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.

*I would like to express my deepest gratitude to the many Ch’ol speakers and scholars with whom I have had the pleasure of working over the past ten years. I am indebted to the entire Vázquez Vázquez family for their hospitality and kindness, and especially Matilde, Irineo, María Asunción, Hermelinda, Dora, and Julio. Many thanks to Morelia and María de Jesús Vázquez Martínez and to Dorisela Gutiérrez Gutiérrez. Special thanks are due to Juan Jesús Vázquez Álvarez and Nicolás Arcos López for sharing insights and work with me, and to Cora Lesure for reading and commenting on an earlier version. Wokox awállá! Portions of this work appear in the unpublished appendix to my dissertation (Coon 2010a). This work was supported by an FRQSC Nouveaux-Chercheurs grant.
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], $x =$ [f], and Ch’ol’s high mid unrounded vowel—IPA [i]—is written as $\ddot{a}$ (some older works use the wedge (ɬ) 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: $ixik =$ [ɬiʃik] ‘woman’. As in many
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). 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 [˜n], [ty], and [ty’], it lacks the non-palatal counterparts. 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: [i] (written as ɐi).

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

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implosive</td>
<td>p (p)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plosive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ejective</td>
<td>p’</td>
<td>ts’ (ts’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td>ts’</td>
<td>ts’ (ts’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>s</td>
<td>f (x)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>l</td>
<td></td>
<td>n (ñ)</td>
<td></td>
<td>h (j)</td>
</tr>
<tr>
<td>Approximant</td>
<td>w</td>
<td>l</td>
<td></td>
<td>j (y)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Center</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>i (ã)</td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Low</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1Laryngealization 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 kabũl ‘many’ and xibã ‘demon,’ are often found written as ka’bũl and xĩbã respectively.

2Informal 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: [tam] ‘long’ vs. [ta^bm] ‘mecapal’ (a leather strap used for carrying).

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, ts’a’-ix, or the compound ty’a’-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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3Some 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 Tzeltal 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’

<table>
<thead>
<tr>
<th>wäy-iV</th>
<th>wäy-äl</th>
<th>wäy-elN</th>
<th>wäy-ibN</th>
<th>wäyN</th>
</tr>
</thead>
<tbody>
<tr>
<td>sleep-ITV</td>
<td>sleep-STAT</td>
<td>sleep-NML</td>
<td>sleep-INST</td>
<td>spirit.animal</td>
</tr>
<tr>
<td>‘sleep’</td>
<td>‘sleeping’</td>
<td>‘sleep’</td>
<td>‘bed’</td>
<td>‘spirit animal’</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Pre-C</th>
<th>Pre-V</th>
</tr>
</thead>
<tbody>
<tr>
<td>1\textsuperscript{st} person</td>
<td>( k-/j- )</td>
</tr>
<tr>
<td>2\textsuperscript{nd} person</td>
<td>( a- )</td>
</tr>
<tr>
<td>3\textsuperscript{rd} person</td>
<td>( i- )</td>
</tr>
</tbody>
</table>

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 -\( jits’ijññ \) ‘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 (\( -dl \) 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.
Table 5: Obligatorily possessed nouns

| i-chich  | ‘his older sister’ | chich-ôl | ‘older sister’ |
| i-pixol | ‘his hat’          | pixol-ôl | ‘hat’          |
| i-ñäk’  | ‘his stomach’      | ñäk-ôl  | ‘stomach’      |
| i-bak   | ‘his bone’         | i-bäk-ôl | ‘his bone (e.g. in his soup)’ |
| i-pisil | ‘his clothes’      | i-pisil-ôl | ‘his cloth’ |
| i-chij  | ‘his vein’         | i-chij-ôl | ‘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-.

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 jiňi wiňik-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.

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.
3.1.4 -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)**

<table>
<thead>
<tr>
<th>nominals</th>
<th>meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>lum ‘land’</td>
<td>i-lum-al ‘his country’</td>
</tr>
<tr>
<td>tyaj ‘pine’</td>
<td>tyaj-ol ‘place where pines grow’</td>
</tr>
<tr>
<td>ja’as ‘banana’</td>
<td>ja’as-il ‘banana tree’</td>
</tr>
<tr>
<td>b¨ax ‘active’</td>
<td>i-b¨ax-lel ‘his energy’</td>
</tr>
<tr>
<td>jab ‘year’</td>
<td>i-jab-ilel ‘her birthday, age’</td>
</tr>
<tr>
<td>k’i˜n ‘sun, day’</td>
<td>k’i˜n-ijel ‘party’</td>
</tr>
<tr>
<td>k’am ‘sick’</td>
<td>k’am-¨ajel ‘sickness’</td>
</tr>
<tr>
<td>mel ‘make’</td>
<td>mel-ojel ‘judge’</td>
</tr>
</tbody>
</table>

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 w¨ay-ib ‘bed’ (w¨ay ‘sleep’) and jul-o˜n-ib ‘rifle’ (jul-o˜n ‘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’i˜n ‘clock’ (k’el ‘look, watch’, k’i˜n ‘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(˜n)-muty ‘rock-chicken (=egg)’.
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.
IMP 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’am-ää 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’am-ää 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>
<thead>
<tr>
<th>Table 7: Ch’ol aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>perfective</td>
</tr>
<tr>
<td>imperfective</td>
</tr>
<tr>
<td>progressive</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>transitive</th>
<th>intransitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>mek’ ‘hug’</td>
<td>majl ‘go’</td>
</tr>
<tr>
<td>k’ux ‘eat’</td>
<td>way ‘sleep’</td>
</tr>
<tr>
<td>jats’ ‘hit’</td>
<td>uk’ ‘cry’</td>
</tr>
<tr>
<td>kuch ‘carry’</td>
<td>yajl ‘fall’</td>
</tr>
<tr>
<td>choñ ‘sell’</td>
<td>tyijp ‘jump’</td>
</tr>
<tr>
<td>mañ ‘buy’</td>
<td>lets ‘ascend’</td>
</tr>
<tr>
<td>wuts’ ‘wash’</td>
<td>wejl ‘fly’</td>
</tr>
<tr>
<td>ch’áx ‘boil’</td>
<td>chám ‘die’</td>
</tr>
<tr>
<td>mos ‘cover’</td>
<td>och ‘enter’</td>
</tr>
<tr>
<td>boñ ‘paint’</td>
<td>lok ‘exit’</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Set A</th>
<th></th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-C</td>
<td>Pre-V</td>
<td></td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; person</td>
<td>k/-j-</td>
<td>k-</td>
<td>-(y)ohn</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; person</td>
<td>a-</td>
<td>aw-</td>
<td>-(y)ety</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; person</td>
<td>i-</td>
<td>(i)y-</td>
<td>Ø</td>
</tr>
</tbody>
</table>

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 way ‘sleep’ forms both intransitive stems as well as positional stems (indicating a position of sleeping), without the
addition of derivational morphology (see table 3). 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”.

(8) a. Tyi i-tyaj-a k’am-añ.
PRFV A3-find-TV sick-NML

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

b. Tyi k-päk’-ä jam.
PRFV A1-plant-TV grass

‘I planted grass.’ (C.3)

c. Ta’ k-lu’ choî-o jiîni 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.

---

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

7As 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 -â (IPA [i]).
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 \(-\text{V}\) suffix in the nonperfective aspects. 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-\(\tilde{e}\)ni 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 \(-\text{V}/-\text{V}\) 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 \(-\text{V}/-\text{V}\) pair is always identical (modulo the [a]/[\(\tilde{a}\)] alternation in the (c) forms). I gloss these suffixes ‘DTV’ and ‘D.NML’ for “derived transitive verb” and “derived transitive nominal” (explained below), respectively.

---

8The 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-\(\tilde{e}\), to show the uniform morphological behavior of derived/non-root transitives.
We will see in section 4.4 below that -V/-ViV 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’él is ‘friend’; and ts’ijb is ‘scribe’ or ‘writing’. In other cases, such as with the root il in (11d)/(12d),
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

<table>
<thead>
<tr>
<th>Ch’ol</th>
<th>Spanish:</th>
<th>English:</th>
</tr>
</thead>
<tbody>
<tr>
<td>prowal-iñ</td>
<td>probar</td>
<td>‘try’</td>
</tr>
<tr>
<td>poraj-iñ</td>
<td>podar</td>
<td>‘prune’</td>
</tr>
<tr>
<td>pensar-iñ</td>
<td>pensar</td>
<td>‘to think’</td>
</tr>
<tr>
<td>k’ay-iñ</td>
<td>Ch’ol: k’ay</td>
<td>‘song’</td>
</tr>
<tr>
<td>soñ-iñ</td>
<td>Ch’ol: soñ</td>
<td>‘dance’</td>
</tr>
<tr>
<td>alas-iñ</td>
<td>Ch’ol: alas</td>
<td>‘game’</td>
</tr>
</tbody>
</table>

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’ jil-i-yoñ-loñ.
    late-already PRFV arrive.here-ITV-B1-PL.EXCL
    ‘It was already late when weEXCL 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.
(14) a. Mi i-wej-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.’

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)

<table>
<thead>
<tr>
<th>ROOT</th>
<th>as argument noun</th>
<th>with light verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>soñ</td>
<td>‘dance’</td>
<td>‘to dance’</td>
</tr>
<tr>
<td>alas</td>
<td>‘game’</td>
<td>‘to play’</td>
</tr>
<tr>
<td>ts’ijb</td>
<td>‘writing’</td>
<td>‘write’</td>
</tr>
<tr>
<td>xujch’</td>
<td>‘robbery’</td>
<td>‘to rob’</td>
</tr>
<tr>
<td>chu’</td>
<td>‘breast’</td>
<td>‘to nurse’</td>
</tr>
<tr>
<td>xej</td>
<td>‘vomit’</td>
<td>‘to vomit’</td>
</tr>
<tr>
<td>ťañal</td>
<td>‘dream’</td>
<td>‘to dream’</td>
</tr>
<tr>
<td>tse’ñal</td>
<td>‘laughter’</td>
<td>‘to laugh’</td>
</tr>
</tbody>
</table>

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.’
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).

    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 ŋox ‘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-ñekek.
   back.then  EXT-REP  one-CLF.people  CL-ñekek
   ‘Back then, they say there was a xeňek.’

   (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.
   ‘I still had my mother, I still had my work.’

   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>
<thead>
<tr>
<th>Buch</th>
<th>‘seated’</th>
</tr>
</thead>
<tbody>
<tr>
<td>wa’</td>
<td>‘standing on 2 legs’</td>
</tr>
<tr>
<td>koty</td>
<td>‘standing on 4 legs; crouched’</td>
</tr>
<tr>
<td>xity</td>
<td>‘standing on head’</td>
</tr>
<tr>
<td>jok’</td>
<td>‘hanging’ (something large)</td>
</tr>
<tr>
<td>jich’</td>
<td>‘hanging’ (something small)</td>
</tr>
<tr>
<td>ts’ej</td>
<td>‘lying on side’</td>
</tr>
<tr>
<td>pāk</td>
<td>‘lying face-down’</td>
</tr>
<tr>
<td>xoty</td>
<td>‘in a rigid circular form’</td>
</tr>
<tr>
<td>soy</td>
<td>‘in a non-rigid circular form’</td>
</tr>
</tbody>
</table>

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.\(^\text{10}\)

\(^{10}\)Coon and Preminger (2009) argue for an analysis in which the suffixes -li and -tyäl are further decomposed and include the -t and -el suffixes found on the intransitives discussed in section 3.3.3 above.
(20)  a. Ta’ koty-\textbf{li} jiňi me’.
PRFV stand.on.4.legs-POS.ITV DET deer

‘The deer stood.’

(E.55)  

b. Mi k-wa’-\textbf{tyāl} 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 -\textit{V} 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 \textit{l} is often dropped, for instance -\textit{p’e}jl\text{→} -\textit{p’e}j.)

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 -\textit{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.\footnote{As we will see in section 4.4 below, CVC\text{→}CVjC is a productive means of forming unaccusative stems from transitive roots. A few classifiers are also formed from intransitive roots in their -\textit{el} stem forms: -\textit{ochel} to count entrances from \textit{och} ‘enter’; -\textit{numel} to count passes or repetitions from \textit{num} ‘pass’.} We return to the function of numeral classifiers inside the noun phrase in section 4.1 below.
Table 13: Numeral classifiers

<table>
<thead>
<tr>
<th>classifier</th>
<th>CVC root</th>
<th>gloss (CATEGORY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-xujty’</td>
<td>xuty’</td>
<td>‘divide’ (TV)</td>
</tr>
<tr>
<td>-kujch</td>
<td>kuch</td>
<td>‘carry’ (TV)</td>
</tr>
<tr>
<td>-jojp</td>
<td>jop</td>
<td>‘gather (dry granular things)’ (TV)</td>
</tr>
<tr>
<td>-kojty</td>
<td>koty</td>
<td>‘standing on 4 legs’ (POS)</td>
</tr>
<tr>
<td>-pajl</td>
<td>pal</td>
<td>‘clustered, bunched’ (POS)</td>
</tr>
<tr>
<td>-xejty</td>
<td>xety</td>
<td>‘in a convex form’ (POS)</td>
</tr>
</tbody>
</table>

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-tyül 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. Tsajën-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.
   ‘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’un-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-abloil.
   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-ch’a’ lok’-el tyi libre.
   so IMPF A1-again exit-NML PREP free
   ‘. . . so I come out free again.’

   (B.158)
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-mañ-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)

<table>
<thead>
<tr>
<th></th>
<th>NOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>determiners</td>
<td></td>
</tr>
<tr>
<td>demonstratives</td>
<td></td>
</tr>
<tr>
<td>numerals with classifiers or measure/quantifier phrases</td>
<td>↑ before N</td>
</tr>
<tr>
<td>Set A (possessor) agreement</td>
<td></td>
</tr>
<tr>
<td>adjectives and pre-nominal relative clauses</td>
<td>↑ before N</td>
</tr>
<tr>
<td>posseoror</td>
<td>↓ after N</td>
</tr>
<tr>
<td>post-nominal relative clauses</td>
<td></td>
</tr>
<tr>
<td>prosodic enclitic</td>
<td></td>
</tr>
</tbody>
</table>

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 D⁰ 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’yi’…
    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-ñä’-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 (discussed in Coon 2010c and §4.5 below).¹²

¹²Variation 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-mañ-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-ñe=f=i ma’añ mi i-bañ-añ pañamil.

   but DET CL-ñe=ECL NEG.EXT IMPF A3-fear-DTV world

   ‘But that xñe 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

<table>
<thead>
<tr>
<th>PRONOUN</th>
<th>SET B (ABSOLUTIVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ST person</td>
<td>joñoñ</td>
</tr>
<tr>
<td>2ND person</td>
<td>jatyety</td>
</tr>
<tr>
<td>3RD person</td>
<td>jiñi</td>
</tr>
</tbody>
</table>

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 \( \text{mi ma'añ mi i-tyaj-b-eñ } \) \( \text{jiñi iy-ak' } \) 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-mañ-ä \( \text{jiñi juñ-kojty } \) 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>
<thead>
<tr>
<th>Table 17: Ch’ol numerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ( juñ- )</td>
</tr>
<tr>
<td>2 ( cha'- )</td>
</tr>
<tr>
<td>3 ( ux- )</td>
</tr>
<tr>
<td>4 ( chañ- )</td>
</tr>
<tr>
<td>5 ( jo'- )</td>
</tr>
<tr>
<td>6 ( wák- )</td>
</tr>
<tr>
<td>7 ( wuk- )</td>
</tr>
<tr>
<td>8 ( waxák- )</td>
</tr>
<tr>
<td>9 ( boloñ- )</td>
</tr>
<tr>
<td>10 ( luñuñ- )</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Aspects</th>
<th>tyi</th>
<th>ts’a’, ta’</th>
<th>mi</th>
<th>muk’, mu’</th>
<th>choñkol</th>
</tr>
</thead>
<tbody>
<tr>
<td>perfective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>imperfective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>progressive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.\(^\text{13}\) I

\(^{13}\)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 ts’a’/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** way-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

<table>
<thead>
<tr>
<th></th>
<th>Set A</th>
<th>Set B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-C</td>
<td>Pre-V</td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; person</td>
<td>k-/j-</td>
<td>k-</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; person</td>
<td>a-</td>
<td>aw-</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; person</td>
<td>i-</td>
<td>(i)y-</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th></th>
<th>local [+hearer]</th>
<th>local [−hearer]</th>
<th>non-local</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>la</em></td>
<td><em>lojoñ, loñ</em></td>
<td><em>-ob</em></td>
</tr>
</tbody>
</table>

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.
   `He carried me.'

b. Tyi kujch-i-yoñ.
   `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 ňeñe’ jiñi x-’ixik.
   `The woman is carrying a baby.'

b. Choñkol i-kujch-el ňeñe’.
   `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 -yël (nonperfective), shown in (43).\(^{15}\)

\(^{14}\)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-tyä!
   IMPF A3-cover-PSV.NML baby
   ‘The baby is covered.’

While CVC root transitives passivize either by CVC→CVjC, or with the suffixes -li/-tyä!, derived or “non-root” transitive stems (see chapter 3.3 above) passivize with the suffix -tyi following the -V/-Vî suffixes. 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/-Vî stems with and without overt derivational morphology behave alike with respect to passivization.

(44)  a. Tyi yâ-s-äñ-tyi-yoñ.
   PRFV fall-CAUS-DTV-PSV-B1
   ‘I was made to fall.’

   b. Mi k-yâ-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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16Note that here we find the -Vî 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 ńeñe’.
    PRFV A1-sleep-CAUS-DTV baby
    ‘I made the baby sleep.’

b. Mi k-wäy-is-añ ńeñe’.
    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 chäüm ‘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.’

34
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 applicative, 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)

17The 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 jįni 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 (jińi) pisil.
   PRFV A1-wash-TV DET clothes
   ‘I washed (the) clothes.’

   b. INCORPORATION ANTIPASSIVE

   Tyi k-cha’l-e wuts’ (*jińi) pisil.
   PRFV A1-do-DTV wash DET clothes
   ‘I washed clothes.’ (lit.: ‘I did clothes-washing.’)
c. ABSOLUTIVE ANTIPASSIVE

Tyi k-cha’l-e wuts’-ôñ-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 -ôñ—cognate with antipassive in other Mayan languages—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 -bûj or -bû, which can be glossed 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-bû.
PRFV A1-see-TV A1-RN,self

‘I saw myself.’

b. Tyi i-jats’-ä-yob i-bû 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
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-ñe̱k.
   PRFV-already die-ITV DET CL-ñe̱k
   ‘The xñe̱k 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 joño̱n aläl-oñ-tyo...
   but because 1PRON child-B1-still
   ‘But because I was still a child...’ (B.25)

b. Entoneses jiñi me’ ta’ y-il-ä-yoñ-lojoñ.
   and.so DET deer PRFV A3-see-DTV-B1-PL.EXCL
   ‘The deer saw usEXCL.’ (D.27)

---

18The enclitic =i discussed above frequently appears on fronted material, though it is not obligatory, and is also possible on post-verbal nominals.
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 \textit{wh}-questions, illustrated by the transitive form in (55); see Coon et al. 2014 on Ch’ol and Aissen to appear for discussion.

\begin{exe}
\ex{(55) \textbf{Aj-Maria} tyi i-juch’-u ixim. \hfill (E.95)}
\end{exe}

4.6 Negation

Ch’ol has two main negative forms, \textit{mach} and \textit{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).

\begin{exe}
\ex{(56) a. \textbf{Mach} k-om sa’. \hfill (56a)}
\end{exe}

\begin{exe}
\ex{\begin{exe}
\ex{\text{NEG A1-want } \textit{pozol}}
\end{exe}}
\end{exe}

‘I don’t want \textit{pozol}.’

\begin{exe}
\ex{(56) b. \textbf{Ma’añ} mi i-majl-el tyi klase. \hfill (56b)}
\end{exe}

\begin{exe}
\ex{\begin{exe}
\ex{\text{NEG.EXT IMPF A3-go-NML PREP class}}
\end{exe}}
\end{exe}

‘She doesn’t go to class.’

As the gloss in (56b) suggests, the form \textit{ma’añ} is most likely bimorphemic—a contraction of the negative \textit{mach} and the existential/locative \textit{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).
Table 21: Second position clitics (Vázquez Álvarez 2002)

<table>
<thead>
<tr>
<th>Clitic</th>
<th>Meaning</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ix</td>
<td>‘already’</td>
<td></td>
</tr>
<tr>
<td>-äch, -ku</td>
<td>affirmative</td>
<td>AFF</td>
</tr>
<tr>
<td>-tyo</td>
<td>‘still, yet’</td>
<td></td>
</tr>
<tr>
<td>-ba</td>
<td>interrogative</td>
<td>INT</td>
</tr>
<tr>
<td>-bi</td>
<td>reportative</td>
<td>REP</td>
</tr>
<tr>
<td>-ik</td>
<td>irrealis</td>
<td>IRR</td>
</tr>
<tr>
<td>-ka</td>
<td>dubitative</td>
<td>DUB</td>
</tr>
<tr>
<td>-me</td>
<td>“predictive”</td>
<td></td>
</tr>
</tbody>
</table>

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).

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’-ič 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. An-ič-ix juñ-kojty wa’li.
EXT-AFF-already one-CLF.animal now
‘Now there’s already one (animal).’ (C.65)

The clitics -ič 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: tsä’-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. Jiňi wiňik mux i-majl-el tyi cholel.
   DET man IMPF.already A3-go-NML PREP field
   ‘He’s going to the field already.’

           b. Chañe-ty-i."x.
             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
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.’

    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).

(60) a. *Buch-ul-oñ.* Joñöñ 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)

19The 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.
    ‘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 -vl 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

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</tr>
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<tbody>
<tr>
<td><em>lu’</em></td>
<td>‘completely, all’</td>
</tr>
<tr>
<td><em>cha’</em></td>
<td>‘again’</td>
</tr>
<tr>
<td><em>bele</em></td>
<td>‘continuously, always’</td>
</tr>
<tr>
<td><em>weñ</em></td>
<td>‘well, thoroughly, many’</td>
</tr>
<tr>
<td><em>wa’</em></td>
<td>‘quickly’</td>
</tr>
</tbody>
</table>

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).

\(^{20}\)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
   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
   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
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 jiĩĩ x-k’alal ].
    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 ].
    ‘I want to hug you.’

    b. K-om [ wåy-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’ (*jiĩĩ) 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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