



FROM COMMON CHOLAN-TZELTALAN TO CLASSICAL CH'OLTI': THE IDENTIFICATION OF THE LANGUAGE OF MAYAN HIEROGLYPHS

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Introduction

In his recent rejection of Houston et al.'s (2000) proposal that the spoken language of the Mayan hieroglyphic script belonged to the Ch'olti'an subgroup, Mora-Marín (2009:151) suggests, "...[I]t is crucial for linguists to attempt a more thorough reconstruction of the history of the Cholan-Tzeltalan languages." Similarly, Wald (2007) suggests, "[E]pigraphy can often profit by paying close attention to the verb morphology of close cousins such as Tzeltal and Tzotzil."

The intent of this paper is to follow both Mora-Marín's and Wald's suggestions by giving a more thorough reconstruction of the history of the subgroup Cholan-Tzeltalan of the Mayan language family, which further secures the claim made by Houston, Robertson and Stuart (2000): that the language recorded in the Classic Maya hieroglyphic script belongs the Ch'olti'an subgroup of the Cholan family.

The content of the paper includes: first, a statement of the theoretical foundation of this investigation; second, a historical account of the development of Tzeltalan, Cholan and Q'eqchi'; third, the role of borrowing; and, finally, a discussion of the consequences of this investigation.

The relationships in the Cholan-Tzeltalan family are as follows: Tzeltalan has two members, Tzeltal and Tzotzil, with considerable colonial documentation. Wastek, however, is a possible third member. It is beyond the scope of this paper to outline the relationship between Common Cholan-Tzeltalan and Wastekan. Robertson and Houston (2003) have published a more detailed account of the phonological and morphological similarities that necessarily link Wastekan with Common Cholan-Tzeltalan. (A revised English version of this paper is presently scheduled for publication.) Contrary to previous claims (Campbell and Kaufman 1985:192; Kaufman 1971:13; Swadesh 1953:226), the data strongly suggest that Wastekan did not split off from proto-Mayan before the rest of the Mayan languages began to diverge. Rather, so many phonological and morphological similarities exist between Wastekan and Tzeltalan, that the most reasonable supposition would be to place the Wastekan migrations at or more likely after the time that Cholan diverged from Common Cholan-Tzeltalan.

Cholan also has two sub-branches: Western Cholan, consisting of Chol and Chontal (including Acalan, the colonial ancestor of Chontal), and Ch'olti'an, which includes Classical Ch'olti' (the language of the Mayan hieroglyphs) and its descendants, Ch'olti' (the Colonial language) and Ch'orti' (the modern language). It is worth noting here that no proper account of the linguistic filiation and morphological history is even possible without drawing on colonial documentation. Up to this point, no one has adequately investigated the colonial data pertaining to the intransitive positional and passive, particularly for Colonial Tzotzil.

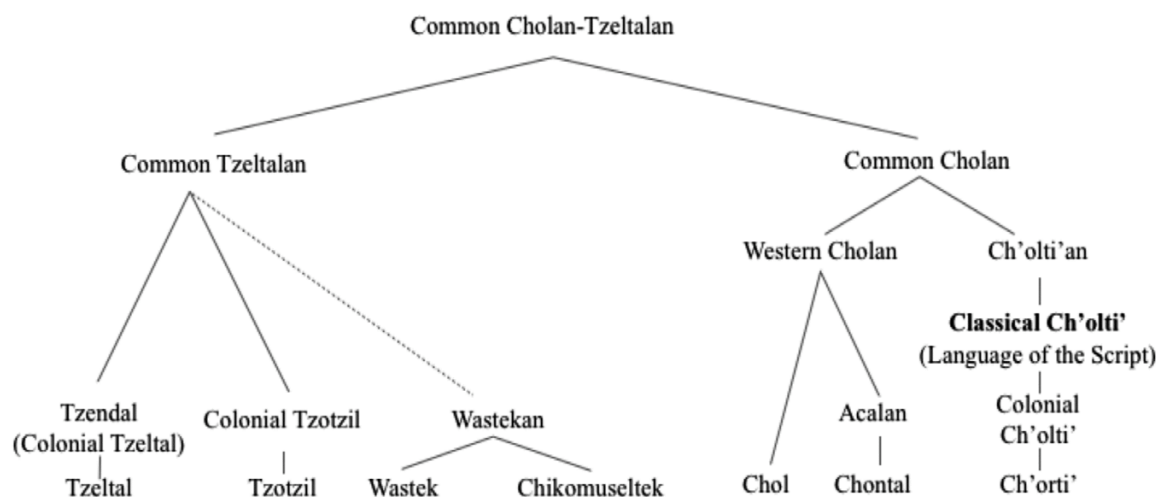


Figure 1. The Cholan-Tzeltalan Family Tree.

Theoretical Statement

Two well-known linguistic abstractions are indispensable to any explanation of the kind of linguistic change repeatedly found in the data presented here: *sign* and *time*. A sign is constituted of two elements, *form* and *function*, each subject to specific kinds of changes, as outlined below. Time is seen in stages of language development, as *Stage I*, *Stage II*, and so on. A sign at Stage I may subdivide into two distinct signs at Stage II. The two signs at Stage II have the following constitution when compared to the originating sign of Stage I: One sign directly preserves the original form, but its function has become an unpredictable but restricted version of the original sign's function. The other sign directly preserves the function of the original sign, but the descendent form takes on an unpredictable shape that may or may not even resemble the original.

The following are lexical and grammatical examples of the historical process described above. Initially, the Common Mayan form **winaq* had the function 'person.' In the later stage (Classical Ch'olti'/Tzeltalan) *winak* (< **winaq*) took on a new, more restricted function, 'captured person, slave' (Stuart et al. 1999:II-19) while a newly formed *winik* assumed the original function, 'person.' This is illustrated in Table 1 (see next page).

	Common Mayan 'person,' <i>*winaq</i> 0,1	Classical Ch'olti' Tzeltalan 'slave,' <i>winak</i> 1,1
winik	Classical Ch'olti' Tzeltalan 'person,' <i>winik</i> 0,0	Impossible 'slave,' <i>winik</i> 1,0
	'person'	'slave'

Table 1: Showing the Preservation of the Original Function with a New Form and the Preservation of the Original Form with a New Function.

It is essential to the theory of this paper to situate form and function on the Cartesian plane, the X-coordinate corresponding to function (meaning) and the Y-coordinate to form. In this case, the X-coordinate has two values: 0 = 'person' and 1 = 'slave'; similarly, for the Y-coordinate 0 = *winak* and 1 = *winik*. Thus, the X-axis preserves the original form (*winak*) but has an innovative function: *'person' > 'person-in-bondage, slave.' The Y-axis, on the other hand, preserves the original function ('person'), but acquires an irregular form, such that **winak > winik*, where *a > i* is an unpredictable, irregular sound change. The generalization is this: *If new function, then old form, with the contrapositive, if new form, then old function.*

Time (Stages I = Common Mayan and II = Classical Ch'olti' and Tzeltal, which is conservative) is the business of the diagonal axis.¹ Here, the stages are defined in terms of the X- and Y-coordinates: Stage I (Common Mayan) is $Y - X = 1$, Stage II (Classical Ch'olti' and Tzeltalan) is $Y - X = 0$. The category $Y - X = -1$ is impossible, because the new form coincides with the new function.

A second example is grammatical, showing data from the intransitive positional in Chol, as shown in Table 2 (see next page). The ancestral form was **-wan*, which marked both the completive and incompletive aspect; however, with the introduction of split-ergativity, **-täl/-le* came to mark the incompletive/completive of the intransitive positional. The original *-wan* was preserved (Y-axis) but in the highly restricted function of the 'negative imperative': *mach buch-wañ-ety* NEG sit.down-NEGATIVE. IMPERATIVE.ABS2SG 'don't sit down' (Vásquez-Álvarez 2002:157).

¹ This phenomenon is an elaboration of Kuryłowicz' Fourth Law of Analogy (1966:169). The idea behind the Fourth Law was expressed in Kant's notion of *inverse proportionality*: "The content and extension of a concept stand in inverse relation to one another. The more a concept contains under itself, namely, the less it contains in itself, and conversely" (Kant 1923, in Young 1992:593). In the case at hand, the content of Stage I is the function 'person,' and the extension is its associated form *winaq*. In the shift from Stage I to Stage II, two things happen: On the one hand, the content-function becomes more complex ('person' > 'person-as-slave'), while the extension-form remains constant (except for normal phonological change) (**winaq > winak*). On the other hand, the content-function stays constant ('person' > 'person') while the extension-form becomes more complex, in the sense that a new form is introduced to represent the original function (**winaq > winik*).

Y-axis: Form	*-wan	pre-Chol '(in)completive,' <i>*wan</i> 0,1	Chol 'neg.imperative', <i>-wan</i> 1,1
	-täl / -le	Chol '(in)completive', <i>-täl / -le</i> 0,0	Impossible 'neg.imperative', <i>-täl / -le</i> 1,0
	X-Y: Language	'(in)completive'	'negative imperative'
			X-axis: Function

Table 2: Showing the Preservation of **-wan* in the Intransitive Positional in the Incompletive/ Imperative in Chontal and Chol.

Another grammatical example comes from the suffix $-V_1$. In the earliest attestations of Ch'orti' (Suarez 1892), $-V_1$ marked CVC transitive verbs: <Guarushurú> *war u-xur-u* 'he is chopping it off'; <Guarupará> *war u-par-a* 'he is carving/shaping it'; <Guarujuyú> *war u-juy-u* 'he is moving/shaking it'; <Guaruponó> *war u-pon-o* 'he is dying it.' However, by modern times, the $-V_1$ suffix became *-i*, following back vowels, with vowel harmony applying with the front vowels: *sur-i* 'to cast something off'; *par-i* 'to shape by weaving'; *bon-i* 'to dye something'; *per-e* 'to draw/suck something in'; *pis-i* 'to unwrap something'.² However, in the imperative, the original $-V_1$ is preserved in Modern Ch'orti': *chuk-u* 'grab it!'; *boch'-o* 'wrap it up!'; *pas-a* 'open it!'; *per-e* 'suck it in'; *pis-i* 'uncover/unwrap it!', as shown in Table 3.

Y-axis: Form	*-V₁	Early Ch'olti' 'declarative,' $-V_1$ 0,1	Current Ch'olti' 'imperative', $-V_1$ 1,1
	-e-i	Current Ch'olti' 'declarative, <i>-e/-i</i> 0,0	Impossible 'imperative', <i>-e/-i</i> 1,0
	X-Y: Language	'declarative'	'imperative'
			X-axis: Function

Table 3: Showing the Preservation of $*-V_1$ in the Imperative and Innovation in the Declarative.

² Ch'olti' also had the same vowel harmony that we find in Suarez.

More Complex Systems

A more complicated English example is evident from the evolution of the forms/functions descendent from Common Germanic **kwēn*, ‘woman’ in Table 4.

Y-axis: Form <i>*kwēn</i> <i>wīʰf</i> <i>wīʰman > wūmən</i>	Common Germanic ‘woman’, <i>*kwēn</i> 0,2	Middle English ‘wife’, <i>kweʰn</i> 1,2	Modern English ‘king’s wife’, <i>kwīʰn</i> 2,2
	Middle English ‘woman’, <i>*wīʰf</i> 0,1	Modern English ‘wife’, <i>waʰf</i> 1,1	Impossible ‘king’s wife’, <i>waʰf</i> 2,1
	Modern English ‘woman’, <i>wūmən</i> 0,0	Impossible ‘wife’, <i>wūmən</i> 1,0	Impossible ‘king’s wife’, <i>wūmən</i> 2,0
X-Y: Language	‘woman’	‘wife’	‘king’s wife’
	X-axis: Function		

Table 4: Showing a Three-Stage Progression of Language Change on the Three Axes.

Here, the X-coordinate has three functional values: 0 = ‘woman’, 1 = ‘wife’, and 2 = ‘king’s wife.’ Similarly, the Y-coordinate has three formal values: 0 = **kwēn*, 1 = *wīʰf*, and 2 = *wīʰman > wūmən*. The X minus Y-coordinate has five functional values: 2 = Common Germanic; 1 = Middle English; 0 = Modern English; -1 = singly impossible combinations, and -2 = a doubly impossible combination. Again, the X-axis conserves the form, but progressively, and unpredictably the semantic information of the form becomes more specific or marked: ‘woman’ > ‘wife’ > ‘king’s wife.’ The Y-axis, on the other hand, conserves the function through the stages, but changes the form unpredictably (**kwēn > wīʰf > wūmən*). The temporal axis is on the diagonal, moving from Common Germanic to Middle English to Modern English.

The Structure of Mayan Predicates

The center of gravity of Mayan grammar is to be found on the verb. Tense, aspect, mood and voice, the morpho-syntax of case and person marking, and the several verbal types are all a function of predication in the Mayan languages. Prerequisite to the application of the principles of language change illustrated in Tables 1-4, it is necessary to outline the systematic structure of the basic predicational classes common to all subgroups of Mayan, as shown in Table 5 (see next page). These types are the heart of Mayan grammar.

POSITIONAL <i>Pacal is in the position of sitting</i>	POSITIONAL WITH TRANSITIVE FUNCTION <i>Pacal seats his son</i>	TRANSITIVE <i>Pacal sees his son</i>
POSITIONAL WITH INTRANSITIVE FUNCTION <i>Pacal sits down</i>		TRANSITIVE WITH INTRANSITIVE FUNCTION (PASSIVE/MEDIOPASSIVE) <i>Pacal is seen; Pacal's house burned up</i>
INTRANSITIVE <i>Pacal entered the road</i>		

Table 5: Showing the Basic Categories of Predication of the Mayan Languages, with the Intransitive Positional Overtaking the Passive.

All predication falls within these six categories, three of which are “primary” and three “secondary.” The primary categories are simple positional predicates (*adjectival positionals*, e.g. *Pacal is in a position of sitting*)³, the intransitive predicates (*intransitive verbs*, e.g. *Pacal entered the road*) and the transitive predicates (*transitive verbs*, e.g. *Pacal sees his son*). The secondary categories are combinations of the above three: positionals that function transitively (*transitive positionals*, e.g. *Pacal seats his son*), positionals that function intransitively (*intransitive positionals*, e.g. *Pacal sits down*), and inherently transitive predicates that function intransitively (*passives*, e.g. *Pacal was seen* and *mediopassives*, e.g. *Pacal's house burned up*).

The language changes described in this paper are subject to the structure outlined in Table 5. Specifically, it is a multiply attested fact of Mayan languages that the form with the meaning INTRANSITIVE POSITIONAL tends to replace the form with the meaning PASSIVE. In short: *The form of the intransitive positional can become the form that marks the passive, but never the reverse.*

A Synchronic Example of an Intransitive Positional Becoming a Passive

An unambiguous use of the intransitive positional to mark the passive is readily seen in Chol. Both *-tyäl* (incompletive) and *-le* (completive) mark the intransitive positional. Chol has two affixes that mark the passive, the original passive infix *-b-* as well as *-tyäl/-le*. Significantly, however, both *-tyäl* and *-le* also mark the intransitive positional. For the passive, there is a phonological distribution: If the CVC verb root ends in a fricative (*x, s, h*), then *-tyäl* ~ *-le* is present; if it ends in a nonfricative, *-b-* is used:

- PASSIVE CVC_[non-fricative]: *k'ehl* ‘to be seen’ < *k'el* ‘to see’
- PASSIVE CVC_[fricative]: *päs-tyäl* (INCOMPLETIVE); *päs-le* (COMPLETIVE) ‘to reveal’
- INTRANSITIVE POSITIONAL CVC: *buch-tyäl* (INCOMPLETIVE); *buch-le* (COMPLETIVE) ‘to sit’

³ English has a series of adjectives that function only as predicates, not as attributives, as with the Mayan adjectival positional: The balloon is *aloft* versus *the *aloft* balloon; *ablaze*, *abloom*, *aboard*, *abroad*, *afloat*, *afraid*, *aglitter*, *aglitter*, *aglow*, *ajar*, *amid*, *amiss*, *askew*, *awry*, and so on.

Unlike Chol (which was likely influenced by Tzeltal), the other Cholan languages preserved the *b* (or its reflex) before fricatives. Chontal, for example, changed *CVhC to an invariant stress CVC (Knowles 1984:62), so that we find Ch’orti’ *tʃ’ibb* ‘writing’ against Chontal *tʃ’ib* ‘writing.’ It is important to note that Chontal even preserved this reflex of *-b-* before fricatives, as evidenced by Chontal *núx-(e(l))* ‘to swim’, against Ch’orti’ *nubx* ‘to swim;’ Chontal *nóxib* ‘old man’ (ibid. p. 445) against <nohxib> ‘old’ (Morán 1689:173). Unlike Ch’orti’, which preserved the *b* before sibilants, or Chontal, which leaves a trace of *VhC in the form of an accented vowel, Chol alone innovated by eliding *b* before the fricatives leaving no trace, as evidenced by Chol **nubx* > *ñux*, ‘to swim,’ and **nobx* > *ñox* ‘old’.⁴

Chol’s phonological process of deleting *s* before fricatives had the semantic consequence of erasing the grammatical category, passive *-b-*, from roots that ended in a fricative, with the consequent loss of a formal distinction between active and passive. To remedy this, the language reconstituted the passive by recruiting the intransitive positional (*-tyäl/-le*) to be used as a passive: a dramatic Chol innovation.

The point is this: There is in the Mayan languages a grammatical process where the intransitive positional stands in the place of the passive—and under differing circumstances, the positional displaced the passive in Tzotzil, Wasktek, Ch’olti’an, Q’eqchi’ and Kaqchikel, as will be shown in detail below. This typological constancy is not a product of chance or accident. The intransitive positional > passive is first “primed” by the hierarchical structure of the paradigms of the Mayan languages (see the proximity of Table 5), and with such priming, the change was often further encouraged by language contact.

Positional Used as a Passive: The History of Tzotzil

The intimate relationship between the intransitive positional and the passive is an irreducible part of the history of both Tzeltal and Tzotzil.⁵ The Tzendal (Colonial Tzeltal) marker for the intransitive positional is *-V₁y*, whereas the Colonial Tzotzil form was *-ey*. Significantly, a Colonial Tzotzil passive form had an identical *-ey* as a marker of the intransitive positional, as shown in Table 6, just as a Chol passive is identical to the intransitive positional.

	Tzendal	Colonial Tzotzil	Gloss
Intransitive Positional	<liquiy> lik-iy <metzey> metz-ey <nacay> nak-ay <ghocoy> jok’-oy <cunuy> kun-uy	<liqu-ey> lik-ey <metzey> metz-ey <nakey> nak-ey <ghoquey> jok’-ey <cuney> kun-ey	‘hang’ ‘lie down’ ‘sit, reside’ ‘hang, entrust’ ‘gather, pile up’
Passive	<taghot> taj-ot	<taghey> taj-ey	‘to be paid’

Table 6: Showing the Intransitive Positional and the Passive in Tzendal and Colonial Tzotzil.

⁴ Tzeltal also preserves *CVhC (*tʃ’ibb* ‘writing’) but, like Chol, has lost it before fricatives: **nubx* > *nux* ‘to swim.’ It is likely, given the geographic proximity of Tzeltal and Chol, that Chol was influenced by Tzeltal.

⁵ The Tzendal and Tzeltal data used here are from Ara (1571) and Laughlin (1988).

Historically, $*-V_1y$ was an intransitive positional in Common Cholan-Tzeltalan (and therefore Common Tzeltalan) which was preserved in Tzendal, but changed to $-ey$ in Tzotzil—although, as will be shown below, $*-h\dots-aj$ was a secondary marker for intransitive positionals in Common Cholan-Tzeltalan. The reason for choosing $*-V_1y$ and not $*-ey$ as the reconstruction for the intransitive positional is typological. Every attested instance in Cholan-Tzeltalan shows a simplification of vowel harmony, where $-V_1$ regularizes to $-i/-e$ in Ch'olti' (Table 3). A similar thing happened in Chontal, where the completive $-V_1$ simplified to $-i$: *kä-män-i* 'I bought it' (Knowles 1984:75, 80). Chol, however, preserves $-V_1$ in the completive aspect: *tʒa-k-män-ä* 'I bought it' (Aulie and Aulie 1978:46).

Like the Chol example above, Colonial Tzotzil provides an ironclad example of an intransitive positional and a passive having the same form. Wald (2007:281) asserts, "There is no direct evidence of the existence of a passive in $-Vy$ in any language directly on the path from Proto-Mayan to Classic Cholan." There is, however, direct and attested evidence in the family of Common Cholan-Tzeltalan $*-V_1y$, which is directly on the path to "Classic Cholan" (i.e. Classical Ch'olti'). Tzotzil not only provides evidence of an intransitive positional taking over the passive, but furthermore it shows the intransitive positional $-ey$ ($< *-V_1y$) to function synchronically as an intransitive positional and a passive.

Y-axis: Form		*-h-	Com Tzeltalan PASSIVE, $*-h-$ 1,3	Colonial Tzotzil MED.PASS, $-h-?$, $\emptyset?$ 2,3	
		-V₁y	Com Tzeltalan INTR.POSIT, $-V_1y$ 0,2	Colonial Tzotzil PASSIVE, $-ey$ / $-at$, $-ot$ 1,2	Modern Tzotzil MED.PASS, \emptyset 2,2
X-Y: Lang		-ey	Colonial Tzotzil INTR.POSIT, $-ey$ 0,1	Modern Tzotzil PASSIVE, $-e$, $-at$ 1,1	Impossible MED.PASS, $-ey$ 2,1
		-i	Modern Tzotzil INTR.POSIT, $-i$ 0,0	Impossible PASSIVE, $-i$, $-at$ 1,0	Impossible MED.PASS, $-i$ 2,0
			INTR. POSITIONAL	PASSIVE	MEDIOPASSIVE
			X-axis: Function		

Table 7: Showing the History of the Intransitive Positional and Passive in Tzotzil.

As shown earlier, the Y-axis preserves the function but changes the form, while the X-axis tends to maintain the form but restricts the function—with the proviso that not all forms change evenly through the several stages so that there can be continuity between stages. As will be seen, this is also the case in Tables 10 and 11.

Because colonial grammarians typically did not mark VhC sequences, it is not clear whether Colonial Tzotzil preserved the preconsonantal *-b-*, or whether the general phonological change *b > Ø/___C* had already occurred, although it is likely that the *-b-* had already disappeared.

The Colonial Tzotzil **-ey*, functioning first as an intransitive positional and then as a passive, mirrors Chol's *-tyäl/-le*, also functioning first as an intransitive positional and second as a passive. Just as the reflex of **-V₁y* is a passive and an intransitive positional in Colonial Tzotzil, so **-V₁y* went from an intransitive positional to function as a passive and mediopassive in the history of Ch'olti'an, as shown in Table 7.

Nonetheless, Colonial Tzotzil still made an overall distinction between the intransitive positional and the passive. The distinction was that the intransitive positional had only a single marker, namely *-ey*, whereas the passive developed three forms: *-ey*, *-at*, and (rarely) *-ot*. Specifically, there were two types of passives: *-ey* only occurred with CVC transitive verbs (CVC-*ey*), whereas non-CVC transitives could only occur with *-at/-ot* (non-CVC-*at/-ot*). However, *-at/-ot* could also suffix CVC transitives, but *-ey* could not occur on non-CVC transitives. The grammatical rules were: if *-ey*, then CVC transitive; if non-CVC transitive, then *-at/-ot*.

Of Colonial Tzotzil, Haviland (1988:114) notes, “the *-at* suffix also occurs from time to time with monosyllabic verb stems.” In Modern Tzotzil the *-at* is much more common on CVC transitives than in colonial times: “In general, the difference between the two passive suffixes is due to dialectal differences, although the suffix *-at* is used more with multisyllabic and derived stems while the suffix *-e* [*<* Colonial *-ey**>*] is used with monosyllabic stems” (Haviland n.d.). As will be shown below, the process is complete in Tzeltalan: Tzendal and Tzeltal have a single passive, *-ot*, which occurs on both CVC and non-CVC transitives.

In Modern Tzotzil, the distinction between the intransitive positional and the passive is now complete, such that the Colonial *-ey* intransitive positional is realized as *-i*, and the reflex of Colonial *-ey* of the passive is simply *-e*.⁶

The History of Tzendal/Tzeltal

Tzendal and Tzeltal followed a similar trajectory, though the paths are a little different. One striking difference is that Modern Tzeltal has *-b-...-aj* for the intransitive positional, against Tzotzil *-i*. Historically, *-b-...-aj* is semantically but not formally linked to the intransitive positional **-V₁y*. The Tzendal data show *-V₁y* to occur with the prototypical intransitive positionals, describing concrete orientations, object, stances, and poses of animate and

⁶ The loss of the final *-y* (*-ey > -e*) is a normal sound change, as shown in the following: Tzendal *<iquitay>* *ikitay* ‘leave’; Tzotzil *ikta* ‘abandon, leave, give up, renounce’; Tzendal *<mac bey cit>* ‘deceive’; Tzotzil *machbe sat* ‘act behind someone’s back’; Colonial Tzeltal *ak'bey* ‘give to’; Modern Tzotzil *ak'be* ‘give to.’

inanimate objects, such as ‘sit’ <chubuy>, ‘hang’ <ghibiy>, ‘squat’ <chotoy>, and the like. The adjectival positional was <chubul>, <ghibil>, <chotol>, and so on. The transitive positional was <chuban> *chubban*, <ghiban> *jibban*, <chotan> *chobtan*, etc.

On the other hand, the Tzendal *-h...-aj* (strictly preserved from Common Cholan-Tzeltalan **-h...-aj*) was a marked intransitive positional. The semantic referents of the *-h...-aj* intransitive positionals were more apt to describe abstract cognitive outlooks, perspectives and points of view. Furthermore, there are sharp formal differences. Contrast *-h...-an* with *-h...-aj-tes*: <namal> ‘shame,’ <namagh> *nabmaj* ‘be ashamed,’ <namaghtez> *nabmates* ‘cause someone to be ashamed;’ <lamal quinal> ‘time of peace;’ <lamaghtez> ‘to pacify, tame’ (Tzeltal *lamal* ‘peaceful,’ *labmaj* ‘to become calm,’ *labmajtes*, ‘to calm someone/something’); <zcomol> ‘short,’ <comogh> *kobmoj* ‘to become short,’ <comoghtez> ‘to make short.’ Table 8 (next page) summarizes:

	unmarked	marked
ADJECTIVE	<i>-V₁l</i>	<i>-V₁l</i>
INTRANSITIVE	<i>-V₁y</i>	<i>-h...-aj</i>
TRANSITIVE	<i>-h...an</i>	<i>-h...-aj-tes</i>

Table 8: Showing the Unmarked and Marked Transitive Positionals in Tzendal.

By modern times, however, the marked *-h...-aj* had totally displaced the historical *-V₁y* as the unmarked means of indicating the intransitive positional as shown in Table 8. It is worth noting, however, that a version of *-V₁y* also persists as an intransitive positional in Modern Tzeltal, but in the form *-V₁y-in*, e.g. *kej-ey-in* ‘to kneel;’ *wutz-uy-in* ‘to sit’ (Kaufman 1971:53).

Tzendal	Tzeltal
<nacay> <i>nak-ay</i> ‘sit down’	<i>na-h-k-aj</i> ‘sit down’
<Ghibiy> <i>jib-iy</i> ‘hang’	<i>ji-h-b-aj</i> ‘hang’;
<ghocoy> <i>jok’-oy</i> ‘hang’	<i>jo-h-k’-aj</i> ‘hang’;
<nighiy> <i>nij-iy</i> ‘lean,’	<i>nij-aj</i> ‘lean’;
<tequey> <i>tek’-ey</i> ‘stand up’	<i>te-h-k’-aj</i> ‘stand still;’
<catagh> <i>k’at-aj</i> ‘change’	<i>k’a-h-t-aj</i> ‘change’;
<quegh-ey> <i>kej-ey</i> ‘kneel down’	<i>kej-aj</i> ‘kneel down;’
<cuxay> <i>kux-ay</i> ‘live’	<i>kux-aj</i> ‘live.’

Table 9: Showing the Unmarked Transitive Positionals in Tzendal and Tzeltal.⁷

⁷ The Tzendal forms are from Ara (1571) and the Tzeltal forms are all from Slocum et al. (1976) with the exception of *nabkaj*, which is from Smith (1999).

The intransitive positional $*-V_{1y}$ was displaced by the more marked intransitive positional, $*-h-...-aj$, as shown in Table 9 (previous page).

It is noteworthy that Modern Tzotzil has two passive markers, $-at$ (occurring with CVC *and* with non-CVC transitives) and $-e$ (occurring *only* with CVC transitives), whereas Tzeltal—unlike most Mayan languages—has only the single marker $-ot$, for both CVC and non-CVC transitives. The history of Tzotzil suggests how this may have happened.

The passive morpheme $-at$ marked non-CVC transitives in Colonial Tzotzil, but it also occurred rarely with CVC transitives. In modern times, however, in the Chamula and Huixtan dialects, the reflex of $-ey$ for CVC transitives has been lost, such that $-at$ occurs on both non-CVC and CVC transitives (Cowan 1969; Cowan and Merrifield 1968). Like Tzeltal, $-ot$ occurs on both CVC and non-CVC transitives in the Bartolome dialect (Sarles 1966). In Zinacantan, $-at$ occurs both on CVC and non-CVC transitives, whereas $-e < -ey < *-V_{1y}$, is restricted to CVC transitives (Robertson, field notes). Like other Tzotzil dialects, even in Zinacantan, the $-e$ passive on CVC transitives is plausibly headed to obsolescence, since $-at$ is increasingly commonplace on CVC transitives.

Therefore, the most reasonable explanation for the disappearance of an earlier $*-V_{1y}$ on CVC transitives in Tzeltal is that the non-CVC transitive $-ot$ replaced it, as $-at$ did in Huixtan Tzotzil.

		Com.Chol-Tze $*-h-$ 1,4
$*-V_{1y} \sim -h-...-aj$	Com.Chol-Tze $*-V_{1y} \sim -h-...-aj$ 0,3	*Pre-Tze :: Colon.Tzo $*-V_{1y}, -at, -ot :: -ey, -at, -ot$ 1,3
$*-V_{1y} \sim -h-...-aj :: -ey$	*Pre-Tze :: Colon.Tzo $*-V_{1y} \sim -h-...-aj :: -ey$ 0,2	Tzendal :: Mod.Tzotzil $-ot :: -e, -at$ 1,2
$-V_{1y} \sim -h-...-aj :: -i$	Tzendal :: Mod.Tzotzil $-V_{1y} \sim -h-...-aj :: -i$ 0,1	Modern Tzeltal $-ot$ 1,1
$-h-...-aj$	Modern Tzeltal $-h-...-aj$ 0,0	1,0
	INTRANSITIVE	PASSIVE
	POSITIONAL	

Table 10: Showing the History of the Intransitive Positional and Passive in Tzeltal.

The History of the Intransitive Positional and Passive in Wastekan

As stated earlier, it is beyond this paper's scope to give all relevant data that argue for a genetic connection to Common Cholan-Tzeltalan. It is, however, well within the purview of this paper to examine the intransitive positional and the passives/mediopassives, as shown in Table 11:

Y-axis: Form $*-V_{1y}$ $*-[eui]y$ $-[eui]y$	Com. Tzeltalan INTR.POS, $*-V_{1y}$ 0,2	pre-Huastec PASSIVE, $*-at$ / $*-[eui]y$ 1,2	Mod.Huastec MED.PASS, $-[eui]y$ 2,2
	pre-Huastec INTR.POS, $*-[eui]y$ 0,1	Mod.Huastec PASSIVE, $-at$ 1,1	Impossible 2,1
	Mod.Huastec INTR.POS, $-[eui]y$ 0,0	Impossible 1,0	Impossible 2,0
X-Y: Language	'intrans.posit'	'passive'	'mediopassive' X-axis: Funct

Table 11: Showing the History of the Intransitive Positional and Passive in Wastekan.

Wastek has a history strikingly similar to the Tzeltalan languages. Like Tzotzil, Wastek lost the vowel harmonic intransitive positional $*-V_{1y}$, in favor of $-ey$ —with the proviso that there are a few instances of $-uy$ and $-iy$. Consider the etymological cognates: Wastek *mutzuul* 'curly hair' and *mutzu-uy* 'it shrank' (Edmonson 1988:640, 636), against Modern Tzotzil *mutzuul* 'drawn up (arms, legs, caterpillar), *mutzi iv.* 'be curled up,' (Laughlin 1988:242); Colonial Tzotzil *mutzey jol iv.* '[his] hair is curly,' Tzendal *mutzu-ub* 'to curl up' (Ara 1571:117). Wastek *xotool* 'too thick (tree)'; *xotey* 'become fat' (Edmonson, personal communication, example from Kaufman). Colonial Tzotzil *xotol* 'arched, coiled, round (bread, hoop),' *xotey* 'arquearse [to arch], enroscarse [to coil] (la culebra u otra cosa asi [a snake or anything like it]);' Modern Tzotzil *xotol* 'in a roll (thread, wire), twisted to one side (neck, ... top of gourd) ... sagging (abandoned house),' *xoti* 'be in an arch, roll,' Tzendal *xotol* 'enroscado [coiled].'

Also, like Tzotzil, the intransitive positional $-ey \sim -uy \sim -iy$ came to mark the passive in pre-Wastek. Furthermore, like Tzotzil, the $-at$ morpheme came to mark the passive for both CVC transitives and non-CVC transitives. This is significant for several reasons. First, the emergence of the new $-at$ passive prompted the historical $-ey$ passive to become a mediopassive, just as the appearance of the new $-b...-aj$ passive in Ch'olti'an spurred the historical $*-V_{1y}$ passive to shift to the more marked mediopassive function, as shown below.

Second, like Tzotzil and Tzendal, the reflexes of the intransitive positional/passive/medio-passive $*-V_1y$ are restricted to the CVC class of transitive verbs, whereas the *-at* passive started out as a non-CVC transitive marker and spread to the CVC transitives. This, of course, for historical reasons: all positionals have CVC roots, so that when they became passives, the reflexes of $*-V_1y$ were restricted to the CVC transitives. Given the relationship between CVC and non-CVC transitives, the passives of non-CVC transitives displaced the reflexes of $*-V_1y$, but never the reverse.

Chance seems an unlikely explanation for such remarkable correspondences; genetic filiation or even borrowing due to immediate proximity is far more likely.

The History of the Intransitive Positional and Passive in Western Cholan

The history of Acalan Chontal is shown in Table 12 (below). Due to the lack of earlier attestations, it is possible that there are unknown earlier stages but one cannot reconstruct the unknown. However, the phonological loss of the preconsonantal $*-b-$ triggered the shift away from the earlier $*-b-$ passive, making necessary a new passive, which was $-k$.⁸

Y-axis: Form ↑ $*-V_1y$ $-wan$ ↓	Com. Tzeltalan INTR.POS, $*-V_1y$ 0,1	Acalan Chontal PASSIVE, $-k$ 1,1
	Acalan Chontal INTR.POS, $-wan$ 0,0	Impossible 1,0
X-Y: Language ○ →	‘intrans.posit’	‘passive’
	←	X-axis: Function →

Table 12: Showing the History of Acalan Chontal.

Note also that $-wan$ displaced the historical $*-V_1y$ as the intransitive positional in Western Cholan. Chol shared this history with Chontal.

The history of Chol is shown in Table 13. As the intransitive positional is wont to do, the original $-b-$ became a passive marker in pre-Tzeltalan—and remains so to this day, with the proviso that by modern times, the newly minted intransitive positional $-tyäl/-le$ came to mark the passive, where the historical pre-consonant $-b-$ had been lost before fricatives. Where

⁸ Note, however, that Osorio May (2005:327) lists a series of CVC verbs ending in k that take an $-b-$ passive, both in the completive and incomplete, as e.g. *mubk-i* ‘it was buried,’ and *mubk-an* ‘it is buried.’ Because there is a phonological process of dissimilation such that k becomes b before another k , it is probable that the $-b-$ is the result of this process: *muk-k-* > *mub-k-*. However, Osorio May (2005:151) treats it as *mu-b-k-*, suggesting that it is a reflex of an earlier passive, since there are other verbs that do not undergo this process: *lok-k-i* ‘it was folded over.’ (See also *tzik-k-* ‘be read;’ *tz’ok-k-* ‘be detached (p. 329). We should not dismiss the possibility, however, that the forms like *mubk-* are not a preservation of the ancient passive, but rather forms like *lok-k-* are the result of an inconsistent sound change.

Chontal lost the pre-consonantal *h*, a new passive *-k* was pressed into service. Correspondingly, in Chol, where the pre-consonantal *h* was lost only before fricatives, a new passive was recruited, in this case from the intransitive positional.

Y-axis: Form			
	<i>*-h-</i>		Common Tzeltalan PASSIVE, <i>*-h-</i> 1,3
	<i>*-V₁y</i>	Common Tzeltalan INTR.POS, <i>*-V₁y</i> 0,2	Western Cholan PASSIVE, <i>*-h</i> 1,2
	<i>*-wan</i>	Western Cholan INTR.POS, <i>*-wan</i> 0,1	Chol PASSIVE, <i>-tyäl</i> , <i>-le</i> / <i>__fricative</i> <i>-h-</i> / <i>__nonfricative</i> 1,1
	<i>-tyäl, -le</i>	Chol INTR.POS, <i>-tyäl, -le</i> NEG.IMPER, <i>-wan</i> 0,0	Impossible 1,0
	X-Y: Lang	‘intrans.posit	‘passive’
		X-axis: Function	

Table 13: Showing the History of Chol.

The Chol *-wan* was undoubtedly an earlier marker of the intransitive positional in Western Cholan because it remains quiescently so in the negative imperative (Vásquez-Álvarez 2002:157): *buch-i* sit.down-IMPERATIVE ‘sit down?; *mach buch-wañ-ety* NEGATIVE sit.down-INTRANSITIVE.POSITIONAL.NEG ‘don’t sit down’. As will be shown below, borrowing and *not* inheritance produced the later appearance of *-wan* in Ch’olti’an.

Common Tzeltalan to Classical Ch’olti’

The three categories from Classical Ch’olti’ to be discussed below are the MEDIOPASSIVE, the PASSIVE and the INTRANSITIVE POSITIONAL. The etymologies of each of these core grammatical categories offer a logical, integrated view of how they came to exist in their attested Classical form and function. This history reaffirms their innovative and unique status within the Ch’olti’an family.

The Intransitive Positional: *-laj* and *-wan*

The following discussion shows that the earliest writers of the script did not have *-wan* in their grammar, since it was an innovation belonging to Western Cholan. Evidence from the

hieroglyphic script shows *-laj* to have been the first attested expression of the Classical Ch’olti’ intransitive positional, and *-wan* to have been recruited later—as a borrowing from Western Cholan. First attested in or near Chontal/Chol territory (Tortuguero), *-wan* spread eastward across the Maya Mountains ultimately displacing the earlier *-laj* in the far Eastern regions of the Classic Maya territory (Hruby and Child 2004:21). The evidence demonstrates that *-wan*, a Western Cholan innovation, came into Ch’olti’an *not* by way of inheritance, but only by later borrowing.

Early Classic	Later in the Classic	Modern
*-wan (Western Cholan)	*-wan (Western Cholan)	-wan (Chontal) mach ... -wan, -le/-tyäl (Chol)
-laj (Ch’olti’an)	-laj ~ -wan (Ch’olti’an)	-wan (Ch’olti’an)

Table 14: Showing the Relationship between *-wan* and *-laj*

The behavior of the shift from *-laj* to *-wan* is typical of a grammatical borrowing. For example, the displacement of earlier English *hie, hem, hiera* by the Scandinavian *they, them* and *their* is similar to the history of *-laj* and *-wan* in several aspects: Both borrowings involve grammatical morphemes, both come from distinct genetic lineages, both start at a given geographic locus, and both borrowings spread somewhat unevenly—but ultimately, the borrowing displaces the native morpheme:

They [*they, them* and *their*] were first used in the northern dialects, and spread southwards during the Middle English period: *they* spread faster than the other two, and Chaucer and his contemporaries in South-East England in the fourteenth century used *they* for the nominative but English forms like *hem* and *hire* for ‘them’ and ‘their’. The form *hem* meaning ‘them’ still survives as *’em* (initial /h/ being regularly lost in unstressed words). (Barber 2000:133)

The question of language and dialect is not the issue here; the issue is that certain genetic markers differentiated Scandinavian from early English, in the same way that unique etymological factors distinguished Western Cholan from Ch’olti’an. The Western Cholan *-wan* in the gradual displacement of Ch’olti’an *-laj* is one of them; others are discussed below. This borrowing shows that Western Cholan was distinct from the language spoken by the writers of the Mayan hieroglyphs.

The Passive: *-b-...-aj*

As pointed out above, Common Cholan-Tzeltalan had two intransitive positionals, one basic (*-V₁y) and the other secondary (*-b-...-aj). From colonial to modern times, *-b-...-aj* displaced *-V₁y in Tzeltalan; this is an attested fact based on the written record. Similarly, from Pre-Classical Ch’olti’ to Classical Ch’olti’, *-b-...-aj* displaced the earlier *-V₁y intransitive positional. Lacadena (2004:169) provides epigraphic evidence that *-b-...-aj* was historically an intransitive positional in early Ch’olti’an. An early Classic inscription from

Tikal shows this: **CHUM-ja** *chu-[h]-m-aj* sit-INTRANSITIVE.POSITIONAL-sit-INTRANSITIVE.POSITIONAL ‘he sits’. This, according to Lacadena, represents a fossilized “throwback” from Pre-Classical Ch’olti’ times.⁹ Furthermore, hieroglyphic data at Tonina provide clear instances of the intransitive positional **-b-...-aj* throughout Classic times. Whereas the intransitive positional **-b-...-aj* is found only in early Tikal texts as an archaic trait retained from pre-Classical Ch’olti’, its attestation at Tonina down to Late Classic times is apparently a dialectal preservation, possibly influenced by the Tzeltalan intransitive positional **-b-...-aj* (see Lacadena 2004:170, note 90, and Wichmann and Lacadena 2005).

Such fossilization is a natural and oft-occurring fact in the synchronic grammar of languages. In English, for example, one can say, (1) “Have you enough money to finance the operation?”, (2) “Do you have enough money to finance the operation?”, (3) “Do you make enough money to finance the operation?”, but never, (4) *“(Make you enough money to finance the operation?)”. In modern English it is acceptable to say (1) above, whereas (4) is never acceptable. The unmarked verb *have* preserves both the original way of forming questions in English, whereas the more marked *make*, like all other lexical verbs, is constrained to do-support. Similarly, the unmarked positional *chum* preserves the old **-b-...-aj*, but also uses the new *-laj* to mark the intransitive positional. In the dialect used at Tikal **-b-...-aj* was replaced by *-laj*, whereas in Tonina **-b-...-aj* was preserved through time, just as subject-verb inversion and do-support are found on the unmarked English verb *have*.

The way that the intransitive positional **-b-...-aj* became a passive is diagrammed in Table 15. That an intransitive positional can become a passive has been conclusively demonstrated, both in Chol and in Colonial Tzotzil above, as well as in Milpas Altas Kaqchikel, and in Q’eqchi’ below.

Y-axis: Form <i>*-h-...aj</i> <i>-laj/-wan</i>	pre-Classical Ch’olti’ INTR.POS, <i>*-h-...aj</i> 0,1	Classical Ch’olti’ PASSIVE, <i>-[h]-...aj</i> 1,1
	Classical Ch’olti’ INTR.POS, <i>-laj/-wan</i> 0,0	Impossible ‘passive’, <i>-laj/-wan</i> 1,0
	‘intrans. positional’	‘passive’

X-axis: Function

Table 15: Showing the Development of the Intransitive Positional and Passive in Classical Ch’olti’

The Mediopassive: $-V_1y$

The intransitive positional $-V_1y$ in Common Cholan-Tzeltalan became: (a) an intransitive positional in Pre-Classical Ch’olti’; (b) a passive in Pre-Classical Ch’olti’; and finally (c) a mediopassive. The Common Cholan-Tzeltalan $*-V_1y$ becoming a passive and mediopassive follows the well established pattern shown above.

⁹ This is found on the Hombre de Tikal statuette, glyph C8.

Y-axis: Form $*-V_{ly}$ $*-h-...aj$	Com. Tzel-Tzotz INTR.POS, $*-V_{ly}$ 0,1	Pre-Classical Ch'olti' PASSIVE, $*-V_{ly}$ 1,1	Stage II Classical Ch'olti' MED.-PASSIVE, $-V_{ly}$ 2,1
	Pre-Classical Ch'olti' INTR.POS, $*-h-...aj$ 0,0	Classical Ch'olti' PASSIVE, $-[h]-...aj$ 1,0	Impossible MED.-PASSIVE, $-h-...aj$ 2,0
X-Y: Lang	'intrans. positional'	'passive'	'medio-passive' X-axis: Function

Table 16: Showing the History of $*-V_{ly}$ and $*-h-...aj$ in Pre-Classical Ch'olti' and Classical Ch'olti'.

A passive morpheme acquiring the restricted function of mediopassive is readily found elsewhere in Mayan. For example, in Yukatekan a new passive, $-b$, displaced the historic $*-b$ -passive resulting in an $-b$ -mediopassive (see Table 17 on the following page). “The passive voice marker $-b$ ’ metathesized with the final consonant of the root, resulting in a CV(V)C stem shape [Justeson 1989:30 and Kaufman 1991:30–31]. Only Itzaj and Mopan retain the original $-b$ ’ passive marker suffix” (Hofling 2006:382). In Yukatek, the forms are $C\acute{V}VC < *CVhC$ and $CVVC < *CVC-Vb$. Similarly, in Tzeltalan the historic $-b$ -passive became a mediopassive in response to the innovation of the $-ot$ passive. Furthermore, in Awakatek the historical form was $*-b-$; new passives $-x/-l$ came into the language, resulting in the $-b$ -passive being restricted to a mediopassive function. “There is also a nonproductive mediopassive occurring with a few RTVs [CVC transitives], which is indicated by lengthening the root vowel; historically ... the lengthened vowel comes from an infix $-b$ - (e.g. *ha qatꞤ* ‘it tore’ < *qatꞤ* RTV ‘tear’)” (Dayley 1981:32). Note that $-b-$ is the passive marker in the closely related K’ichee’an language family. Furthermore, in Wastekan the historical $*-ey$ passive (from the intransitive positional) became a mediopassive when it was displaced by the non-CVC passive $-at$.

The Entire Picture

An established tenet of the comparative method is found in a celebrated statement of Antoine Meillet concerning the methodological necessity of attending to the coherent nature of language:

For all the groups now established and studied in a proper manner, the way to make a comparison is to posit an initial ‘common language.’ It means nothing to posit only partial comparisons: each linguistic fact is part of a system where everything holds together. We must not compare one fact of detail with another fact of detail, but one linguistic system with another system. (Meillet 1966:26, translation by the author)

Meillet—the master comparatist—makes it clear that first one has to reconstruct a system from which the descent of all its languages can logically be explained: “[I]t is thus necessary to reconstruct the stem of the ‘common language,’ as far as it is possible” (Meillet 1966:43). Second, one must never ignore the coherent nature of language systems in the comparative method: “[I]t is necessary to see how to this system are opposed the morphological systems ... of the languages into which the initial language was transformed” (Meillet 1966:44).

Y-axis: Form ↑ * <i>-h-</i> * <i>-h-</i> * <i>-ey-</i> * <i>-h-</i> * <i>-Vb</i> * <i>-ey/-ot/-at</i> * <i>-at</i> * <i>-x/-l</i> ○ →	Pre-Yukatekan PASSIVE, * <i>-h-</i> Pre-Tzeltalan PASSIVE, * <i>-h-</i> Pre-Wastek PASSIVE, * <i>-ey</i> Pre-Awakatekan PASSIVE, * <i>-h-</i> 0,1	Yukatekan MEDIOPASSIVE, * <i>-h-</i> Tzeltalan MEDIOPASSIVE, * <i>-h-</i> Wastek MEDIOPASSIVE, * <i>-ey</i> Awakatekan MEDIOPASSIVE, * <i>-h-</i> 1,1
	Yukatekan PASSIVE, * <i>-Vb</i> Tzeltalan PASSIVE, * <i>-ey/-ot/-at</i> Wastek PASSIVE, * <i>-at</i> Awakatekan PASSIVE, * <i>-x/-l</i> 0,0	Impossible MEDIOPASSIVE, * <i>-Vb</i> Impossible MEDIOPASSIVE, * <i>-ey/-ot/-at</i> Impossible MEDIOPASSIVE, * <i>-at</i> Impossible MEDIOPASSIVE, * <i>-x/-l</i> 1,0
	‘passive’	‘mediopassive’
	X-Y: Language	X-axis: function

Table 17: The Shift from the *-h-* Passive to Mediopassive in Yukatekan, Tzeltalan, Wastek and Awakatekan.

The entire system, passing from Common Tzeltalan through Common Cholan-Tzeltalan and Pre-Ch’olti’ to Classical Ch’olti’, can be given in Table 18:

Y-axis: Form ↑ * <i>-b-</i> * <i>-V_ly</i> * <i>-b-...-aj</i> * <i>-laj/-wan</i> ○ →	Com-Chol-Tzelt INTR.POS, * <i>-b-</i> 0,3	Com-Cholan PASSIVE, * <i>-b-</i> 1,3	pre-Ch’olti’ MED.PASS, * <i>-b-</i> 2,3
	Com-Cholan INTR.POS, * <i>-V_ly</i> 0,2	pre-Ch’olti’ PASSIVE, * <i>-V_ly</i> 1,2	Classical Ch’olti’ MED.PASS, * <i>-V_ly</i> 2,2
	pre-Ch’olti’ INTR.POS, * <i>-b-...-aj</i> 0,1	Classical Ch’olti’ PASSIVE, * <i>-b-...-aj</i> 1,1	Impossible MED.PASS, * <i>-b-...-aj</i> 2,1
	Classical Ch’olti’ INTR.POS, * <i>-laj/-wan</i> 0,0	Impossible PASSIVE, * <i>-laj/-wan</i> 1,0	Impossible MED.PASS, * <i>-laj/-wan</i> 2,0
X-Y: Lang	INTR.POSIT	PASSIVE	MEDIOPASSIVE
	X-axis: Function		

Table 18: The History of the Intransitive Positional from Common Ch’olan-Tzeltalan to Classical Ch’olti’.

The three morphemes of Classical Ch’olti’, *-laj* (with later *-wan*) ‘intransitive positional,’ *-h-...-aj* ‘passive,’ and **-V_y* ‘mediopassive’ all have their distinct etymologies, but each also has a cohering and coherent history.

The History of the Intransitive Positional and Passive in Q’eqchi’

It would be a mistake to ignore Q’eqchi’, since it followed an evolutionary pattern identical to that found in Chol, Colonial Tzotzil, Tzeltal, Wastek, Kaqchikel and the Ch’olti’an languages: the intransitive positional became a passive. Specifically, the intransitive positional in the Mamean and K’ichee’an languages was historically **-ee’*.¹⁰ For example, in Mam and Awakatek it is *-ee’*, as it is in Cunén K’ichee’; in Kaqchikel it is *e’*. It is noteworthy, for reasons explained below, that in Q’eqchi’ the newly introduced intransitive positional was *-la*, and the passive was *-e’*.

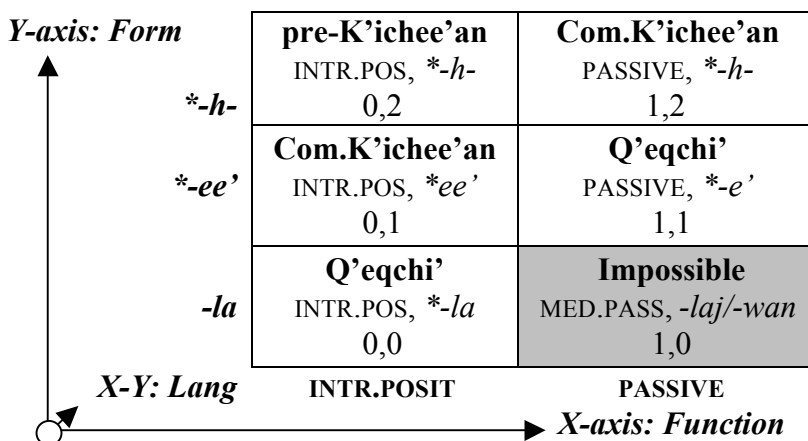
Y-axis: Form 	*-h-	pre-K’ichee’an INTR.POS, <i>*-h-</i> 0,2	Com.K’ichee’an PASSIVE, <i>*-h-</i> 1,2
	*-ee’	Com.K’ichee’an INTR.POS, <i>*ee’</i> 0,1	Q’eqchi’ PASSIVE, <i>*-e’</i> 1,1
	-la	Q’eqchi’ INTR.POS, <i>*-la</i> 0,0	Impossible MED.PASS, <i>-laj/-wan</i> 1,0
		INTR.POSIT	PASSIVE

Table 19: Showing the History of Q’eqchi’.

The replacement of the passive with the intransitive positional is apparent again, but in this instance the change occurred in the K’ichee’an subgroup, which is genetically distant from Cholan-Tzeltalan. Given that distance, the change is surely attributable not only to the paradigmatic “priming” of the grammatical system, but also to borrowing—not just any borrowing, however, but a grammatical borrowing.

It is generally accepted that free morphemes are more susceptible to borrowing than bound morphemes. Foley (1986:262) makes the point: “Independent words, whether basic vocabulary or not, are much more subject to borrowing than are bound morphemes which are part of an entire paradigmatic system.” Lexical borrowing typically occurs before grammatical borrowing, especially where the grammatical morphemes are bound morphemes. There is ample evidence that a number of lexical items have been absorbed by Q’eqchi’, specifically from the Ch’olti’an (Eastern Cholan) subgroup of Chol. Wichmann and Brown (2003:69) say, “Among all the possible Cholan donors, the Eastern Cholan language

¹⁰ It is possible that *ee’* was historically **-eeb*. For example, the form in Ixil is *-Vb*, e.g. *kat pak’-eb-in* COMPLETIVE *face.up-ABS1SG* ‘I lay down face-up;’ *kat xon-eb-in* COMPLETIVE *sit-ABS1SG* ‘I sat down;’ *pes-eb-yin* *kneel-ABS1SG* ‘I knelt down.’ The etymology is likely related to the inchoative *-b-*, e.g. *sab-b-i* ‘it became white.’

Ch'olti' ... seems to have contributed a disproportionately large number of loans to Q'eqchi'."

However, Ch'olti'an influence on Q'eqchi' was not limited to lexical items. Certain grammatical structures were also incorporated. For example, in the history of Q'eqchi' the pronoun *x...eb* (ERG3SG...ABS3PL) displaced Common Mayan **ki-* ERG3PL: Q'eqchi' *x-tz'i'-eb* 'their dog,' against Kaqchikel *ki-tz'i'* 'their dog' (Robertson 1979, 1983). Common Mamean-K'ichee'an had **ki-* as the Erg3pl marker (inherited from Common Mayan), which means that Q'eqchi' *x...eb* is the innovative form. The shape of the bipartite morpheme *x...eb* was undoubtedly due to the paradigmatic structure of the Mayan pronominal system itself, but bilingualism was also a factor, since it is a perfect calque on the Cholan *u...ob*: Erg3pl = Erg3sg...Abs3pl. The exact date of the change is at this point not known because there is no written attestation to which the date could be tied.

It is possible to date another grammatical borrowing, however. The appearance of *-la*, the innovative Q'eqchi' intransitive positional, corresponds formally and functionally to *-laj*, the earliest attested intransitive positional of Classical Ch'olti'. Wichmann and Hull (n.d.) argue that "Ch'olti' would not have become crystallized as an individual language until the end of the Classic Period," and therefore, "much of the interaction between Ch'olti' and Q'eqchi' speakers took place in the Postclassic, but before the arrival of the Spaniards."

This entire discussion points to the fact that features central and unique to Ch'olti'an grammar were present in the script at the outset (not the end) of the Classic, and in this instance, the Q'eqchi' borrowing of *-la* points to the historical presence of a distinct Ch'olti'an trait that was present even before the first intelligible attestation of Classic Maya writing.

Following the evidence given by Houston et al. (2000), as well as the further documentation provided in this paper, Q'eqchi' borrowed from a "high" and sacred language, namely Classical Ch'olti', by way of calquing (the intransitive positional *-ee'* becomes a passive marker) and direct appropriation (Q'eqchi' *-la* from Classical Ch'olti' *-laj*). This observation does three things: First, it establishes an intimate relationship between Q'eqchi' and Classical Ch'olti'. Second, it establishes Q'eqchi' as a repository of the ancient intransitive positional *-laj* (which later became *-wan*, historically borrowed from Western Cholan). Third, it reconfirms the predominance of Classical Ch'olti' as a high, sacred language that influenced Q'eqchi' and other geographically contiguous languages.

Discussion

Wald (2007:845) avers, "[all of] the Cholan languages are descendants of the language of the Classic Period script" or in plain words, proto-Cholan = the language of the Mayan hieroglyphic script. In contrast, the claim made in this paper and elsewhere is that the Classic period script (Classical Ch'olti') is a descendant of Common Cholan (Houston and Robertson 2000; Law et al. 2009).

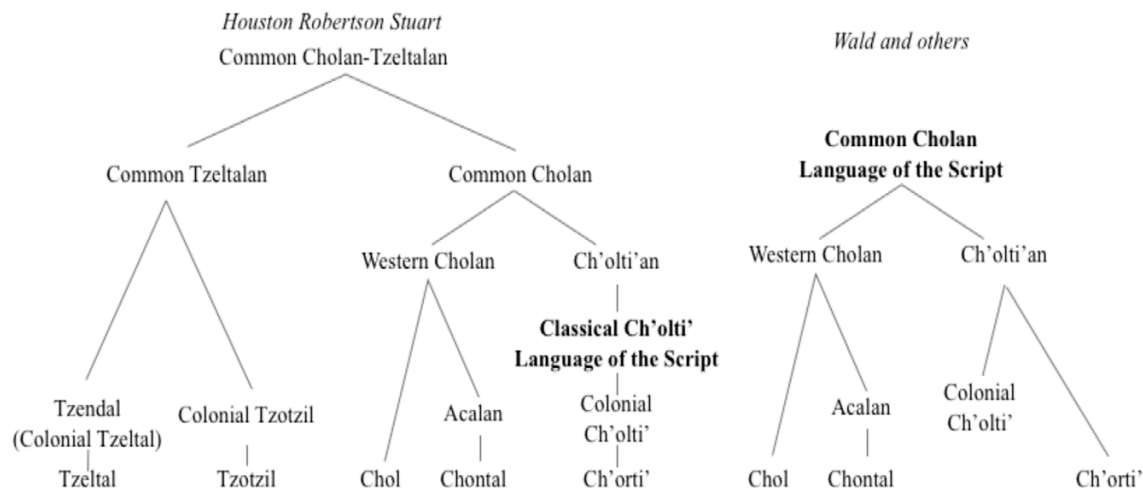


Figure 2: Contrasting the Placement of the Mayan Hieroglyphic Script in the Mayan Family Tree.

Figure 2 raises the question: Is it possible to validate either of the above hypotheses? The answer is “yes,” in consideration of Watkins’ assessment of the comparative method, which is “one of the most powerful theories about human language that has ever been proposed—and the one most consistently validated and verified over the longest period of time” (Watkins 1989:783).

Referring to the proper reporting of language history, Watkins notes the treacherous deficit that comes from doing isolated etymologies, which precludes any legitimate consideration of language as a coherent system:

We are accustomed to consider language as a cohesive system, *un système où tout se tient*, functioning in a temporal continuum. Hence historical description and analysis must be founded on the notion of linguistic history as a sequence of successive linguistic systems. Such a view permits us to come closer to an understanding of the totality of the language in its historical development, than does the centering of attention on individual forms alone, in other words, atomistic etymological speculation. ... Isolated comparisons between two languages are treacherous in historical linguistics. Even where they are correct, if the *structural contexts* of the forms compared are not themselves comparable, we know in essence no more about the history of the languages than before, namely, that they are cognate. (Watkins 1962:2, my emphasis)¹¹

In the same vein, Meillet (1925:ix) says, “like every other language, the differing parts of the Indo-European linguistic system constitute a composite where everything coheres—but

¹¹ Watkins’ remarks are an elaboration of what Meillet said almost a hundred years ago: “It is meaningless to posit only partial comparisons: each linguistic fact is a part of a system in which everything coheres. It would be a mistake to confront a particular linguistic fact with another given fact; rather one linguistic system should be correlated with another linguistic system” (Meillet 1925:12-13).

above all, it is all-important to understand the rigorous linkages.”¹²

Unfortunately, Wald’s account focuses on disparate etymologies and not on the logical progression of consequential linguistic systems. His account overlooks Meillet’s “rigorous linkages,” which beget passives from intransitive positionals and mediopassives from passives. Separate etymologies consequently turn a blind eye to the true nature of paradigmatic connections, thereby ignoring, for example, the obvious dual functions of Chol *-täl/-le*, which are ‘intransitive positional’ and ‘passive;’ or the only possible account of the historical Q’eqchi’ intransitive positional **-ee’* that became the passive *-e’*.

Ignoring the relevant data from Tzotzil and Tzeltal in equating the language of the script with Common Cholan, Wald (2007:837) concludes that **-b-...-aj* is the ancestor of the Ch’olti’an *-b-...-aj* and Chol *-b-* passive. Looked at as a singular linguistic fact disjointed from its paradigmatic congeners, the reconstruction is plausible. However, looked at as a system *où tout se tient*, Wald’s reconstruction cripples any systematic explanation of the Cholan relationship with the *relevant* data from its Tzeltalan correlatives: the Tzeltal mediopassive *-b-*, as well as the Tzeltal intransitive positional *-b-...-aj*.

Further etymological sundering incorrectly isolates other morphemes from their coherent systems. Wald (2007:286-287) sees an intransitive positional **-V₁Y* becoming a passive and then a mediopassive as “overly complex ... there is no need to reconstruct a stage during which it was used as a passive in order to justify the move from positional to mediopassive. Instead, positionals seem to be even closer semantically to mediopassives than they are to passives”.

Such a statement is rendered fictitious by inspection of the Chol data, which synchronically demonstrates not semantic closeness, but semantic *identity* of the intransitive positional with the passive; the same is true of Colonial Tzotzil. Diachronically, Wald’s statement does not hold up when the data from Q’eqchi’ and Awakatek are taken into account. Only by ignoring the relevant data from other Mayan languages is it possible for Wald to pass judgment that going from intransitive positional to passive to mediopassive is “overly complex.” In fairness to Wald, he does acknowledge, “Robertson argues for an intermediate passive stage between positional suffixes and mediopassive suffixes by analogy with a reconstructed diachronic development [of the passive] in Q’eqchi’,” but he then quickly dismisses the typological similarity out of hand by saying, “it is still an argument with only the force of analogy” (Wald 2007:287, n. 116). It is, of course, more than “force of analogy,” because in Chol, and Colonial Tzotzil, the identity is synchronic. Furthermore, as every comparatist knows, such typological argumentation is at the very core of the historical method.

Because grammatical morphemes *do* constitute systems *où tout se tient*, one must work on “the principle that the forms of a linguistic system at a given time can frequently be explained historically only by concentrating attention on the process of development” (Watkins 1962:2).

This paper identifies the cognate systems of the several archaic, colonial, and modern

¹² Comme pour toute autre langue, les différentes parties du système linguistique indo-européen forment un ensemble où tout se tient et dont il importe avant tout de comprendre le rigoureux enchaînement.

languages, reconstructs the system of Common Cholan-Tzeltalan shown in the tables, and then reconstructs forward demonstrating precisely how it was possible for the original system to have evolved into the several languages of the Tzeltlan, Cholan, and even K'ichee'an subgroups. The conclusion, among others, is that the language of Classic hieroglyphic writing was Ch'olti'an—specifically Classical Ch'olti'—which we have shown elsewhere is a daughter language of Common Cholan (Houston et al. 2000; Law et al. 2009).

In this vein, it is also important to recognize the role of borrowing in establishing genetic relationships. The relationship between the intransitive positional markers *-wan* (borrowed from Western Cholan by Classical Ch'olti') and *-laj* (borrowed from Classical Ch'olti' by Q'eqchi') provide stark evidence that the Western Cholan intransitive positional *never* fell from the lips of those who wrote the hieroglyphic script, and that Q'eqchi's intransitive positional *-la* was very likely an early borrowing from Classical Ch'olti'.

As Watkins (1990:292) rightly notes: “It is the history which is, *de facto*, the proof of the genetic relation.” Considering the several histories of descendant Common Cholan-Tzeltalan languages, it would be wrong to call the Mayan hieroglyphic script “Common Cholan” because the heart of its system of predication is uniquely Ch'olti'an, with highly significant grammatical items that never existed in the common era but were, rather, later innovations. It would be wrong to call it “Classical Western Cholan” because so far as I know, no one has ever found the script to have recorded anything unique to Western Cholan. If we were to make a Mayan family tree, it would be circular to call it “Epigraphic Mayan” because that name means nothing more than this: the language of the hieroglyphic script is the language of the hieroglyphic script. Its place in the Mayan family tree would remain, as before, unresolved. Classical *Ch'olti'* is the proper name, rather, because the relevant data given by the script is either Ch'olti'an or demonstrably borrowed from non-Ch'olti'an speech.

References

- Ara, Domingo de
1571 *Bocabulario en lengua Tzeltal*. Gates Collection. Box 64, Folder 7. Harold B. Lee Library. Brigham Young University.
- Aulie, H. Wilbur, and Evelyn W. de Aulie
1978 *Diccionario Ch'ol: Ch'ol - Español, Español - Ch'ol*. Mexico: SIL.
- Barber, Charles
2000 *The English language: a Historical Introduction*. Cambridge: Cambridge University Press.
- Campbell, Lyle, and Terrence Kaufman.
1985 Mayan linguistics: Where are we now? *Annual Review of Anthropology* 14:187–98.
- Coon, Jessica L.
2004 *Roots and Words in Chol (Mayan): A Distributed Morphology Approach*. BA thesis, Reed College.
- Dayley, Jon, P.
1981 Voice and Ergativity in Mayan Languages. *Journal of Mayan Linguistics* 2(2):3-82.

- Edmonson, Barbara
1988 *A Descriptive Grammar of Huastec (Potosino Dialect)*. Department of Anthropology, Tulane University.
- Foley, William A.
1986 *The Papuan Languages of New Guinea*. Cambridge: Cambridge University Press.
- Haviland, John B.
n.d. *Sk'op Sotz'leb: El Tzotzil de San Lorenzo Zinacantán*. <http://www.zapata.org/Tzotzil/>.
1988 It's My Own Invention: A Comparative Grammatical Sketch of Colonial Tzotzil. In *Great Tzotzil Dictionary of Santo Domingo Zinacantán, Volume I: Tzotzil-English*, edited by Robert M. Laughlin, pp. 79-121. Washington: Smithsonian Institution Press.
- Hofling, Charles A.
2006 A Sketch of the History of the Verbal Complex in Yukatekan Mayan Languages. *International Journal of American Linguistics* 72(3):367-396.
- Houston, Stephen D., John S. Robertson, and David S. Stuart
2000 The Language of the Classic Maya Inscriptions. *Current Anthropology* 41(3):321-338.
- Hruby, Zachary X., and Mark B. Child
2004 Chontal Linguistic Influence in Ancient Maya Writing: Intransitive Positional Verbal Affixation." In *The Linguistics of Maya Writing*, edited by Søren Wichmann, pp. 13-26. Salt Lake City: University of Utah Press.
- Justeson, John S.
1989 The Representational Conventions of Mayan Hieroglyphic Writing. In *Word and Image in Maya Culture. Explorations in Language, Writing, and Representation* (W. F. Hanks and D. S. Rice, editors), pp. 25-38. Salt Lake City: University of Utah Press.
- Kaufman, Terrence S.
1971 *Tzeltal Phonology and Morphology*. Berkeley: University of California.
1991 Notes on the structure of Yukateko and other Yukatekan languages. Ms.
- Knowles, Susan M.
1984 A Descriptive Grammar of Chontal Maya. Ph.D. Thesis, Tulane University.
- Kurylowicz, Jerzy.
1966 La nature des procès dits 'Analogiques.' *Acta Linguistica* 5. (1945- 49):121-138. Reprinted in Eric P. Hamp, Fred W. Householder, Robert Austerlitz, editors, *Readings in Linguistics II*. Chicago: University of Chicago Press, pp. 158-174.
- Laughlin, Robert M.
1988 *The Great Tzotzil dictionary of Santo Domingo Zinacantán: with grammatical analysis and historical commentary*. Smithsonian Contributions to Anthropology series, no. 31. Washington D.C: Smithsonian Institution Press.
- Lacadena, Alfonso
2004 Passive Voice in Classic Mayan Texts: CV-*h*-C-*aj* and -*n-aj* Constructions. In *The Linguistics of Maya Writing*, edited by Søren Wichmann, pp. 165-194. Salt Lake City: University of Utah Press.
- Law, Danny, John Robertson, Stephen Houston, and Robbie Haertel
2009 Most Maya Glyphs are Written in Ch'olti'an. In *The Ch'olti' Maya Area: Past and Present*, edited by Brent E. Metz, Cameron L. McNeil and Kerry M. Hull, pp. 29-42. Gainesville: University Press of Florida.

- Meillet, Antoine
1925 *La méthode comparative en linguistique historique*. Oslo: H. Aschehoug & Co.
- Mora-Marín, David
2009 A Test and Falsification of the ‘Classic Ch’olti’an’ Hypothesis: A Study of Three Proto Ch’olan Markers. *International Journal of American Linguistics* 75(2):115-157.
- Morán, Francisco
1695 *Arte en lengua Cholti que quiere decir lengua de milperos*. Gates Collection. Box 42. Harold B. Lee Library. Brigham Young University.
- Osorio May, José del Carmen
2005 Análisis de la morfología del yokot’an, “chontal” del poblado de Tecoluta, Nacajuca, Tabasco. MA thesis, Centro de Investigaciones Superiores en Antropología Social, México.
- Robertson, John S.
1979 Review of Quichéan linguistic prehistory, by Lyle Campbell. *Language* 55:936-938.
1983 From symbol to icon: The evolution of the pronominal system of Common Mayan to modern Yucatecan. *Language* 59:529-540.
- Robertson, John S. and Stephen Houston
2003 El problema del Wasteko: Una perspectiva lingüística y arqueológica. In *XVI simposio de investigaciones arqueológicas en Guatemala*, edited by Juan Pedro Laporte, Bárbara Arroyo, Héctor Escobedo and Héctor Mejía, pp. 723-733. Guatemala: Ministerio de Cultura y Deportes.
- Shklovsky, Kirill
2005 Person Marking in Petalcingo Tzeltal. BA thesis, Reed College.
- Slocum, Marianna C., Florencia L. Gerdel and Manuel Cruz Aguilar
1976 *Diccionario Tzeltal de Bachajón Chiapas*. Second edition. Coyoacán, Mexico: SIL.
- Smith, Joshua Hinmán
1999 *Manual of Spoken Tzeltal*. Translated and edited by Stuart P. Robinson and Madelief Bertens. <http://www.zapata.org/Tzotzil/>
- Stuart, David, Stephen D. Houston and John Robertson
1999 Recovering the Past: Classic Maya Language and Classic Maya Gods. *Notebook for the XXIIIrd Maya Hieroglyphic Forum at Texas*, pp. II.1-96. Austin: Art History, University of Texas.
- Suárez, Ruano Alberto
1892 *Idioma Chortí*. Box 42, Folder 7, Gates Collection, Lee Library. Brigham Young University.
- Swadesh, Morris
1953 The Language of the Archaeological Huastecs. *Notes on Middle American Archaeology and Ethnology* 4:223-227.
- Vásquez-Álvarez, Juan Jesus
2002 *Morfología del verbo de la lengua Chol de Tila, Chiapas*. MA thesis, CIASAS, México. <http://www.ciesasureste.edu.mx/Juan/Archivo.html>
- Wald, Robert F.
2007 The Verbal Complex in Classic-Period Maya Hieroglyphic Inscriptions: Its Implications for Language Identification and Change. Ph.D. Dissertation, University of Texas, Austin.

Watkins, Calvert

- 1962 The Sigmatic Aorist, *Indo-European Origins of the Celtic Verb*, Volume 1 Dublin: Institute for Advanced Studies.
- 1989 New Parameters in Historical Linguistics, Philology and Culture History. *Language* 65:783-799.
- 1990 Etymologies, equations, and comparanda: Types and values, and criteria for judgment. In *Linguistic Change and Reconstruction Methodology*, edited by Philip Baldi, pp. 289-303.
- 2000 Indo-European and the Indo-Europeans. In *The American Heritage Dictionary of the English Language*. Fourth Edition. Boston: Houghton Mifflin.

Wichmann, Søren and Kerry Hull.

- n.d. Loanwords in Q'eqchi', a Mayan language. For a volume edited by Martin Haspelmath and Uri Tadmor. PDF available at http://email.eva.mpg.de/~wichmann/wichmann_publ.html

Wichmann, Søren and Cecil H. Brown

- 2003 Contact Among Some Mayan Languages: Inferences from Loanwords. *Anthropological Linguistics* 45(1):57-93.

Wichmann, Søren and Alfonso Lacadena

- 2005 The Dynamics of Language in the Western Lowland Maya Region. In *Art for Archaeology's Sake: Material Culture and Style Across the Disciplines*, edited by A. Waters-Rist, C. Cluney, C. McNamee and L. Steinbrenner, pp. 32-48. University of Calgary Archaeological Association.

Wisdom, Charles

- 1950 *Materials of the Chorti Language*. Middle American Cultural Anthropology Microfilm Series 5, Item 28. University of Chicago Library.

Young, J. Michael (translator)

- 1992 *Lectures on Logic*. Cambridge: Cambridge University Press. (Translation of Immanuel Kant, 1791, *Logik*, in *Kant's gesammelte Schriften*, Bd. IX, Berlin and Leipzig: de Gruyter.)

Appendix

	Tzendal	Tzeltal	Colonial Tzotzil	Tzotzil	gloss
Positional	<liquil> lik-il <metzel> metz-el <nacal> nak-al <ghocol> jok'-ol <cunul> kun-ul	 metz-el nak-al jok'-ol kun-ul	<liquil> lik-il <metzel> metz-el <nacal> nak-al <ghocol> jok'-ol <cunul> kun-ul	 lik-il metz-el nak-al hok'-ol kun-ul	
Intransitive Positional	<liqu-iy> lik-iy <metzey> metz-ey <nacay> nak-ay <ghocoy> jok'-oy <cunuy> kun-uy	 na-h-k-aj jo-h-k'-aj	<liqu-ey> lik-ey <metzey> metz-ey <nakey> nak-ey <ghoquey> jok'-ey <cuney> kun-ey	 lik-i metz-i nak-i hok'-i kun-i	 lik 'hang' metz 'lie down' nak 'sit, reside' jok' 'hang, entrust' kun 'gather, pile up'
Transitive Positional	<lican> li-h-k-an <metzan> me-h-tz-an <nacan> na-h-k-an <ghocan> jo-h-k'-an <cunun> ku-h-n-an	 me-h-tz-an na-h-k-an ho-h-k'-an ku-h-n-an	<lican> lik-an <metzan> metz-an <catan> nak-an <ghocan> johk'-an <cunun> kun-an	 lik-an ba metz-an nak-an hok'-an kun-an	