SECOND POSITION CLITICS IN CH'OL

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by
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&
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Wokolix awäläl!
Ndunthi di jamäði!
¡Mil gracias!

– José Armando Fernández Guerrero
ABBREVIATIONS AND SYMBOLS

* ungrammatical construction  
- morpheme boundary  
= clitic boundary  
( ) optional  
1, 2, 3 1ST, 2ND, 3RD person  
A set A (ERGATIVE, GENITIVE)  
ABS absolutive  
ACC accusative  
AUX auxiliary  
B set B (ABSOLUTIVE)  
CAUS causative  
CL intonational enclitic  
COMP complementizer  
DEM demonstrative  
DEP dependent  
DET determiner  
DIR directional  
DTV derived transitive  
DUB dubitative  
DUR durative  
ENCL intonational enclitic  
EP epenthesis  
ERG ergative  
EXCL exclusive  
EXH exhortative  
EXT existential  
FOC focus  
GEN genitive  
HON honorific  
IMP imperative  
IMPRF imperfective  
INCH inchoative  
INC incompletive  
INCL inclusive  
INSTR instrumental  
INT interrogative clitic  
IRR irrealis  
ITV intransitive verb suffix  
LOC locative  
NC numeral classifier  
NCL noun class marker  
NEG negative  
NML nominal  
NOM nominative  ‏NONFUT non-future
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBL</td>
<td>oblique</td>
</tr>
<tr>
<td>PART</td>
<td>particle</td>
</tr>
<tr>
<td>PASV</td>
<td>passive</td>
</tr>
<tr>
<td>POSS</td>
<td>positional suffix</td>
</tr>
<tr>
<td>PL</td>
<td>plural</td>
</tr>
<tr>
<td>PREP</td>
<td>preposition</td>
</tr>
<tr>
<td>PRFV</td>
<td>Perfective</td>
</tr>
<tr>
<td>PROG</td>
<td>progressive</td>
</tr>
<tr>
<td>PRON</td>
<td>pronoun</td>
</tr>
<tr>
<td>PROSP</td>
<td>prospective</td>
</tr>
<tr>
<td>PRES</td>
<td>present</td>
</tr>
<tr>
<td>PTCP</td>
<td>participle</td>
</tr>
<tr>
<td>Q</td>
<td>interrogative marker</td>
</tr>
<tr>
<td>PST</td>
<td>past</td>
</tr>
<tr>
<td>REDUP</td>
<td>reduplication</td>
</tr>
<tr>
<td>REL</td>
<td>relative clause suffix</td>
</tr>
<tr>
<td>REP</td>
<td>reportative</td>
</tr>
<tr>
<td>RN</td>
<td>relational noun</td>
</tr>
<tr>
<td>SG</td>
<td>singular</td>
</tr>
<tr>
<td>STAT</td>
<td>stative suffix</td>
</tr>
<tr>
<td>SUF</td>
<td>suffix</td>
</tr>
<tr>
<td>SV</td>
<td>stative verb</td>
</tr>
<tr>
<td>TV</td>
<td>transitive verb suffix</td>
</tr>
</tbody>
</table>
I. Introduction

Second-position clitics is a vague term for a cross-linguistic phenomenon. At the most consistent of levels, the term refers to phonologically dependent morphemes within a given language that take the 'second-position' within a phrase. Cross-linguistically, the dependent morphemes encompass reduced pronouns, copulas, among others, so their syntactic contribution to a phrase is also uniform. The vagueness of the term is further highlighted by the words "second-position." Is the second-position referring to a linear or structural property? Is it after the first phonological word or the first phrase? Languages vary as to which one are the preferable second-positions, but they usually involve a combination of the two. These clitics can further 'ignore' words or phrases that come before them, obscuring the term "second" as well. In sum, the 'second-position' is a deceiving term to broadly categorize the series of phonological, syntactic, and even semantic processes cross-linguistically affect some morphemes within a language.

This thesis's immediate goal is to investigate the notion of the second-position clitics in the Ch'ol language (Mayan, Greater-Tseltan, Cholan branch), spoken in Chiapas, Mexico. Specifically, Vázquez Álvarez (2011) writes that in Ch'ol, “There are several clitics which are always added to the first word of the clause. […] Second position clitics cannot be attached to any word that is not in the first position” (2011:68). The reportative clitic =bi, paraphrased as "it is said," can follow the first word in (1a) but is ungrammatical in (1A).

(1) Vázquez Álvarez (2011:68)
A. Tsa’=bi i-tyaj-a-ø jalaw.
   PRFV=REP A3-find-TV-B3 jalaw
   ‘It is said that he found a jalaw.’

---

1 Vázquez Álvarez (2011) reports Jalaw is a large wild rodent; known in Spanish as “tepezcuintle” or “paca”
It is said that he found a jalaw.

However, in (2A-B) the clitic =\textit{(i)}x (here glossed as “already,” following Vázquez Álvarez 2011) and the reportative clitic =\textit{bi} both ignore the first series of words all together.

(2) Clitics ignoring first few words

A. Vázquez Álvarez (2011:175)

\begin{verbatim}
Li wiñik=i,\textsuperscript{2} ta=x=bi ke-\empty
\end{verbatim}

DET man=FIN.ENCL PRFV=\textit{already}=REP start-B3

\begin{verbatim}
tyi wäy-el.
\end{verbatim}

PREP sleep-NF

'As for that man, it is said that he started to sleep.'

B. Vázquez Álvarez (2011:69)

\begin{verbatim}
Li wiñik=i, ta'=\textit{bi} tyejch-i-\empty
\end{verbatim}

DET man=FIN PRFV=\textit{REP} raise.PASV-ITVB3

'the man, he stood up.'

Though extensive descriptive and theoretical work exists on second-position clitics in other languages, very few studies look closely at these clitics in Mayan. For Ch'ol, the clitics are mentioned in passing as part of broader theses and projects, but a single work dedicated to them had yet to come. This thesis is an attempt to begin filling that gap. Informed by in situ fieldwork conducted in January 2018, by corpus data from previous works on Ch'ol, and by ongoing conversations with native-speaker consultants, I consider some phonological, syntactic, and semantic motivations to the positioning and ordering of the clitics in Ch'ol. The substantially helpful corpus data comes from Coon (2004, 2010), Gutierrez Sánchez (2004), Little (2017), and Vázquez Álvarez (2004, 2011). When Ch’ol phrases are not attributed to a specific author, they come from my field notes and conversations with speakers.

The broader goal of the thesis is to contribute to a body of literature that addresses second-position clitics as a semi-uniform phenomenon. Ch'ol, and Mayan in general, are special

\footnote{The comma indicates an intonational pause.}
in that the second-position clitics encompass optional evidential, aspectual, and epistemic meanings, which I detail toward the second half of this thesis. In the long-term, I hope to provide considerations for languages with semantically broad, optional second-position clitics.
2. Background

Ch’ol is predominantly VOS and a head-marking language. The arguments of a clause are cross-referenced in the verb, so rarely they are all spelled out. There are three preverbal aspects marked on verbal predicates: the imperfective, perfective and progressive aspects as in (3A-C).

(3) Aspects

A. Mi j-k’ux waj.

IMPRV A1-eat tortilla

'I eat tortillas.'

B. Tyi j-k’ux-u waj.

PRFV A1-eat-TV tortilla

'I ate tortillas.'

C. Wo’ j-k’ux waj.

PROG A1-eat tortilla

'I am eating tortillas.'

The aspects are ungrammatical when used on non-verbal predicates as in (4A-B), which have a nominal and adjectival predicate respectively. Instead, two of the second-position clitics can carry some of the aspectual meaning. These clitics are =ix and =tyo, which Vázquez Álvarez (2011) glosses as “still” and “already.” They mark the edges of an action; he thus labels them the “aspectual clitics.”

(4) Aspects ungrammatical nominal and adjectival predicates

A. *Tyi wiñik-oñ joñoñ.

PRFV man-B3 1.PRO

Intended: I was a man.

B. *Mi chächak-Ø jiñi.

IMPRV red-B3 3.PRO

Intended: It’s red.

Meanings similar to those intended in (4A-B) can be reached with the clitics in (5A-B). More on these clitics and the semantic contributions of the other second-position clitics will be discussed later.
(5) Aspectual clitics with nominal and adjectival predicates

A. Wiñik-oñ-tyo joñoñ
   man-B1-already 1.PRO
   'I was (already) a man.'
B. Chächäk-Ø-ix jiñi
   red-B1-still 3.PRO
   'It is (still) red.'

Morphologically, Ch’ol shows an ergative-absolutive pattern on verbs. Ergative(-absolutive) pattern means that the subject of an intransitive verb and the object of a transitive verb will be marked one way, while the subject of a transitive verb will be marked in another. In Mayan languages, the ergative and absolutive morphemes are traditionally labeled Set A and Set B markers, respectively (Juego A & Juego B in the literature in Spanish). The morphemes used for plurality are separate from Sets A & B and always go after the verb.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Person</strong></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

The possessed noun in (6A) and the agent of the transitive verb (6B) are marked with the ergative marker/Set A. Meanwhile, the object of the transitive verb in (6B) and subject of the intransitive verb in (6C) are marked with the absolutive marker/Set B.

(6) Coon 2017:101-102

A. K-otyoty
   A1-house
   ‘My house’
B. Tyi y-il-ä-y=ety.
   PRFV A3-see-TV-EP-B2
   ‘She saw you.’
Ch’ol shows an aspect-based ergative split because the ergative pattern is lost in non-perfective aspects, (i.e. the imperfective and progressive aspects) (Coon 2013). Therefore in (7A-B), both transitive agents and intransitive subjects are marked with the ergative in the imperfective, while the object of (7A) uses the Set B markers. Coon & Preminger (2012; 2017) argue that split ergativity in Ch’ol arises when structural factors conspire to place the subject and object in separate case/agreement domains, rendering the subjects structurally intransitive.

(7) Vázquez Álvarez 2011:26
A. Mi a-pí’ty-añ-oñ.
IMFV A2-wait-DT-B1
‘You wait for me.’
B. Mi a-wäy-el.
IMFV A2-sleep-NF
‘You sleep.’

In addition to the split ergativity, Ch’ol verbs also display split intransitivity. An active-stative language, or one that shows split-intransitivity, is characterized by how verbs with a single argument in an intransitive clause morphologically mark the argument similarly to either the agent of a transitive verb or similarly to a direct object of a transitive verb. In Ch’ol, this means that some intransitives mark their agents with Set A while others with Set B. Vázquez Álvarez (2002) identifies the two broad classes of verbs as agentive and non-agentive (stative) intransitive verbs. The agentive ones make use of the light verb cha’leñ “to do,” mark the agent with Set A as in (8A), and occasionally use of causative morphology. In mono-valent constructions, non-agentive verbs mark their only argument with Set B as in (8B) (cf. Gutiérrez Sánchez 2004).
(8) Gutiérrez Sánchez 2004:185, 194
A. Tyi k-cha’l-e-∅ ’ajñ-el.
   PRFV A1-do-ITVB3 run-NOML
   ‘I ran.’
B. Tyi chäm-i-y-oñ.
   PRFV die-VT-EP-B1
   ‘I died.’

The tree I set forth in Figure 1 demonstrates how the ergativity split and intransitivity split work together. Alignment, or person-marking patterns, is ergative-absolutive in perfective aspects, while it resembles nominative-accusative in non-perfective aspects (i.e. progressive and imperfect). When perfective verbs are intransitive, a further division occurs between agentive and non-agentive verbs. Agentive verbs are marked with Set A and the stative/non-agentive verbs are marked with Set B.

Figure 1

![Figure 1](image)

To clarify, Ch’ol’s second-position clitics (henceforth, 2PClitics) differ from Set A agreement markers and B clitics. The 2PClitics are not affected by the (non-)agentive status of the verb nor the aspect of the VP. Interestingly, the 2PClitics are optional in a proposition. All
the clitics in discussion are used in the three dialectical municipal variants of Ch’ol: Tumbalá, Tila, and Sabanilla. The latter two are the most similar.

The data for this thesis focuses on corpus data and fieldwork in the Tila and Tumbalá dialects, which are highlighted in the map below in yellow. My data comes from working in San Miguel, Chiapas (Tumbalá dialect) and El Campanario, Chiapas (Tila dialect). San Miguel is about a 40 minute drive from the archeological city of Palenque on the 199 road. El Campanario is a 40-minute drive from Salto de Agua, which in turn is north of Tila. The differences between the dialects are mainly lexical and phonological, unless otherwise stated.

Figure 2
3. Second-Position Clitics

Returning to the issue of second-position clitics and what this ‘position’ is. Vázquez Álvarez's (2011) claim parallels the analyses of other Tseltalan languages, where Tseltalan second position clitics follow the first word as in (9A-B) (Polian 2006). The clitic in Tseltal is =to, analogous to the =tyo “still” in Ch’ol. However, as seen in the introduction, the ‘first word’ definition does not withhold.

(9) Tseltal (Polian 2006)
A. K-ich'oj=to.
   A1-have=TO
   I already have it
B. Ma=to k-ich'oj.
   NEG=TO A1-have
   "I don't have it yet"

Unlike various studies on second-position clitics in other languages (e.g. Serbian, Chamorro, etc.), 2PClitics in Ch’ol are completely optional and have various non-referential meanings. 2PClitics are aspectual, modal, and they can even inform the addressee of the speaker’s ‘perspective’ on the proposition, such as doubt or hearsay (Coon 2010a). Below is a table of all the ones identified by Vázquez Álvarez (2011) and Coon (2010). To the list that Coon offered (2010:230), I would like to add two more 2PClitics: the intensifier =tsa’ and the exclusive operator =jach. This totals 12 clitics in Table 2, but I only had the change to delve into the semantic contribution of five of them. Little and Wigand (2018) provide an extended semantic analysis of =jach. Meanwhile, a formal analysis of intensifier =tsa’ is still in the workings.
Table 2: Second Position Clitics in Ch’ol

<table>
<thead>
<tr>
<th>Clitic</th>
<th>Function</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>=ix</td>
<td>‘already’</td>
<td>ALR</td>
</tr>
<tr>
<td>=tyo</td>
<td>‘still’</td>
<td>STILL</td>
</tr>
<tr>
<td>=ba, =ki</td>
<td>interrogative</td>
<td>INTR</td>
</tr>
<tr>
<td>=ik</td>
<td>irrealis</td>
<td>IRR</td>
</tr>
<tr>
<td>=ku</td>
<td>assertive</td>
<td>ASV</td>
</tr>
<tr>
<td>=āch</td>
<td>affirmative</td>
<td>AFF</td>
</tr>
<tr>
<td>=ka</td>
<td>dubitative</td>
<td>DUB</td>
</tr>
<tr>
<td>=bi</td>
<td>reportative</td>
<td>REP</td>
</tr>
<tr>
<td>=me</td>
<td>predicative</td>
<td>PRD</td>
</tr>
<tr>
<td>=tsa</td>
<td>intensifier</td>
<td>ITNS</td>
</tr>
<tr>
<td>=jach</td>
<td>exclusive operator</td>
<td>EXC</td>
</tr>
</tbody>
</table>

Ch’ol 2PClitics may come after the first word or the first constituent as in (9A-B) according to one speaker with high metalinguistic awareness. While I have verified these examples through personal communication with native speaker Nicolás Arcos-López, other speakers seem to disfavor (10A) but not reject it. Nonetheless, the choice between first word and first constituent in inarguably plausible other sentences as in (11).

(10)     Optionality on adjective (modified from Little 2018)
A. [Weñ=ix lekoj] i-yuts’il panmil-i.
   [very=ALR unpleasant] A3-smell universe=ENCL
B.     [Weñ lekoj]=ix i-yuts’il panmil-i.
   [very unpleasant]=ALR A3-smell universe=ENCL
‘The environment smells very bad.’ [Spanish: (Ya) Huele muy mal’]

(11)     Optionality on Focus
Jīña aläl]=āch tyi majl-i-∅.
 [FOC boy]=ĀCH PRFV go-VTI-B3
Jīn=āch aläl] tyi majl-i-∅.
 [FOC=ĀCH boy] PRFV go-VTI-B3
‘That’s the boy who left.’

Ch’ol 2PClitics may be hosted by verbal, adverbial, and nominal constructions; negative and existential particles; and, most commonly, aspect markers as in (12A-B). Examples of different hosts are included in the Appendix I. As seen in (12B), multiple clitics can rest on a
single host. However, there is a strict order to these ‘clitic clusters,’ which is part of the contribution of this thesis.

(12)  

Clitic hosts
A. Muk'-oñ=äch tyi e’ty=el.
IMPF-1A=ÄCHR PREP work=NOML
‘Yes I did the work.’  
(Coon 2004:48)
B. Tsa’=äch=bi i-ju’-s-ä-ø=bä.
PRFV=ÄCHR=REP A3-go.down-CAU-DT-B3=REL
‘It (the airplane) knocked it (the tree) down.’  
(Vázquez Álvarez 2011:463)

Coon (2010a) noted that 2PClitics can sometimes skip constituents that are either invisible to the clitics or outside of the domain relevant for the calculation of the clitic. The open question remains what that ‘relevant domain’ is. Could it be phonological, syntactic, or semantic? I show how all three bare weight in detailing their attachment and order. For example, further in this thesis, I propose that at least one of those skipped domains is topicalized constructions, but not all elements in the left-periphery. However, other temporal constructions that are not morphologically explicitly topicalized can also be skipped. In (13), the reportative clitic skips the temporal construction and attaches to the existential. In examples such as (13), further investigation is needed on the phonological realm; this could deal with attachment at the end of phonological phrases, but my data is not as nuanced for a thorough phonetic and phonological analysis as of yet.

(13)  

Clitic skipping material (Coon 2010a:18)
[Before] EXT-REP one-people CLN-ñek
‘(They say) once there was a xñeκ…’

Schütze (1994) remarked that in Serbo-Croatian, an impetus to have the clitic remain further down is when an intonational pause separates a specific syntactic constituent from the rest of the clause. Such is the case for (14), which parallels the syntactic construction of (13) in Ch’ol. Both
(13) and (14) are plausible topic positions marked by intonation. Unfortunately, at the moment I do not have in-depth phonetic data to determine if intonational pauses to any consistent degree are responsible for the 2PClitics remaining apart. Nonetheless, I will detail other phonological influences affecting 2PClitics’ placement.

(14) **Serbian**

[Ove godine] taj **mi je** pesnik napisao knjigu.
[This year] that me AUX poet written book

‘That poet wrote me a book.’

Continuing with Serbian, Bošković (2000) describes syntactic, phonological, and mixed approaches to 2PClitics in Serbo-Croatian, but none of these analyses can fully explain Ch’ol data. The syntactic approaches of Serbo-Croatian assume clitics cluster together syntactically under C⁰, be it in Spec,CP, C or I (e.g. Franks and Progovac 1995; Halpern 1995; Progovac 1996; Schütze 1994). Phonological approaches (e.g. Radanović-Kocić 1988, Klavans 1985), on the other hand, hold that specific morphemes, phonologically or syntactically marked as [+clitic], all move together to the end of the first phonological phrase of their same intonation phrase.

2PClitics in Ch’ol, however, preferably cluster together. I have data of up to three clitics on a single host. Some of them are in complementary distribution, such as aspectuals =tyo and =ix (Vázquez Álvarez 2011), while others I initially expected to be in complementary distribution are not, such as affirmative =äch and assertive =ku. Aside from clustering, they have a strict order, part of which was proposed by Vázquez Álvarez and to which I add in Table 3. Table 3 is my attempt to demonstrate shows which clitics will come before others if they all co-occurred. In cases of embeddedness or in combinations with other non-second-position clitics (e.g. plural markers), their order is context dependent. I have not been able to define the semantic and syntactic qualities of the clitics in the last two columns as closely, but I know that the ones in
the second-to-last column always come before the ones in the last column. These last two columns, however, do not indicate they are in complementary distribution.

<table>
<thead>
<tr>
<th>Affirmative</th>
<th>Aspectual</th>
<th>Predicative</th>
<th>Assertive</th>
<th>Interrogative, Evidential</th>
<th>Intensifier, Exclusive, Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>=äch</td>
<td>=ix</td>
<td>=me</td>
<td>=ku</td>
<td>=bi</td>
<td>=ik (IRR)</td>
</tr>
<tr>
<td>(already)</td>
<td>(surprise)</td>
<td></td>
<td></td>
<td>=ki</td>
<td></td>
</tr>
<tr>
<td>=tyo (still)</td>
<td></td>
<td></td>
<td>=ka</td>
<td>=ba</td>
<td></td>
</tr>
</tbody>
</table>

Another puzzle in Ch’ol are cases of discontinued clitic clusters as sentence in (15), complicating the applications of proposals provided for Serbo-Croatian. In this case, there are three 2PClitics. The aspectual one attaches to the determiner, while the predicative and the assertive clitics attach later on after a particle. I did not have enough data to provide a reasoning for discontinued chains, but they still follow the order proposed in Table 3.

(15) *Discontinued Clitic Chain* (Little 2017:2)

\[
\text{ji}(n)=x \quad a=\text{me}=\text{ku} \quad a \text{x'ba} \quad \text{wo i-k'ux-Ø-ob a we'el} \\
\text{DET=ALR} \quad \text{PART=PRED=ÄCHR} \quad \text{PART devil} \quad \text{PROG A3-eat-Ø-PL PART meat} \\
\]

‘Then devils were eating some meat’

To the best of my knowledge, only Stjepanović (1998) explores disjointed 2PClitics in Serbian by looking at VP-ellipsis, which seems like a fruitful line of research to further delve with in Ch’ol.

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3 The irrealis clitic =ik must be used in negated sentences in the Tumbalá dialect. It is optional in the Tila dialect.

4 There is a case where the exclusive operator =jach comes before the aspectual clitic =ix, but this could be lexicalized as other clitics have been (e.g. baki ‘where’ comes from ba ’where’ + interrogative clitic =ki). The example comes from Vázquez Álvarez’s (2011) addendums.

(i) chajachix ch’új añi
che’=jach=ix ch’új añ-s=ì
like.this=only=already immobile E-B3=FIN

‘They just remain immobile.’
Keeping in mind all the nuances cases the 2PClitics may bring up, I focus on some basic phonological and syntactic considerations that affect clitic placement. I furthermore also delve into the semantics of five of these individual clitics and their potential effect in the orders of clitic clusters.
II. Phonological Limitations

By nature, clitics are phonologically dependent on a host. However, 2PClitics do not blindly attach to any morpheme in the first linear position. There exists a clear phonological limitation that renders some morphemes into impermissible hosts: syllable shape affecting minimal phonological word. Aspect markers and negation morphemes appear in the beginning of the verbal phrase in Ch’ol, and by extension they are usually the first morpheme in a CP and often host clitics. When combining with a 2PClitics, especially the clitics with a VC shape, the aspects and the negative morphemes undergo fusion as in (16A-B), for which I provided a four-line gloss for clarity.

(16) Fusion

A. Tsäch majli jiñ wiñiki
   tsa’=äch majl-i-∅ jiñ wiñik-i
   PRFV=ÄCH go-ITV ∅ DEF man-ENCL
   ‘The man went.’

B. Maxtyo k-ujil
   mach=äch=tyo k-ujil-∅
   NEG=ÄCH=still A1-know-B3
   ‘I still don’t know.’

There are three aspects in Ch’ol as outlined in (17). As stated earlier, non-Perfective aspects (e.g. imperfective and progressive) use nominative-accusative alignment, while the Perfective uses ergative-absolutive. Note that the shape of the first elements in (17A&B) are CV.

(17) Aspects

Perfective: tyi, tsa’, ta’
Imperfective: mi, muk’, mu’
Progressive: (Tilá) choñkol, (Tumbalá) wo’, woli

(Coon 2015:27)

\footnote{5 Once again, aspect markers are different from the 2PClitics that have aspectual meanings.}
The minimum form of roots and phonological word in Mayan is CVC (Bennett 2016). As such it doesn't come to a surprise that neither tyi nor mi allomorphs of the aspects can host clitics. They have even been considered proclitics themselves (Coon 2004). Contrast (18A&B). If the clitic appears, (18B) would only be grammatical if the full forms muk or mu’ are used.

(18) A. CVC Imperfective (Coon 2015:40)

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. . . ’

B. CV Imperfective (Coon 2015:44)

*Mi=äch k-buch wäy-el
IMPRF=ÄCH A1-seated sleep-NOML
‘I sleep sitting up.’

The Minimal Phonological Word requirement is unsurprising but I want to note another phonological limitation applicable to foreign words. Vázquez Álvarez (2011) notes that Spanish loanwords cannot host 2PClitics, “at least not if [they are] not fully integrated into the Chol lexicon” (2011:297). Describing ‘full integration’ requires a Ch’ol to non-Ch’ol hierarchy or lexical strata that differentiates true Ch’ol words from those that are not. In (19A), the 2PClitic =ix ‘already’ does not attach to the first word of the two CPs it occurs in the second. The 2PClitics must ignore the Spanish loanwords komo and puru, or else the sentence is ungrammatical (19B). Vázquez Álvarez is right in that these have not gone much Ch’ol phonologicalization, but he does not explicitly remark that kaxlañ ‘stranger’ is also a Spanish loanword.

(19) Loanwords (Vázquez Álvarez 2011:297)

A. Komo tsa=xE lajm-i-∅ li y-otyoty
SP:because PRFV=already finish-TV-B3 DET A3-house
la=k-pi’āl-∅-ob-tyak=i, puru kaxlañ-o’=ix
PLINC=A1-chol-B3-PL3-PLIND=FIN SP:only SP:stranger-PL3=already
Because the house of some [Ch’ol people] already disappeared, only strangers then started to come.

Just as [puru] derived from puro ‘pure, only,’ [kaxlañ] derived from the stressed syllables in [.kasteˈlano]. Therefore, the degree of phonologization into Ch’ol must be lexicalized, probably depending on the time when the word was borrowed. Full incorporation form loanwords thus involves phonotactics on stress as well.

An alternate possibility to exclude puru and komo as possible hosts is arguing they are points in the midst code-switching. If they are pauses in Spanish, then it is reasonable to believe they would not conform to Ch’ol morphology. However, this alternative explanation would go against studies of code-switching competence that determine permissible pivot words according to the Functional Head Constraint6 (Toribio 2000). Specifically, while puru is a permissible switch in this theory because it is an adjunct modifier, komo should not be because it introduces a coordinated phrase. The komo might even be the head of a ConjP.7

Whether the phonological words in question are native to Ch’ol or borrowed, stress and intonation play a role on 2PClitic attachment on native-words too. Curiel Ramirez del Prado’s

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6 The Functional Head Constraint (Toribio 2000) holds that a functional element and its complement will be drawn from the same subclass of lexical items, prohibiting switching between functional elements—such as modals, auxiliaries, negation, determiners, and subordinating and coordinating conjunctions—and their complements.

7 Suggestion by John Whitman
(2007) work on the related Mayan language Tojol’ab’al states that 2PClitics always have a concomitant rising intonation; together the intonation and 2PClitics mark the left edge of a clause. If this is the case in Ch’ol, phonological phrases (determined by an intonation) and syntactic phrases will often not ‘match’ (cf. Inkelas & Zec 1990, Selkirk 2011) because the verbal phrase is being split between the T head -where aspect is located - and the V head.

Skopoteas (2009) explores non-second position clitics broadly in Mayan. He states that the syntactic constituents CP and vP match with edges of phonological phrases, but TP/IP do not. Because aspect markers are in IP, there is an inconsistency with second-position clitics ‘matching’ on the edges of phonological phrases. Skopoteas argues that leftmost element of the phonological phrases (the specifier of the phrase’s head) are transferred to the syntactic interface, allowing for an “escape hatch” for clitics to attach at only in Spec,CP and Spec,vP, but does not mention IP.

Deciding the intonational phrases in Ch’ol and whether or not the match with the syntactic phrases is beyond the scope of this thesis. However, in future research one cannot discount additional syntactic influences on the prosodic structure of the 2PClitics of Ch’ol. For example, primary stress on the assertive 2PClitic =ku is assigned at the phrasal level because =ku loses stress in yes-no questions (Lesure & Clemens 2015). Thus, even if the domain for attachment is at minimum a prosodic word, while higher syntactic features such as ForceP will also affect the spell-out of 2PClitics.
III. Syntactic Limitations

Being verb-initial, VS is preferred for intransitive structures in Ch’ol. However, though VOS is the basic structure, this interpretation is influenced either by an animacy hierarchy, by definiteness, or by prosodic constituency depending on the analysis (respectively explored by Gutiérrez Sánchez 2004/Vázquez Álvarez 2011, Coon 2010b, and Clemens & Coon 2016). For example, in (20) both linear orders have the same reading so, argument order alone does not determine meaning.

(20) Gutiérrez Sánchez (2004:8)

A. tyi i-k’ux-u-ø x-ixik waj
   PRFV A3-eat-VT-B3 CLN-mujer tortilla
B. tyi i-k’ux-u-ø waj x-ixik
   PRFV A3-comer-VT-B3 tortilla CLN-mujer
   ‘The woman ate the tortilla.’ [Spanish: La mujer comió la tortilla.]

Regardless of this argument alternation, topicalized and definite focused elements generally move to the left as in (22) & (21) respectively. Focused elements always make use of the definite morpheme jiñ, while the topicalized arguments mainly rely on the optimal topic morpheme a and sometimes on the definite morphemes (i)li or jiñ8. Objects and subjects can be focused, while all syntactic arguments can be topicalized. Note that in topics the nominal phrase is optionally enclosed by the definiteness enclitic =i.

(21) Focus (Gutiérrez Sánchez 2004:11)

[jiñ aläl] tyi majl-i-ø
   FOC boy PRFV go-VTI-B3

---

8 Jiñ is a particularly difficult morpheme because it marks definiteness (or it is at least a demonstrative), but it also is equivalent to the discourse filler word “Umm…” in English of “Este…” in Spanish. Ch’ol can have definite bare nouns (p.c. Carol-Rose Little), but the use of jiñ with a fronted NP is consistently interpreted as focused. Jiñ is also the third person pronoun.
‘It is the boy who left.’ [Spanish: ‘Es el niño que se fue’]

(22) Topic (Vázquez Álvarez 2011: 325)

(a) [li aj-Wañ]=i, tyi i-koty-ä-ø x-ixik.
(TOP) DET NCL-Juan=DEF.CL PRFV A3-help-DT-B3 NCL-woman
‘As for Juan, he helped a woman.’

Unlike other Mayan languages (e.g. Q’anjob’al, Pascual 2007; Tsotsil, Aissen 1999; or Tz’utujil, Dayley 1985) focusing the subject does not require any morphological change on the verbs. To focus the object, Vázquez Álvarez (2011) claims a passive construction is required. Clemens et al. (2018) show passivization is optional for focus, arriving to OVS order. Due to discourse structure, when the topicalized elements are not pronouns, nominal constructions must be definite. If the enclitic =i is not present, there is at minimum an audible pause before the rest of the sentence at spell-out (Vázquez Álvarez 2011: 237).

According to Skopoteas (2009), intonational clitics - such as the one that is optimally used for topicalized structures - never co-occur with other types of clitics. Even if 2PClitics could be used in topicalized structures, the concomitant intonation of =i might be what takes precedence over the intonations that the Ch’ol 2PClitics might bring, but again this requires a more in-depth understanding of phonological phrases in Ch’ol. In (23) the Tzeltal enclitic =e is an intonational functioning similarly to the Ch’ol =i. Specifically, =e is licensed by a set of determiners that encode definiteness or specificity (Shklovsky 2005: 71).

(23) Tzeltal, Shklovsky 2005: 148

te chij=e laj s-kuch bajel te wits’ kerem=e.
DEF deer=DEF.CL PRFV A.3-carry(B.3) DIR:away DET small boy=CL
‘The deer carried away the boy.’

Coon writes "[second-position] clitics do not attach to topicalized or focused NPs. The clitics also do not attach to fronted wh-words” (2010a:231). However, I have found examples where
focus and wh-questions can indeed co-occur with 2PClitics. In (24A-B), focus can host the 2PClitic at the end of the syntactic phrase or after the first word in the syntactic constituent, which is the definite jiñ.

(24) Focus
A. [jiñ kolem aläl]=äch tyi majl-i-ø.
   [FOC big boy]=ÄCH PRFV go-VTI-B3
B. [jiñ=äch kolem aläl] tyi majl-i-ø.
   [FOC=ÄCH boy] PRFV go-VTI-B3
   ‘That’s the big boy who left.’

2PClitics can attach to wh-words; my examples had to be elicited and double-checked as they did not occur in the corpuses I had access to. In (25), the addition of the dubitative clitic is understood as contributing to how much more the speaker wonders about the place where the addressee went. The sentence is grammatical and well-accepted. As such, we come to see that elements in the highest parts of the CP are still reachable by the 2PClitics.

(25) Wh-Question
 [Baki]=ka tsajñiy-ety?
 [Where]=DUB PRFV. go-B2
   ‘Where is it that you've been?/Where did you go?’

The generalization that Coon (2010a) suggested still holds for topics. Topicalized structures cannot host 2PClitics, regardless of whether the topicalized constituent is an intransitive subject (26A), a transitive subject (26B), a transitive object (secondary or primary) (26C-D) or a non-core argument (26D). The following sentences are ungrammatical if the affirmative clitic =äch attaches to the end any part of the topicalized constituent, but there is no problem if they attach to the CVC-shaped aspect markers. (For clarity, I did not provide the morphemes that have undergone fusion of aspect marker + clitic that I discussed earlier.)
(26)  

Topics

A. Intransitive Subject

A li ko'em wi'nik(*)=äch)  muk(=äch)  i-cha'leñ ajñ-el  tyi cholel.

[TOP big man] (*=ÄCH)  IMPRF(=ÄCH)  A3-do run-D.NML  PREP field
The large man is running in the field.'

B. Transitive Subject

A li lu'jbxholel(*=äch)  ts'a(=äch)  i-mel-e i-cholel.

[PART TOP tired farmer] (*=ÄCH)  PRFV(=ÄCH)  A3-do-DTV A3-field
The tired farmer prepared his field.'

C. Primary Transitive Object

A li nox x'ixik(*=äch)  ts'a(=äch)  k-ak'ä bu'ul waj.

PART TOP old woman(*=ÄCH)  PRFV(=ÄCH)  A1-give-DTV bean tortilla
'I gave bean (and) tortillas to the old woman.'

D. Secondary Transitive Object

Li ts'itya bu'ul waj(*=äch)  ts'a(=äch)  k-ak'ä jiñ x'ixik.

[TOP some beans tortilla] (*=ÄCH)  PRFV(=ÄCH)  A3-give-DTV DET woman
'I gave the few beans and tortilla to the woman.'

E. Non-Core Argument

A li ch'iijyem alo'b(*=äch)  ts'a(=äch)  k'ux-le  i-waj.

PART [TOP sad boy] (*=ÄCH)  PRFV(=ÄCH)  eat-PASV  A3-tortilla.
'As for the angry boy, his tortilla was eaten.'

Aissen (1992) argued that in Mayan there are two types of topics that languages can have: internal and external. She concludes that Tz’utujil has both kinds of topics, while Jakaltek and Tzotzil have only external topics. Vázquez Álvarez (2011) says that Ch’ol topics are always external, based on the fact that they can never be embedded. According to Aissen (1992), focus is in the specifier of IP; internal topics are in the specifier of CP and external topics are even in a higher ‘external schema’ outside of the CP. This external schema is denoted Expression Node, which is apparently an approach to extraposing constituents and saying they are not affected by any syntactic features within the CP. As such, the 2PCLitics do not count the topics in their calculation because they are not in CP. The Expression Node is something I have heard only in
relation to this Aissen (1992) study, but perhaps in further research it's testable to see if topics are truly an exception to everything in the CP.

For Ch’ol, we need a more in-depth explanation and analysis of its information structure and left dislocation. Rizzi’s (1997) cartographic approach to the left periphery places the left-periphery as Force > Topic* > Focus > 2PClitics?> Topic* > Finite clause, if we add in the two kinds of Topic described by Aissen (1992). Ch’ol, as well as Mayan in general, seems to challenge Rizzi’s restricted, ordered set of distinct functional heads because there would have to be more head left of Force.

IV. The Case of Serbo-Croatian

The analyses of second-position clitics differ and are continuously re-approached (e.g. Chung 2003 on Chamorro, Legate 2008 on Walpiri, etc.) to define whether phonological or syntactic structures interact or individually decide how clitics attach. The best studied languages in this area are South Slavic languages: Slovenian, Macedonian, Bulgarian and Serbo-Croatian, whose clitics involve reduced pronouns or obligatory copulas. I will focus on a set of papers on 2PClitics in Serbian by Diesing, Filipović-Đurđević, and Zec and end on their potential applicability to data in Ch’ol.

Traditionally, the 2PClitic analyses contrast two environments as hosts: FirstWord and FirstPhrase as in (27a). Diesing, Filipović-Đurđević and Zec’s study (2009; henceforth DFZ) creates a four-way division for the position of 2PClitics. They consider the syntactic contexts where the 2PClitic attaches: Predicate versus Arguments in conjunction with FirstWord and FirstPredicate position of 2PClitics as in (27b).
(27) **Contrasts**

A. FirstWord vs. FirstPhrase

B. Context-rooted word/phrase placement

<table>
<thead>
<tr>
<th>Predicate</th>
<th>Argument</th>
</tr>
</thead>
<tbody>
<tr>
<td>FirstWord</td>
<td>FirstWord</td>
</tr>
<tr>
<td>FirstPhrase</td>
<td>FirstPhrase</td>
</tr>
</tbody>
</table>

In (28-29) there are examples of the four-way contrast in Serbian from (Diesing & Zec 2017). Because 2PClitics in Serbian can occur in these different environments, the question becomes whether the grammar exhibits "optionality or two mutually exclusive choices" as DFZ (2009) put it. They demonstrate that there is indeed an asymmetric use and markedness distinction in production and comprehension between FirstWord and FirstPhrase clitic placement.

(28) **Argument initial**

A. Taj je zadatak veoma važan. **FirstWord**
   this task very important

B. Taj zadatak je veoma važan. **FirstPhrase**
   this task is.CL very important

‘This task is very important.’

(29) **Predicate initial**

A. Veoma je važan taj zadatak. **FirstWord**
   very important this task

B. Veoma važan je taj zadatak. **FirstPhrase**
   very important is.CL this task

‘This task is very important’

For FirstWord placement, predicate structures are preferred while for FirstPhrase placement argument structure is preferred (DFZ 2009). Diesing and Zec (2017) continue the discussion of this experiment reporting that FirstWord argument-initial position must be marked
with a [+contrast] discourse feature; meanwhile, for FirstWord predicate-initial position, the pragmatic markedness is neither required nor invoked. It is rather uniformly prosodic and insensitive to information structure.

In an opposite manner, FirstPhrase placement differs in information structure. For argument initial-sentences, FirstPhrase placement is the preferred (unmarked) option. FirstPhrase placement with predicate-initial sentences in turn results in a contrastive interpretation. FirstPhrase predicate-initial is moreover permissible only with non-verbal predicates – i.e. in copular sentences. Zec & Filipović-Đurđević (2016) report additional asymmetries in argument and predicate structures depending on whether the constituent's head was preceded by another non-head element, succeeded by a non-head element, or coordinated with another head. Examples of each constituent structure are, respectively, Determiner + Noun (Spec + Head), N + NPGenetive (Head + NP/PP), and Adjective + Adjective (Head + Head).

As mentioned, Ch’ol is a predominately VOS head-marking language, while Serbian is a SVO dependent-marking language. The disfavoring of 2PClitics on argument heads (i.e. first words) remains to be tested for Ch’ol, even if this constraint was predicted by Diesing and Zec (2017) for languages with an option for 2PClitics. Below in (29-30) are examples for the four-way contrast in Ch’ol.

The structures that are not V-initial are marked, which makes applying DFZ’s (2009) approach a little more difficult because the interpretation of the argument-initial structures might be understood as focused. In (30A) the consultant preferred the interrogative clitic to attach on the jiñ, which even assimilated the alveolar nasal by becoming bilabial. For (30B), she preferred to attach the aspectual clitic at the end of the argument.
The predicate initial cases were more difficult to find because there is no copula in Ch’ol. In (31A), the clitic does attach to the first word in the sentence. However, this could be considered an adjunct because of the temporal meaning it adds to the rest of the sentence. In (31B), the whole relative clause hosts a clitic at the end. After verifying with a few speakers from Tila and Tumbala, attaching the clitic anytime sooner would change the meaning. The constraint with constituent such as (31B) could be to not have clitics create a discontinuous relative clause, but I would have to test that further with different types of relative clauses (bound and free), different syntactic positions (subject, primary, secondary object), and even different themes. I added (31C) to show that in non-verbal predicates, where there is no aspect markers, clitics attach to the only words in this sentence, but they can still be followed by other clitics that are not second-position (e.g. plural markers). Cases such as (31C) also bring up the question of why grammatical plurality or other agreement features follow morphemes that denote propositional meaning.

(31)  *(Nominal) Predicate Initial*

A.  *First Word*

\[
\text{Noj-ik’}=\text{ix}^9 \quad \text{ta’} \quad \text{jul-i-yoñ-lojoñ}.
\]

Very-late=ALR PRFV arrive -ITV-B1-PL.EXCL

‘It was already late when we (EXCL) arrived here.’

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*Footnote:*  
9 The word for very in Tumbala (ñoj) and in Tumbala (weñ) are most likely proclitics (Little, pers. comm.), though some speakers from Tila were able to treat the weñ as words that could host clitics (e.g. Arcos Lopez).
B. *First Phrase* (Coon 2010a:76)

[Maxkí mi i-weñ tyaj tyak’iñ jiñ-ob]=äch chon-lembal
Who IMPRF A3-a.lot find money DET-PL-AFF sell-liquor
‘The ones who have money are the liquor-sellers.’

C. *First(Only)Word* (Coon 2010a:57)

Ñox-oñ=ix=la.10

old-B1=ALR=PL.INCL
‘We (INCL) are old already.’

The case of Serbo-Croatian was useful to bring up the questions of preferences for second-position clitics to further work on, because there is some optionality in Ch’ol. However, measuring this optionality and where it is less available would have required a test made for a predominantly verb-initial language whose understanding of focus and topic structure (morphologically marked or not) is well understood and that account for dialectical, inter-speaker and intra-speaker variations.

Though morphemes such as jiñ, a, ili, etc. work to show topicalization and focus, these are also homophonous with demonstratives and other particles – as such displacing them can (de-) activate one meaning over another and affect the syntactic interpretations and allocation of clitics.

V. **Interim Summary**

I put forth some syntactic and phonological considerations for the attachment of 2PClitics in Ch’ol, restated below.

**Phonological**

- CVC is Minimal Phonological Word and thus are the minimum syllable shape that can host clitics

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10 Curiously, the plural marker –*la* comes after the 2PClitic =*ix*. Meanwhile, the plual marker –*ob* for 3rd person would not. Defining where the plural (non-second position) clitics attach is not within the scope of this paper.
This is most commonly seen in the CV allomorphs of aspect markers, which cannot be used as clitics hosts.

Lexicalized Phonological Hierarchy for Loanwords

- Spanish origin words such as kaxkañ and weñ (cf. castellano, bueno) may host clitics, but not poke, ke, komo, and puru (cf. porque, que, como, puro). While the last ones end in a vowel, the 2PClitics of =VC shape have ways of circumventing vowel hiatus by inserting glides or eliminating a vowel. As such, loanwords must have some strata or division in the lexicon that dictates how phonologized they have been into Ch’ol. Another approach would be systematically deciding whether borrowed functional words are still functional in Ch’ol or of they are content words.

Syntactic

- Clitics attach to the first word of first constituent in the CP. As a verb-initial language, the first word in verbal predicates are the aspect markers.

- The left-periphery of Ch’ol includes fronted wh-words, topics, focus, and other less studied, extraposed adjuncts (e.g. wajali ‘before, long ago’).

  - The adjuncts and topics cannot host 2PClitics, while focus and wh-words can. Topics and cases such as extraposed adjuncts have a perceivable intonational break and sometimes an intonational clitic =i, which may clash with the intonation patters that 2PClitics might have. However, looking into this case

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An alternative would be that some of these words are complementizers, but it leaves open the question open for puru “only.”
requires a study of phonological phrase patterns in Ch’ol, looking at stress and pitch with and without clitics and in the left-periphery.

- In the rare cases arguments are preverbal and not (explicitly) marked with focus or topic marker, clitics will preferably not split up relative clauses.
VI. A Brief Look at Semantics

As mentioned, the clitics have a broad semantic contribution. Once more, in Table 4 is a full list of the 2PCLitics in Ch’ol. In the following section, I want to bring attention to the effect that semantics has over the attachment of the clitics and their relative order. 2PCLitics in commonly studied languages involve reduced pronouns, copulas, or a more uniform grammatical class, but in Ch’ol the meanings are temporal/aspectual, propositional, evidential, and even include intensifiers and irrealis. For the rest of the thesis, I will focus on the aspectual clitics, the affirmative and assertive clitics and the predicative clitics.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>=ix</td>
<td>‘already’</td>
<td>ALR</td>
</tr>
<tr>
<td>=tyo</td>
<td>‘still’</td>
<td>STILL</td>
</tr>
<tr>
<td>=ba</td>
<td>interrogative</td>
<td>INT</td>
</tr>
<tr>
<td>=ik</td>
<td>irrealis</td>
<td>IRR</td>
</tr>
<tr>
<td>=ku</td>
<td>affirmative</td>
<td>ASV</td>
</tr>
<tr>
<td>=äch</td>
<td>affirmative</td>
<td>AFF</td>
</tr>
<tr>
<td>=ka</td>
<td>dubitative</td>
<td>DUB</td>
</tr>
<tr>
<td>=bi</td>
<td>reportative</td>
<td>REP</td>
</tr>
<tr>
<td>=me</td>
<td>predicative</td>
<td>PRD</td>
</tr>
<tr>
<td>=tsa</td>
<td>realis/intensifier</td>
<td>INTS</td>
</tr>
</tbody>
</table>

6.1 Aspectual Clitics

The so-called aspectual clitics, =ix and =tyo, are glossed by Vázquez Álvarez as 'already' and 'still' respectively. He writes they focus on "the edges of a stage," which is very reminiscent of telicity, but he assures that they do more than that in conjunction with other structures that complicate their glossing (2011:208-213). The =ix refers to the completion or start of a stage as in (32A-B) and =tyo refers to the on-going or continuation of the stage as in (32C-D).
(32)
A. **Beginning of a stage**
   Context: I ate a while ago and I want to eat again. The becoming hungry is completed.
   Ñaj-oñ=ix
   Hungry-A1=already
   ‘I'm already hungry’ or ‘I just got hungry.’
B. Ñox-oñ=ix
   old-A1=already
   ‘I'm already old.’ or ‘I became old.’
C. **Continuation of Stage =TYO**
   Context: I have been eating, but want to continue.
   Ñaj=oñ=tyo
   Hungry-A1=still
   ‘I'm still hungry.’
D. Alob=oñ=tyo
   child-A1=still
   ‘I'm still young.’

As one is completion and the other one is continuation, the aspectual clitics are semantically incompatible and in complementary distribution. However, there are instances where =ix no longer denotes the completion of a stage as in (33). Specifically, it is when it co-occurs with kole, which Vázquez Álvarez calls the preterit irrealis.

(33) **Cancelled meaning of =IX**

| kole=x   | i-sajty-e | je’e         |
| IRR.Preterite=already | A3-die-NF | also        |
| ‘He also almost died.’ |

The translations of “already” and “still” are a start, but completion and continuation of stages is more apt for these clitics. In a sentence such as (34), the use of “still” for =tyo is not the best for the English translation, but the atelic aún in Spanish can work, which also denotes the continuation of an action. Note that in (34-35), the two presumably incompatible clitics can co-occur in one sentence, but only when one of them is in an adjunct or a different clause.
There are cases such as (36), where one of these clitics is repeated in a single clause but on different hosts.

(36) Repeated Aspectual Clitics (Vázquez Álvarez 2011:212)

<table>
<thead>
<tr>
<th>English</th>
<th>Ch’ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘When he still carries passengers…’</td>
<td>Che’ñak=tyo mu’=tyo i-kuch-Ø pasajej=i… when=still IMFV=still A3-carry-B3 SP:passenger=FIN</td>
</tr>
</tbody>
</table>

6.2 Affirmative & Assertive Clitics

Ch’ol does not have a single word that translates to yes (Coon 2017). Instead, the language makes use of the two second-position clitics: =äch and =ku. In previous literature, both have been glossed as affirmative (Vázquez Álvarez 2002, 2011; Wilbur & de Aulie 1978) or as affirmative and assertive, respectively (Coon 2004), but no further distinction or formalization have been made for them. An affirmative response to the polar question in question (37A) may have the felicitous answers (37B) or (37C).

(37) Response Environment

A. Chächäk=ba jiñi ixim
   Red=INT DET corn
   ‘Is this corn red?’

B. Chächäk=äch jiñi ixim
   Red=ÄCH DET corn

C. Chächäck=ku jiñi ixim
   Red=KU DET corn
   ‘Yes. The corn is [indeed] red.’
New data from fieldwork on Tila and Tumbala dialects of Ch’ol provide evidence that the clitics are not interchangeable or permissible in all environments (37-38). When the matrix clause shows uncertainty, the affirmative =äch cannot be embedded (38A), while assertive =ku can be there without problem (38B).

(38) **Uncertainty**

A. #Mach k-ujil mi jiñ=äch aläxch’ok tyi yajli
NEG 1.ERG-know if DET=ÄCH girl PRFV fell
Intended: ‘I do not know if the girl fell.’

B. ✔Mach kujil mi jiñ=ku aläxch’ok tyi yajli.
NEG 1.ERG-know if DET=KU girl PRFV fell
‘I do not know if the girl fell.’

In co-occurrence with the dubitative clitic =ka, or with the request of new information, the affirmative =äch (39A), but assertive =ku is not (39B).

(39) **Request for New Information**

A. ✔Ñoj chächäk=äch=ka jiñi ixim?
Very red=ÄCH=DUB this corn?
‘Is this corn very red?’

B. #Ñoj chächäk=ku=ka jiñi ixim?
Very red=KU=DUB this corn?
Intended: ‘Is this corn very red?’

Furthermore, these two markers are not in complementary distribution, which suggests they have different positions in the syntactic structure of the tree. They may be used in the same phrase, but have a strict order as in (40).

(40) **Not Complementary**

Ñox-oñ=äch=ku
Old-1.ABS=ÄCH=KU
I am old.
*Ñoxoñ=KU=ÄCH

Both clitics act as discourse particles because they manage the common ground of speech participants by concerning themselves with “the epistemic states of the speaker, or [their]
interlocutors, or both, with respect to the descriptive or propositional, content of an utterance” (Zimmerman 2011). However, I propose that the affirmative =äch and the assertive =ku can be paraphrased as ‘this is true, I am certain that…’ and ‘I am telling you, as said,’ respectively. In technical terms, the affirmative =äch is an epistemic modal and the assertive =ku indicates the Question Under Discussion (QUD) had previously been resolved.

6.3.1 Affirmative =ÄCH

Epistemic modals are propositional operators that demonstrate the speaker’s “judgment about the factual status of a proposition” (Palmer 2001:23). The affirmative = äch works semantically as an epistemic modal that shows the speaker's commitment to the truthfulness of a proposition. At different points, Vázquez Álvarez (2011) glosses = äch as “actually,” but I believe “this is true, I’m certain that…” are better paraphrases. While the background/agreed upon/ “taken for granted” information is the Common Ground, the Context Set is the set of possible worlds in which the information presupposed at a particular point in a conversation is true (Stalnaker 2002). The epistemic modal =äch updates the common ground of both speakers by strictly reducing the context set, or discarding the set of possible worlds where the proposition p is not true.

Importantly, epistemic modals are not part of the “at-issue” meaning in the proposal made in the proposition (Farkas & Bruce 2010). In other words, the speaker’s belief itself in proposition p is imposed onto the context set and is not negotiable. I take this idea from AnderBois, Brasoveanu & Henderson (2010), where they explore how appositives cannot also be directly negotiated (accepted or rejected) in a conversation, but are still involved in anaphoric constructions and ellipsis. The response (41B) to (41A) cannot be in reference to the appositive “Belan danced all night at Agava.” Though the epistemic modal =äch does not impose new
information for the context set, the commitment itself to the proposition is not directly negotiable. The response in (41B) would not refer to the belief of the speaker in \( p \), but rather just to \( p \).

(41) **Appositive in English**
A: Belan, who danced all night at Agava, came to class.
B: No, she did not [come to class].
   # No, she did not [dance all night].

Similarly, the non-negotiability of the \( \ddot{a}ch \) is visible in the response (42B), where the commitment to the proposition itself is not what is negated.

(42) **Affirmative Clitic =ÄCH**
A: Tsa’=äch a-k’ele-oñ
   PRFV=ÄCH A2-see-B1
   “You [definitely] saw me.”
B: Mach i-sujm-ik\(^{12}\)
   NEG A3-true=IRR
   “It’s not true [that I saw you].”
   #It’s not true [that definitely I saw you].

Moreover, the epistemic modal =ÄCH cannot be embedded in a phrase such as (38A), repeated here as (43A). In (43A) the matrix clause indicates the speaker does not know some proposition \( p \) "the girl fell," so committing to the proposition with the epistemic modal is semantically incompatible. Importantly, =äch can be embedded in the positive version as in (43B) and in other sentences where the speaker has evidence (43C), but the latter is slightly less acceptable. I will come back to direct evidence at the end of the section.

(43) **Embedded =ÄCH**
A. #Mach k-ujil mi jiñ=äch aläxch’ok tyi yajli
   NEG 1.ERG-know if DET=ÄCH girl PRFV fell
   Intended: ‘I do not know if the girl fell.’
B. K-ujil che’ jiñ=äch aläxch’ok tyi yajli
   NEG 1.ERG-know COMP DET=ÄCH girl PRFV fell

\(^{12}\) As mentioned previously, the Tumbalá dialect of Ch’ol would require the irrealis clitic at the end of the VP when using negation.
Intended: ‘I do not know if the girl fell.’

C. (?) Tyi k’ele che’ jiñ=äch aläxch’ok tyi yajli .
PRFV see that DET=ÄCH girl PRFV fell
‘I saw that the girl fell.’

Labeling the =äch as an epistemic modal seems like the right path because epistemic modals in other Mayan languages can take both broad and narrow scope. For example, Hanks (1984) shows that in Yucatec Mayan the conjectural evidential mïin is not permissible in dependent clauses, creating ungrammatical sentences such as (44A). AnderBois (2013) argues for both the epistemic modality and conjectural evidential meaning of mïin, because it shows uncertainty and evidence in a proposition. The only exception to the embedded mïin that AnderBois (2013) marks from Hanks’ (1984) data is when it marks uncertainty over a quantity- narrow scope - not a proposition as a whole as broad scope (44B).

(44) Yucatec Maya (Hanks 1984)
A. #T’aan-aj-en yéetel túláakal le mïin yan ti-o’ob le k’oja’an-il-o’.
Speak-STAT-B1 with all DEF MÍIN exist PREP-PL DEF sick-REL-DIST
Intended: “I spoke with everyone who might have had the sickness.”
B. T-in bis-aj mïin jum-p’éel tambor ja’.
PRFV-A1 bring-STAT MÍIN one-CL.INAN jug water
“I think I brought about a jug of water.”

Similarly to the Yucatec Maya mïin, the Ch’ol affirmative clitic can take a narrow and broad scope depending on to what it attaches. The affirmative meaning previously given to it only details the broad scope. The broad scope refers to the speaker’s certainty that someone will bring a bunch of wood (45A), where the clitic attaches to the end of the VP ‘carry.’ However, the narrow scope in (45B-D) specifies that it was precisely one bunch of wood that will be brought.

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13 A construction such as (i) is impossible, even if the verb ‘begin’ is phonologically available. This is probably due to the fact the verb being used for a periphrastic future construction.

i. #Mi kaj=äch i-kuch tyilel jumtyejm si’
Intended: [It is true that] He will bring one bunch of wood.
In (45B-C), the entire quantified NPs move out of the post-verbal position to the pre-predicate position. In (45B) the clitic still achieves second position in terms of phonological word, while in (45C) it is at the end of the syntactic phrase.

(45) Narrow and Broad Scopes of =ÄCH

A. Mi kaj i-kuch=äch tyilel jumtyejm si’.
   [VP IMPRV begin A1-carry]=ÄCH come.DIR one-CL.NUM wood
   ‘[It is true that] He will bring one bunch of wood.’
B. [Jum-tyejm=äch si’] mi kaj i-kuch tyilel.
   [one-CL.NUM= ÄCH wood] IMPRV begin A1-carry come.DIR
   ‘He will bring precisely ONE bunch of wood.’
C. [Jum-tyejm si’]=äch mi kaj i-kuch tyilel.
   [one-CL.NUM wood]= ÄCH IMPRV begin A1-carry come.DIR
   ‘He will bring precisely ONE bunch of wood.’

In (45D) the only the numeral is fronted and the clitic attaches there, creating a discontinuous quantified NP. Syntactically, the displaced numeral is an example of left branch extraction on an A-bar position in the CP layer (Little p.c.). This position is probably focus, since we have seen how clitics do not attach to topics.

(45 cont.)

D. jum-tyejm=äch mi kaj i-kuch tyilel [NP t si’]
   [one-CL.NUM]=ÄCH IMPRV begin A1-carry come t wood
   ‘He will bring precisely ONE bunch of wood.’

In all these cases, the affirmative epistemic modal =äch shows flexibility in scope, but always certainty. At first, I hypothesized the epistemic modal =äch would not co-occur with the reportative clitic =BI, which marks second-hand information as an evidential. In an exchange, one of the Ch’ol consultants did not like sentence (46A). I assumed it was due to semantic incompatibility because a speaker cannot reasonably commit to the truthfulness of a proposition if the source of information was not first hand. However, the co-occurrence of these two clitics happens in various places in Vázquez Álvarez (2011) and other Ch’ol consultants did not see...
anything wrong with a sentence such as (46B). The affirmative =ĀCH must, however, always precede the reportative =BI.

\begin{equation}
\text{(46) Certainty and Evidence}
\end{equation}

A. #Tsa’=ĀCH-bi puts’i jiñi mula.
PRFV=ĀCH=REP run.away DET mule

Intended: I know allegedly that the mule ran away.

B. Vázquez Álvarez 2011:194
\text{ts=āch=bi i-tyaj-a-∅}
PRFV=ĀCHR=REP A3-find-TV-B3
‘It is said that he found it.’

Continuing the discussion of evidence and epistemic modality, it seems that =āch may be used in cases where one is faced with direct evidence at the time of an utterance. For example, in a context where it is raining an English speaker cannot show epistemic certainty as in (47A), but can if the certainty is expressed with an adverb as in (47B).

\begin{equation}
\text{(47) Direct Evidence and MUST}
\end{equation}

Context: Speaker A sees that it is raining outside and tells Speaker B the following.
A. #It must be raining outside.
B. It is definitely raining outside.

I have not come across =ĀCH spontaneously happening in cases with direct evidence so a situation such as (47) remains to be explicitly tested. However, if we do include the gloss of =ĀCH as ‘I’m certain that’ for the broad scope and ‘precisely’ for the narrow scope, in a context such as (47) I would expect to the clitic to be permissible such as in (48).

\begin{equation}
\text{(48) Direct Evidence and =ĀCH}
\end{equation}

Context: Speaker A sees that it is raining outside and tells Speaker B the following.
\text{Tyį jumpaty(=āch) aŋ ja’}
PREP outside(=ĀCH) EXT water
‘[I’m certain that] It’s raining outside.’

In sum, the affirmative =āch can be labeled as an epistemic modal that expresses certainty over a proposition. It can be embedded (unlike YM’s mín), and it have the ability to have a
broad and narrow scope. In the case that it selects a narrow scope, its scoped element will be in the first position syntactically or phonologically so that the clitic may come second.

6.3.2 Assertive =KU

While the affirmative =äuch marks certainty, the assertive =kv provides confirmation. I propose the assertive clitic =kv is a discourse particle that occurs when the information in a proposition had been settled in a previous interaction. My decision to paraphrase it as “I am telling you” and “as said,” comes from the speaker wanting to assert information that was forgotten or mistaken by either interlocutor. In other words, it controls the conversation by bringing the interlocutors back to a specific Question Under Discussion (QUD) and marks that QUD as closed. Thanks to a suggestion from Jessica Coon (p.c.) the clitic =kv can be paralleled nicely with the German discourse particle doch. Various studies cover the use of doch as the negation of a presupposition (e.g. Grosz 2010), but the function of the ‘unfocused doch’ according to Rojas-Esponda (2013) is that it reminds a speaker that a QUD had been resolved.

Previous studies frame the discourse particle doch solely as a way to cancel and correct a mistaken presupposition, but Roja-Esponda’s (2013) analysis accounts for the broader uses of the particle by making the difference between focused and unfocused versions of doch. The unfocused doch is used to recall that a proposition $p$ had already been resolved in a previous context, so it highlights shared information. In (49), Speaker A asks a polar question that Speaker B can answer only positively or negatively about presence at the opera. In either of Speaker B’s answers, Speaker B can choose to add the unfocused doch to highlight that their attendance had been previously discussed.

(49) Rojas-Esponda 2013:363
A. Kommst du mit in die Oper? Are you coming to the opera?
Ja, ich habe *doch* zugesagt. Yes, I *doch* confirmed.

It is the focused *DOCH* that is used to *revise* a presupposition with a new proposition (50) and can be loosely translated as “after all.” The focused *DOCH* can answer a direct polar question with new information (51). Lastly, even when the focused *DOCH* is used in questions, it highlights the new information the speaker provides (52). Thus, Rojas-Esponda argues the discourse particle *doch* as a whole handles the question under discussion as either being resolved by recalling previously agreed information or being resolved by giving new information.

(50) Rojas-Esponda 2013:363
A. Ist Anna zu deiner Geburstagparty gekommen? Did Anna go to your birthday party?
B. Zuerst hat sie abgesagt, aber dann ist sie *DOCH* gekommen. First she cancelled, but then she came [after all].

(51) Rojas-Esponda 2013:367
A. Studiert Juliane in Berlin? Does Juliane study in Berlin?
B. Ja, Juliane studiert **DOCH** in Berlin. Yes, Juliane studies **DOCH** in Berlin.

(52) Rojas-Esponda 2013:363
A. Habe ich dir schon gesagt, dass ich **DOCH** mitkomme? Did I tell you that I am **DOCH** [afterall] joining?

The assertive =KU does not share all features with the discourse particle *doch*. Specifically, it does not work as the focused *DOCH* does because it will not appear with a proposition that carries new information. For example, clitic =ku is incompatible with topic constructions such as (53) because it conveys new information about a previously established discourse referent. 14 Therefore, =ku parallels only with the unfocused *doch* function.

(53) New Information and =KU

[#A li kolem wiñik=i tsa’=ku i-cha'leñ ajñ-el tyi cholel.
[TOP DET big man]=ENCL PRFV=KU A3-do run-D.NML PREP field
Intended: ‘As for the man, he is running in the field [I’m telling you]’

14 Remember that the clitics do not attach on the topicalized argument itself, but =KU is particularly impermissible even when attached to the aspect marker.
In the answer to the question at the start of section 6, the assertive =ku was used (repeated here below as 54). At the surface level, it is a direct question asking for new information. After further investigation, the only contexts where (54B) is pragmatically adequate is when the corn’s color was previously discussed or assumed to be obvious by the speaker (e.g. the corn is visible to both speakers). One of my consultants repeatedly paraphrased the =ku containing phrases with “…te digo,” meaning “I’ve been telling you” in Spanish.

(54) **Polar Question & =KU**

A. Chuki ts’ijbal jiňi ixim?
   What color DET corn
   ‘What color is this corn?’
B. Chächäck=ku jiňi ixim
   Red=KU DET corn
   “The corn is red [I’ve been telling you].”

A particular function of assertive =ku that unfocused doch does not share is appearing in sentences with different illocutionary forces. So far, we have seen declarative sentences with =ku, but =ku can appear in *biased* polar questions (55) and imperatives (56). In (55) the question will only arise if the possibility that someone is seated has already been discussed. In (56), the assertive =ku appears only after the imperative was said a few times.

(55) **Question** (Vázquez Álvarez 2011: 17)

Buch-ul=ku\(^{15}\)
seated-STAT-ASRV
‘[Is it true/Did we conclude that] s/he is seated?’

(56) **Imperative**

Mele a-tarea!
Do.IMP A2-homework
‘Do your homework [I’m telling you/as said/already]!’

\(^{15}\) Lesure & Clemens (2015) note primary stress on =KU is actually assigned at the phrasal level, since =KU looses primary stress in yes-no questions and it does to the initial syllable. Due to sensitivity to utterance type, they conclude stress on clitics comes from a domain higher than the prosodic word (viz. phonological phrase or intonational phrase).
I emphasize that =ku shares more with unfocused doch than it does with the affirmative ja in German. Kaufmann (2010) argues that the German discourse particle ja imposes a condition on a proposition where the speaker reveals their belief in a specific presupposition is already part of a the common ground. Unlike unfocused doch, which remarks that a proposition had been resolved in the common ground, the ja indicates that a presupposition has been provisionally accommodated in the conversation, but not yet added to the common ground. JA indicates strong presuppositions (Kaufman 2010:6).

In other words, speakers using ja in (57) not only informs the listener that the worker lost his job, but also that the speaker believes both speech participants know how the job was lost. JA is a way to make sure the common ground is equal between speakers by confirming a presupposition. Meanwhile (unfocused) doch reminds speakers of previously resolved presuppositions, thus =ku resembles unfocused doch more closely.

(57) JA (Kaufmann 2010:20)

Ein Arbeiter war in der Gewerkschaft und verlor ja deswegen seinem Job. One worker was in the Union and lost JA therefore his job. "One worker was in the union and therefore lost JA his job."

Question Under Discussion: All workers who were in the Union lost their job.

The example (38B) repeated here as (58A) works if the proposition p "the girl fell" is being emphasized as a proposition that was previously talked about. If the =ku attaches to the kujil (58B) then one is repeating/readdressing "the speaker doesn't know p" rather than that p alone was the previous topic of discussion. Potentially, =ku is part of a ForceP.

(58)

A. Mach kujil mi jiñ=ku aläxch’ok tyi yajli.
NEG 1.ERG-know if DET=KU girl PRFV fell
‘I do not know [precisely the fact that] the girl fell.’
B. Mach kujil=ku mi jiñ aläxch’ok tyi yajli.
NEG 1.ERG-know=KU if DET girl PRFV fell
'[Precisely] I do not know if the girl fell.'

To conclude, the reason for which the QUD moderator =ku cannot occur with the dubitative clitic =ka (repeated here as 59) is because they are semantically incompatible. The dubitative =ka is biased against the proposition p, meanwhile the assertive =ka is biased in favor of that proposition as in (55).

(59)  
Assertion and Doubt
#Noj chächäk=ku=ka jiñi ixim?
Very red=KU=DUB this corn?
Intended: ‘Is this corn very red?’

The assertive =ku necessitates for a proposition to have been resolved in order to remind the speaker of that previous resolution. If the assertive =ku occurs in different speech acts, such as requests for action (imperatives) or information (interrogatives), then the appropriate context is where the request was previously made. The =ka clitic has no problems combining with the reportative =bi, on the other hand, because a previously discussed and resolved topic could have its information source from elsewhere. In other words, a sentence such as (60) shows that that the corn being red was a discussed topic, but that observation that it was red was by some else. The rigid clitic order of =bi relative to =ku, however, is less clear if we deal with scope.

(60)
Noj chächäk=ku=bi jiñi ixim.
Very red=KU=REP this corn.
[[[This corn is very red] allegedly/someone says] we talked about it]
"[I'm telling you that [allegedly[ this corn is very red]]."

In sum, the assertive clitic =ku operates questions under discussion have been resolved previously. As with unfocused doch, the =ku does not need to correct a mistaken presupposition, but it does need to make allusion to a proposition that was agreed upon in the common ground.
6.3.3 Other Observations

The epistemic modal/affirmative =ÄCH will always come before the QUD operator/assertive =ku. From a syntactic standpoint, it is reasonable to have this order as more discourse-related morphemes are increasingly further placed from the proposition cross-linguistically. The affirmative =äch marks the truth conditions and the assertive =ku demonstrates the speaker’s intentions to address and order the context set. Thus, the affirmative =äch contributes to a ‘direct update’ (Murray 2013) of the common ground because it imposes a commitment to the truth of proposition p, but the concomitant restriction of possible worlds is not-at-issue no negotiable. Meanwhile, =ku is part of the ‘structure update’ because it controls the context by making sure that speakers recall the at-issue proposition p is part of the active common ground.

Note: Another less-probable reason for their strict order could be phonological. Ch’ol disallows diphthongs and opts for CV(C) syllables. As such, =äch=ku (VC.CV) is preferable because it avoids vowel hiatus (e.g. *=kuäch –CVVC), but Ch’ol already has other ways to avoid hiatus in other realizations by reducing a vowel or inserting a glide.

Even if the order is reasonable syntactic standpoint, it is more difficult to explain why the aspectual clitics =ix and =tyo (i.e. “already” and “still”) occur in between the affirmative =äch and the assertive =ku (61A-C). The aspectual clitics, which mark the continuation or completion of a stage, would seem to scope over the affirmative =äch, but in actuality there is no effect on the commitment of the speaker to the proposition. This means the aspectual clitics ignore the not-at-issue contribution of the epistemic modal. The assertive=ku handles at-issue meaning, as do the rest of the 2PClitics in Ch’ol (e.g. dubative, interrogative, irrealis, etc.) so a motivation to have the aspectual clitics before these may be to avoid inserting a temporal dimension to the operations over at-issue proposition.
Modal clitics

A. Ñox-oñ=āch=ix. Old-3.ABS=ÂCH=already Alo’=āch=tyo. Young.3.ABS=ÂCH=still
‘I’m old already.’ ‘He’s still (too) young.’

B. #Ñox-oñ=ku=ix. Old-3.ABS=KU=already #Alo’=ku=tyo. Young.3.ABS=KU=still
Intended: I’m old already. Intended: He’s young still.

C. Ñox-oñ=āch=ix=ku. Old-3.ABS=ÂCH=already=KU Alo’=āch=tyo=ku. Young.3.ABS=ÂCH=still=KU
‘I’m old already.’ ‘He’s young still.’

6.4 'Predicative' Clitic

The last clitic I explored semantically is the predicative clitic =me. It follows =āch and the aspectuals =tyo and =ix, but precedes the assertive . The definition of ‘predicative’ is not made clear by Vázquez Álvarez (2011), but I will use the term for consistency. It seems that the clitic =me explicitly communicates that at-issue information conflicts with a previous presupposition or expectation. It could be loosely translated as “I don't/didn't expect that P” in declarative sentences (62), but it has a different, less-identifiable meaning in imperatives (63). Example (63) seems to emphasize a special caution that the speaker wants the addressee to have.

(62)  **Declarative =ME**

Jiñ=me mula tyi puts’i DEF=ME mule PRFV go
‘[I didn’t expect] The mule escaped!’

(63)  **Imperative =ME** (Warkentin & Scott 1998:57)

Tsajal-ety=me.
Careful-2B=ME
‘Be careful!’

In imperatives, the situation involves warnings or precaution. The Ch’ol dictionary by Wilbur & de Aulie (1978) only recognizes the precautionary meaning of =me. For now, I will formalize the declarative meaning of me by paralleling it to the Korean discourse particle –(i)na explored by Taehoon Kim (2014).
Kim (2014) makes the case that a sentence that uses –(i)na makes two arguments. First, it conveys a VP meaning of type (e,st), a function that maps individuals to functions from states to truth-values, and a measure phrase. It then additionally makes a comparison between two degrees d and d’, where one is taken from the measure phrase (from the actual world) and the other from the speaker’s expectations. In a sentences such as (64A) there is no entailment that Louie is tall, just a measurement of his height. The particle –(i)na comes into play when the measure of khi ‘height’ is d in the real world and is greater than the d’ that the speaker has, entailing Louie is tall in (64B).

(64) Korean Particle –(i)na (Kim 2014:59-60)
A. lwui-nun khi-ka 190cm-i-ta.
   Louie-TOP height-NOM 190cm-CPL-DC
   ‘Louie is 190cm tall.’ (Does not entail: Louie is tall)
B. lwui-nun khi-ka 190cm-na toy-n-ta.
   Louie-TOP height-NOM 190cm-INA reach-IMPRF-DC
   ‘Louie is 190cm tall. (Entails: Louie is tall)’

The case of (64B) is interesting because it shows that –(i)na appears in a sentence with measure phrase, but also has a evaluative meaning (Kim 2014). However, –(i)na marks a presupposition and not an entailment because the proposition Kim (2014) paraphrased as ‘Being 190cm in height exceeds the speaker’s standard for tallness’ (the proposition that 190cm is tall) survived in the presupposition tests. In contrast, the ‘Louie is tall’-entailment does not survive any of the tests in these tests, which included reframing the sentence in (64B) as a negation, a question, and an antecedent of conditionals. The particle –(i)na also does not trigger conventional implicatures. (All of his presupposition and conventional implicature tests are in Appendix II).

The evaluative meaning of –(i)na is what I am interested to compare with the Ch’ol =ME, at least from a lexical semantics standpoint. Kim (2014) expects and finds infelicity due to a
contradiction in (65) if the following sentence is (65A). With (65A), the ina-construction is immediately followed by an evaluative expression that makes reference to a degree that does not meet a contextually determined standard, meanwhile –(i)na itself is supposed to refer to the surprise that the actual world’s degree $d$ exceeded the speaker’s presupposed $d’$. With (65B), there is no infelicity because the proposition of Louie being tall aligns with the presupposition triggered with –(i)na.

(65)  **Infelicitous Evaluative Contradition** (Kim 2014:60)

<table>
<thead>
<tr>
<th>(evaluative)</th>
<th>Louie-TOP height-NOM 190cm-INA reach-IMPRF-DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>lwui-nun</td>
<td>khi-ka 190cm-na toy-n-ta</td>
</tr>
<tr>
<td>A:</td>
<td>Louie-TOP height-NOM big-DC</td>
</tr>
<tr>
<td></td>
<td>‘Louie is 190cm tall (and is tall). Louie is tall.’</td>
</tr>
<tr>
<td>B:</td>
<td>#...lwui-nun (khi-ka) cak-ta.</td>
</tr>
<tr>
<td></td>
<td>Louie-TOP height-NOM small-DC</td>
</tr>
<tr>
<td></td>
<td>‘Louie is 190cm tall (and is tall). Louie is short.’</td>
</tr>
</tbody>
</table>

Kim (2014) continues to argue that –(i)na is in DegreeP and provides a compositional semantics for the particle. The predicative clitic =me does not mark a presupposition over a measureable degree, which makes the application of presupposition tests and paralleling more tricky. However, =me does give an evaluative meaning. The clitic seems to convey that a situation presupposed by the speaker was not met or that an expectation will not be met. I add the meaning ‘will not be met’ because in instances such as (66), the clitic occurs in predictions the speaker about a situation. Meanwhile, (62) above or (66) here deal with the realization that the prediction was not met.

(66)  **Vázquez Álvarez 2011:413**

| Ta’=ki    | ñoj-chañ-’ä-y-ety k’iñ,                           |
| PRFV=CON | really-late-INCH-EP-B2 day                         |
| mach=me=ku | arrive.there-B2=already.                        |
| NEG=REA=ASRV | k’oty-ety=ix                                  |
‘If you really go late, you won’t arrive there.’

(67) Little 2014 (Xiba story)
Ji=x=ame=ku a wax=i ta’ ka iy-añes-añ-ob majl-el.
DET=already=PRED=ÄCH part grey.fox=ECL PRFV start A3-follow-DT-PL go-NF
‘The grey fox went after them.’

In (67), the expectation that the fox would not chase the people in the story could convey a non-speaker evaluation, meaning that the unmet expectation associated with the usage of =me may be more flexible. If we allow for this flexibility of expectations, then the use of the clitic in imperatives might be unified in a single account. More formalization is needed, but we know that the clitic =me will not be used when the evaluative meaning is contradicted as in (68). As such, the Korean particle’s analysis can bring more useful framings for the Ch’ol clitic =me.

(68) Contradiction of Evaluation
# K-ujil che’ ma-añ=ik jiñ mula. Ta’=me puts’i jiñ mula.
A1-know COMP NEG-EXT=IRR DET mule. PRFV=ME escape DET mule
Intended: I know that the mule is not there. The mule ran away.

Expressing surprise that the mule ran away cannot be preceded or succeeded with knowing that the mule is not in said location. The expectation of the mule not escaping is contradicted by saying the mule is not there in the first place. I have yet to refine these tests, but it sets us in the right direction.

6.5 Other Issues to Resolve
I have only scratched the surface of the semantic contributions these clitics have, but they already show how they are not attachable to any proposition and in any order. They instead all come with semantic baggage that limits their interactions. More problems remain, such as the intensive usage of the reallis clitic =tsa’ in (69). But I will not be able to explore these further with my current data.
There are also plenty of combinations of clitics to resolve, because their interaction should not get the following readings. These usages are potentially lexicalized, but they are worth nothing. For example in (70), the expression ‘who knows’ is reasonable with the dubitative clitic. Potentially the =íx, which shows the completion of an action, can be made a case for. However, the usage of =ách as an affirmative and epistemic modal may optionally be there. The same order of clitics appears in the content question in (71).

(70) **Unexpected Combinations**

Bajche’ (=ách)=íx=ka!
how=ÄCHR=already=DUB
‘Who knows!’

(71) **Content Question** (Vázquez Álvarez 2011;289)

Bajche’=ách=íx=ka
how.much=ÄCHR=already=DUB A3-cost=REL
‘How much can it be?’

Though the discussion of this complementizer is short in Vázquez Álvarez (2011), we know that from his analyses that it may introduce sentential complements for required verbs. These include matrix verbs like: su’b ‘say’, ‘tell’, k’ajtyiñ ‘ask’, u’b ‘hear’, ŋäch ‘listen to’, om ‘want’, mulañ ‘like’ (Vázquez Álvarez 2001:391). When the che’ introduces sentential complements, the clitics may attach to it as in (72). However, the complementizer alone hosts 2PCLitics too (73-74).

(72) **Complementizer che’**

tyi k-u’b-i-∅ [che’=ku tyi i-pejk-ä-∅ aj-Wañ aj-Maria]
PRFV A1-hear-DT-B3 [that=KU PRFV A3-talk.to-DT-B3 NCL-Juan NCL-Maria]
‘I heard (repeatedly) that Maria spoke to Juan.’ (modified Vázquez Álvarez: 2011:392)

(73) a. Che’=[a]bi joch otyoty
    che’=REP unocupowied house
‘There was an empty house’ (Little 2017:1)
Che'=[a]me=k-i     ta'i-chok-o-Ø-y-ob     jub-el
che'=[PRED]=ÄCH=ENCL  PRFV A3-throw-DT-B3-TV-PL  down-NOML
'They (reportedly) threw it down'
(Little 2017:9)

Attinasi (1973: 204) uses the term “phatic mantras” to talk about a use of 2P Clitic clusters on the complementizer "to keep the conversational contact in lieu of eye contact." Coon (pers. comm.) explained it is not uncommon for Ch'ol speakers to sit beside one another and not make eye contact during conversation, so the chain is used to express contextually relevant perspectives of the speaker. However, the function of che' as a semantically null host is unclear in utterances such as (75).

6.6 Orders of 2P Clitics

I provided at the start of this thesis a table for the ordering of the clitics, which Vázquez Álvarez (2011:173) explores to a lesser extent. His description held that the aspectual clitics =ix and =tyo, come before all the 2P Clitics he denotes as ‘modal’ as shown in (76A&77A), except for the affirmative =äch. He also says that the irrealis clitic=ik does not occur with the aspectual clitics (76B & 77B).

(76)

A. Wäyäl=ix=bi “It is said that she/he is already sleeping.”
   Wäyäl=ix=ba ‘She/he is already sleeping.’
   Wäyäl=ix=tsa’ ‘S/he is already sleeping, I know it.’
   Wäyäl=ix=ku ‘Yes, she/he is already sleeping.’
   Wäyäl=ix=me ‘She/he is already sleeping, I tell you.’
   Wäyäl=ix=ka ‘I’m wondering if she/he is already sleeping?’
B. *Wäyäl=ix=ik

(77)

A. Wäyäl=tyo=bi “It is said that she/he is still sleeping.”
   Wäyäl=tyo=ba ‘She/he is still sleeping.’
Wäyäl=tyo=tsa’ ‘S/he is still sleeping, I know it.’
Wäyäl=tyo=ku ‘Yes, she/he is still sleeping.’
Wäyäl=tyo=me ‘She/he is still sleeping, I tell you.’
Wäyäl=tyo=ka ‘I’m wondering if she/he is still sleeping?’
B. *Wäyäl=tyo=ik

Vázquez Álvarez (2011:174) continues to provide that the affirmative =äch precedes the non-aspectual clitics (78). Meanwhile the reportative evidential =bi can be followed by =ku and =tsa’ or preceded by =me as in (79).

(78) wäyäl=äch=ku ‘yes s/he is sleeping’
  wäyäl=äch=bi ‘It is said that yes, s/he is sleeping’
  wäyäl=äch=tsa’ ‘yes s/he is sleeping, I know it’
  wäyäl=äch=me ‘yes s/he is sleeping, I tell you’
  wäyäl=äch=ka ‘(I am wondering if) s/he is actually sleeping’

(79) wäyäl=bi=ku ‘It is said that yes, s/he is sleeping’
  wäyäl=bi=tsa’ ‘It is said that s/he is sleeping and I know it’
  wäyäl=me=bi ‘It is said that s/he is sleeping, I tell you that’

Various questions remain open regarding the order of the clitics or their incompatibility.

For example, perhaps the aspectual clitics are incompatible with the irrealis because the aspectuals presuppose a realis action that is on-going or completed. The reportative =BI was claimed to come before the assertive =KU, but they happened in inverse orders in some of my data. To conclude, I provide the table of clitics once more in Table 4. The caveats of these orders are in the footnotes.

Table 4

<table>
<thead>
<tr>
<th>Affirmative</th>
<th>Aspectual</th>
<th>Predicative</th>
<th>Assertive</th>
<th>Interrogative, Evidential</th>
<th>Intensifier, Exclusive, Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>=äch</td>
<td>=ix</td>
<td>=me</td>
<td>=ku</td>
<td>=bi16</td>
<td>=ik (IRR)17</td>
</tr>
<tr>
<td></td>
<td>(already)</td>
<td></td>
<td></td>
<td>=bi</td>
<td>=tsa (INTS)</td>
</tr>
<tr>
<td></td>
<td>=tyo (still)</td>
<td></td>
<td></td>
<td>=ki</td>
<td>=jach (EXL)18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>=ka</td>
<td></td>
</tr>
</tbody>
</table>

16 The reportative may precede the assertive.
17 The irrealis clitic =ik must be used in negated sentences in the Tumbalá dialect. It is optimal in the Tila dialect.
18 There is a case where the exclusive operator =jach comes before the aspectual clitic =ix, but this could be lexicalized as other clitics have been (e.g. baki ‘where’ comes from ba’ ‘where’ + interrogative clitic =ki). The example comes from Vázquez Álvarez’s (2011) addendums.

(i) chajachix ch’uj añi

Fernández Guerrero, 55
VII. Conclusion

I have presented an extended description of the environments where 2PCLitics occur in Ch’ol. However, the present study cannot provide exhaustive information about their phonological, syntactic, and semantic considerations. Each of these realms involve a set of issues on their own, such as understanding the role of intonational phrases, mismatch theory with phonology and syntax, an understanding of the left-periphery and extra-position in Ch’ol, as well more pragmatic studies and discourse analysis on the implications of the clitics.

My goal throughout was to identify starting lines or research for these clitics, but also to provide an adequate description of this phenomenon in Ch’ol. Analyses in other typologically different languages have gone far, but their general claims are already being contested with present data. I thank once more the consultants in El Campanario and in San Miguel, Chiapas for bearing with me.

che’=jach=ix
like.this=only=already
‘They just remain immobile.’
ch’uñ añ-∅=i
immobile E-B3=FIN
Appendix I

The clitics may follow aspect (on INFL), explicitly focused elements as in (i), adjectival and positional predicates as in (iiia-b), adverbial times and prepositional phrases as in (arguably extra-posed adjuncts) in examples such as (iiiia-b), wh-elements as in (iv), and negative markers as in (v).

(i)  jiñtyobi mi ik’ajtyisañi
    jiñ=tyo=bi mi i-k’ajty-i-s-añ-ø=i
    FOC=still=REP IMFV A3-remember-IV-CAU-DT-B3=FIN

    ‘It is because he still remembers it’

(Vázquez Álvarez 2011:443)

(ii) A. wä’ba añ jiñi, lakyum, che’bi
    wä’=ba añ-ø jiñi, la=k-yum, che’=bi
    here=INT Exist-B3 hm PLINC=A1-Lord say=REP

    ‘-Is our Lord here? -He says’

    B. poke tyemebi
        poke tyem-ø=bi
        ya’ añ li x-ixiko’
        ya’ añ-ø li x-’ixik-ob
        SP:because together-STAT-B3=REP there E-B3 DET NCL-woman-PL3

    ‘because the women were gathered there’

(Vázquez Álvarez 2011:438)

(iii) A. xink’iñibi tyi k’otyi ik’e
    xink’iñi=bi tyi k’oty- i i-k’el-ø
    noon=REP PRFV arrive-IV A3-see-B3

    ‘It was at noon when he (the man) arrived to see him’

(Vázquez Álvarez 2011:448)

    B. tyi ixiñibi
        tyi ixiñi=bi
        tyi i-wits’ajts’i
        tyi i-wits’ajts’-i-ø
        PREP A3-middle=REP PRFV A3-crash-DT-B3

    ‘It crashed in the middle (of the tree)’

(Vázquez Álvarez 2011:462)

(iv)  majch=ki ibi, cabroñ, che’=bi
    who=INT that damn say=REP

    ‘Damn!, who is that? he says.’

(Vázquez Álvarez 2011:276)
Appendix II

Below are the sentences that Kim’s (2014) provides to narrow down the meaning of the Korean particle –(i)na.

I. Presuppositions are preserved under negation. Entailments are negated.

lwui-nun khi-ka 190cm-na toy-ci-n anh-nunta.
L.-TOP height-NOM 190cm-INA reach-COMP-IMPRF NEG-DC
‘It is not the case that Louie is 190cm tall.’
Does not entail: Louie is 190cm tall.
Does not entail: Louie is tall.
Entails: Being 190cm in height exceeds the speaker’s standard for tallness, i.e. 190cm is tall.

II. Presuppositions are preserved in questions. Entailments are not.

lwui-ka khi-ka 190cm-na toy-na?/toy-n-ta-ko?
Louie-NOM height-NOM 190cm-INA reach-QS/reach-IMPRF-DC-QS
‘Is Louie 190cm tall?’
Does not entail: Louie is 190cm tall.
Does not entail: Louie is tall.
Entails: 190cm is tall.

III. Presuppositions are preserved in the antecedent of conditionals. Entailments are not.

lwui-uy khi-ka 190cm-na toy-n-ta-myen,
Louie-GEN height-NOM 190cm-INA be-IMPRF-DC-if
na-n(un) kkmccak.nolla-l kes-i-ta.
I-TOP startle-FUT NMN-CPL-DC
‘If Louie is 190cm tall, I would be startled.’
Does not entail: Louie is 190cm tall.
Does not entail: Louie

Conventional implicatures (CIs) have the following characteristics (Potts 2005, Grice 1975), which Kim (2014) tests for –(i)na.

a. CIs are part of the conventional (lexical) meaning of words

b. CIs are commitments, and thus give rise to entailments
c. These commitments are made by the speaker of the utterance “by virtue of the meaning of” the words he chooses

d. CIs are logically and compositionally independent of what is “said (in the favored sense)”, i.e., independent of the at-issue entailments

CIs cannot be reinforced because they would trigger redundancy. (vi) and (vii) are felicitous and not redundant, whether they are uttered before or after ‘Louie is tall.’ These cover the first two properties of CIs according to Potts (2007), which –(i)na does not share.

(vi) lwui-nun  khi-ka  190cm-na toy-n-ta.
    Louie-TOP  height-NOM  190cm-INA reach-IMPRF-DC
lwui-nun  khi-ka  khu-ta.
Louie-TOP  height-NOM  big-DC
‘Louie is 190cm tall. Louie is tall.’

(vii) lwui-nun  khi-ka  khu-ta.
Louie-TOP  height-NOM  big-DC
lwui-nun  khi-ka  190cm-na toy-n-ta.
Louie-TOP  height-NOM  190cm-INA reach-IMPRF-DC
‘Louie is tall. Louie is 190cm tall.’

The third property of CIs that Kim (2014) tests is a tendency to project out of attitude complements, which Potts (2007) calls ‘presupposition plugs.’ But –(i)na does have the attitude context. As such, the content that ‘Louie is tall’ cannot be denied by the speaker in (viii).

(viii) Infelicitous

# lwui-ka  khi-ka  190cm-na  tw-ay,
Louie-NOM  height-NOM  190cm-INA reach-DC,
but  that’s.nonsense —  Louie-TOP  height-NOM short-DC
‘Louie is 190cm tall, but that’s nonsense—Louie is short.’
The last feature of CIs that Kim (2014) tests is speaker-orientation. If -(i)na triggers a CI, the commitment ‘Louie is tall’ in ina-constructions like (ix) has to be made by ‘the speaker of the utterance,’ but he proves that it possible to embed sentences such as (ix) and obtain non-speaker orientations (x).

(ix) Non-embedded: Speaker Orientation

```
lwui-nun  khi-ka  190cm-na  toy-ta.
Louie-TOP  height-NOM  190cm-INA  reach-IMPRF-DC
Louie is 190cm tall.
```

(x) Embedded: Non-Speaker Orientation when the matrix VP mal-ha’s unergative use: ‘to say’

```
Clyde-ka  Floyd-nun  khi-ka  190cm-na
Clyde-NOM  Floyd-TOP  height-NOM  190cm-INA
say-do-PST-DC
reach-IMPRF-DC-COMP  mal-ha-yss-ta.
‘Clyde said that Floyd is 190cm tall.’
Presupposes: 190cm is tall for Clyde.
Entails: Clyde thinks that Floyd is tall.
References

Clemens, L. et al. (n.d.) *Focus in Ch’ol*. Slide presentation

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