencils.

Numeral classifiers are generally of the form CVjC (a root with a lengthened vowel), indicating that an intransitivization process has taken place (see §2.2.4). This is confirmed by the fact that many of the CVjC classifiers have semantically related CVC counterparts, as shown in the examples below.²⁹

²⁹The latter two examples are from the Aulie and Aulie (1978) dictionary, my translation.

- <i>kojty</i>	NC for animals	<i>koty</i>	‘standing on four legs’
- <i>chäjĵk’</i>	NC for drops	<i>chäk’</i>	‘dripping’
- <i>jojp</i>	NC for corn, beans	<i>jop</i>	‘bring together dry things’

Although Chol, like other Mayan languages, once had a fully functional twenty-based numerical system, the need to interact with Spanish speakers and Mexican money in stores and in the market has necessitated the adoption of Spanish numerals. Even many mostly-monolingual Chol speakers use Spanish numbers to count above four or five. Classifiers do not occur with Spanish numerals and thus not surprisingly seem to be falling out of use among younger speakers.

Adjectives

Bare adjectives in Chol precede the noun they modify, as shown in example (2.71).

(2.71)	<i>Kiril tyi’</i>	<i>käy-ä-Ø</i>	<i>chächäk</i>	<i>libro</i>
	Kirill	PERF.3E	leave-VT-3A	red SP.book
	‘Kirill left the red book.’			

The suffix *-eñ* is used to create adjectives from roots which usually form intransitive stems, as for example *koleñ* ‘big’ from *kol* ‘grow’ and *tyikiñ* ‘dry’ from *tyik* ‘dry’ (where harmony has affected the suffix vowel).

Complex NPs

Complex NPs may not be possessed in Chol, as shown by the ungrammaticality of (2.72a). Instead, the substantivizing suffix *-bä* (also used in relative clauses, see §2.6.3) is affixed to the modifier which may then be positioned freely with respect to the noun, as in (2.72b and c).

(2.72)	a.	* <i>Kiril tyi’</i>	<i>käy-ä-Ø</i>	<i>k-chächäk</i>	<i>libro</i>
		Kirill	PERF.3E	leave-VT-3A	1E-red SP.book
		‘Kirill left my red book.’			
	b.	<i>Kiril tyi’</i>	<i>käy-ä-Ø</i>	<i>chächäk-bä</i>	<i>k-libro</i>
		Kirill	PERF.3E	leave-VT-3A	red-REL 1E-SP.book
		‘Kirill left my red book.’			

- c. *Kiril tyi' käy-ä-Ø k-libro chächäk-bä*
 Kirill PERF.3E leave-VT-3A 1E-SP.book red-REL
 'Kirill left my red book.'

2.5.2 Verb modification

Verbs are modified in one of two ways: the verb root may form a compound with another root, which expresses adverbial information; or a free form such as a positional or affective stem may appear preceding the aspectual auxiliary. These methods will be discussed in turn below.

Compounding

In Chol, a root expressing adverbial information may form a compound with a verb-stem forming root. The features of the head (rightmost element) determine the features of the entire compound, as shown in transitive and intransitive examples below. Note in example (2.73) that the entire compound is preceded by the ergative prefix *k-*.

- (2.73) *ta' k-[wiñ koty]-ä-Ø tyi 'e'tyel*
 PERF 1E-lot help-VT-3A PREP work
 'I helped him work a lot.'

- (2.74) *tyi [cha' majl]-i-Ø*
 PERF again go-VI-3A
 'He went again.'

The adverbial member of the compound may come either from the class of roots used to form positional stems, as for example *buch* 'seated', *wa'* 'standing', or *päk* 'face-down'; or another root expressing adverbial information, for example a temporal or manner adverb. The roots shown below are frequently found in verbal compounds.

<i>cha'</i>	‘again’ (also ‘two’)
<i>lu'</i>	‘all’
<i>weñ / wiñ</i>	‘well’ or ‘a lot’ (also ‘good’)
<i>mal</i>	‘badly’ (from Spanish)

Further evidence that these are compound constructions (and not examples of incorporation, as claimed by Vásquez Alvarez (2002)), are found in examples (2.75) and (2.76), where the compound forms have taken on *non-compositional* meanings; the meaning of the whole is not deducible from the meaning of the parts. Since syntactic processes like incorporation should (under traditional analyses) be entirely regular, these idiosyncratic meanings must come from compounding in the lexicon. Alternatively, as I will argue in Chapter 4, compounds may be formed through merge under a locality domain.

(2.75) *tyi* [*buch wäy*]-*i-y-oñ*
 PERF sit sleep-VI-EPN-1A
 ‘I nodded off (without meaning to).’

(2.76) *tyi* [*wa'* *majl*]-*i-Ø* *tyi* *karo*
 PERF standing go-VI-3A PREP SP.car
 ‘She went quickly in the car.’

Free adverbs

Free modifiers immediately precede the aspect marker. These may include positional stems (see §3.2.1), affective stems (see §3.2.1), as well as adverbs which express temporal information. Examples of each are given in order below.

(2.77) ***päk-äl*** *tyi* *käy-le* *tyi* *ja'*
 face.down-POS PERF stay.VPOS PREP water
 ‘She stayed face-down in the water.’

(2.78) ***tyip'-tyip'-ña*** *tyi* *majl-i-Ø*
 jump-jump-AFT PERF go-VI-3A
 ‘It went jumping.’

- (2.79) *wajali tyi k-cha'l-e-Ø toñel*
 before PERF 1E-do-VT-3A SP.work
 ‘I used to work.’

However, perhaps “adverb” is not the best label for these forms, as adjectives like *p’ump’um* may also appear here, as shown in example (2.80). “Modifiers” might be a better catch-all label for these items.

- (2.80) *p’ump’um ta’ kol-i-y-oñ*
 poor PERF grow-VI-EPN-1A
 ‘I grew up poor.’

2.5.3 Negation

Chol’s negative particle is *mach*. It is frequently found coupled with the existential *’añ* to produce the abbreviated form *ma’añ*. Each of these is used to negate both noun and verb stems in Chol, where the marker of negation always precedes the stem it negates.

In general, *mach* is used to negate imperatives (2.81), qualities of nouns and verbs, and non-perfective (nominal) constructions (2.82). *Ma’añ* negates existentials (2.83) and perfective verbal constructions (2.84).

- (2.81) *mach a-k’ux jiñi*
 NEG 2E-eat DET
 ‘Don’t eat that!’

- (2.82) *mach muty*
 NEG chicken
 ‘It’s not a chicken.’

- (2.83) *ma’añ muty*
 NEG.EXT chicken
 ‘There’s no chicken.’

- (2.84) *ma’añ tyi i-tyaj-a-Ø i-papa*
 NEG.EXT PERF 3E-find-VT-3A 3E-father
 ‘He didn’t find his father.’

However, *mach* may not co-occur with Chol's imperfective marker *mi*, as shown by the ungrammaticality of (2.85a). To negate an imperfective construction, either *mach* is used with no aspect marker, as shown in (2.85b), or *ma'añ* appears together with *mi*, as in example (2.85c). That *mach* and *mi* may not appear together, and that *mach* appears to carry imperfective aspect (confirmed by the fact that it may not appear in a perfective construction), suggest that Chol's imperfective form is historically related to negation.³⁰ Compare also Chol's imperfective aspect markers *mi*, *mu'* (in some dialects), and *muk'* with nearby Tzotzil's negation marker *mu*. These forms are also likely related to Chol's conditional *mi* 'if'.

- (2.85) a. **mach mi k-ñá'tyañ-Ø*
 NEG IMPF 1E-know-3A
 'I don't know.'
- b. *mach k-ñá'tyañ-Ø*
 NEG 1E-know-3A
 'I don't know.'
- c. *ma'añ mi k-ñá'tyañ-Ø*
 NEG.EXT IMPF 1E-know-3A
 'I don't know.'

2.6 Clause structure and constituent order

Because languages of the Mayan family do not mark morphological case on overt nominal arguments, constituent order plays a significant role in distinguishing grammatical relations. In §2.6.1 and §2.6.2 I will discuss basic as well as marked constituent orders in the Mayan family generally and problems encountered determining alternative orders in Chol specifically. Next, in §2.6.3 I will examine constituent order typology and proposed constituent order correlations in relation to Chol. Finally, in §2.6.4 I will review previous syntactic structures proposed for Chol's close relative, Tzotzil, and evaluate their usefulness to Chol.

³⁰I am grateful to Gülşat Aygen for this suggestion.

2.6.1 Constituent order in Mayan

Almost all of the languages in the Mayan family exhibit a basic VOS (verb-object-subject) order (Aissen 1992, 43). VOS order is typologically rare: only about ten percent of the world's languages are verb-initial, and less than half of those order the object before the subject (Whaley 1997, 83). Proto-Mayan is claimed to have been VOS, but a few of the Mayan languages spoken today exhibit a basic VSO order (Aissen 1992, 47). Word order, however, is flexible within many of the Mayan languages, and each of the six possible combinations of V, S, and O have been attested as possible (at least in pragmatically marked constructions) in some language in the family (Aissen 1992, 43).

In a Chol construction with two overt nominal arguments,³¹ a prototypical volitional agent and a patient which undergoes a change of state, the most pragmatically neutral (and thus basic) construction is VOS, as shown in example (2.86). In a pragmatically neutral intransitive construction, an overt nominal argument follows the verb, resulting in basic VS order, illustrated in example (2.87).

(2.86) *tyi i-k'ux-u-Ø waj wiñik*
 PERF 3E-eat-VT-3A tortilla man
 'The man ate tortilla.'

(2.87) *tyi kol-i-Ø tye'*
 PERF grow-VI-3A tree
 'The tree grew.'

Most Mayan languages allow the subject and the object to appear in pre-verbal topic and focus positions, resulting in SVO and OVS orders.³² Chol is no exception, as shown in examples (2.88) and (2.89).

(2.88) *jiñi me' ta' y-il-ä-y-oñ-lojoñ*
 DET deer PERF 3E-see-VT-EPN-1A-PL.EXC
 'The deer saw us (exclusive).'

³¹These constructions are extremely rare, as we will see later in this section.

³²It is unclear to me whether both constituents may be fronted in Chol, though this has been attested in other Mayan languages (cf. Aissen 1992).

- (2.89) *'ixim y-om-Ø ili muty*
 corn 3E-want-3A DET chicken
 'It's corn that these chickens want.'

The order of two *post*-verbal arguments may also vary in marked constructions, though this generally depends on the nominal properties of animacy and definiteness (England 1991, 454) rather than on pragmatic factors. In Proto-Mayan, VOS is thought to have occurred when the subject was higher on the animacy hierarchy (*human* >> *nonhuman/animate* >> *inanimate*) than the object. The subject was ordered before the object when the object was of greater or equal animacy than the subject (Campbell and Kaufman 1985, 191). VSO constructions are therefore more marked than VOS because in a prototypical transitive sentence, the agent is more animate than the patient. Many of the languages spoken today still exhibit similar patterns (cf. England 1991, Quizar 1979). For reasons that will be discussed in the following section, it remains to be demonstrated whether these same rules govern post-verbal constituent order variation in Chol.

2.6.2 Problems with constituent order in Chol

Initial attempts in the summer of 2002 to describe post-verbal constituent order variations in Chol proved inconclusive. A sentence deemed acceptable one day would be completely ungrammatical the next. Different factors contribute to problems in describing Chol's subtle word order variations. First, in a language where all arguments are cross-referenced obligatorily on the verb, and overt pronouns appear only for emphasis there are simply not a lot of words in any given clause to order.

To discover the basic ordering of V, O, and S in a language where two overt nominal arguments do not usually appear at the same time in natural text requires the use of elicited data, which brings us to the second problem: when eliciting forms sentence-by-sentence, it is extremely difficult to gain an understanding of the true pragmatic subtleties expressed by word order variations. Third: the SVO order of Spanish, from which elicited sentences were translated, affects the order of words in an equivalent Chol construction. For example, when asked how to say the Spanish

pragmatically neutral SV *El perro se murió* ‘The dog died’, a typical response would be the one given in (2.90). Like the Spanish version, this sentence is SV. Unlike the Spanish, however, the Chol translation is pragmatically marked, as the NP *jiñi ts’i’* occupies the pre-verbal focus position. Here, Chol speakers are maintaining the Spanish word order at the cost of changing the focus.

- (2.90) *jiñi ts’i’ tyi chäm-i-Ø*
 DET dog PERF die-VI-3A
 ‘The dog died.’

In spite of problems determining the order of post-verbal arguments in marked transitive constructions, it is uncontroversial that VOS/VS order predominates in basic, unmarked clauses. The transitive sentence in (2.91), for example, contains two participants of equal salience and definiteness. In sentences such as this one, VOS is indisputably the most basic order, inasmuch as a VSO reading was deemed ungrammatical.

- (2.91) *tyi’ mek’-e-Ø x-’ixik wiñik*
 PERF.3E hug-VT-3A CL-woman man
 ‘The man hugged the woman.’
 *‘The woman hugged the man.’

2.6.3 Typological correlations

Since Greenberg’s 1963 influential paper on constituent order universals, many linguists have sought to discover meaningful correlations between a language’s basic ordering of verb, subject, and object and other morphosyntactic phenomena.

Two linguists, Winfred Lehmann and Theo Vennemann, are credited with generalizing many of the results from Greenberg’s work on word order typology. They noted that Greenberg’s correlations could be made based on the relationship between verb and object alone, thus leaving only two categories: languages in which the object precedes the verb (OV) and languages in which the object follows the verb (VO). Some of these correlations are given in Table 2.12, adapted from Whaley (1997, 86).

VO	OV
preposition - noun	noun - postposition
noun - adjective	adjective - noun
noun - relative clause	relative clause - noun
sentence-initial question word	non-initial question word
prefixes	suffixes
auxiliary verb - main verb	main verb - auxiliary verb
negative - verb	verb - negative

Table 2.12: Constituent order correlations

As we will see in the sections below, Chol meets most of the expectations of a canonical verb-initial language: prepositions must precede nouns, question words are sentence-initial, auxiliaries, adjectives, and negation precede the verb. However, though Chol does have some prefixes, it is (contrary to the above predictions) a primarily suffixing language. Though the order of relative clauses with respect to their head is variable, it appears that *noun - relative clause* is the preferred order. A few of these characteristics will be described in detail below.



Figure 2.6: The ruins at Palenque

Prepositions and relational nouns

Prepositions are used to express the relationship, usually spatial, between two or more objects. Chol has only one true preposition, *tyi* whose meaning ranges over English ‘in’, ‘on’, ‘to’, ‘from’, ‘near’, etc.. *Tyi* obligatorily precedes its nominal complement, as in example (2.92).

(2.92) *mi k-majl-el tyi saltu*
 IMPF 1E-go-NOM PREP Salto
 ‘I’m going to Salto.’

(2.93) **mi k-majl-el saltu tyi*
 IMPF 1E-go-NOM Salto PREP
 ‘I’m going to Salto.’

More specific prepositional notions may be conveyed using the preposition *tyi* plus one of a number of nouns, often denoting parts of the body. The location noun is “possessed” by the second noun using the third person ergative prefix:³³ “the house’s back” in example (2.94).

(2.94) *jiñi siya ya'-añ tyi' paty 'otyoty*
 DET SP.chair there-EXT PREP.3E back house
 ‘The chair is behind/outside of the house.’

Other “prepositional” relations are conveyed by one of a few “relational nouns”. Relational nouns are obligatorily possessed and may be thought of as a strategy to “sneak” oblique arguments into the sentence via ergative and absolutive affixes on the noun (Haviland, p.c.). Again similar to possessive constructions, the relational noun precedes its complement, as shown in examples (2.95) and (2.96).

(2.95) *jiñi jap lembal mach i-cha'añ dyos*
 DET drink liquor NEG 3E-for SP.God
 ‘Drinking is not for/of God.’

(2.96) *aw-om-Ø majl-el aw-ik'oty-oñ*
 2E-want-3A go-NOM 2E-with-1A
 ‘Do you want to go with me?’

³³Recall from §2.2.5 that *tyi' paty* is a contraction of *tyi i-paty*.

Relative clauses

In Chol, relative clauses are marked with the clitic *-bä*, which attaches to the phrase initial particle (auxiliary or negative), as in examples (2.97) and (2.98).

- (2.97) [[*x-'ixik* [*mu'-bä* *tyi* *ñoxejel*]] *tyi* *jul-i-Ø*]
 CL-woman IMPF-REL PREP swim PERF arrive-VI-3A
 ‘The woman who swims arrived.’

- (2.98) [[*x-'ixik* [*mach-bä* *muk'* *tyi* *ñoxejel*]] *tyi* *jul-i-Ø*]
 CL-woman NEG-REL IMPF PREP swim PERF arrive-VI-3A
 ‘The woman who doesn’t swim arrived.’

Like the substantivized adjectives (see §2.5.1), the order of the relative clause with respect to the noun is variable. In example (2.99) the head noun *x-'ixik* follows the relative clause.

- (2.99) [[[*mu'-bä* *tyi* *ñoxejel*] *x-'ixik*] *tyi* *jul-i-Ø*]
 IMPF-REL PREP swim CL-woman PERF arrive-VT-3A
 ‘The woman who swims arrived.’

Question words

Question words in Chol, listed in Table 2.13, appear obligatorily in clause-initial position, as shown in the examples below.

<i>jalaki</i>	when
<i>jay-NC</i>	how many
<i>bajche'</i>	how
<i>maxki</i>	who
<i>baki</i>	where
<i>chuki</i>	what
<i>chukoch</i>	how
<i>bakibä</i>	which (lit.: where + REL)

Table 2.13: Question words

(2.100) *bajche'* *tyi majl-i-y-ety tyi saltu*
 how PERF go-VI-EPN-2A PREP Salto
 'How did you go to Salto?'

(2.101) *baki 'añ aw-otyoty*
 where EXT 2E-house
 'Where is your house?'

(2.102) *jay-tyikil aw-its'iñ*
 how.many-NC.people 2E-younger.sibling
 'How many younger siblings do you have?'



Figure 2.7: Hermelinda (holding Meyamatza), Fabiana, Linda del Rosario, and Manuel

2.6.4 Syntactic representations

Due to the rarity of verb-initial languages, relatively few linguists have worked on the syntax of languages with a basic VOS order. Judith Aissen is one notable exception. In her 1992 “Topic and Focus in Mayan,” she proposes to parameterize the linear order of specifiers with respect to their heads based on whether the specifier belongs to a lexical or a functional category: the specifier of a functional category precedes its head (specifier of CP and specifier of IP), whereas the specifier of a lexical category follows its head (specifier of VP) (Aissen 1992, 46).³⁴ She summarizes these claims as “principles of Mayan word order”:

(2.103) **Aissen’s (1992) principles of Mayan word order**

- a. The head of a phrase precedes its complements.
- b. The specifier of a functional category X’ precedes X’.
- c. The specifier of a lexical category X’ follows X’.

These principles result in the structure shown in Figure 2.8.³⁵ Within this structure, Aissen (1992, 47) proposes that in pragmatically marked constructions internal topic and focus constituents move from their original position to occupy either the specifier of CP or IP respectively.

Using Aissen’s model, the Chol sentence in (2.104) would be represented as shown in Figure 2.9.

- (2.104) *ma’añ tyi i-wuts’-u-Ø pisil x-’ixik*
 NEG PERF 3E-wash-VT-3A clothes CL-woman
 ‘The woman didn’t wash clothes.’

³⁴In the same year, Guilfoyle et al. (1992) proposed to parameterize the linear order between heads and their specifiers for Malagasy, another VOS language. Interestingly, however, they proposed exactly the *opposite* ordering: the specifier of a functional category follows the head, while the specifier of a lexical category precedes its head.

³⁵Comp = Complementizer; Infl = Inflection; YP = Maximal projection of any type;
 $X' \rightarrow X YP$; $XP \rightarrow X' YP$

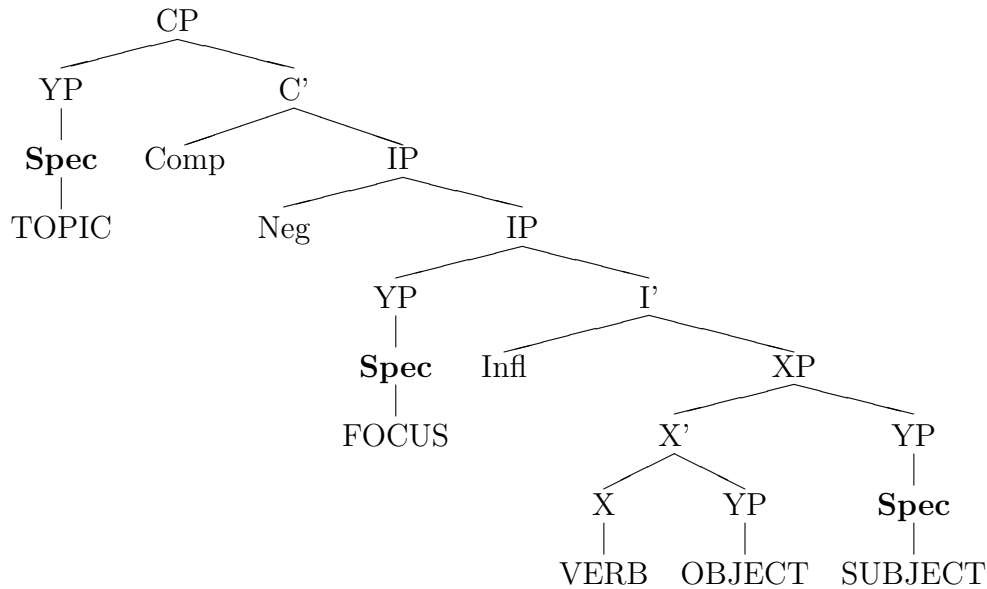


Figure 2.8: Aissen's tree

In Chol, since both topic and focus positions precede the negative particle, as shown in example (2.105), Aissen's tree must be modified. A tree for (2.105) is shown in Figure 2.10, where the object moves from where it originates in the verb phrase to the specifier of IP.

- (2.105) *ili pisil ma'añ tyi i-wuts'-u-Ø jiñi x-ixik*
 DET clothes NEG PERF 3E-wash-VT-3A DET CL-woman
 'It was *those clothes* that the woman didn't wash.'

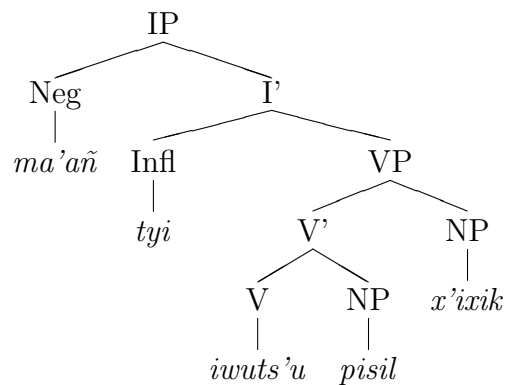


Figure 2.9: A Chol tree

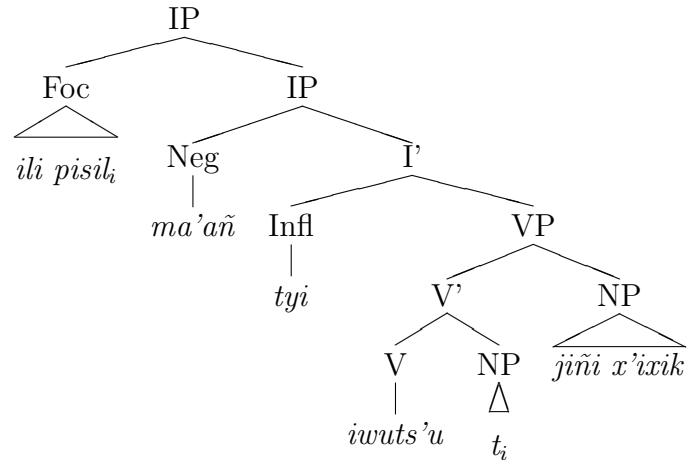


Figure 2.10: A Chol tree with focus

This approach seems to account well for basic VOS clauses, topic and focus constructions, question formation, and negation. As it currently stands, however, it does not explain the variations in ordering of post-verbal elements between VOS and VSO constructions described in other Mayan languages, to which Aissen readily admits:

This account has nothing to say about the alternation between VOS and VSO, which is probably a point in its favor, since the conditions governing pre- and postverbal orders are different. Preverbal orders are governed by logical and discourse-level relations like focus and topic, while postverbal orders appear to be governed by properties of individual NPs—definiteness, animacy, heaviness, and pronominal (Aissen 1992, 44).

A crucial issue for the syntax of Mayan languages will be to create representations which are powerful enough to explain this variation.

2.7 Conclusions

In this chapter I have outlined the phonological and grammatical structure of Chol. Though much still remains to be described, this sketch should provide a sufficient basis for the claims I will make in the chapters to follow. Some important points to take from this chapter include the following:

- The *-j-* that was previously called an infix in Chol should instead be considered a process of vowel lengthening, analogous to other vowel operations which create valence distinctions in languages of the Yucatan. Similarly, Chol's sixth vowel /ä/ appears to have originated in such transitivity operations.
- Chol uses the same two sets of affixes to head-mark relations between verbs, nouns, and their respective dependents: ergative prefixes cross-reference a transitive verb's subject and a noun's possessor/relator, while absolutive suffixes mark the object of a transitive verb and the theme of a predicate nominal.
- Chol has an aspect-based ergative split. Intransitives in the perfective aspect use the ergative-absolutive pattern, while intransitives on the non-perfective aspects (imperfective and progressive) employ the nominative-accusative pattern.
- There are two possibilities for forming intransitives in the non-perfective aspects. In one, person is marked on the main verb stem, while in the other the main verb appears subordinated by the preposition *tyi*, and person is marked on the aspectual auxiliary.
- The different aspect markers that were once treated as allomorphs of the same morpheme should instead be considered structurally different creatures. *Mi* and *tyi* are clitics, while *muk'* and *ta'* are closer to full lexical items.
- Voice morphology in Chol appears immediately following the root. Active stems are just as marked as passive, causative, and applicative stems.

- Though basic constituent order in Chol is VOS/VS, subtle variations in order have proven difficult to distinguish. Work remains to be done on the syntactic representation of Mayan languages.