CH'OL[*]

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July 31, 2015

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1 Background and sources

Ch'ol is a language of the greater Tseltalan branch of the Mayan language family, spoken today by around 200,000 people primarily in the northern part of the Mexican state of Chiapas (see Vázquez Álvarez 2011). Ch'ol, Chontal, and Ch'orti' together constitute the Cholan subbranch. Ch'ol is generally divided into two main dialects: Tila and Tumbalá. See López López 2005 and Vázquez Álvarez 2011 on dialect variation. Ch'ol-speakers refer to their language as *Lak Ty'añ* ('our words'); Ch'ol is also spelled "Chol", the choice being one largely of dialect (Ch'ol in Tumbalá, Chol in Tila). Though my own data comes primarily from Tila, I use *Ch'ol* here in keeping with the *Instituto Nacional de Lenguas Indígenas* (INALI).

Previous works on Ch'ol grammar include articles on phonology by Warkentin and Brend (1974) and Koob Schick (1979); grammatical descriptions by Schumann (1973) and Warkentin and Scott (1980); a dissertation on morphology by Attinasi (1973); a thesis on nominals by Meneses Méndez (1987); and three dictionaries: Torres Rosales 1974, Aulie and Aulie 1978 and INEA 1992. Montejo López (1999) offers a grammatical sketch written in Ch'ol. This grammar was created for bilingual education programs and offers Ch'ol words for many grammatical and linguistic terms. My own work on Ch'ol will also be referenced throughout.

More recently, native speakers of Ch'ol have conducted in depth studies of the language in the masters program at CIESAS (*Centro de Investigaciones y Estudios Superiores en Antropología Social*) in Mexico. These include a detailed overview of Ch'ol verbal morphology in Vázquez Álvarez 2002; a thesis on Ch'ol verb classes by Gutiérrez Sánchez (2004); a thesis on Ch'ol adjectives and property concepts by Martínez Cruz (2007); and a thesis on numeral classifiers by Arcos López (2009). A recent doctoral dissertation by Vázquez Álvarez (2011) provides a clear and comprehensive review of Ch'ol grammar. These works will also be referenced throughout.

Information on Ch'ol culture and history can be found in a report by Josserand and Hopkins 2001, in the introductions of Attinasi 1973 and Vázquez Álvarez 2002, and to some extent in other works cited above.

2   Phonemes and orthography

Ch'ol has twenty consonants and six vowels, shown in tables 1 and 2 below. The language is written in a Spanish-based practical orthography, which is used throughout this work. Notably, orthographic *j* = IPA [h], *y* = [j], *x* = [ʃ], and Ch'ol's high mid unrounded vowel—IPA [ɨ]—is written as *ä* (some older works use the wedge (ʌ) or schwa (ə) for this vowel). An apostrophe after a consonant indicates an ejective consonant (e.g. ***k'ajk'*** 'fire'); otherwise, apostrophe represents a glottal stop (e.g. *bu'ul* 'beans').

Ch'ol's consonants are shown in table 1. IPA is shown on the left; in instances where the practical orthography differs from IPA, this is given on the right side of the column. Here I do not include sounds found only in Spanish loanwords, such as [g] and [f]. Previous works (Schumann 1973; Attinasi 1973; Koob Schick 1979) have included [r], noting that it is highly marginal in the system. Vázquez Álvarez (2011) notes that there are no minimal pairs with [r], which is found primarily in Spanish loans and onomatopoetic contexts, and I therefore do not list it here. The non-palatal [t] is also sometimes listed as a separate phoneme.

Initial glottal stop is not represented in the orthography: *ixik* = [ʔiʃik] 'woman'. As in many

Table 1: *Ch'ol consonants – IPA and practical orthography*

	Labial	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Implosive	ɓ (***b***)					
Plosive	p			ţ (***ty***)	k	ʔ (***'***)
Ejective	p'	ts' (***ts'***)	tʃ' (***ch'***)	ţ' (***ty'***)	k'	
Affricate		ts (***ts***)	tʃ (***ch***)			
Fricative		s	ʃ (***x***)			h (***j***)
Nasal	m			ɲ (***ñ***)		
Approximant	w	l		j (***y***)		

Mayan languages, the only voiced obstruent in Ch'ol is /b/, a descendent of the Proto-Mayan implosive *[ɓ] (Kaufman and Norman 1984, discussed in Vázquez Álvarez 2011). In Ch'ol, this consonant is typically realized as [ʔ] or [p] word-finally and is pre-glottalized elsewhere (Attinasi 1973; Warkentin and Brend 1974; Vázquez Álvarez 2011).[1] Vázquez Álvarez (2011) notes that Ch'ol /b/ may have an implosive realization in final position, though more detailed phonetic work remains to be done. This consonant, along with the lateral [l], is frequently deleted in word-final position in multisyllabic words (Vázquez Álvarez 2011).

While Ch'ol has palatal consonants [ñ], [ty], and [ty'], it lacks the non-palatal counterparts.[2] Non-palatal [t] is found only in a few forms and never contrasts with [ts]. For example, the perfective marker is realized alternately as *ta'* or *tsa'*.

Ch'ol's vowels are listed in table 2. While close relatives Tseltal and Tsotsil have only five vowels—[a], [e], [i], [o], and [u] (Kaufman 1971; Haviland 1981)—Ch'ol has a sixth: [ɨ] (written as *ä*).

Table 2: *Ch'ol vowels – IPA and practical orthography*

	Front	Center	Back
High	i	ɨ (***ä***)	u
Mid	e		o
Low		a	

[1]Laryngealization of the preceding vowel is also found before /b/ in Tseltal (Polian 2013), also discussed in Vázquez Álvarez 2011. Ch'ol words with intervocalic /b/, like *kabäl* 'many' and *xiba* 'demon,' are often found written as *ka'bäl* and *xi'ba* respectively.

[2]Informal spectographic analysis of Ch'ol speech shows that these consonants are realized with palatal offglides (Gillian Gallagher, p.c.).

This sixth vowel is contrastive, though it is more limited in its distribution and according to Kaufman and Norman (1984), derives historically from a contrast in length: a contrast between long and short vowels was lost in Cholan generally, except for *[aa] and *[a], which became [a] and [ä], respectively. Vowel length and height factor into transitivity alternations elsewhere in Ch'ol and the family generally (see e.g. Lois and Vapnarsky 2003). This type of alternation is discussed in Ch'ol passives below (§4.4.1).

The six plain vowels from table 2 contrast with vowels or vowel sequences represented orthographically as *Vj*, as in the minimal pair *sak'* 'stinging' and *sajk'* 'grasshopper'. Phonetically *Vj* vowels begin as modal (voiced) vowels and become breathy (voiceless) during their second half. In addition to static forms like *sajk'*, CVC→CVjC is a productive means of forming an unaccusative (passive) stem from an otherwise transitive-forming root: *mek'* 'hug', *mejk'* 'be hugged' (see section §4.4.1). These *Vj* vowels also cause root-final consonants to devoice: [ṭam] 'long' vs. [ṭaʰm̥] '*mecapal*' (a leather strap used for carrying).[3]

In a relatively small number of Ch'ol roots we also find "re-articulated" or "interrupted vowels"—vowels which are interrupted by glottal closure (see Silverman 1997). Examples include *ja'as* 'banana', *si'im* 'mother's brother's wife', and *jo'ox* '*achiote*' (type of tree). There is no general requirement that vowels separated by a glottal stop assimilate (compare the perfective morpheme with a clitic attached, *tsa'-ix*, or the compound *tya'-ek'* 'excrement-star (meteor)'). For more on Ch'ol phonology, see Vázquez Álvarez 2011, ch. 2.4, and Bennett to appear for a general overview of Mayan phonetics and phonology.

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[3]Some authors describe the Ch'ol CVjC roots as containing a "*j* infix" (Vázquez Álvarez 2002; Gutiérrez Sánchez 2004), connected to passivizing *-j* suffixes in languages like Tseltal and Tojol-abal (Roberto Zavala, p.c.; see also Campbell 2000). In previous work, I have analyzed this as a vowel quality alternation, rather than an infix (Coon to appear). It is not obvious that competing analyses are relevant to the actual phonetic realization of *Vj* vowels, and I leave this as a topic for future work.

3 Word formation and word classes

This section discusses word formation and word classes in Ch'ol, as well as basic person, number, and temporal/aspectual inflection. The sections below are divided based on *word* class, rather than on *root* class. This type of surface-category division is useful because while some roots may be grouped clearly in one category or another, many roots appear in a variety of surface stem forms, and it is not always clear that one category is more basic than another (see e.g. Haviland 1994 on Tsotsil and Lois and Vapnarsky 2006 on Yucatecan languages). An example of the Ch'ol root *wäy* 'sleep' in different surface stem forms is shown in table 3.[4]

Table 3: *words formed from root* wäy *'sleep'*

wäy-i$_{V}$	wäy-äl$_{ADJ}$	wäy-el$_{N}$	wäy-ib$_{N}$	wäy$_{N}$
sleep-ITV	sleep-STAT	sleep-NML	sleep-INST	spirit.animal
'sleep'	'sleeping'	'sleep'	'bed'	'spirit animal'

Sections below are thus divided based on distribution of surface stems (nouns, verbs, adjectives, classifiers, relational nouns), with one exception: the class of *positional* roots. As has been previously noted in Mayan linguistics (e.g. England 1983, 78), this class of roots does not correspond to a word class. Rather, positional roots always appear with some type of stem-forming morphology, usually entering into surface adjective or verb stems. Section 3.5 is devoted to the inflectional behavior of positional roots.

3.1 Nouns

Bare roots may form nouns in Ch'ol, but they may also be inflected for number and possession, as well as derived from other classes of roots. Full noun phrases and nominal inflection are discussed further in section 4.1 below. This section focuses on morphology appearing on the head noun itself.

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[4]Abbreviations in glosses specific to this article are as follows: D.NML – nominal suffix for derived transitives; DTV – derived transitive suffix; INDEF – indefinite; ITV – intransitive verb suffix; NML – nominal; PL – plural; POS – positional; PRFV – perfective; PROSP – prospective aspect; REL – relative clause; REP – reportative; STAT – stative; TV – transitive verb suffix. I include epenthetic glides with other morphemes (usually the Set B morphemes), and do not parse them out separately. Unless otherwise noted, Ch'ol data comes from fieldnotes collected in Chiapas, Mexico. Citations which include a letter followed by a number (e.g. B.73) are from transcribed narratives, which can be found in Coon 2004.

3.1.1 Possession

Possessed nominals in Ch'ol show person and possibly number agreement with the possessor, marked on the possessum via a "Set A" morpheme. Ch'ol's Set A prefixes—also used to mark transitive subjects, discussed in section 3.3—are provided in table 4. As is common throughout Mayan, there are pre-consonantal and pre-vocalic allomorphs. The 1st person prefix is realized as *j-* when preceding a velar consonant. Number marking is discussed further in section 3.1.3.

Table 4: *Ch'ol Set A (ergative/possessive) morphemes*

	Pre-C	Pre-V
1ST person	*k-/j-*	*k-*
2ND person	*a-*	*aw-*
3RD person	*i-*	*(i)y-*

Some examples of possessed nouns are shown in (1). The possessor may be dropped, but follows the possessed noun when overt (except interrogative possessors; see Coon 2009).

(1) a. Tax   k-wuts'-u   **k**-pisl-el.
         PRFV.already A1-wash-TV A1-clothes-NML

    'I already washed my clothes.'

   b. Chokoch mi   i-k'ux-b-eñ   **iy**-ak'   **kixtyaño**?
       why   IMPF A3-eat-APPL-D.NML A3-tongue people

    'Why does he eat people's tongues?'   (D.20)

While many nouns in Ch'ol are free to appear with or without possessors, some require a possessor. These include body part and kinship terms like *-ñi'* 'nose' and *-ijts'ijñ* 'younger sibling', as well as relational nouns (discussed in section 3.7 below). At least some of these obligatorily possessed nouns may, however, appear without possessors if they take a *-Vl* suffix (*-äl* or *-il*), as discussed in Warkentin and Scott (1980, 15) and Vázquez Álvarez (2011, ch. 5.2.1). Examples are given in table 5. The last three rows in this table illustrate that not only does a *-Vl* suffix permit obligatorily possessed nouns to appear without a possessor, it may also mark a contrast in alienability.

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Table 5: *Obligatorily possessed nouns*

*i-**chich***	'his older sister'	***chich-äl***	'older sister'
*i-**pixol***	'his hat'	***pixol-äl***	'hat'
*i-**ñäk'***	'his stomach'	***ñäk'-äl***	'stomach'
*i-**bak***	'his bone'	*i-**bäk-el***	'his bone (e.g. in his soup)'
*i-**pisil***	'his clothes'	*i-**pisl-el***	'his cloth'
*i-**chij***	'his vein'	*i-**chij-il***	'his cord'

3.1.2 Noun class clitics

Many nominals in Ch'ol—most often those referring to humans, animals, and plants—appear with one of two noun class clitics: *x-* and *aj-*.[5] Historically, these marked feminine and masculine noun classes, respectively. In present-day Ch'ol, however, clitic choice does not indicate a distinction in actual gender. Arcos López (2011) provides an analysis of the sociolinguistic factors involved in the use of one clitic over another in Ch'ol; see also Tuz Noh 2011 for analogous facts in Yucatec Maya. The use of these clitics on proper names is discussed in Coon 2010c.

3.1.3 Plural

Bare nominals in Ch'ol are unmarked with respect to number; they may be interpreted as singular or plural, depending on context (see e.g. Arcos López 2009, 76). Morphological plural marking is also possible for some nouns. The suffix *-ob* (often written *-o'*, see discussion on the behavior of [b] in section 2 above) marks plural for humans and some animals. This suffix may show up both on the plural noun itself, as well as on the predicate, shown in (2) and discussed in section 3.3.

(2) Tyi k-il-ä-**yob**   jiñi wiñik-**ob**.
    PRFV A1-see-TV-PL DET man-PL

    'I saw the men.'

An additional plural morpheme, *-tyak*, has been called an "indefinite plural" marker (Vázquez Álvarez 2002; Arcos López 2009) and results in a partitive interpretation. The examples in (3) illustrate that *-tyak* is not incompatible with *-ob*, either on the verb, or the nominal.

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[5]With the exception of phrase-final enclitics, I simply use a dash rather than '=' to indicate clitics, as the status of some elements is less clear.

(3) Ya'-tyo tyi i-cha'l-e-y-**ob**   li ñox-**ob**-**tyak**.
     there-still PRFV A3-do-DTV-EP-PL DET elder-PL-PL.INDEF

     'It was clear over there that some of the elders used to have it.'   (Vázquez Álvarez 2011,

     87)

3.1.4 *-Vl* suffixes and other derived nouns

Suffixes of the form *-Vl*, or ending in *-Vl*, are found on nominals throughout Ch'ol, as already

seen in the discussion of possession above. The table in 6 gives examples of various *-XVl* suffixed

nominals (where X is some material before the *Vl*); some are nominals derived from verbal or

adjectival roots, while others change the meaning of an already CVC nominal. Those that appear

with a possessor in the table are obligatorily possessed. More can be found in Aulie and Aulie

1978 and Warkentin and Scott 1980.

Table 6: *-Vl nominals (Aulie and Aulie 1978; Warkentin and Scott 1980)*

lum	'land'	*i-lum-al*	'his country'
tyaj	'pine'	*tyaj-ol*	'place where pines grow'
ja'as	'banana'	*ja'as-il*	'banana tree'
bäx	'active'	*i-bäx-lel*	'his energy'
jab	'year'	*i-jab-ilel*	'her birthday, age'
k'iñ	'sun, day'	*k'iñ-ijel*	'party'
k'am	'sick'	*k'am-äjel*	'sickness'
mel	'make'	*mel-ojel*	'judge'

Another productive nominalizing suffix is *-ib*, which appears on intransitive stems to form

nominals, most often with a resulting meaning of 'thing used for doing X' (i.e. an instrumental).

Examples include *wäy-ib* 'bed' (*wäy* 'sleep') and *jul-oñ-ib* 'rifle' (*jul-oñ* 'arrive-AP'). Roots which

form transitive stems may be joined to nominal roots with *-o'* in order to form compounds: *japo'*

ja' 'cup' (*jap* 'drink', *ja'* 'water'); *lucho' ja'* 'ladle' (*luch* 'take out', *ja'* 'water'); *k'elo' k'iñ*

'clock' (*k'el* 'look, watch', *k'iñ* 'sun') (Warkentin and Scott 1980, 22). There are also many

noun-noun compounds in the language, for instance *tyaty-muty* 'father-chicken (=rooster)', *tya'-jol*

'excrement-head (=vulture)', *tyu(ñ)-muty* 'rock-chicken (=egg)'.

3.2 Adjectives

In his thesis on adjectives and property-denoting words in Ch'ol, Martínez Cruz (2007) argues that Ch'ol, like other Mayan languages, *does* possess a distinct class of adjectives (see also England 2004 on Mam). The number of adjectival roots is given as around 50 (Terrence Kaufman p.c., cited in Martínez Cruz 2007, 66). Though many concepts which are expressed in languages like English as adjectives are lexicalized as positionals in Mayan languages (see section 3.5), Martínez Cruz (2007) argues that the class of adjectives can be distinguished by their ability to directly modify a nominal head without the addition of special morphology, shown by the bold-faced adjectives in (4).

(4)   a.   Mi   i-kej   i-lets-el   ili   **tsiji'** jabil.
           IMPF A3-PROSP A3-ascend-NML DET new   year

           'It will go up in this new year.'

     b.   Juñ-kojty   **kolem säsäk** yewa, che'-bi.
           one-CLF.animal big   white mare so-REP

           'It's a big white mare, he said.'   (Martínez Cruz 2007, 70)

Other lexical items must appear with the relative clause marker *-bä* (§4.1) when modifying a noun attributively, as shown by the stative positional form in (5).

(5)   Ch'äm-ä tyäl-el   **wel-el**-*(**bä**)   tye'!
     grab-IMP come-NML flat-STAT-REL wood

     'Bring me a flat piece of wood.'   (Martínez Cruz 2007)

Bare adjectives like those in (4) must precede the head noun, while modifiers with the relative marker may either precede or follow the head. Bare adjectives differ from *-bä*-marked relative clauses in other respects as well. Martínez Cruz notes that while the Set A possessive marker may be prefixed to a bare adjective when marking possession of a nominal phrase (6), it may not directly precede modifiers marked by *-bä*, as shown by the ungrammaticality of (7a). Here the possessive morphology must appear directly on the nominal head; the modifier may either precede or follow the possessed nominal.

(6) Añ **i**-säsäk pech.
   EXT A3-white duck

   'He has a white duck.'

(7) a. * Ch'äm-ä tyäl-el **k**-wel-el-bä tye'!
      bring-IMP come-NML A1-flat-STAT-REL wood

      'Bring me my flat piece of wood!'

   b. Ch'äm-ä tyäl-el wel-el-bä **k**-tye'!
      bring-IMP come-NML flat-STAT-REL A1-wood

      'Bring me my flat piece of wood!'   (Martínez Cruz 2007, 79)

See Martínez Cruz 2007 for details on other properties which distinguish the class of adjectival roots from nominal and verbal roots.

3.3 Verbs

We distinguish "verbal" (roughly, "eventive") predicates from non-verbal predicates by the requirement that verbal predicates must appear with TAM marking. Ch'ol's three core aspectual markers are provided together with their allomorphs in table 7 (see §4.2).

Table 7: *Ch'ol aspects*

perfective	*tyi*	*tsa'*, *ta'*
imperfective	*mi*	*muk'*, *mu'*
progressive		*choñkol*

Roots which directly form eventive verbal stems (that is, without the aid of a light verb or derivational morphology) may be divided into two basic classes based on their stem-forming morphology and number of core arguments. These are shown in table 8. We return to non-verbal stative predicates—which may not appear with aspect marking—in section 3.4.

Core arguments are cross-referenced on the predicate via two sets of person markers, referred to as "Set A" and "Set B" in Mayan linguistics. Transitive stems always involve both sets of markers (though note that 3rd person Set B is null), while intransitives appear with one or the other following a split-ergative or agentive alignment; we return to alignment in section 4.3 below.

Table 8: *Ch'ol verbal roots (Vázquez Álvarez 2002)*

transitive		intransitive	
mek'	'hug'	*majl*	'go'
k'ux	'eat'	*wäy*	'sleep'
jats'	'hit'	*uk'*	'cry'
kuch	'carry'	*yajl*	'fall'
choñ	'sell'	*tyijp'*	'jump'
mäñ	'buy'	*lets*	'ascend'
wuts'	'wash'	*wejl*	'fly'
ch'äx	'boil'	*chäm*	'die'
mos	'cover'	*och*	'enter'
boñ	'paint'	*lok'*	'exit'

The Set A markers also mark possessors, discussed in 3.1.1 above. They are repeated, together with the Set B markers, in table 9. The glides in the Set B column are part of regular epenthetic insertion (to resolve vowel hiatus), though for simplicity I typically do not parse them out as separate morphemes.

Table 9: *Ch'ol Set A (ergative/possessive) and Set B (absolutive) morphemes*

	Set A		**Set B**
	Pre-C	Pre-V	
1ST person	*k-/j-*	*k-*	*-(y)oñ*
2ND person	*a-*	*aw-*	*-(y)ety*
3RD person	*i-*	*(i)y-*	Ø

I discuss transitives (root and derived) and intransitives in sections 3.3.1–3.3.3 below; the discussion of positional stems is postponed to section 3.5. Unergative roots in Ch'ol are encoded as "action nominals" (also called "verbal nouns"); they do not inflect directly as predicates, but appear instead as arguments in light verb constructions, discussed in section 3.3.4.

Although the neat divisions in the above table will be useful to the discussion below, they are in some cases misleading, as noted at the outset of this section. For example, while the Ch'ol root *majl* 'go' listed in table 8 directly forms only intransitive stems, the root *wäy* 'sleep' forms both intransitive stems as well as positional stems (indicating a position of sleeping), without the

addition of derivational morphology (see table 3).[6] The root *och* 'enter' appears underived only as an intransitive, while the root *lok'* appears both in intransitive and transitive stems, meaning 'exit' and 'take out' respectively. In the sections below, we focus on the derivation of stems, bearing in mind that a single root may in some cases enter directly into more than one stem form.

3.3.1 Transitives

In the perfective aspect, transitive roots appear in transitive stems with a harmonic vowel suffix, as shown by the examples in (8). Transitive subjects are co-indexed by Set A prefixes, while transitive objects are marked Set B (null in the third person); see table 9. I gloss the vowel suffix 'TV' for "transitive verb".[7]

(8) a. Tyi i-ty**aj**-**a**   k'am-añ.
     PRFV A3-find-TV sick-NML

     'They became sick.' (lit.: 'They found sickness.')   (C.21)

   b. Tyi k-p**äk**'-**ä**   jam.
     PRFV A1-plant-TV grass

     'I planted grass.'   (C.3)

   c. Ta' k-lu' ch**oñ**-**o** jiñi wakax.
     PRFV A1-all sell-TV DET cow

     'I sold all of the cows.'   (C.22)

The same transitive roots do not appear with vowel suffixes in the nonperfective aspects. Instead, transitive roots in the nonperfective aspects form stems either with no suffix, or the suffix *-e'*, glossed 'DEP' for "dependent (embedded) clause suffix". The suffix *-e'*, shown in (9a), is always optional, and only possible with third person objects (i.e. in the absence of overt Set B morphology). The suffix appears on transitives in clear contexts of embedding (§5.3), as well as in the nonperfective aspects, which I have argued are embedded under aspectual predicates (§4.3). Just as in the perfective, transitive subjects are marked Set A, objects are marked Set B.

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[6]That is, *wäy* does not require morphology beyond the predicate-forming suffixes found on other positional roots, discussed below.

[7]As discussed in Vázquez Álvarez 2011, there are a few forms involving a root vowel [a] in which the suffix is not completely identical, but instead appears as the high unrounded vowel *-ä* (IPA [ɨ]).

(9)   a. Mi   k-päk'(-**e'**)   jam.
             IMPF A1-plant-DEP grass

            'I plant grass.'

    b. Choñkol k-mek'-ety.
             PROG   A1-hug-B2

            'I'm hugging you.'

3.3.2   Non-root transitives

The *root transitives* from the previous section contrast with *derived* or *non-root* transitives. Derived transitive stems, such as the applicatives in (10), appear with a vowel suffix in the perfective aspect and a *-Vñ* suffix in the nonperfective aspects.[8] Transitives derived via causative and applicative morphology are discussed in the context of other valence changing morphology in section 4.4 below.

(10) a. Tyi k-mel-b-**e**   i-waj   alob.
           PRFV A1-make-APPL-DTV A3-tortilla child

           'I made the child his tortillas.'

    b. Mi   k-mel-b-**eñ**   i-waj   alob.
           IMPF A1-make-APPL-D.NML A3-tortilla child

           'I make the child his tortillas.'

In addition to clearly derived forms like those in (10), there also exists a large class of stems which appear with the same *-V*/*-Vñ* stem suffixes, yet show no overt derivational morphology, as in the forms in (11) and (12). Unlike the root transitives, the vowels in the suffixes are not necessarily harmonic with the root vowel, though the vowel in the perfective/nonperfective *-V*/*-Vñ* pair is always identical (modulo the [a]/[ä] alternation in the (c) forms). I gloss these suffixes 'DTV' and 'D.NML' for "derived transitive verb" and "derived transitive nominal" (explained below), respectively.

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[8]The Proto-Mayan applicative is proposed to be *-b'e* (see Mora-Marín 2003 and works cited therein). I follow Vázquez Álvarez (2002) in parsing out these forms into an applicative and status suffixes, *-b-e* and *-b-eñ*, to show the uniform morphological behavior of derived/non-root transitives.

(11) a. Tyi   k-xujch'-**i**   tyak'iñ.
          PRFV A1-steal-DTV money

          'I stole money.'

      b. Tyi   i-pi'l-**e**   majl-el iy-ijñam.
          PRFV A3-accompany-DTV go-NML A3-wife

          'He accompanied his wife.'

      c. Tyi   i-ts'ijb-**u**   i-k'aba'.
          PRFV A3-write-DTV A3-name

          'He wrote his name.'

      d. Tyi   aw-il-**ä**-yoñ.
          PRFV A2-see-DTV-B1

          'You saw me.'

(12) a. Mi   k-xujch'-**iñ**   tyak'iñ.
          IMPF A1-steal-D.NML money

          'I steal money.'

      b. Woli i-pi'l-**eñ**   majl-el iy-ijñam.
          PROG A3-accompany-D.NML go-NML A3-wife

          'He's accompanying his wife.'[9]   ([Aulie and Aulie 1978])

      c. Choñkol i-ts'ijb-**uñ**   i-k'aba'.
          PROG   A3-write-D.NML A3-name

          'He's writing his name.'

      d. Mi   aw-il-**añ**-oñ.
          IMPF A2-see-D.NML-B1

          'You see me.'

We will see in section 4.4 below that -*V*/-*Vñ* stems with and without overt derivational morphology

behave alike with respect to derivational processes like passive. We might thus think of forms like

those in (11)–(12) as "zero-derived" transitives. Indeed, many (perhaps most) of these forms are

clearly *denominal*. The root *xujch'* in (11a)/(12a) appears uninflected as the noun 'thief'; *pi'äl* is

'friend'; and *ts'ijb* is 'scribe' or 'writing'. In other cases, such as with the root *il* in (11d)/(12d),

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[9]This example comes from the Tumbalá dialect, in which *woli* (rather than *choñkol*) marks the progressive. *Woli*
and *choñkol* appear to have identical syntactic behavior.

the root is not recognizable from elsewhere in the grammar. There appears to be no phonological rule that can entirely predict the vowel quality based on the root vowel. Additional examples can be found in Aulie and Aulie 1978 or the appendix of Vázquez Álvarez 2002.

At least the suffixes *-i/-iñ* appear to be productive transitivizers in the language. Spanish verbs typically enter Ch'ol in their infinitive forms as *nouns*. In order to inflect as verbs, they appear with *-i/-iñ* suffixes. Unergative "verbal nouns" in Ch'ol, discussed further in section 3.3.4, form transitives with the same suffixes. Examples of each are given in table 10.

Table 10: *Denominal transitives*

prowal-iñ	'try'	Spanish: *probar*	'to try'
poraj-iñ	'prune'	Spanish: *podar*	'to prune'
pensar-iñ	'worry (about something)'	Spanish: *pensar*	'to think'
k'ay-iñ	'sing (something)'	Ch'ol: *k'ay*	'song'
soñ-iñ	'dance (something)'	Ch'ol: *soñ*	'dance'
alas-iñ	'play (with something)'	Ch'ol: *alas*	'game'

3.3.3 Intransitives

Ch'ol intransitives appear with the suffix *-i* in the perfective aspect, and the suffix *-el* in the nonperfective aspects, shown in the examples in (13) and (14). The perfective forms in (13) all show Set B marking with their subjects resulting in an ergative-absolutive agreement pattern. I gloss the suffix *-i* 'ITV' for "intransitive verb".

(13)   a. Ik'-ix   ta'   jul-**i**-yoñ-loñ.
         late-already PRFV arrive.here-ITV-B1-PL.EXCL

         'It was already late when we_EXCL arrived here.'   (E.171)

       b. Pero jiñi wakax ta'   lajm-**i**.
          but   DET cow   PRFV die-ITV

          'But the cows died.'   (C.18)

Intransitives in the nonperfective aspects mark their subjects via *Set A* morphology. I gloss the suffix *-el* 'NML' for "nominal", discussed further in section 4.3.

15

(14)   a.   Mi   i-wejl-**el**   aj-loro.
              IMPF A3-fly-NML CL-parrot

             'The parrot flies.'

       b.   Muk'-äch k-uch'-**el**.
              IMPF-AFF A1-eat-NML

             'Yes, I eat.'   (B.132)

3.3.4   Unergatives

All of the intransitive roots which appear directly in the forms described in section 3.3.3 are *unaccusative*; their subjects pattern with internal arguments, discussed in detail in Coon 2013. Unergative roots are formally nominal and require a light verb construction in order to predicate, discussed in a number of works on Ch'ol (Gutiérrez Sánchez 2004; Gutiérrez Sánchez and Zavala 2005; Vázquez Álvarez 2011; Coon 2012, 2013). While many of these are CVC in shape, some are also *-Vl* nominals, described in section 3.1 above.

Table 11: *Verbal nouns (see Gutiérrez Sánchez 2004, 70)*

ROOT	*as argument noun*	*with light verb*
soñ	'dance'	'to dance'
alas	'game'	'to play'
ts'ijb	'writing'	'write'
xujch'	'robbery'	'to rob'
chu'	'breast'	'to nurse'
xej	'vomit'	'to vomit'
*ña**jal***	'dream'	'to dream'
*tse'**ñal***	'laughter'	'to laugh'

These event-denoting nominals may either appear as complements to the light verb *cha'l*, as in (15a), or subordinated under the preposition *tyi* in what Coon (2013) labels "B constructions", as in (15b). These are discussed again in section 4.3.

(15)   a.   Tyi   i-ch'al-e   **alas**   jiñi alob.
              PRFV A3-do-DTV game DET child

             'The child played.'

  b. Choñkol-ety tyi **k'ay**.
    PROG-B2 PREP song

   'You're singing.'

3.4 Non-verbal predicate bases

Stative predicates, also known as *non-verbal predicates* within Mayan literature, behave differently from the eventive predicates discussed above in important respects. Some examples of stative predicates are shown in (16).

(16) a. Wiñik-ety.
   man-B2

    'You are a man.'

  b. Ñox-oñ-ix.
   old-B1-already

    'I'm old already.'

  c. Buch-ul jiñi x-'ixik.
   seated-STAT DET CL-woman

    'The woman is seated.'

  d. Mejk'-em-oñ.
   hug.PSV-PERF-B1

    'I am hugged.'

  The stative predicates in (16) differ from the eventive predicates discussed in the previous sections in that they never appear with aspectual morphology. Temporal relations may instead be expressed via adverbs or recovered from context. With the exception of a limited number of transitive statives, like those shown in (17), stative predicates are generally intransitive (like those in (16)) and always mark their single argument with a Set B morpheme, conforming to the general ergative-absolutive pattern of the language (see §4.3).

(17) a. K-om waj.
   A1-want tortilla

    'I want tortillas.'

b. Y-ujil-ix   k'el juñ.
A3-know.how-already watch paper

'He already knows how to read.'

All nominal and adjectival forms can appear directly in stative constructions, shown for instance in (16a–b) above with the noun *wiñik* 'man' and the adjective *ñox* 'old'. Ch'ol does not have an overt equative copula.

Existential and locative constructions in Ch'ol involve the stative predicate *añ*. I gloss this morpheme alternately 'LOC' or 'EXT' while recognizing that these two functions are interconnected (see Freeze 1992). In locative constructions, like the ones in (18a–b), the theme follows the PP when it is a third person DP, and appears as Set B marking on the predicate when it is first or second person. In existential constructions, like the one in (18c), the theme is a bare nominal immediately following the predicate.

(18)   a. **Añ** tyi   otyoty jiñi ts'i'.
            LOC PREP house DET dog

            'The dog is in the house.'

    b. Kontento **añ**-oñ   tyi   k-otyoty.
            content   LOC-B1 PREP A1-house

            'I'm in my house content.'   (B.138)

    c. Wajali   **añ**-bi   juñ-tyikil   x-ñek.
            back.then EXT-REP one-CLF.people CL-*ñek*

            'Back then, they say there was a *xñek*.'   (D.1)

Ch'ol does not have a lexical verb meaning 'have'. Instead possessive constructions involve the morpheme *añ* appearing with a possessed nominal, as in the examples in (19). Like other stative predicates, the aspectual morphemes discussed above are impossible in *añ* constructions. Instead, temporal information is inferred from the context, as in the example from a narrative in (19a), or temporal adverbs may be used.

(19)   a. **Añ**-tyo k-mama, **añ**-tyo k-e'tyel.
           EXT-still A1-mother EXT-still A1-work

           'I still had my mother, I still had my work.'   (B.72)

       b. **Añ** i-chup   jiñi ts'i'.
           EXT A3-worm DET dog

           'The dog has worms.'

3.5 Positionals

Positional roots in Mayan languages form a distinct class of roots, distinguishable in part by
their semantic content (they usually refer to position, shape, or physical state), but also by
the special morphology they use in order to form stems (England 1983, 2001; Haviland 1994;
Vázquez Álvarez 2002). Examples of Ch'ol positional roots are shown in table 12.

Table 12: *Positional roots (Vázquez Álvarez 2002)*

buch	'seated'
wa'	'standing on 2 legs'
koty	'standing on 4 legs; crouched'
xity	'standing on head'
jok'	'hanging' (something large)
jich'	'hanging' (something small)
ts'ej	'lying on side'
päk	'lying face-down'
xoty	'in a rigid circular form'
soy	'in a non-rigid circular form

In Ch'ol, positionals form eventive intransitive verb stems with the suffixes *-li* (also realized as
-le) in the perfective aspect, and *-tyäl* in the nonperfective aspects, shown in (20a) and (20b). These
positional forms behave syntactically as the intransitive (unaccusative) predicates from section
3.3.3 above. They take a single argument; the perfective marks this argument with the Set B
morpheme, while the nonperfective forms show Set A marking.[10]

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[10]Coon and Preminger (2009) argue for an analysis in which the suffixes *-li* and *-tyäl* are further decomposed and
include the *-i* and *-el* suffixes found on the intransitives discussed in section 3.3.3 above.

(20) a. Ta' koty-**li**   jiñi me'.
          PRFV stand.on.4.legs-POS.ITV DET deer

          'The deer stood.'   (E.55)

      b. Mi k-wa'-**tyäl**   tyi karo.
          IMPF A1-stand.on.2.legs-POS.NML PREP car

          'I stand in the truck.'

In addition to forming eventive intransitive verb stems, positional roots share many inflectional characteristics with transitive roots. For example, both may take a harmonic $-\mathbb{V}l$ suffix to form a stative predicate, commonly found in non-verbal predicate (§3.4) and secondary predicate (§5.1) constructions. Both positional and transitive roots may also form numeral classifiers via lengthening and aspiration of the root vowel (3.6).

3.6 Classifiers

In Ch'ol, numerals must appear with a numeral classifier. Lists of numeral classifiers may be found in Aulie and Aulie 1978 and in the appendix of Warkentin and Scott 1980; see especially Arcos López 2009 for a detailed discussion of classifiers in Ch'ol. The vast majority of classifiers in the language are of the form -CVjC. (Final *l* is often dropped, for instance *-p'ejl*→*-p'ej*.)

Most of these classifiers are derived from corresponding CVC transitive or positional roots, as shown by the examples in table 13 (a commonly heard exception is the classifier *-tyikil*, used to count people). As the glosses suggest, the thing counted by the classifier corresponds to the internal thematic role assigned by the corresponding transitive root, or to the single thematic role assigned by the positional.[11] We return to the function of numeral classifiers inside the noun phrase in section 4.1 below.

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[11]As we will see in section 4.4 below, CVC→CVjC is a productive means of forming unaccusative stems from transitive roots. A few classifiers are also formed from intransitive roots in their *-el* stem forms: *-ochel* to count entrances from *och* 'enter'; *-ñumel* to count passes or repetitions from *ñum* 'pass'.

Table 13: *Numeral classifiers*

classifier	for counting…	CVC root	gloss (CATEGORY)
-xujty'	pieces	*xuty'*	'divide' (TV)
-kujch	loads	*kuch*	'carry' (TV)
-jojp	handfuls (of dry granular things)	*jop*	'gather (dry granular things)' (TV)
-kojty	animals, 4-legged things	*koty*	'standing on 4 legs' (POS)
-pajl	clusters	*pal*	'clustered, bunched' (POS)
-xejty	convex objects	*xety*	'in a convex form' (POS)

3.7 Relational nouns and prepositions

Ch'ol has one true preposition: *tyi*. This preposition introduces the oblique argument in passives
(§4.4), all locative relations (Vázquez Álvarez 2002, 32), some adverbial elements and some non-
finite embedded clauses (Coon 2013; Vázquez Álvarez 2013). Examples are given in (21).

(21)   a. Mi   a-mos-tyäl   **tyi**   tsuts.
          PRFV A2-cover-PSV.NML PREP blanket

          'You are covered by the blanket.'

     b. Añ   waj **tyi** mesa.
          EXT tortilla PREP table

          'There are tortillas on the table.'

     c. Tsajñ-ety **tyi**   Salto.
          return-B2 PREP Salto

          'You returned from Salto.'

   More specific spatial relations are encoded with possessed body part terms and other relational
nouns, as in the examples in (22).

(22)   a. tyi   i-**paty** otyoty
          PREP A3-back house

          'behind the house'

     b. tyi   i-**jol**   otyoty
          PREP A3-head house

          'on top of the house'

Relational nouns, described for languages throughout the Mayan family, are also used to express notions of concomitance and possession, as shown with *-ik'oty* and *cha'añ* in (23). Relational nouns appear with possessive (Set A) marking co-indexing the introduced argument. These relational nouns need not be introduced by the preposition *tyi*, and thus differ from other modifiers. The Ch'ol relational noun *-ik'oty* may also show an overt Set B argument, as in (23c).

(23) a. Tyi majl-i **y-ik'oty** k-mama.
        PRFV go-ITV A3-RN.with A1-mom

        'He went with my mom.'

   b. Maxki **i-cha'añ** ili pisil?
      who A3-RN.for/of DET clothes

      'Whose clothes are these?'

   c. Mi ke k-majl-el **k-ik'oty-ety**.
      IMPF PROSP A1-go-NML A1-RN.with-B2

      'I'll go with you.'

While relational nouns like *-ik'oty* and *-ebal* are obligatorily possessed, this is not the case with *cha'añ*, which often appears with no Set A marker with readings like 'for', 'because of'. This suggests that the relational noun may be grammaticalizing into a second preposition. *Cha'añ* can also introduce fully finite embedded clauses (§5.3).

(24) a. Mi i-k'uñ-añ lum **cha'añ** ja'al.
        IMPF A3-soft-INCH land because rain

        'The land is softening because of the rain.'   (Aulie and Aulie 1978)

   b. Tyi i-mel-e waj **cha'añ** y-alobil.
      PRFV A3-make-TV tortilla for A3-child

      'She made tortillas for her children.'

Finally, the preposition *tyi* is also used to introduce certain non-locative/non-temporal adverbial elements, often in a post-predicate position. Some examples are given in (25).

(25) a. … cha'añ mi k-cha' lok'-el **tyi libre**.
           so IMPF A1-again exit-NML PREP free

      '…so I come out free again.'   (B.158)

b. Poreso   jiñi x-ñek mi i-sub-eñ-ob,   cha'añ lu'-i'ik' **tyi pejtyelel**.
  that's.why DET CL-ñek IMPF A3-say-DTV-PL because all-black PREP all

  'That's why they call him the *xñek*, because he's all black.'   (D.49)

4   Phrase and simple clause structure

This section moves beyond the word to the phrase. We examine the noun phrase in section 4.1, before turning to the verb phrase. Relative positions of the main elements in a Ch'ol declarative verbal construction are given in (26), where "object" and "subject" represent free-standing NPs, when present. These elements are discussed in turn below.

(26)   topic – focus – negation [**aspect – predicate – object – subject**]

4.1   Maximal extensions of the noun phrase

Ch'ol nominals are not marked for morphological case. Nominal phrases in Ch'ol can consist of bare nouns, as in (27a), or larger phrases which may include determiners and demonstratives, adjectives, relative clauses, numerals and classifiers, clitics, and plural marking, shown in the examples in (27b–c) and discussed in this section.

(27)   a. Y-om   [ja'as   ].
          A3-want   banana

          'He wants a banana.'

       b. Baki añ [iy-alob-il-ob   aj-Maria   ]?
          where LOC   A3-child-NML-PL DET-Maria

          'Where are Maria's children?'

       c. Tyi   k-mäñ-ä   [ili   cha'-p'ej   kolem alaxax].
          PRFV A1-buy-TV   DET two-CLF.round big   orange

          'I bought these two big oranges.'

  In his thesis on Ch'ol adjectives and property concepts, Martínez Cruz (2007, 21) gives the break-down of Ch'ol noun phrase components shown in table 14, with elements appearing before

of the noun at the top, and those after the noun at the bottom. Elements appearing on the head noun itself (noun class clitics, number marking) were discussed in section 3.1 above.

Table 14: *Ch'ol noun phrase ([Martínez Cruz 2007](), 12)*

determiners	
demonstratives	
numerals with classifiers or measure/quantifier phrases	
Set A (possessor) agreement	
adjectives and pre-nominal relative clauses	↑ *before N*
NOUN	
possessor	↓ *after N*
post-nominal relative clauses	
prosodic enclitic	

4.1.1 Determiners, demonstratives, and pronouns

Bare nominals in Ch'ol may be interpreted as definite or indefinite. Nonetheless, Ch'ol does have determiners and demonstratives. While a definite reading is forced with certain D^0 elements, definite interpretations can also come from context. This can be seen in the sentences in (28) and (29), taken from a narrative about hunters with a dog hunting deer, transcribed in Coon 2004. The dog, which has already been introduced into the narrative, begins to follow some deer tracks:

(28) Che' tyi   i-säk-l-ä   majl-el **ts'i'**...
     then PRFV A3-search-STAT-DTV go-NML   dog

     'Then the dog went to search for it...'   (E.20)

The hunters see a deer, but it runs away. The dog chases after the deer but then loses its scent:

(29) Ma'añ tyi   i-ña'-tyä   baki tyi   majl-i **me'**...
     NEG   PRFV A3-know-DTV where PRFV go-ITV deer

     'It didn't know where the deer went...'   (E.35)

Ch'ol determiners and demonstratives are given in table 15. All of these occupy a prenominal position, and I will gloss all of them 'DET' based on similar restrictions on word order found with these forms (dicussed in Coon 2010c and §4.5 below).[12]

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[12]Variation exists in how the forms in table 15 are glossed, and some of this is likely due to dialectal differences.

Table 15: DETERMINERS AND DEMONSTRATIVES

li, *ili*, *iliyi*	definite, 'this'
jiñ, *jiñi*	definite, 'that'
ixä, *ixäyi*	definite, 'that over there'

As noted in Martínez Cruz 2007, we find an enclitic =*i*—likely related to the final *i* in the forms in table 15—appearing on the end of the noun phrase, as in (30). Martínez Cruz (2007, 42) notes that this clitic is always optional, though its discourse function has not been investigated.

(30)   a. Baki mi y-ajñ-el   i-mäñ-e'   lembal **ili** wiñik=**i**?
            where IMPF A3-be.at-NML A3-buy-DEP liquor DET man-ECL

            'Where did he buy liquor, this man?'   (Martínez Cruz 2007, 26)

       b. Pero **jiñi** x-ñek=**i**   ma'añ   mi i-bä'ñ-añ   pañämil.
            but   DET CL-*ñek*=ECL NEG.EXT IMPF A3-fear-DTV world

            'But that *xñek* isn't afraid of anything.'   (D.10)

Finally, as noted above the form *jiñ*, and sometimes *jiñi*, is glossed by some as a third person pronoun. This would give us the pronominal forms in table 16. An alternative possibility is that *jiñ* is simply a determiner, and that all pronouns are formed from a combination of the determiner plus the corresponding Set B morpheme. This similarity between Set B morphemes and overt pronouns is found throughout the Mayan family.

Table 16: CH'OL PRONOUNS

	PRONOUN	SET B (ABSOLUTIVE)
1ST person	*joñoñ*	*-oñ*
2ND person	*jatyety*	*-ety*
3RD person	*jiñ*	*-Ø*

4.1.2 Possession

Possession was discussed above in section 3.1.1. As the following narrative examples illustrate, possessed NPs may appear preceded by determiners and demonstratives. The noun phrase in (31b)

shows a determiner, numeral plus classifier, possession, and an adjective. Here the possessive marking precedes the adjective and noun.

(31) a. Pero mi ma'añ   mi   i-tyaj-b-eñ   **jiñi iy**-ak'   kixtyaño...
          but   if NEG.EXT IMPF A3-find-APPL-D.NML DET A3-tongue people

          'But if he doesn't find anyone's tongues...'   (D.24)

      b. Tyi   k-mäñ-ä   **jiñi** juñ-kojty   **j**-kolem ts'i'.
          PRFV A1-buy-TV DET one-CLF.animal A1-big   dog

          'I bought my big dog.'   (Martínez Cruz 2007, 36)

4.1.3 Numerals, numeral classifiers, and quantifiers

Like other Mayan languages, Ch'ol has a base-20 numerical system, though Spanish numerals are being increasingly used by younger speakers for numbers larger than four or five. Numerals for 1–20 are given in table 17. A more complete list of numerals is listed in the appendix of Warkentin and Scott 1980.

Table 17: *Ch'ol numerals*

1	*juñ-*	11	*juñlujuñ-*
2	*cha'-*	12	*lajchäñ-*
3	*ux-*	13	*uxlujuñ-*
4	*chäñ-*	14	*chäñlujuñ-*
5	*jo'-*	15	*jo'lujuñ-*
6	*wäk-*	16	*wäklujuñ-*
7	*wuk-*	17	*wuklujuñ-*
8	*waxäk-*	18	*waxäklujuñ-*
9	*boloñ-*	19	*boloñlujuñ-*
10	*lujuñ-*	20	*juñ**k'al***

As the hyphens after the forms in table 17 suggest, numeral-denoting roots may not stand alone. Instead, all numerals in Ch'ol must appear with a classifier (see §3.6 and Arcos López 2009), which varies depending on the nature of what is being counted. Examples are given in (32). The head noun may be omitted in numeral classifier constructions, as shown in (32b).

(32) a. Tyi j-k'ux-u ux-**ts'ijty**   ja'as.
       PRFV A1-eat-TV three-CLF.long.and.skinny banana

    'I ate three bananas.'

   b. Añ cha'-**k'ej**   tyi mesa.
      LOC two-CLF.round.and.flat PREP table

    'There are two (round flat things) on the table.'

Martínez Cruz (2007, 31) lists two quantifiers: *kabäl* 'many, a lot' and *ts'itya'* 'few, a little'.

He also notes that *juñ*-CLF *cha'*-CLF 'one-CLF two-CLF' can be used to convey 'some', as in (33):

(33) Wajali   am-bi   **juñ-tyikil**   **cha'-tyikil**   la-k-pi'äl.
     back.then EXT-REP one-CLF.people two-CLF.people PL-A1-friend

    'It's said that back then we had some friends.'   (Martínez Cruz 2007, 31).

4.2 Aspect

We now turn to a discussion of the core components of verbal predicates, beginning with aspect.
Ch'ol distinguishes three basic aspects: perfective, imperfective, and progressive, shown in table
18, repeated from table 7 above. The perfective and imperfective morphemes have two basic forms,
a short CV form and a longer CVC form. Ch'ol's minimal word requirement is CVC; the full CVC
forms must be used when the aspectual morphemes host clitics. Since the progressive already
meets this requirement, it has just one form.

Table 18: CH'OL ASPECTS

perfective	*tyi*	*tsa'*, *ta'*
imperfective	*mi*	*muk'*, *mu'*
progressive		*choñkol*

In Coon (2010c, 2013) I argued that imperfective and progressive markers $mi/muk'/mu'$ and
choñkol are predicates, while the perfective is not. I refer to Ch'ol's imperfective and progressive
aspects jointly as "nonperfective" aspects. In contrast, the perfective aspect marker *tyi* (proposed
by Law et al. (2006, 442) to be a borrowing from Yucatec) is simply an aspectual particle.[13] I

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[13]The perfective *tyi* is homophonous with Ch'ol's all-purpose preposition, discussed in 3.7 above. It seems unlikely
that the two are historically related; the preposition, for instance, cannot be realized as *tsa'/ta'*.

argued at length in Coon 2010a,b, 2013 that this division is the source of Ch'ol's ergative split, discussed in section 4.3 below.

(34) a. **Tyi** wäy-i-yoñ.
          PRFV sleep-ITV-B1

          'I slept.'

      b. **Mi** k-majl-el tyi eskwela.
          IMPF A1-go-NML PREP school

          'I go to school.'

      c. **Choñkol** i-mel   waj   aj-Maria.
          PROG   A3-make tortilla DET-Maria

          'Maria is making tortillas.'

Like some of the other languages of the Mayan family, for example Popti' (Craig 1977) and Mam (England 1983), Ch'ol does not have dedicated grammaticalized tense morphology. Instead, temporal notions like past and future are marked via adverbs like *wajali* 'back then', *abi* 'yesterday' and *ijk'äl* 'tomorrow'. See Coon (2013, ch. 2) for extensive discussion of the distribution and behavior of these aspect markers.

4.3   Core arguments, agreement, and alignment

As seen above, grammatical relations in Ch'ol are head-marked on the predicate with two sets of morphemes, traditionally labeled "Set A" and "Set B" in Mayan linguistics. Set A corresponds to *ergative* and *possessive*, while Set B corresponds to *absolutive*. These morphemes are shown in table 19, repeated from table 9 above.

Table 19: *Ch'ol Set A (ergative/possessive) and Set B (absolutive) morphemes*

	Set A		Set B
	Pre-C	Pre-V	
1ST person	*k-/j-*	*k-*	*-(y)oñ*
2ND person	*a-*	*aw-*	*-(y)ety*
3RD person	*i-*	*(i)y-*	Ø

Plural marking may appear both on nominals and as agreement on the predicate, and may reflect plural of either the Set A or the Set B argument. Ch'ol's plural morphemes are shown in table 20 and discussed further in Vázquez Álvarez 2011 and Coon 2010a.

Table 20: *Ch'ol plural morphology*

local [+hearer]	*la*
local [−hearer]	*-lojoñ, loñ*
non-local	*-ob*

As nominals in Ch'ol do not show case morphology, constructions with two third person arguments are potentially ambiguous. This ambiguity is resolved either by context or by word order, discussed in section 4.5 below. Bare nominals may in some cases be interpreted as singular or plural, definite or indefinite; see appendix 4.1.1 below.

The Set A morphemes co-index transitive subjects (35a), unergative subjects (35b), subjects of intransitives in the *non*-perfective aspects (35c), and possessors of nominals (35d). Unergatives like (35b) are encoded as nominals and require a light verb in order to predicate; see Gutiérrez Sánchez and Zavala 2005; Coon 2012. In (35b), for example, the lexical root is a "verbal noun" (see §3.3) *soñ* 'dance' and appears as the complement of the transitive light verb *cha'l*. The subject—as with subjects of transitive verbs generally—is marked as Set A.

(35) a. Tyi **k**-wuts'-u pisil.
　　　　PRFV A1-wash-TV clothes

　　　　'I washed clothes.'

　　 b. Tyi **k**-cha'l-e soñ.
　　　　PRFV A1-do-DTV dance

　　　　'I danced.' (lit.: 'I did dance.')

　　 c. Mi **k**-wäy-el tyi ab.
　　　　IMPF A1-sleep-NML PREP hammock

　　　　'I sleep in a hammock.'

　　 d. **k**-wakax
　　　　A1-cow

　　　　'my cow'

The Set B markers co-index transitive objects (36a), subjects of *perfective* intransitives, and the theme in predicate nominal and predicate adjectival constructions (36c–d).

(36)　a.　Tsa'-bi　　y-il-ä-**yoñ**.
　　　　　PRFV-REP　A3-see-DTV-B1

　　　　　'She reportedly saw me.'

　　　b.　Tyi　　ts'äm-i-**yoñ**.
　　　　　PRFV　bathe-ITV-B1

　　　　　'I bathed.'

　　　c.　X-'ixik-**oñ**.
　　　　　CL-woman-B1

　　　　　'I'm a woman.'

　　　d.　Ch'ijyem-**oñ**.
　　　　　sad-B1

　　　　　'I'm sad.'

Comparing the forms in (35c) and (36b), we can describe Ch'ol as having aspectually-based split ergativity: subjects of intransitives in the perfective aspect trigger Set B marking (an ergative pattern), while subjects of nonperfective intransitives trigger Set A marking (a split pattern). In the terminology of Dixon (1979), this represents a pattern of "extended ergativity"—the marker normally reserved for transitive subjects has been extended to mark certain intransitive subjects; see also Larsen and Norman 1979 on this pattern more generally in Mayan.

(37)　ERGATIVE-PATTERNING

　　　transitive:　　**A**-stem-**B**

　　　intransitive:　stem-**B**

(38)　"EXTENDED ERGATIVE"

　　　transitive:　　**A**-stem-**B**

　⟹　*intransitive*:　**A**-stem

In addition to the aspectual split, comparing forms like (35b) and (36b–c) illustrate that Ch'ol is also "Split-S": agentive intransitives pattern differently from non-agentive intransitives in requiring a light verb in order to predicate (discussed for Ch'ol in Gutiérrez Sánchez and Zavala 2005; see also Danziger 1996 on Mopan). Note that while the light verb in (35b) is transitive, unergative

verbal nouns like *soñ* may appear in other constructions as well. In (39) *soñ* appears under the preposition *tyi*; Set B person marking appears directly on the intransitive aspectual predicate *choñkol*. Robertson (1980) calls constructions like (39) "raising constructions", discussed at length in Coon 2012.

(39) Choñkol-oñ tyi   soñ.
     PROG-B1   PREP dance

   'I'm dancing.'

Finally, Ch'ol can also be described as having a "Fluid-S" system, since certain intransitives—dubbed "ambivalents" in Vázquez Álvarez 2002—may appear either directly as predicates (unaccusative) or in a light verb construction (unergative) with a corresponding difference in interpretation, as shown in (40).

(40) a. Tyi **wäy**-i-yoñ.
        PRFV sleep-ITV-B1

        'I slept.' (possibly accidentally)

      b. Tyi   k-cha'l-e   **wäy**-el.
        PRFV 1ERG-do-DTV sleep-NML

        'I slept.' (on purpose)

To sum up, with one apparent exception, namely the nonperfective (unaccusative) intransitive in (35c), we may generalize as follows: Set A marks all *external* arguments, while Set B marks all *internal* arguments. Elsewhere I argue that nonperfective unaccusative forms like the one in (35c) do *not* in fact present an exception. I propose that the Set A marking in these forms co-indexes a grammatical *possessor*, which controls the internal argument.

4.4 Voice

4.4.1 Passive

The majority of root (CVC) transitives in Ch'ol form passives by the CVC→CVjC process introduced in section 2 above. The resulting form behaves morphologically the same as underived

unaccusatives. In (41a), for example, the transitive root *kuch* appears in a transitive stem form: it takes the harmonic vowel suffix *-u* and shows both Set A (subject) and Set B (object) markers. In the passive form in (41b) the root changes from [CVC] to [CVjC] and the agent is left unexpressed. This root now appears with the suffix *-i*, found on underived perfective intransitives.

(41)   a.   Tyi   i-kuch-**u**-yoñ.
            PRFV A3-carry-TV-B1

            'He carried me.'

       b.   Tyi   ku**j**ch-**i**-yoñ.
            PRFV carry.PSV-ITV-B1

            'I was carried.'

Analogous facts are found in nonperfectives, as shown by the progressives in (42). In the passive in (42b) the agent is omitted and the CVjC root now appears with the suffix *-el*, also found on underived nonperfective intransitives.[14]

(42)   a.   Choñkol i-kuch   ñeñe' jiñi x-'ixik.
            PROG   A3-carry baby DET CL-woman

            'The woman is carrying a baby.'

       b.   Choñkol i-ku**j**ch-**el**   ñeñe'.
            PROG   A3-carry.PSV-NML baby

            'The baby is being carried.'

While the majority of CVC roots form passives in this manner, the CVC→CVjC process is unavailable for transitive roots ending in a fricative consonant: *j*, *s*, or *x* (recall that these represent IPA [h], [s], and [ʃ] respectively). While fricative-final transitive roots behave identically to non-fricative-final roots in active stems (i.e. they appear in forms like (41a) and (42a)), fricative-final transitive roots must form passives with the suffix *-li* (perfective) and *-tyäl* (nonperfective), shown in (43).[15]

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[14]It is worth pointing out that many apparently underived intransitives are also of the form CVjC (see table 8 above). The roots *majl* 'go' and *tyijp'* 'jump' for instance appear in intransitive stems, but there are no transitive counterparts **mal* or **tyip'*. There are no transitive roots of the form CVjC.

[15]These are the same suffixes found on positional roots to form eventive stems; see Coon and Preminger 2009 for an analysis which unifies the two constructions.

(43) a. Tyi   k'ux-**li**-yoñ.
          PRFV bite-PSV.ITV-B1

          'I was bitten.'

     b. Mi   i-mos-**tyäl**   ñeñe'.
          IMPF A3-cover-PSV.NML baby

          'The baby is covered.'

While CVC root transitives passivize either by CVC→CVjC, or with the suffixes *-li/-tyäl*, derived or "non-root" transitive stems (see chapter 3.3 above) passivize with the suffix *-tyi* following the *-V/-Vñ* suffixes.[16] In the nonperfective aspects, we then find the suffix *-el*, which also appears on underived intransitives in the nonperfective aspects; vowel deletion gives us *-tyel*. Examples are shown in (44)–(45). As noted above, the *-V/-Vñ* stems with and without overt derivational morphology behave alike with respect to passivization.

(44) a. Tyi   yä-s-äñ-**tyi**-yoñ.
          PRFV fall-CAUS-DTV-PSV-B1

          'I was made to fall.'

     b. Mi   k-yä-s-äñ-**tyel**.
          IMPF A1-fall-CAUS-DTV-PSV.NML

          'I am made to fall.'   (Vázquez Álvarez 2002, 59)

(45) a. Tyi   koty-äñ-**tyi**-yety.
          PRFV help-DTV-PSV-B2

          'You were helped.'

     b. Mi   a-koty-äñ-**tyel**.
          IMPF A2-help-DTV-PSV.NML

          'You are helped.'   (Vázquez Álvarez 2002, 75)

These stems follow the split discussed above: the single argument of the perfective is marked with Set B, while the single argument of the nonperfective is marked Set A.

Finally, the appearance of by-phrases with passives is restricted based on person and animacy. The restriction of voice constructions based on the relative animacy of the verbal arguments in

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[16]Note that here we find the *-Vñ* form in both nonperfectives and perfectives. Word-finally and before the Set B morpheme we find simply *-V* in the perfective.

Mayan languages was first noted in Aissen 1997, who connects these facts to *obviation*. See Zavala 2007 for a detailed description of the situation for Ch'ol.

4.4.2 Causative

Ch'ol has one morphological causative, the suffix *-(i)s*, which is possible only on intransitive roots. In the perfective the suffix is followed by the vowel *-ä* and in nonperfective aspects it is followed by *-añ* (following the general pattern of derived transitives in the language). The appearance of the vowel *-i* does not seem to be phonologically predictable.

(46)   a. Tyi   k-wäy-**is**-ä   ñeñe'.
            PRFV A1-sleep-CAUS-DTV baby

            'I made the baby sleep.'

    b. Mi   k-wäy-**is**-añ   ñeñe'.
            IMPF A1-sleep-CAUS-D.NML baby

            'I make the baby sleep.'

The causative suffix often triggers an irregular or reduced form of the root. These forms are not phonologically predictable, and are unique instances of irregularity in a language which is otherwise predictably agglutinating. For instance *yajl* 'fall' ∼ *yä-s* 'make fall'; *lok'* 'exit' ∼ *lo'-s* 'make exit'; The suffix *-(i)s* also triggers regressive anteriority harmony, as in *chäm* 'die' ∼ *tsäñ-s* 'kill' and *och* 'enter' ∼ *ot(s)-s* 'make enter'. Finally, the causative suffix is impossible with roots denoting directed motion: *majl* 'go', *tyäl* 'come', *jul* 'arrive here' and *k'oty* 'arrive there'. This same set of roots is also unable to appear with imperative morphology.

The morphological causative is possible only with certain intransitive roots. All other causatives in the language are periphrastic. Examples with the verbs *xik'* 'order' and *äk'* 'give' are given in (47). These verbs take nonfinite complement clauses, discussed further in section 5.3 below.

(47)   a. Mi i-xik'-ety   a-wuts' pisil.
            IMPF A3-order-B2 A2-wash clothes

            'She orders you to wash clothes.'

b. Tyi k-äk'-ä-yety tyi soñ.
   PRFV A1-give-TV-B2 PREP dance

   'I made you dance.'

4.4.3 Applicative

Transitive stems (derived or not) appear in double object constructions with the applicative suffix, *-b*, followed by *-e* in the perfective and *-eñ* in the nonperfective. The forms in (48) show that a benefactive can be added to a transitive construction as an oblique marked by *cha'añ* 'for' (also a relational noun, described in this context as a preposition by Gutiérrez Sánchez 2004).

(48) a. Tyi k-ch'äx-ä ja'.
         PRFV A3-boil-TV water

         'I boiled water.'

      b. Tyi k-ch'äx-ä ja' **cha'añ aj-Maria**.
         PRFV A1-boil-TV water for DET-Maria

         'I boiled water for Maria.'

Applicative constructions promote indirect objects, like *alob* in (48b), to primary argument status. That is, in the applicattive, the applied argument patterns the same as the object of a mono-transitive construction. The theme is the "secondary object" in the sense of Dryer 1986. If the applied primary object is first or second person, it appears as Set B marking on the stem, as in (49a–b). When the primary object is an overt third person nominal, the order is V-DO-IO-S, as in (49c).[17] The applicative suffix appears only on transitive stems, never on intransitives. Vázquez Álvarez (2002) notes that the applied object may be benefactive, as in (48b), a malefactive as in (48a), a recipient, or a target.

(49) a. Mi k-muk-**b**-eñ-**ety** waj.
         IMPF A1-hide-APPL-D.NML-B2 tortilla

         'I hide your tortilla.'   (Vázquez Álvarez 2002, 304)

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[17]The vowel hiatus between the vowel in *-b-e* and the Set B marker may also be resolved via deletion of the *-e*, rather than by glide epenthesis. The form in (49b), for example, would be *ich'äxboñ*.

b. Tyi   i-ch'äx-**b**-e   ja'   **alob** jiñi x-'ixik.
   PRFV A3-boil-APPL-DTV water boy   DET CL-woman

   'The woman boiled the boy water.'

The applicative suffix is also employed in external possession constructions, as shown in (50).

Here the possessor of the theme is marked via Set B morphology on the stem (null third person in

(50b)).

(50)   a. Tyi   a-ts'äk-ä-b-**oñ**   **k**-alob-il.
          PRFV A2-cure-DTV-APPL-B1 A1-child-NML

          'You cured my child.'   (Vázquez Álvarez 2002, 307)

       b. Chokoch mi   i-k'ux-b-eñ   **iy**-ak'   **kixtyaño**?
          Why   IMPF A3-eat-APPL-D.NML A3-tongue people

          'Why does he eat people's tongues?'   (D.20)

4.4.4 Antipassive

As with unergatives, discussed in section 4.3, antipassive forms in Ch'ol behave distributionally

and, in some cases, morphologically with nominals and always surface in light verb constructions;

see Gutiérrez Sánchez 2004; Vázquez Álvarez 2011; Coon 2013. In Coon (2013) I provide

evidence for the generalization that all *predicates* in Ch'ol (i.e. forms which inflect directly for

person) require full internal arguments. Thus while unaccusatives and transitives pattern directly

as verbs, unergatives and antipassives do not. The transitive in (51a) is provided for contrast with

the two antipassives in (51b–c).

(51)   a. TRANSITIVE

          Tyi   k-wuts'-u   (jiñi) pisil.
          PRFV A1-wash-TV DET   clothes

          'I washed (the) clothes.'

       b. INCORPORATION ANTIPASSIVE

          Tyi   k-cha'l-e   wuts' (*jiñi) pisil.
          PRFV A1-do-DTV wash DET   clothes

          'I washed clothes.' (lit.: 'I did clothes-washing.')

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c. ABSOLUTIVE ANTIPASSIVE

Tyi   k-cha'l-e   wuts'-**oñ**-el.
PRFV A1-do-DTV wash-AP-NML

'I washed.' (lit.: 'I did washing.')

The incorporation antipassive in (51b) does not bear any overt antipassive morphology and the verb root and internal argument remain separate words phonologically. Nonetheless, the object must be bare and non-referential, as shown by the ungrammaticality of the determiner *jiñi*. The absolutive antipassive in (51c) appears with the suffix *-oñ*—cognate with antipassive in other Mayan languags—always followed by the nominal suffix *-el*. No internal argument appears. There is no antipassive construction in Ch'ol in which an internal argument is demoted to oblique status.

4.4.5   Reflexives and reciprocals

Both reflexives and reciprocals in Ch'ol involve the relational noun *-bäj* or *-bä*, which can be glosssed as 'self'. This form always appears with possessive (Set A) marking, which is co-referential with the external argument of the verb.

(52)   a. Tyi **k**-il-ä   **k-bä**.
           PRFV A1-see-TV A1-RN.self

           'I saw myself.'

       b. Tyi **i**-jats'-ä-yob **i-bä**   jiñi wiñik-ob.
           PRFV A3-hit-TV-PL A3-RN.self DET man-PL

           'The men hit each other.'

           'The men hit themselves.'

While transitive objects are generally free to undergo fronting for topic or focus, this is impossible with the reflexive, suggesting a very tight relation between the verb stem and the reflexive stem.

4.5   Constituent order

As we have seen above, Ch'ol is a head-marking language: grammatical relations are marked on the predicate via the Set A and Set B morphemes discussed in section 4.3 above, and full

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nominal arguments may be dropped. Full first and second person pronouns are typically used only for emphasis, and generally precede the predicate in topic or focus position. Overt third person nominals follow the basic order of VOS in transitives, VS in intransitives (Vázquez Álvarez 2002). Though transitives with two overt third person post-verbal arguments are rare in naturally occurring discourse, examples are available. A transitive is given in (53a) and an intransitive in (53b).

(53)   a. Tyi   i-ña'-tyä   pañämil kixtyaño.
          PRFV A3-know-DTV world   people

          'The people understood (lit.: knew the world).'   (D.175)

      b. Ta-x   lajm-i jiñi x-ñek.
          PRFV-already die-ITV DET CL-ñek

          'The *xñek* died.'   (D.30)

In Coon 2010c I propose that predicate initial order in Ch'ol is the result of fronting of the phrasal predicate to a position above the subject. VSO order is also possible for transitives, argued to be the result of remnant VP movement, though see Clemens 2014 for discussion of the possibility of a head movement analysis with prosodic incorporation of the object.

Though predicate initial order is basic in discourse neutral contexts, both subjects and objects can be fronted to pre-verbal topic and focus positions (see Aissen 1992 for a discussion of topic and focus in Tsotsil, and Coon 2010c for more examples from Ch'ol). All six possible orders of subject, verb, and object are thus possible. Examples in (54) are from naturally occurring text. There is no specific topic or focus morphology in Ch'ol, as there is in some Mayan languages.[18]

(54)   a. Pero kome   **joñoñ** aläl-oñ-tyo...
          but   because 1PRON child-B1-still

          'But because I was still a child....'   (B.25)

      b. Entonses **jiñi me'** ta'   y-il-ä-yoñ-lojoñ.
          and.so   DET deer PRFV A3-see-DTV-B1-PL.EXCL

          'The deer saw us$_{\text{EXCL}}$.'   (D.27)

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[18]The enclitic =*i* discussed above frequently appears on fronted material, though it is not obligatory, and is also possible on post-verbal nominals.

c. **Yambä** tyi   i-tyaj-a   ts'i'.
other   PRFV A3-find-TV dog

'It was another that the dog had found.'   (E.95)

Unlike many other Mayan languages (and many ergative-patterning languages more generally), no special antipassive or Agent Focus construction is used in contexts in which the external or ergative-marked argument is extracted for focus, relativization, or *wh*-questions, illustrated by the transitive form in (55); see Coon et al. 2014 on Ch'ol and Aissen to appear for discussion.

(55) **Aj-Maria** tyi   i-juch'-u   ixim.
CL-Maria PRFV A3-grind-TV corn

'*Maria* ground corn.'

4.6   Negation

Ch'ol has two main negative forms, *mach* and *ma'añ*. In the case of verbal predicates, the former is typically used with stative clauses which do not take one of the aspect markers, while the latter is used when aspect markers appear, as shown in (56).

(56) a. **Mach** k-om   sa'.
NEG   A1-want *pozol*

'I don't want *pozol*.'

b. **Ma'añ** mi   i-majl-el   tyi   klase.
NEG.EXT IMPF A3-go-NML PREP class

'She doesn't go to class.'

As the gloss in (56b) suggests, the form *ma'añ* is most likely bimorphemic—a contraction of the negative *mach* and the existential/locative *añ* (see section 3.4); see Coon 2006; Vázquez Álvarez 2011.

4.7   Second position clitics

Ch'ol has a number of second position clitics, shown in table 21 (see also Vázquez Álvarez 2002).

-ix	'already'	
-äch, -ku	affirmative	(AFF)
-tyo	'still, yet'	
-ba	interrogative	(INT)
-bi	reportative	(REP)
-ik	irrealis	(IRR)
-ka	dubitative	(DUB)
-me	"predictive"	

While Ch'ol *-ix* can be translated into English as 'already', it is more like its Spanish counterpart *ya*, which Koike (1996, 267) describes as "a reflector of aspect as well as a discourse marker that can serve to transmit an emotional intensity about designated information and to create cohesion in the discourse." I gloss it alternately as 'already' or simply as 'CL'. Textual examples of the clitics *-ix* and *-äch* are given in (57).

(57) a. Porke jiñ-**ix** jap-lembal-ob ñoj p'umpuñ-ob-**ix**.
        because DET-CL drink-liquor-PL very poor-PL-CL

      'Because those who drink liquor are very poor indeed.'   (B.125)

    b. Pero solo dyos y-ujil   mi muk'-**äch** k-cha'   tyaj jiñi k-wakax. . .
        but only god A3-know if IMP-AFF A1-again find DET A1-cow

      'But only god knows if I'll again have cows. . .'   (C.63–64)

    c. Añ-**äch-ix**   juñ-kojty   wa'li.
        EXT-AFF-already one-CLF.animal now

      'Now there's already one (animal).'   (C.65)

The clitics *-äch* and *-ku* are both used in affirmations. Ch'ol does not have a single word that translates to 'yes'. Instead, the appropriate aspect marker combines with *-ku*: *tsa'-ku*, *mu-ku*, *choñkol-ku* (PRFV-AFF, IMPF-AFF, and PROG-AFF, respectively).

The clitic *-tyo* can be translated fairly straightforwardly to English 'still' or 'yet'. The clitic *-ba* may be used in interrogative constructions, though as noted above the difference between interrogative and declarative sentences is frequently marked only by intonation. The clitic *-bi* is found throughout narratives and indicates reported or non first-hand information. The irrealis

clitic *-ik*, glossed 'subjunctive' in Vázquez Álvarez 2002, will be discussed in section 5.3 below in the context of counterfactual conditionals. The 'dubitative' *-ka* is used to express uncertainty (Vázquez Álvarez 2002, 157). Finally, Vázquez Álvarez lists the clitic *-me* as the 'predictive', which he writes gives information about "warning, exclamation, or surprise".

In a simple declarative sentence, the clitic will attach to the aspect marker in the case of an eventive predicate like (58a), and directly to the predicate in an aspect-less stative construction, as in (58b). Recall that the perfective and imperfective aspect markers—*mi* and *tyi*—have larger CVC allomorphs (see table 7 above), which must be used when clitics are hosted. In some cases these aspect markers are contracted with -VC clitics, for example: *ta'-äch* → *täch*; *ta'-ix* → *tax*; *muk'-ix* → *mux*. The example in (58a) also shows that the clitics do not attach to topicalized or focussed NPs. The clitics also do not attach to fronted *wh*-words.

(58)   a.   Jiñi wiñik mu**x**   i-majl-el   tyi   cholel.
            DET man   IMPF.already A3-go-NML PREP field

            'He's going to the field already.'

       b.   Chañ-ety-**ix**.
            tall-B2-already

            'You're tall already.'

5 Complex structures

5.1 Complex predicates and adverbial modification

5.1.1 Secondary predicates

Depictive secondary predicates in Ch'ol appear immediately before the main predicate and may contribute meanings related to: physical state or condition; role, function, or stage of life; quantity; and manner (Vázquez Álvarez 2002, 229). Secondary predicates (italicized in (59)) are always optional, and give additional information about one of the arguments of the clause. This argument is referred to as the "controller" of the secondary predicate (Schultze-Berndt and Himmelmann

2004). The primary predicate appears in its regular inflected form. As shown in (59b), the secondary predicate may optionally show Set B morphology co-indexing the controlling argument of the primary predicate.

(59) a. *Buch-ul* tyi i-juch'-u ixim.
seated-STAT PRFV A3-grind-TV corn

'She ground corn seated.'

b. *Tyij-ik-ña-(yoñ)* tyi majl-i-**yoñ**.
happy-AFFC-AFFC-B1 PRFV go-ITV-B1

'I went happily.'

c. *Ñoty-ñoty-ña* mi i-lets-el majl-el tyi tye' jiñi x-ch'ejku.
stick-stick-AFFC IMPF A3-ascend-NML go-NML PREP tree DET CL-woodpecker

'The woodpecker goes up the tree (sticking to it).' (Aulie and Aulie 1978, 83)

Vázquez Álvarez (2002) demonstrates that secondary predicates in Ch'ol, like those in (59), belong to the same clause as the primary predicate. First, fronted arguments must appear before the secondary predicate. If they appear between the primary and secondary predicates, as with the first person pronoun in (60a), a biclausal interpretation is forced; Vázquez Álvarez cites prosodic evidence for this. Second, second position clitics, like the irrealis in (60b), attach to the secondary predicate. Finally, negation appears before the secondary predicate, and can have scope over the entire clause, as in (60c).[19]

(60) a. Buch-ul-oñ. Joñoñ tyi k'oty-i-yoñ.
seated-STAT-B1 PRON1 PRFV arrive.there-ITV-B1

'I'm seated. I arrived.' (Vázquez Álvarez 2002, 231)

b. Buch-ul-**ik** tyi k'oty-i aj-Pekro...
seated-STAT-IRR PRFV arrive.there-ITV CL-Pedro

'If Pedro had arrived seated...' (Vázquez Álvarez 2002, 235)

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[19]The negative morpheme *mach* is also possible in (60c). As discussed in section 4.6 above, *mach* typically negates aspectless stative predicates, while *ma'añ* negates clauses with aspect marking. When *mach* is used in place of *ma'añ* in (60c) the reading becomes 'Pedro arrived not seated'—that is, the negation scopes only over the secondary predicate.

c. **Ma'añ** buch-ul tyi k'oty-i aj-Pekro.
   NEG.EXT seated-STAT PRFV arrive.there-ITV CL-Pedro

   'Pedro didn't arrive seated.' (Vázquez Álvarez 2002, 236)

All core arguments—intransitive subjects and transitive subjects and objects—may control the secondary predicate. As shown by the forms in (61), where the primary predicate has two potential controllers, Set B person marking on the secondary predicate disambiguates. If there is no Set B person marking on the secondary predicate, there seems to be a preference for the internal (Set B) argument to be the controller, though more work is needed here.

(61) a. Buch-ul-**ety** tyi k-tyaj-a-**yety**.
        seated-STAT-B2 PRFV A1-find-TV-B2

        'I found you (while you were) seated.'

     b. Ch'ijyem-**oñ** tyi **k**-tyaj-a-yety.
        sad-B1 PRFV A1-find-TV-B2

        'I found you (while I was) sad.'

Secondary predicates may consist of any stative predicate. They may include positionals in their stative -$\mathbb{V}l$ forms (§3.5); nominal or adjectival predicates; affectives (see Vázquez Álvarez 2011); and others predicates discussed more in Vázquez Álvarez 2002 and in section 3.4 above. Like other statives, the secondary predicate never appears with aspect morphology or with the vocalic "theme vowel" suffixes discussed in section 3.3.

5.1.2 CVC adverbs

Though likely not a true instance of a complex predicate construction, I nonetheless include a discussion of a certain type of adverbial modification here. A class of CVC roots may appear immediately preceding the root (after the Set A marking, when present). Some examples are given in table 22.

(62) a. Tyi i-**lu'** k'ux-u i-waj.
        PRFV A3-all eat-TV A3-tortilla

        'She ate all her tortillas.'

Table 22: *Adverbial particles*

lu'	'completely, all'
cha'	'again'
bele	'continuously, always'
weñ	'well, thoroughly, many'
wa'	'quickly'

    b. Nuebamente choñkol k-**cha'**   tyech yambä k-e'tyel.
       newly   PROG   A1-again begin other   A1-work

       'I'm beginning new work again.'   (C.37)

Vázquez Álvarez (2002) discusses the fact that many roots which appear in secondary predicate constructions (in their stative forms) can also appear in their bare root forms in this immediately pre-root position. For instance, positional roots may appear here:[20]

(63)   a. **Buch-ul**   mi   k-wäy-el.
           seated-STAT IMPF A1-sleep-NML

           'I sleep sitting up.'

      b. Mi   k-**buch**   wäy-el.
           PRFV A1-seated sleep-NML

           'I sleep sitting up.'

5.2 Relative clauses

Ch'ol relative clauses are marked with the morpheme *-bä* (a borrowing from the Mixe-Zoquean language Zoque (Martínez Cruz 2007)), which appears as a second position clitic, attached to the first element of the relative clause. As the forms in (64) illustrate, both ergative (Set A) and absolutive (Set B) arguments may be relativized with no special antipassive or Agent Focus marking on the predicate (compare discussions in Aissen 1999; Stiebels 2006).

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[20]Although further work is needed here, the forms in which the positional is "incorporated" into the verb stem complex sometimes have irregular meanings. Incorporating *buch* as in (63) can mean that the event happened accidentally, while incorporating the positional *wa'* 'standing on two legs' can mean that the event happened quickly.

(64) a. Tyi chäm-i abi **jiñi x-'ixik** [ta'-**bä** i-käñ-tyä-yoñ che'
PRFV die-ITV yesterday DET CL-woman PRFV-REL A3-care.for-DTV-B1 when
x-k'aläl-oñ-tyo].
CL-girl-B1-still

'The woman who took care of me when I was a girl died yesterday.'

b. Tyi chäm-i abi **jiñi x-'ixik** [ta'-**bä** j-käñ-tyä che'
PRFV die-ITV yesterday DET CL-woman PRFV-REL A1-care.for-DTV when
x-k'aläl-oñ-tyo].
CL-girl-B1-still

'The woman who I took care of when I was a girl died yesterday.'

Because nominals are not marked with morphological case, and third person Set B agreement is null, this results in potential ambiguity in relative clauses with two third person arguments, discussed at length in a processing study by Clemens et al. (2015).

(65) Tyi och-i tyi y-otyoty aj-Maria **jiñi lukum** [ta'-bä i-k'ux-u ts'i'].
PRFV enter-ITV PREP A3-house CL-Maria DET snake PRFV-REL A3-bite-TV dog

'The snake that bit a dog entered Maria's house.'

'The snake that a dog bit entered Maria's house.'

While relative clauses most often follow the head noun, they may also precede it, as shown by the textual example from Martínez Cruz 2007. This is unlike most other Mayan languages, where relative clauses obligatorily follow the head. Martínez Cruz 2007 attributes this again to contact with Zoque.

(66) … che' bajche' [choñkol-**bä** i-kol-el] **uj**.
so how PROG-REL A3-grow-NML moon

'… like the waxing moon' (T.17/L.51)

5.3 Complement clauses

Embedded declarative clauses in Ch'ol may be introduced with the complementizer *che'* 'that' as in (67). Basic order in the embedded clause is still VOS/VS, though as in main clauses, both subject and object can front within the embedded clause to a preverbal position. Embedded clauses

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may also be introduced with *cha'añ*, 'because' or 'in order to', and embedded *if*-clauses and conditionals are introduced with the complementizer *mi*.

(67) Tyi j-k'el-e   [che' tyi i-ch'il-i   ja'as jiñi x-k'aläl].
      PRFV A1-watch-TV   that PRFV A3-fry-ITV banana DET CL-girl

      'I saw that the girl fried bananas.'

Aspectless or non-finite embedded clauses are discussed at length in Vázquez Álvarez 2013 and Coon 2013 and for this reason I discuss them only briefly here. Transitive and intransitive embedded clauses are shown in (68). In both embedded clauses, there is a control relationship between the embedded and matrix subjects. Interestingly, the Set A marker is obligatory on the embedded transitive clause in (68a) (what Vázquez Álvarez 2013 terms a "less finite clause", because it appears with person marking, but with no aspect), but impossible on the embedded intransitive in (68b). Coon (2013) argues that aspectless embedded clauses are nominalizations.

(68) a. **K**-om   [**k**-mek'-ety].
          A1-want   A1-hug-B2

          'I want to hug you.'

      b. **K**-om   [wäy-el   ].
          A1-want   sleep-NML

          'I want to sleep.'

The generalization is that full embedded transitives must appear with Set A marking, which, in an aspectless embedded clause, must be coreferential with the matrix subject (otherwise a fully finite embedded form is used). Apparent embedded transitives with no Set A marking, like the one in (69), are restricted to clauses with bare non-referential objects (cf. incorporation antipassives in §4.4.4 above).

(69) **K**-om   [wuts' (*jiñi) pisil   ].
      A1-want   wash DET   clothes

      'I want to clothes-wash.'

Finally, note that while absolutive/Set B marking is impossible in non-finite embedded clauses in some Mayan languages (see e.g. England 2013 on Mam), this is not the case for Ch'ol, as shown

by examples like (68a); building on the analysis in Legate 2008, Coon et al. (2014) attribute this difference to a difference in the way that internal arguments are licensed across Mayan languages.

Verbs of motion, directionals, and auxiliary constructions are not discussed here for reasons of space, but see Vázquez Álvarez 2011, ch. 13.

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