Chapter 7

Grammaticalization of tense/aspect/mood marking in Yucatec Maya

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Maybe the most pervasive among the changes analyzable as cases of grammaticalization in the languages of the Yucatecan branch of the Mayan stock is the formation of auxiliaries that allow finer tense/aspect/mood distinctions than the status suffixes inherited from Proto-Mayan. It has been continually productive since colonial times. While this amounts to a replacement of the status system, it follows strictly language-internal patterns. And while the source constructions form a rather heterogeneous set, they converge onto a common TAM auxiliary pattern in Modern Yucatecan.

1 Introduction

This study is devoted to the grammaticalization of auxiliaries in Yucatec Maya, whose functional side is the formation of a complex tense/aspect/mood (TAM) system. In this, it aims at fulfilling several purposes at once. It is, in the first place, a contribution to a historical grammar of Yucatec Maya. To this end, it brings together a large set of data, contextualized in their historical situation. A side effect of this enterprise is a diachronic perspective on the system of present-day Yucatec Maya, which may, as usual, open an additional, viz. dynamic, dimension of understanding it. On the other hand, the analysis tries to systematize the facts in terms of a theory of grammaticalization so that they may become comparable with relevant facts of other languages. To secure understanding for the non-specialist, some elements of Mayan grammar will be explained in §3.

Some of the data used are actually in a diachronic relationship, viz. data from the history of Yucatec Maya. Most of the data of other Mayan languages belong

to recent stages of their evolution. Following established methodology, they will be projected onto the diachronic axis and be taken to represent stages of a development.

A word is necessary on the orthography. Yucatec Maya has had distinctive vowel length and tone at least for the period of its documented history, although it does not share tone with any of its sisters. Moreover, the glottal stop and /h/ are phonemes, and both can form a syllable coda. Since all of this is alien to Spanish, the orthography of the Colonial Yucatec Mayan sources hides important phonological information. These phonological properties have been marked consistently in the orthography only from the second half of the twentieth century on. For this reason and in order to facilitate diachronic comparison to the non-specialist, examples from Colonial Yucatec Maya are first quoted literally from the sources and then coupled with a representation in contemporary scientific orthography (which is, alas, not the one adopted currently by Mexican authorities; s. Lehmann 2015).

2 Prehistory and history of Yucatec Maya

The Mayan languages of today are spoken in a culture area called Mesoamerica. Some of the Mayan languages are so dissimilar that they may have branched off from the common stock as early as 2000 BC. The Yucatecan branch was the second to separate from the rest of the Mayan family. This took place during preclassical times in terms of Mayan history, at the latest about 1000 BC. Both genetically and geographically, the closest neighbor is the branch of the Ch'olan languages, which are clearly mutually unintelligible with the Yucatecan languages. The Yucatecan languages are spoken on the peninsula of Yucatán and in more southern regions of the lowland in Belize, the Petén region of Guatemala and the Mexican state of Chiapas. The internal subdivision of this branch is relatively recent. It has the form shown in Figure 1.

Mopán on the one hand and the other Yucatecan varieties are hardly mutually intelligible and are commonly regarded as different languages. The latter three varieties do not differ more from each other than British and American English. The period of their separation does not exceed a few hundred years and is, thus, far shorter than the period of separation of the dialects of German, British English or Italian. They are mutually intelligible and should be regarded as dialects of one language rather than as distinct languages.

Mopán split off at the end of the first millennium AD. The Itzá people apparently emigrated from the peninsula to the Petén in the fourteenth century,
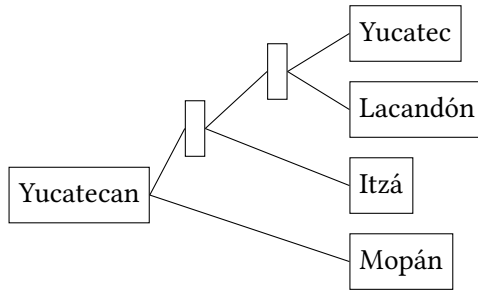
Figure 1: The Yucatecan branch of the Mayan languages

although keeping contact with Yucatec Mayas. The Lacandón people, too, are Mayas of Yucatán who retreated from the peninsula into the woods of Chiapas in order to avoid contact with the Mexican civilization. The closest relative of Yucatec is (Southern) Lacandón. It is a dialect that split off the main variety in the 18th century and preserves some archaic traits. The periods of the history of Yucatec Maya itself may be depicted as in Figure 2.
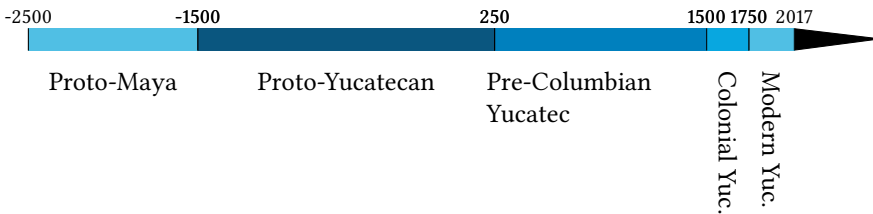

Figure 2: Periods of Yucatec language history

The inscriptions and codices of the Pre-Columbian Mayan culture span a period from roughly 250 to 1500 AD. They represent some Ch'olan language and are therefore relatively close to Pre-Columbian Yucatec. However, the glyphic writing as it has been deciphered up to now does not represent the morphology of the language very well, so that for our purposes, written documentation of the language starts with the Spanish conquest.

Yucatec Maya has been historically well attested since the early times of Spanish colonization.[1] This period of the language history is called Colonial Yucatec Maya, often also Classical Yucatec Maya. Apart from having a longer docu-

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[1]While most of the hieroglyphic texts appear to represent the Ch'olan branch, one or another of the surviving codices, which probably stem from the fifteenth century AD, may be in Yucatec.

mented history than most Amerindian languages, Yucatec Maya also boasts a set of early grammars and dictionaries as shown in Figure 3.
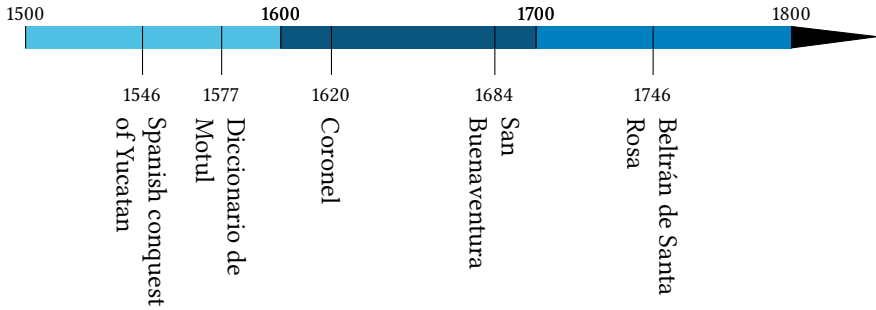

Figure 3: Colonial grammars and dictionaries of Yucatec Maya

The earliest source is the *Diccionario de Motul*[2], which some assume to be compiled around 1577.[3] The earliest grammars – and still among the earliest sources of data for Yucatec Maya – are Coronel (1620)[4] and San Buenaventura (1684). In the course of the eighteenth century, Colonial Yucatec Maya passed into Modern Yucatec Maya (MYM). Beltrán (1746) is assumed to mark the transition between the two stages (Smailus 1989: 4).

Thus, the documented history of Yucatec Maya begins with colonial documents of the 16th century. Its prehistory is indirectly represented in Mayan hieroglyphic writing and may be accessed by internal reconstruction and historical comparison with cognate languages. Data from the other Yucatecan languages are from the second half of the 20th century. Lacandón preserves some archaic traits, lending thus additional support to reconstructions.

Given all this, reconstruction of Proto-Yucatecan is in a comparatively favorable methodological situation. Not only can we reconstruct the diachrony by

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[2]The *Diccionario* or *Calepino de Motul* was first published in Martínez Hernández (1929). In the examples, it is referred to as *Motul.*

[3]Since its first published edition, the manuscript of the *Diccionario de Motul* has been attributed to Fray Antonio de Ciudad Real (1551–1617) and been dated to 1577. Now he may well be the author, the more so as he is known to have worked on Mayan language and culture until his death. However, he started living in Mérida only in 1573; and in 1577 he was 26 years old. Consequently, he either is not the author (but only a compiler of material gathered by others), or the year of completion must be much later. Hanks (2010: 164–168) discusses the problem extensively and essentially pleads agnostic.

[4]In quotations, I use Martínez Hernández (1929) for the page numbering, as it reproduces the pagination of the original edition; but I quote the text from the (more reliable, but unpaginated) online edition of http://www.famsi.org/reports/96072/coronelgmr.htm. (The critical edition of Coronel 1998b was not available to me).

comparing four languages which are related closely enough to elucidate each other but different enough to provide variation which may be projected onto the diachronic axis. We also have 450 years of documented history in the case of Yucatec, which can substantiate or falsify our diachronic hypotheses to some extent. Thirdly, grammarians have described different stages of the history for the same period, sometimes even noting explicitly grammaticalization phenomena observable at their time. Under such circumstances, responsible diachronic analysis may reach back approximately 1,000 years, which is about the point where Proto-Yucatecan began to split up.

3 Typological sketch of Yucatecan languages

All Mayan languages are very much alike in their morphological and syntactic structure,[5] with some of the more principled differences being taken up below. The lexemes and the grammatical morphemes filling the structural slots are generally cognate within each of the subfamilies, while there are great differences among the subfamilies in this respect. Consequently, while the Yucatecan languages form a homogeneous group, this subgroup differs from other subgroups of the Mayan family chiefly in the individual lexical and grammatical morphemes and, to a lesser extent, in grammatical structure. We will here focus on the grammatical structure of the Yucatecan subfamily and mention deviations from Proto-Mayan *suo loco.*

Apart from numeral classifiers, the typologically notable features of the word-class system are limited to the subclassification of the major classes. Both nouns and verbs are subclassified according to relationality: absolute and relational nouns differ in morphology and syntax similarly as do intransitive and transitive verbs. If the valency of a stem includes a place for such an additional actant, then there is a pronominal index for it. If a clause lacks such an actant (no matter whether represented by an NP), the base must be derelationalized. And vice versa for an absolute or monovalent base. Moreover, besides pure verbs, there is a closed class of verboids which share all morphological and syntactic properties with verbs except that they do not inflect for status (§4.4) and therefore do not combine with an auxiliary (§4.5).

Mayan languages lack the category of case throughout. They do have a productive category of prepositions – most of them denominal in origin – but very few primary prepositions; and the Yucatecan languages have only one fully grammat-

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[5]A recent typological overview of the Mayan family is in Grinevald & Peake (2012).

icalized preposition, *ti'* Loc, which marks the indirect object (as in 41 and 42b below), local and other concrete relations.[6] Under these conditions, structural relations of modification are underdeveloped; the syntax is characterized by government. All dependency constructions are head-marking: indexes cross-reference the subject and direct object of a verb, the possessor in a nominal construction and the complement of a preposition. The index is obligatory, the nominal dependent is optional. The verb with its cross-reference indexes, possibly preceded by an auxiliary (s. §4.2), constitutes a full clause. No nominal or pronominal constituents are necessary.

Alignment of fundamental syntactic relations was ergative in Proto-Mayan. Some Mayan subfamilies have preserved this alignment to a large extent. The Yucatecan languages show traces of syntactic ergativity in focus constructions (Bricker 1981); but otherwise ergativity is restricted to a split in the index paradigm of the intransitive predicate conditioned by status, to which we return in §4.1.

The morphology is characterized by a medium degree of synthesis. Most affixes are suffixes. Most of the morphology is agglutinative; still, there are, especially in Yucatec Maya, several internal modifications. While declension is comparatively simple, verbs inflect for many conjugation categories. One of these must be singled out from the start as it plays an important role in subsequent sections: The first morpheme after the (simple or derived) verb stem is a so-called status suffix, which comprises the subcategories of dependent status proper, aspect and mood. It is illustrated by the dependent incompletive suffix in (3) below. Word formation includes compounding and derivation, both in the nominal and in the verbal sphere. The entire verb derivation is based on transitivity: every stem is either transitive or intransitive; and this determines the allomorphy of conjugation categories, especially of the status morphemes.

Mayan languages lack a copula.[7] The word order must have been left-branching in some remote pre-historic epoch. This is the environment in which the morphological categories marked by verb suffixes (s. §4.4), and possibly the phrase-initial nominal determiners and modifiers, too, originated. The proto-language then switched to right-branching syntax; Proto-Mayan was right-branching. To this day, Mayan languages are left-branching or juxtapositive only in the nominal syntax, as shown in Table 2; the rest of the syntax is right-branching, as detailed in Table 1.

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[6] corresponding both etymologically and functionally to Ch'olan *tyi*

[7] Colonial Yucatec Maya features a suffix *-h* Cop, exemplified in (22), which verbalizes nominal predicates.

Table 1: Right-branching constructions

predicate	subject
verb	actant
verbal complex	adjunct
auxiliary	clause core
nominal group	relative clause
nominal group	nominal possessor
preposition	complement NP
conjunction	clause

Table 2: Non-right-branching constructions

short adverb	verb
adjective attribute	noun
numeral	numeral classifier
numeral complex	nominal group
determiner	nominal group

(The vague wording of the Table 2 heading reflects the fact that some dependency relations inside the NP (or DP) are less than clear.) One might add to Table 2 the clitic pronominal index preceding a verb or a possessed nominal and cross-referencing the subject or the possessor, resp. (i.e. the "Set A" index of §4.1).

Marked information structure provides for two sentence-initial positions to be occupied by main constituents, viz. the position of left-dislocated topical constituents and the focus position. The maximum configuration was dubbed LIPOC (language-independent preferred order of constituents) in Dik (1981: 189ff) and may be represented by Figure 4. (1) is an example.

[left-dislocated topic   [focus   extrafocal clause]]

Figure 4: Extended sentence structure

(1)   Modern Yucatec Maya

    le   chaan lak   he'l=a'
    DEM little   bowl PRSV=R1

    in   kiik   síih-mah-il   ten
    A.1.SG elder.sister give.as.present-PRF-DEP(B.3.SG) me

    'this little clay bowl, my elder sister gave it to me' (ACC_0039)

The left-dislocated constituent is marked by a referential enclitic, R1 in (1). The paradigm contains an element (R3) which functions as a topicalizer if the deixis is neutral.[8] The focus itself (*in kiik* in (1)) is not marked, but the extrafocal clause is marked by a dependent status suffix, *-il* in (1) (s. §4.4).

4 Verbal categories

In this section, we will pursue the fate of some categories in the functional domain of tense/aspect/mood in the Yucatecan languages. The starting point will be Colonial Yucatec Maya as documented in the sources enumerated in §2.

4.1 Pronominal indexes

All Mayan languages have at least three sets of personal pronominal formatives. All but one of these paradigms are clitic or bound and function as cross-reference indexes; the last is a set of independent personal pronouns. The main paradigms of bound indexes are called Set A and Set B in Mayan linguistics. The functions of the pronominal sets are as follows:

- indexes of Set A cross-reference the possessor of a nominal group and the actor of the transitive verb. Moreover, in the split-subject marking languages including those of the Yucatecan branch, they cross-reference the subject of an intransitive verb in some verbal statuses (§4.4). Thus, the syntactic function alignment based on the distribution of set A is accusative.

- indexes of Set B cross-reference the subject of a non-verbal clause and the undergoer of the transitive verb. In the split-subject marking languages, Set B also cross-references the intransitive subject in the complementary

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[8]The Yucatecan languages differ in the details. Itzá continues Pre-Columbian grammar in allowing the topicalizer *-e'/-eh* to follow – directly or at a distance – the deictic clitics (Hofling 1991: 14f). Lacandón lacks the entire paradigm of referential clitics, including the topicalizer.

subset of statuses. Thus, the syntactic function alignment based on the distribution of Set B is ergative.

- The free pronouns are reinforced forms of Set B forms. They appear as the complement of a preposition, as left-dislocated topic and in focus position. Some languages including Yucatec Maya have enclitic variants which function as indirect object, as does *ten* in (1).

The labels "Set A" and "Set B" originate in the times of American structuralism. They are deliberately obscure and mnemonically unhelpful. We will nevertheless have to use them because the functions which might provide more practical labels are heterogeneous. At any rate, it may be helpful to bear in mind the following equivalences with more familiar labels of interlinear glossing:

- A = SBJ/POSS

- B = ABS.

Table 3 shows the Modern Yucatec forms of sets A and B. For 1st person pl., the exclusive form is given. All of these pronominal elements are free forms at the stage of Proto-Maya. The parenthesized glides are conditioned by a vowel-initial host of the pronominal index.

Table 3: Pronominal paradigms in Modern Yucatec Maya

		A	B
sg.	1	in (w-)	-en
	2	a (w-)	-ech
	3	u (y-)	∅
pl.	1	k(a)	-o'n
	2	a (w-)… -e'x	-e'x
	3	u (y-)…-o'b	-o'b

In all Mayan languages, the Set A index precedes the possessed nominal, cross-referencing the possessor. (2) provides representative examples of the indexes with verbs:

(2)   Modern Yucatec Maya

    a. *h*   *bin-*<mark>*ech*</mark>
       PFV go(CMPL)-B.2.SG
       'you went'

    b. *t=*<mark>*u*</mark>   *t'an-*<mark>*ech*</mark>
       PFV=A.3 call(CMPL)-B.2.SG
       'he called you'

The examples are in the completive status, which triggers ergative marking in all Mayan languages. The Set A index immediately precedes the transitive verb. The Set B index is a suffix to the verb.

In the Yucatecan languages, Set A forms belong to a species of enclitics which are not banned from initial position. If they follow a word in the same phrase, they form a phonological unit with it. Since they syntactically depend on what they precede, they cliticize to what is, in grammatical terms, the wrong side. In the examples, clisis of Set A forms is marked by an equal sign (although some of the sources mistakenly write them as prefixes).

4.2 Verbal clause structure

Tense, aspect and mood are verbal categories and therefore possible only in verbal clauses. Other kinds of predicates have to be verbalized if these categories are to be specified. Therefore, we can narrow down the analysis to the verbal clause. With some simplification, the verbal complex has the structure shown in Figure 5. (3) is a transitive finite verbal complex.

<div align="center">

verbal complex

finite verb

<mark style="background:pink">index A</mark> | verb stem   -status   <mark>-index B</mark>
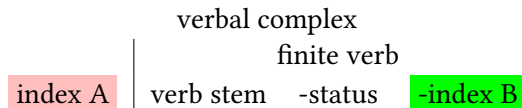
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Figure 5: Transitive verbal complex

(3)   Colonial Yucatec Maya
    u ppaticech
    u   *p'at-ik-ech*
    A.3 leave-DEP.INCMPL-B.2.SG
    '(that) he leaves you' (Motul s.v. *Hun chilbac*)

The basic clause structure is "predicate – subject". If it is a verbal predicate, the verbal complex of Figure 5 comes first, then follow the free complements and adjuncts. The most elementary independent verbal clause at the stage of Colonial Yucatec consists of a verbal complex in completive status and its dependents, as in (4).

(4) Colonial Yucatec Maya
     u kamah nicte in mehen
     u k'am-ah-∅   nikte' in   mehen
     A.3 get-CMPL-B.3.SG flower A.1.SG son
     'my son got the flower (i.e. got married)' (Motul s.v. *kamnicte*)

Already in Colonial Yucatec, many verbal clauses are introduced by a formative which codes tense, aspect or mood and which we will call an auxiliary (see §4.5 for discussion of the appropriateness of this term). In Modern Yucatec, this is the default for independent verbal clauses. At this stage, the verbal complex with its dependents as illustrated by (4) only forms a CLAUSE CORE, while an independent declarative verbal clause generally (except in perfect status) requires an auxiliary in front of it. Figure 6 formalizes this construction. The second clause of (5) illustrates it with the recent past auxiliary.
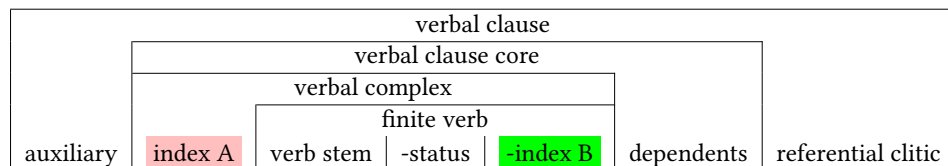
verbal clause						
	verbal clause core					
		verbal complex				
			finite verb			
auxiliary	index A	verb stem	-status	-index B	dependents	referential clitic

Figure 6: Verbal clause

(5) Modern Yucatec Maya
     In   watan=e' mina'n   way=e'; táant =u bin=e'.
     A.1.SG wife=TOP NEG.EXIST(B.3.SG) here=R3 REC.PST =A.3 go(INCMPL)=R3
     'My wife isn't here; she just left.' (BVS_05-01-36.2)

The last element in Figure 6 is the referential clitic conditioned by some of the auxiliaries, the recent past auxiliary being one of these.

4.3 Nominalization

Mayan languages generally lack an infinitive. The verb has a set of non-finite forms, some with nominal (incl. adjectival), some with adverbial function. Here

we are concerned only with bare deverbal nouns, so-called action nouns, and with the processes which do no more than convert a verbal into a nominal constituent.

From intransitive verb bases, action nouns are formed by two such processes. For agentive intransitive verbs, the verb stem also serves as an action noun stem, as in *óok'ot* 'dance' and *meyah* 'work'. For inactive intransitive verbs, an action noun, or rather a process noun, is formed by suffixing a morpheme *-Vl* to the verb root, where V is a copy of the root vowel, as in *wen-el* 'sleep (n.)' and *kóoh-ol* 'arrival'. Action nouns of intransitive bases are optionally possessed by their underlying subject, as in *in meyah* 'my work' and *u wenel* 'his sleep'. (6) provides examples of intransitive action nouns. (6a), with an agentive stem, lacks an index, while #b and #c show a Set A index in *genitivus subjectivus* function.

(6) Colonial Yucatec Maya

    a. ti canan
         ti' kanáan
         LOC watch
         'for watching' (San Buenaventura 1684: 14v)

    b. et hazac ech ti in hanal
         ethas-ak-ech   ti' =in   han-al
         just.in.time-past-B.2.SG LOC =A.1.SG eat-DEP
         'you arrived just in time (to meet me) at having my meal' (Beltrán de Santa Rosa 1746: §299, p.132)

    c. in káti a benel
         in k'áat-ih a ben-el
         A.1.SG want-CFP A.2 go-DEP
         'I want you to go' (Coronel 1998a: 51)

(7) Colonial Yucatec Maya

    a. v kin ocçah
         u k'iin ook-s-ah
         A.3 day enter-CAUS-INTROV
         '(it is) the sowing season' (Coronel 1998a: 56)

    b. in káti a cámbeçic in mehén
         in k'áat-ih a kanbes-ik-∅   in   mehen
         A.1.SG want-CFP A.2 teach-DEP-B.3.SG A.1.SG son
         'I want you to teach my son' (Coronel 1998a: 50)

If the verbal base is transitive, there are two possibilities. The first consists in introverting the base, i.e. detransitivizing it by suppressing the direct object position. Once this is done, the stem is nominalized like an agentive intransitive verb stem, which means that the introversive stem also serves as an action noun. Examples based on transitive roots are *xok* 'read' – *xook* (read\INTROV) 'reading, study' and *k'ay* 'sing' – *k'aay* 'singing, song'. For derived transitive stems, introversion is marked by the suffix *-ah*: *kambes* 'teach' – *kambes-ah* (teach-INTROV) 'teaching' (as in (74) below), *hets'kun* 'settle' – *hets'kunah* 'settlement'. Such a form also appears in (7a). The other possibility of nominalizing a transitive base consists in providing it with the dependent status suffix *-ik* and accompanying it by the Set A and Set B indexes for subject and object. This is shown in (7b).

The two nominalizing suffixes *-Vl* and *-ik* are glossed as dependent status in (6–7). They will become incompletive suffixes on their way to Modern Yucatec. The appearance of the Set A index in front of the nominalized verb is conditioned by rules of syntax which will not be detailed here. It suffices to note the following: In Modern Yucatec Maya, this element is missing (under coreference) from the purpose part of the motion-cum-purpose construction if its verb is intransitive, and occasionally also if it is transitive. This will be taken up in §4.8. In Lacandón, incompletive verbal complexes without a Set A index are widely used in nominalizations, as in (8).

(8) Lacandón

Ten ti' met-ik baalche', Yum-eh.
I LOC make-INCMPL honey.beer lord-VOC

'I am for making honey beer, my lord.' (Bruce S. 1974: 28)

The subordination of the nominalized verbal construction by the all-purpose preposition *ti'* illustrated by (6) and (8) deserves special attention. If the clause thus subordinated follows the main clause, it may be a purpose clause. This is still so in Modern Yucatec and Lacandón, witness (9–10).

(9) Modern Yucatec Maya

Meet hum-p'éel léech
make(IMP) one-CL.INAN trap

ti' =k léech-t-ik le haaleh=a'!
LOC =A.1.PL trap-TRR-INCMPL DEM paca=R1

'Make a trap for us to trap this paca!' (RMC_1993)

(10) Lacandón

ts'a'   *ten t=in*   *wil-ik*
give(IMP) me LOC=A.1.SG see-INCMPL

'give it to me for me to see' (Bruce S. 1968: 63)

If, however, the subordinate clause precedes the main clause, the same preposition instead conveys simultaneity of the situation of the main clause with the background situation of the subordinate clause. This is illustrated by (11) with an intransitive nominalized verb. (12), with a transitive one, shows that this reading also occurs if the nominalized clause is postposed.

(11) Modern Yucatec Maya

hach bin   *t=u*   *t'úub-ul*   *k'iin=e'*
really QUOT LOC=A.3 submerge\DEAG-INCMPL sun/day=TOP

táan   *y-isíins-a'l*   *=u* *yatan yuum*   *ahaw*
PROG A.3-bathe-INCMPL.PASS =A.3 wife master/father chief

'Exactly at sunset, the chief's wife was washed' (HK'AN_502)

(12) Modern Yucatec Maya

Ki'mak wáah bin   *y-óol*   *yuum*   *ahaw*
happy INT QUOT A.3-mind master/father chief

t=u   *yil-ik!*
LOC=A.3 see-INCMPL(B.3.SG)

'How happy was the king to see him!' (HK'AN_527)

We will meet this construction again at the genesis of the progressive aspect (§4.7.3).

4.4 Status

In all Mayan languages, the verb has a suffixal slot for a category called status, which comprises the subcategories of dependent status proper, aspect and mood. These suffixes belong to the earliest layer of the diachrony (they must antedate the introduction of right-branching word order in Proto-Mayan) and are completely grammaticalized. This implies that they mostly lack a clear semantic function and are instead conditioned by the construction. While the category of status itself and most of its subcategories are shared among Mayan languages, there is a great deal of heteromorphy among them, just as most statuses display a complicated allomorphy within each language.

All of verbal morphology and syntax depends on transitivity. Every verb stem is either transitive or intransitive, and this can only be changed by derivational means.[9] Transitivity is the major factor in conditioning allomorphy in status morphemes. The core of the paradigm of status morphemes for finite forms is shown in Table 4, which presents the forms in colonial orthography. For lack of relevance to our discussion, Table 4 omits the imperative, the perfect (only available for transitive verbs, anyway) and some intransitive conjugation classes. "V" represents a copy of the root vowel; "/" and parentheses indicate allomorphy.

Table 4: Status conjugation of Colonial Yucatec Maya

status	stem class aspect/mood	intransitive basic	intransitive derived	transitive basic	transitive derived
plain	subjunctive	-Vc	-n-ac	-Vb	(-e)
	completive	(-i)	-n(-ah)(-i)	-ah	
dependent	subjunctive		-ebal	-ic	
	completive	-ci	-n-ici	-(i)ci/-i[10]	
	incompletive		-Vl	-ic	

Transitive finite forms are preceded by Set A clitics and followed by Set B suffixes as shown in Figure 5. Intransitive verbs, instead, take Set B suffixes in the plain forms, but Set A clitics in dependent forms. The finite verb forms in Table 5 illustrate the status conjugation of Table 4 for an intransitive and a transitive example verb.[11]

In the Yucatecan languages, aspect plays a more important role than tense. In Colonial Yucatec, there is one grammaticalized tense, the suffixal perfect (illustrated by (1) above). Past time is optionally marked by the adverb *cuchi* (i.e. *kuchih*) 'formerly' (Modern Yucatec Maya *ka'ch-il*), but is otherwise implied by most occurrences of the completive aspect (as in (4)), which is essentially perfective.[12] Future is one of the senses of subjunctive status and optionally coded by auxiliaries which we will come to in subsequent subsections.

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[9]Already Beltrán de Santa Rosa (1746: §§107 and 150–158) is quite explicit about this (cf. (42) below), although his orthography represents neither tone nor the glottal stop, both of which play an important role in the morphological processes manipulating transitivity distinctions.

[10]The allomorph *-i* appears if the subject is the focus constituent of a cleft-construction.

[11]The sources do not provide examples for all persons, so that some of the forms entered in Table 5 are constructed by the grammarians' rules rather than primary data.

[12]Traditional terminology in Mayan linguistics designates as completive vs. incompletive what could also be called perfective vs. imperfective, were it not for the auxiliaries to be mentioned below, which go under the latter terms. See Vinogradov (2016) for an attempt at semantically characterizing these two values of the status category.

Table 5: Examples of finite verb complexes in Colonial Yucatec Maya

status	stem class aspect/mood	intransitive (basic)	transitive (derived)
plain	subjunctive	*cim-ic-en* '(that) I die'	*in cambes-ech* '(that) I teach you'
	completive	*cim(-i)-en* 'I died'	*in cambes-ah-ech* 'I taught you'
dependent	subjunctive	*in cim-ebal* '(that) I may die'	*in cambes-ic-ech* '(that) I may teach you'
	completive	*in cim-ci* '(that) I died'	*in cambes-ic-i-ech* '(that) I taught you'
	incompletive	*in cim-il* '(that) I die'	*in cambes-ic-ech* '(that) I teach you'

Dependent status is used in the extrafocal clause of a cleft-sentence (as in (18) below) and in certain complement clauses, examples of which may be seen in (47–48) (b). Dependent status is, in fact, more frequent in the texts than plain status, especially in the incompletive. It appears every time that the full verb is preceded by another main constituent or by an auxiliary. Among the dependent statuses, the default is the incompletive. As a matter of fact, the incompletive dependent morphemes are nothing else than the nominalizers for intransitive and transitive verbs already reviewed in §4.3. These are the forms that we will meet most frequently in the periphrastic constructions to be analyzed below. The completive and subjunctive dependent forms involve a high degree of syncretism, hardly occur in the texts, and even the colonial grammarians are not sure about their form and function. Some of the forms fossilize, but the two subcategories themselves disappear as the status category reaches the stage of the modern Yucatecan languages. In other words, (apart from the perfect) the values of the status category in Modern Yucatec are 'subjunctive' and 'completive' (erstwhile: plain) and 'incompletive' (erstwhile: dependent).

There are more respects in which the paradigm of Table 4 is unstable. Its basic form, and the only form that a simple declarative sentence can be based on, is the plain completive.[13] All the other status forms occur in extended or complex

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[13]It seems that Mayan languages are among those in which perfective aspect is the default aspect for verbal clauses.

or non-declarative sentences. The plain status obviously lacks the incompletive subcategory. This means that any kind of imperfective aspect – and as we shall see, much semantic differentiation is possible here – requires marking beyond the paradigm of Table 4, which entails complex constructions involving dependent statuses. The situation is similar in the other Mayan languages. All of them have an incompletive or imperfective aspect. There is, however, great heteromorphy; and mostly the syntactic conditions are as in the Yucatecan branch, viz. an auxiliary is needed in addition to the status morpheme (Vinogradov 2014).

Colonial grammars start the description of verbal morphology with a category called present which involves incompletive status. It will be analyzed extensively in §4.9. It is a rather complex periphrastic construction which is not at all basic to the system. It figures so prominently in the grammars essentially on account of a methodological mistake on the part of the grammarians (s. p. 222). The first to recognize this is Beltrán de Santa Rosa (1746: §§60, 172). He tentatively adduces as present a cleft-construction again containing the incompletive dependent status, which we must forego here.

The status paradigm is alive to this day, but given its high degree of grammaticalization, it is fragile. Several endings appear only *in pausa* and are syncopated otherwise (Beltrán de Santa Rosa 1746: §§135–147). Some of the allomorphy is utterly complicated, syncretistic and constantly exposed to variation. For instance, while the subjunctive of root transitives ends in *-Vb* for San Buenaventura (1684), Beltrán de Santa Rosa (1746: §112) says that this is now out of use, and the ending is *-e* (as it used to be for derived transitives).

4.5 Periphrastic aspects

There is a small set of syntagmatic positions at the left clause boundary, i.e. following any left-dislocated topic as shown in Figure 4 and immediately preceding the clause core. These positions may be plotted as in Figure 7:[14]

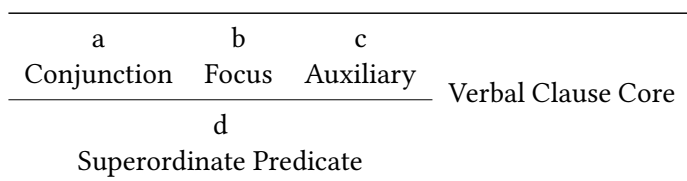| a	b	c	
Conjunction	Focus	Auxiliary	Verbal Clause Core
	d		
	Superordinate Predicate		

Figure 7: Clause-initial syntagmatic positions

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[14]The left-dislocated topic of Figure 4 precedes (all the positions shown in) Figure 7. The rest of Figure 4 is a cleft-construction. However, a focused constituent may also precede a full clause, as shown in Figure 7.

a. The Conjunction slot may be occupied by conjunctions and other sentence-initial particles, as the conjunction in (16b) and the negator of (20b) and (41).

b. The Focus slot may be occupied by focused constituents, as in (18).

c. The Auxiliary slot may be occupied by grammaticalized auxiliaries, such as (28).

d. Instead of all of this, a verbal clause core may be preceded by a superordinate predicate like the phase verb in (47), the modal verboid in (23) and one of the non-grammaticalized auxiliaries to be analyzed in §4.7. While the positional relation between any of the elements of #a – #c and the verbal clause core appears to be the same as the positional relation between such a superordinate predicate and the verbal clause core, the syntactic relation is different, since the superordinate predicate is not, of course, a constituent of the clause in question, but rather takes the clause core as a dependent, as shown in Figure 9 below.

Distributional relations between elements of the three classes shown in Figure 7 are complex, involving several conditions of mutual exclusion. In any case, none of the three slots is occupied obligatorily, and most frequently only one of them is occupied. As a consequence, any of the four kinds of elements mentioned in #a – #d may form a binary construction with an ensuing clause core. This is a structural pattern apparently inherited from Proto-Mayan. It is an important presupposition for a reanalysis by which any such element may be reinterpreted as an auxiliary. As we will see, elements occupying slots #b – #d are, in fact, frequently so reanalyzed.[15]

Since the material ending up in the Auxiliary position of Figure 7 is so heterogeneous, its relation to the rest of the clause differs accordingly, and consequently the constructions with slot fillers of the four above kinds are syntactically different. The differences are reflected morphologically on the full verb, which depending on the construction is in the dependent incompletive, the completive or the subjunctive status. As we will be concentrating on such constructions in which the element in question gets grammaticalized to an auxiliary, the result is that the auxiliary conditions the status. Figure 8 takes up Figure 6 and in addition visualizes this dependency.

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[15]In terms of Bisang (1991: esp. 511–513 and 535f), the auxiliary position of Figure 7 is an "attractor position", that is, a position which acts as a melting-pot for material recruited from different sources and grammaticalized in this position.
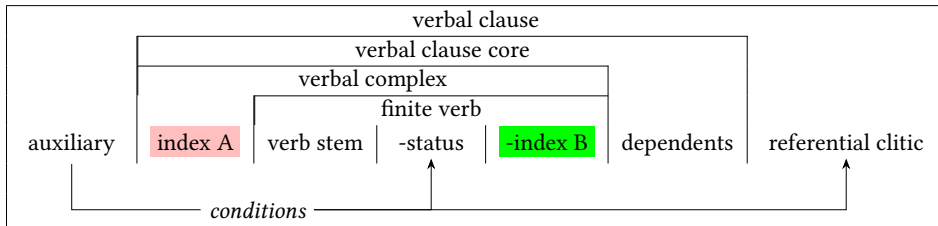
Figure 8: Syntagmatic relation between auxiliary and status

The first thing to be noted about Figure 8 is that the full verb is finite. This is a peculiarity of Yucatecan periphrastic constructions whose diachronic explanation will become clear in the following sections. As already shown in Figure 6, in the Yucatecan languages, the pronominal indexes do not combine with the auxiliary, but with the full verb. Thus, the auxiliary deserves its name only insofar as it carries tense/aspect/mood information. Person and number, however, are marked on the full verb, and consequently it is indeed finite. The discussion of the applicability of the auxiliary concept to this class of formatives will be taken up in §4.10.2.

There is in Yucatec a large variety of tenses, aspects and moods that are coded in the initial position of Figure 8.[16] None of the colonial grammars provides a systematic account of them. There are at least two reasons for this. Firstly, these grammars depend on the model of Latin grammar, which almost totally lacks auxiliaries, conjugation being essentially synthetic. Secondly, virtually none of the auxiliaries of Colonial Yucatec Maya is inherited and, thus, firmly entrenched in the system. While the clause-initial auxiliary is a Pan-Mayan category, practically all of the extant formatives of this category emerge at the time of the first colonial grammarians. With the exception of the auxiliary described in §4.9, none of the incipient auxiliaries made its way into their conjugation paradigms; instead, they throw those that they are aware of into the basket of particles. They do, however, use them in their examples.

The following subsections will pursue the grammaticalization of the subset of the tense/aspect/mood auxiliaries of Yucatec Maya shown in Table 6. This is less than half of the auxiliaries actually in use. Among the ones missing from Table 6 are three past time auxiliaries (recent [illustrated by (5)], relative and remote past), the obligative, potential and volitive moods illustrated below in (23) and a commissive or assurative future. For a subset of these, the origin is unknown. None of the auxiliaries to be discussed here triggers the final referential clitic

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[16]An extensive list of relevant markers appears in Briceño Chel (2006: ch. 1.2f.)

mentioned in §4.2, so it will be left out of consideration. The last column of Table 6 indicates the status that the auxiliaries trigger on the full verb. By this criterion, there are four structural subclasses of auxiliaries and four different auxiliary constructions, each illustrated by one example in (13).

Table 6: Some Yucatec tense/aspect/mood auxiliaries

form	function	status conditioned
t-/h-	perfective	completive
k-	imperfective	incompletive
táan ts'o'k yan bíin	progressive terminative debitive/future predictive future	subjunctive
bin … ka'h	immediate future	incompletive/subjunctive

(13) Modern Yucatec Maya

    a. *h   lúub-en*
       PFV fall(CMPL)-B.1.SG
       'I fell'

    b. *k=in   lúub-ul*
       IPFV=A.1.SG fall-INCMPL
       'I fall'

    c. *bíin lúub-uk-en*
       FUT fall-SUBJ-B.1.SG
       'I will fall'

    d. *bin   =in   ka'h lúub-ul*
       IMM.FUT =A.1.SG do   fall-INCMPL
       'I am going to fall'

From this presentation, it appears that the categories in question are coded twice, both by the introductory auxiliary and by the status morpheme. The question naturally arises why each auxiliary goes with a different status. This problem will be analyzed in the following subsections. We will see that all the auxiliation

constructions come about by grammaticalization, but that they originate from different sources.

Another difference between the statuses strikes the eye: Some of them have the intransitive subject represented by a Set A index, while others have it represented by a Set B index. This is the alignment split already mentioned in §3. Although it is not the main object of the ensuing analyses, these will nevertheless contribute to its understanding.

An item of methodology in the analysis of the grammaticalization of these auxiliaries is to be introduced here. At the point when an item is recruited to fill the clause-initial syntactic position, it is a word or even a phrase. Continuing grammaticalization then reduces auxiliaries to bound morphemes (illustrated by (13a) and (13b)). There are two tests for the structural status of an auxiliary. First, as in many languages, the answer to a polar interrogative in Mayan involves repeating the main predicate with positive or negative polarity. From this we can derive a test to determine the main predicate of a sentence. In principle, in a configuration like Figure 8, either the auxiliary or the finite full verb may be the main predicate. The auxiliary, however, can be the main predicate only if it is a word. As we shall see, at the beginning of the process, the auxiliary does indeed constitute the answer to a polar question, while with advanced grammaticalization, this is no longer possible, and a short version of the verbal clause appears instead. The second test on the status of the auxiliary involves the placement of enclitic particles. Some of them occupy Wackernagel's position. They may therefore immediately follow the auxiliary if this is a word; and otherwise they must follow the full verb. One might think that the Set A indexes, which are enclitic to the auxiliary, already provide this test. However, these coalesce with the auxiliary once this forfeits its word status and therefore become useless for the test.

4.6 Auxiliation based on modification: from hodiernal past to perfective

As explained in §4.4 and illustrated by (4), the Colonial Yucatec Maya completive status is the only one that a simple independent declarative clause may be based on (i.e. without the need for an auxiliary).[17] This means, at the same time, that such clauses have little marking in comparison with all other tense/aspect/mood categories appearing in independent sentences. Moreover, the completive has zero allomorphs in several contexts. These may be the result of a phonological

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[17]Of course, imperative sentences lack an auxiliary, too.

process, viz. syncope of the vowels appearing in the completive line of Table 4 if this suffix is followed by a vowel; or else the overt allomorphs may be grammatically restricted to the position *in pausa*.[18] Thus, the transitive completive suffix of (14) and (20b) would be zero in informal speech (as it would be in a Modern Yucatec Maya version of these examples); and likewise the intransitive completive suffix appearing in (24) would normally be zero, as it is in (42) from Colonial Yucatec Maya, in (13a) from Modern Yucatec Maya and in (15).

(14)   Colonial Yucatec Maya
u chabtahon Dios
u   ch'ab-t-ah-o'n   dios
A.3 create-TRR-CMPL-B.1.PL god
'god created us' (Motul s.v. *chab.tah.t*)

(15)   Itzá
Ka'   lub'(-ih)   ah tikin che'-eh   …
then fall-CMPL(B.3.SG) M   dry   wood-TOP
'Then the dry tree fell …' (Hofling 1991, 12:30)

Anyway, the result is that many completive verbal complexes occurring in texts reduce to verb stems provided with indexes. One might expect that such a formally weak category is ripe for reinforcement or renewal. This expectation will be only partially fulfilled.

In Colonial Yucatec Maya, the completive clause can be marked for hodiernal completive.[19] This is achieved by the particle *ti'* 'there' (or its prevocalic bound allomorph *t-*), which may start out in the Focus position of Figure 7, but anyhow ends up in the auxiliary position. (16) shows the simple plain completive for an intransitive (#a) and a transitive (#b) verb. The two parts form minimal pairs with the #a and #b sentences of (17), which show the hodiernal completive.

(16)   Colonial Yucatec Maya

a.   Bini Fiscal ti yotoch ku,
bin-ih   fiscal   ti'   y-otoch   k'uh
go-CMPL(B.3.SG) inspector LOC A.3-house god
'The inspector went to the church'

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[18]The completive endings are absent before a following vowel in Lacandón, too. Coon (2010: §3.3) reports similar facts about Ch'ol.

[19]It is hodiernal past according to Coronel (1998a: 41f) and San Buenaventura (1684: 35r), although in Smailus (1989: 41) it is characterized as remote or anterior past. The treatment in Coronel is part of the section on dependent status. The first examples of hodiernal past in plain status are in San Buenaventura (1684).

b. ca vhaɔah palalob

káa =u hats'-ah paal-alo'b

CONJ =A.3 beat-CMPL child-PL

'and beat the children' (San Buenaventura 1684: 23r-v)

(17) Colonial Yucatec Maya

a. ti bini padre

ti' bin-ih padre

HOD go-CMPL(B.3.SG) father

'the father (reverend) went today / has gone'

b. tin haɔah paal

t=in hats'-ah paal

HOD=A.1.SG beat-CMPL child

'I beat the child today / have beaten the child' (San Buenaventura 1684: 35r)

Two facts should be noted: First, the *ti'* functioning as auxiliary here is based on the word *ti'*, which is syntactically ambiguous between an adverb and a preposition. The adverb is a deictically neutral local demonstrative meaning 'there'. The preposition *ti'* LOC appears in (16a) and is seen to subordinate a nominalized verbal complex in (6a) and (8) (§3). The word occurs in both of these functions in (58) below. While the preposition governs the constituent following it and therefore presupposes dependent status on it if it is based on a verbal construction, the *ti'* presently at stake does not do this. The completive morph in the verbal clause core remains unaffected by the addition of the auxiliary in clause-initial position. Consequently, this auxiliary is based on the adverb, not on the preposition. The semantic shift from 'there' to HODIERNAL is obviously a metaphor from space to time. Second, the auxiliary is the same for intransitive and transitive verbs.[20]

The specification of hodiernal past is possible in dependent status, too:[21] the #a sentence of (18) illustrates simple completive, the #b sentence is its hodiernal counterpart. Here, too, the completive morph is the same in both cases.[22]

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[20]In Ch'ol, the perfective auxiliary is *tsa'* (shortened to *tyi*) both for transitive and intransitive verbs.

[21]San Buenaventura (1684: 17r) contends that the hodiernal past may trigger dependent status, and gives two examples of it. These are probably due to conditions as obtain in (18b).

[22]Coronel (1998a: 41) postulates a contrast between dependent status suffixes for simple and hodiernal completive; but this finds no support elsewhere.

(18)   Colonial Yucatec Maya

    a. bal v chun a háɔci?
       ba'l =u chuun =a hats'-k-ih
       what =A.3 ground =A.2 beat-DEP-CMPL(B.3.SG)
       'why did you beat her?'

    b. bal v chun ta háɔci?
       ba'l =u chuun t=a hats'-k-ih
       what =A.3 ground HOD=A.2 beat-DEP-CMPL(B.3.SG)
       'why have you beaten her?' (Coronel 1998a: 42)

The hodiernal completive is already highly grammaticalized in Colonial Yucatec Maya.[23] Already in Coronel (1998a), some completive examples introduced by *ti'* are translated as simple past. For instance, (19) is translated as "Quien vino?"

(19)   Colonial Yucatec Maya
    Macx ti tali?
    makx ti'   taal-ih
    who   HOD come-CMPL(B.3.SG)
    'Who has come?' (Coronel 1998a: 48)

In Beltrán de Santa Rosa's (1746) examples – e.g. §§264f *(t) luben* – the completive aspect appears variously with and without the aspect auxiliary *t-*, with the same Spanish translation *caí* 'I fell' and no comment on any semantic difference. In §36, he admits that, in front of intransitive verbs, the *t* is "semipronunciada", and establishes the variation taken up below. Apparently, the hodiernal component has disappeared, and what we now have is a perfective auxiliary, reduced to the phoneme *t*, as in (63) below, and therefore regularly univerbated with the following enclitic Set A index, as evidenced by (17b) and (18b). In Modern Yucatec, the perfective auxiliary has become obligatory with transitive verbs in completive status.

As for the tests for word status of this auxiliary, it cannot be host to an enclitic particle and cannot constitute the answer to a polar question. The latter may be inferred from (20), where the answer has to contain the full verb.

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[23]In translating it into English, one has the choice of either rendering the specific semantics and consequently using *today* or else rendering the degree of grammaticity and thus using the perfect.

(20)   Colonial Yucatec Maya

   a.   ti kamchijnech ua. l. ta kamah ua a chij?

   ti’   k’am-chi’-n-ech   wáa *o*: t=a   k’amah   wáa =a   chi’
   HOD get-mouth-CMPL-B.2.SG   INT   or: HOD=A.2 get-CMPL   INT =A.2 mouth

   ‘Have you had breakfast?’

   b.   Ma tin kamah in chi.

   ma   t=in   k’am-ah =in   chi’
   NEG HOD=A.1.SG get-CMPL =A.1.SG mouth

   l. ma ti kamchijnen.

   o: ma’ ti’   k’am-chi’-n-en
   or: NEG   HOD get-mouth-CMPL-B.1.SG

   ‘I have not had breakfast’ (Motul s.v. *kamchij*)

If *ti’* did start out in the Focus position of Figure 7, anyhow it has lost focus function by the start of the documented history of Yucatec Maya, witness such examples as (18b), where it follows the focus constituent. This is, then, the only auxiliary which has already lost word status at the stage of Colonial Yucatec and become a bound morpheme.

Intransitive completive verbs get a Set B index suffixed, as seen, for example, in (19). The monophonematic auxiliary therefore hits directly on the verb, which may start with a consonant, as in (63). Yucatec has a phonological rule which converts /t/ into /h/ in front of /t/. An extended version of this rule may have applied to the perfective auxiliary. At any rate, this auxiliary has an allomorph *h* with intransitive verbs. A preconsonantal /h/, however, generally disappears in Yucatecan. The *h* to be seen in (13a) is optional both in speaking and in writing, but is mostly absent, as it is in (15) and (16a). One may speculate that what manifests itself in such cases is an uninterrupted continuation of the plain completive of Colonial Yucatec Maya. This may be hard to settle. At any rate, since the hodiernal feature present at the beginning disappears, the result of the entire grammaticalization process is a weak reinforcement of the inherited completive status.

The picture of the Yucatecan languages with regard to this auxiliary is heterogeneous. Mopán shows no trace of a perfective auxiliary, which may reflect the original situation illustrated by (16). Lacandón has independent declarative clauses in completive status with and without an auxiliary. The latter is illustrated by (21) (from the epic style).

(21)   Lacandón

> *K=u   yen-s-ik   =u   yok lu'm Hachäkyum y-a'l-ah:*
> IPFV=A.3 lower-CAUS-INCMPL =A.3 foot earth Hachäkyum A.3-say-CMPL
>
> 'When Hachakyum set his foot onto the land, he said:' (Bruce S. 1968: 111
> ~ 1974: 19)

No process is known by which the perfective aspect auxiliary would reduce to
zero in such a context. Consequently, this may be a functional opposition like the
one illustrated by (16–17). In Itzá, the completive only appears to be used with
the perfective auxiliary. In both of these latter languages, the distribution of the
allomorphs is essentially the same as in Yucatec, except that the allomorph for
intransitive verbs is always zero.[24]

The perfective is the only tense/aspect/mood auxiliary of the Yucatecan branch
that cooccurs with completive status. The internal syntax of the hodiernal com-
pletive construction which is its source differs from all the other auxiliary con-
structions. The clause core does not depend on the auxiliary, but is, instead,
modified by it. There are, of course, many more adverbs which occupy the fo-
cus position of Figure 7 and which, being mere modifiers, do not trigger any
changes on the verb. However, in a language whose syntax is heavily based on
government, a modifying construction is not a productive source for the gram-
maticalization of auxiliaries. The perfective remains a loner as regards both the
source of the auxiliary and the status conditioned (or rather, conserved) by it on
the verb. However, as we shall see, the more recent grammaticalization paths
converge with it into a common paradigm.

4.7 Auxiliation based on complementation

4.7.1 Basics

Given that any dependents follow the verb, the subordinate clause follows the
main clause. Of importance for complex syntax and especially for auxiliation is a
kind of complex construction consisting of a main clause core and a complement
clause core. The main predicate may be a nominal or verbal one. It is in any case
monovalent and therefore has no dependents beside the complement clause. The
latter functions as the subject of a verbal, and as the ("possessive") complement
of a nominal main predicate. This presupposes its nominalization, and therefore

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[24]Lacandón has a subordinator combining with completive aspect, viz. *kahin* 'when' (Bruce S.
1968: 100), corresponding to Yucatec (*le*) *ka'h*. While the Yucatec subordinator combines with
the perfective auxiliary, the Lacandón one apparently does not.

it is in incompletive dependent status. Given the categorial polymorphy of the main predicate, this is simply categorized by its destination, viz. as an auxiliary to come, in Figure 9. This is construction #d of the set enumerated in §4.5 which shares a syntactic slot in front of the clause core. It is illustrated by (22).
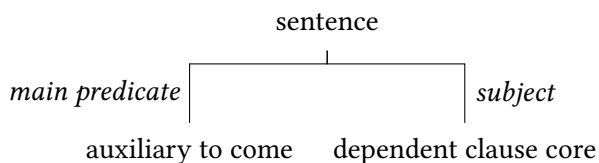

Figure 9: Subject complementation

(22) Colonial Yucatec Maya
      çebhi in canic maya than
      séeb-h-ih   *=in*   *kan-ik*   *maaya t'aan*
      fast=COP-CMPL =A.1.SG learn-INCMPL Maya   speech

      'I learnt Maya quickly' (lit.: 'it was quick that I learnt Maya') (Coronel 1998a: 52)

From an SAE point of view, the full verb in the dependent clause core may appear to be the main predicate, which several SAE languages would modify by such peripheral concepts as the fastness of (22). A language like Maya, generally averse to modification, prefers the alternative of having the peripheral predicate govern the central predication (cf. Lehmann 1990 for this typological relationship). (23) illustrates the construction with modal verboids.

(23) Colonial Yucatec Maya

      a. v nah a benél
         u   *nah*   *=a*   *ben-el*
         A.3 decorum[25] =A.2 go-INCMPL

         'you ought to go' (Coronel 1998a: 69)

      b. Vchuc inbeelticlo
         uuchuk *=in*   *beelt-ik*   *=lo'*
         possible =A.1.SG make-INCMPL =R2

         'I can do that' (San Buenaventura 1684: 18v)

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[25]lit. 'what befits you / your obligation', Spanish *conviene*

c. tac in xee
    taak   =in   xeeh
    prompted =A.1.SG vomit\INTROV(INCMPL)
    'I have/want to vomit' (Beltrán de Santa Rosa 1746: §299, p.146)

As already indicated in §4.5, the complement construction resembles the cleft construction in having the main constituent in the same clause-initial position. An important difference between the two constructions consists in the fact that the subordinate clause of the former is just a nominalized clause. Its status marking is the incompletive dependent status, with non-past reference. The extrafocal clause, instead, may be in any dependent status and thus have any time reference.

As the following subsections will show, this construction is the model for a number of auxiliaries. The clause-initial slot attracts not only intransitive verbs, but also verboids, nouns and denominal adverbs. The construction, however, remains essentially the same: in all the constructions of §4.7, the clause core depends on the initial element.

4.7.2 From habitual to imperfective aspect

The inherited imperfective was renewed in Colonial Yucatec Maya.[26] At the beginning of this process, there is a set of words, apparently denominal in origin, which compete for the auxiliary position. Three of these appear in (24), listed as synonymous in the colonial grammar. The first is *lic(il)*, which has a variant *lac* and must be a root with the meaning 'this time span', although it is no longer found in the texts as such. The second of these auxiliaries is *tamuk*, a preposition and conjunction meaning 'during, while'. The third is *ualac* 'this time'. Both *lik* and *walak* survive in present-day Yucatec in a form adverbialized by the suffix *-il*.[27]

(24) Colonial Yucatec Maya
      cimçabi in yum
      kim-s-a'b-ih   =in   yuum
      die-CAUS-PASS-CMPL(B.3.SG) =A.1.SG master/father

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[26] All Mayan languages have an imperfective auxiliary, but the forms are very different. For instance, Ch'ol has *muk'*, shortened to *mi*; Q'eqchi' has *nak-*; and so on. See Vinogradov (2014).

[27] The form *licil* is treated extensively in Coronel (1998a), and on p. 46 he does assign it a habitual meaning. Otherwise, *licil* subordinates a clause similar in function to an oblique relative clause. Modern successors are Yucatec *ka'likil* 'at the time, while' and Itzá *kil* 'when' (Hofling 1991: 26). Acatec Maya has *chi < ki*.

tilic / tamuk / ti válac v hanál
ti' lik / tamuk' / ti' walak =u han-al
LOC this.span / while / LOC this.time =A.3 eat-INCMPL
'my father was killed while eating' (Coronel 1998a: 57)

In Yucatec, the competition among the three formatives will be won by *lic*. The preposition *ti* subordinating it can already be omitted, as in (25).

(25) Colonial Yucatec Maya
lic u dzocol a hanal ca tacech uaye
lik =u ts'o'kol =a han-al káa tal-ak-ech way=e'
span =A.3 end-INCMPL =A.2 eat-INCMPL CONJ come-SUBJ-B.2.SG here=R3
'when you have eaten, you should come here' (Motul s.v. *ca₆*)

The clause introduced by *lic* may also be independent; then the originally temporal construction may have a habitual sense (cf. Coronel 1998a: 67), clearly visible in (26).

(26) Colonial Yucatec Maya
lic in uenel tamuk in hanal
lik =in wen-el tamuk' =in han-al
HAB =A.1.SG sleep-INCMPL while =A.1.SG eat-INCMPL
'I usually fall asleep while eating' (Motul s.v. *lic₂*)

By further grammaticalization, the morpheme functions as a mere imperfective auxiliary, as in (27).

(27) Colonial Yucatec Maya
lic bin a haɔic a paalil tu men u tuz. –
lik=bin =a hats'-ik =a paal-il tumen =u tuus
IPFV=QUOT =A.2 beat-INCMPL =A.2 child-REL because =A.3 lie\INTROV
'They say you (habitually) beat your boy because he lies.'
lic. lici.
lik(-ih)
IPFV-CFP
'Yes.' (Motul s.v. *lici lic*)

It may be noted that the two occurrences of the particle in (27) fulfill the conditions of the two tests for word status introduced in §4.5: the particle is, at this stage, syntactically independent. However, there already exists a shortened variant *c(i)*, apparently in free variation, as in the dialogue of (28):

(28) Colonial Yucatec Maya

    a. bal ca uoktic?
       ba'l k=a   wook'-t-ik
       what IPFV=A.2 weep-TRR-INCMPL
       'What are you crying for?'

    b. in kéban lic uoktic.
       in   k'eban lik   w-ook'-t-ik
       A.1.SG sin   IPFV A.1.SG-weep-TRR-INCMPL
       'It is for my sins that I am crying.' (Coronel 1998a: 67)

One and a half centuries later, *lic* is still found in the same contexts, as shown in (29–30).[28]

(29) Colonial Yucatec Maya

    tilic   ú   tzicic   Dios Pedroe,
    ti'-lik =u   tsik-ik   dios Pedro=e'
    LOC-span =A.3 obey-INCMPL god Peter=R3

    bin ú   chuc olt   dzabilah
    bíin =u   chuk-óol-t   ts'abilah
    FUT =A.3 attain-mind-TRR(SUBJ) grace

    'as long as Peter obeys god, he will attain grace' (Beltrán de Santa Rosa 1746: §261)

(30) Colonial Yucatec Maya

    Lic ua ú hanal kohane? – Lic.
    lik   wáah   =u   han-al k'oha'n=e' lik
    IPFV INT =A.3 eat-INCMPL sick=R3 IPFV

    'Does the sick person eat? – He does.' (Beltrán de Santa Rosa 1746: §299, p.140)

As (30) proves, at this stage, *lic* still stands both of the tests of syntactic independence. However, the status of its shortened variant *c(i)*, 'very common' according to Beltrán de Santa Rosa (1746: §101), is already ambivalent.[29] It can

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[28]Beltrán de Santa Rosa (1746: §299, p.140) also mentions *liclili* (*likil-ili'*) with the meaning 'customarily, so it is always', which is a reinforcement of the same particle by the identifying suffix *-ili'*.

[29]Beltrán de Santa Rosa dedicates a section (95) to *lic*(*il*), attributing a habitual function to it, and another section (101) to *ci*, attributing present tense function to it, without noting any connection between the two.

still serve as host to a following enclitic, as in the #a version of the variants offered in (31).

(31)   Colonial Yucatec Maya

    a. ci bin in yacuntic
       ki   bin   =in   yáakunt-ik
       IPFV QUOT =A.1.SG love-DEP

    b. cin yacuntic bin
       k=in   yáakunt-ik bin
       IPFV=A.1.SG love-DEP   QUOT

       'it is said that I love him' (Beltrán de Santa Rosa 1746: §246)

On the other hand, the particle already optionally univerbates with the enclitic A index, as evidenced by the #b version (separate combinations of *ci in/a/u* in Beltrán de Santa Rosa 1746: §131). Beltrán uses the reduced auxiliary *c(i)* in his own examples when aspect is not at stake, thus, in order to choose unmarked aspect (as in (31) and *passim*). This is already today's situation: The auxiliary only survives in its one-phoneme form *k*, obligatorily univerbates with the Set A index and carries aspectual information only in contrast with more specific auxiliaries.

Thus, the imperfective auxiliary becomes a bound monophonematic form just like the older perfective auxiliary seen in §4.6. The opposition between perfective and imperfective aspect emerges as a minimal one both in formal and in functional terms. It becomes the core of the extensive TAM auxiliary paradigm indicated in Table 6.

We come to the imperfective auxiliaries of the other Yucatecan languages. Both in Itzá and in Lacandón, imperfective aspect is marked by the same formative *k* as in Yucatec.[30] However, Lacandón shows more variation. On the one hand, the formative is optional (Bruce S. 1968: 62), imperfective aspect then being marked only by the incompletive status suffix, as in (32). Especially in Chan K'in Viejo's terse epic style, an incompletive verbal complex often constitutes an independent sentence, as in (33).

(32)   Lacandón
    K'ayyum =u   häts'-ik   Cham-Bol
    K'ayyum =A.3 beat-INCMPL Chan-Bor

    'Kayum beats Chan Bor' (Bruce S. 1968: 105)

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[30]Its analysis as a future marker in Bruce S. (1968: 61) must be due to a confusion with the future subordinator *k(en)*.

(33) Lacandón

> *In   want-ik-ech   Yum-eh.*
> A.1.SG help-INCMPL-B.2.SG lord-VOC
> 'I (will) help you, my lord.' (Bruce S. 1974: 26)

The most plausible analysis of this construction is that the auxiliary has been reduced to zero.[31] This is, then, an example of complete grammaticalization within half a millennium.

On the other hand, there is a formative *k(ah)* which functions as a temporal conjunction. It may be illustrated by (21), repeated here as (34).

(34) Lacandón

> *K=u   yen-s-ik   =u yok lu'm Hachäkyum y-a'l-ah:*
> IPFV=A.3 lower-CAUS-INCMPL =A.3 foot earth Hachäkyum A.3-say-CMPL
> 'When Hachakyum set his foot onto the land, he said:' (Bruce S. 1968: 111 ~ 1974: 19)

The initial *k* is glossed as 'imperfective'. It might as well be glossed as 'when'.[32] The Yucatecan languages have a rather large set of subordinating formatives which start with or at least contain a /k/. Occupying the position indicated in Figure 7 of §4.5, some of them allow a following auxiliary. Recall that the Colonial Yucatec Maya formative *lik*(*il*), which yields the Yucatec imperfective auxiliary, is first mostly found in temporal clauses. The exact relationship between the imperfective auxiliaries and these conjunctions remains to be sorted out.

In Mopán, the alternate auxiliary *walak* was chosen, which appears in (35).

(35) Mopán

> *walak =ti   ad-ik*
> HAB   =A.1.PL say-INCMPL
> 'we always say it' (Danziger 2011: 129)

As may be seen, this is less grammaticalized, both functionally and formally, than its original competitors in the sister languages.

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[31]An alternative, and less plausible, account would be to assume that Lacandón uses the nominalized constructions of §4.3 as independent sentences, in which case the change would instantiate insubordination. Note that this is not analogous to the Lacandón use of the completive without auxiliary, discussed in §4.6, since the completive construction at its origin was independent without an auxiliary.

[32]This is actually the gloss provided by Bruce S. (1974).

4.7.3 Progressive aspect

The progressive itself is a Proto-Mayan category. In Colonial Yucatec Maya, it is based on the relational noun *tan* (*táan*),[33] illustrated in (36–37) in its lexical meaning 'front, middle'.

(36)   Colonial Yucatec Maya
       tan cah
       táan   kah
       middle village
       '(in) the village center' (Beltrán de Santa Rosa 1746: §299, p.147)

(37)   Colonial Yucatec Maya
       tutan Dios
       t=u   táan dios
       LOC=A.3 front god
       'in front of god' (San Buenaventura 1684: 39v)

(37) shows the regular syntactic construction which is natural for a noun designating a spatial region, viz. preceded by a possessive Set A clitic[34] and governed by the default preposition *ti'* LOC. The same configuration is also at the source of its aspectual use. The full form *tután* is only mentioned in Coronel 1998a: 47, but not illustrated in the sources. The earliest evidence lacks the preposition. (38–39) illustrate the incipient progressive function for intransitive and transitive verbs, respectively (38) is obviously a variant of (24).

(38)   Colonial Yucatec Maya
       vtán v hanál in yum,
       u   táan   =u   han-al   =in   yuum
       A.3 middle =A.3 eat-INCMPL =A.1.SG master/father
       ca cimçabi
       káa   kim-s-a'b-ih
       CONJ die-CAUS-PASS-CMPL(B.3.SG)
       'my father was in the middle of eating when he was killed' or: 'while my father was eating, he was killed' (Coronel 1998a: 57)

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[33]The progressive function of this morpheme may be inherited from Proto-Maya; some languages, including Kaqchiquel, have plausible cognates.

[34]The only Set A index ever attested in this construction is *u* A.3. This leads to the interpretation made explicit in the literal translation of (38) and to the gloss 'middle'. If the clitic could have been of first person, then the other meaning of *táan*, viz. 'front', would appear to underlie the construction: 'in front of me/us, P is happening'.

(39)   Colonial Yucatec Maya
       Vtan incambecic paal,
       u   táan   =in   kambes-ik   paal
       A.3 middle =A.1.SG teach-DEP.INCMPL child
       ca xolhi tu pix.
       káa   xol-hih   t=u   píix
       CONJ kneel-CMPL(B.3.SG) LOC=A.3 knee
       'While I was teaching the child, he knelt down.' (San Buenaventura 1684:
       9Br)

The original construction with the subordinating *ti'* and its further evolution
are, at any rate, completely analogous to the imperfective *ti' lik* seen in (24): It
follows the pattern of Figure 9, where the full verb of the complement clause is in
the incompletive dependent status. Initially, the new auxiliary is typically used
in complex sentences, where the progressive clause provides the background for
the event of the main clause, as clearly shown by (38–39). However, and again
like the imperfective, the progressive also appears in monoclausal sentences as
(40–41). (41) features, already at Coronel's time, a further reduced form of the
auxiliary, where the original possessive clitic preceding *táan* is no longer there.[35]

(40)   Colonial Yucatec Maya
       U tan in beeltic
       u   táan   =in   beel-t-ik
       A.3 PROG =A.1.SG make-TRR-DEP.INCMPL
       'I am (in the middle of) doing it' (San Buenaventura 1684: 37r)

(41)   Colonial Yucatec Maya
       ma tan a túbul ten
       ma' táan   =a   tu'b-ul   ten
       NEG PROG =A.2 escape-INCMPL me
       'I am not going to forget you' (Coronel 1998a: 34)

Beltrán de Santa Rosa (1746: §261) includes *utan* in the list of particles adopted
from his predecessors, but in his own examples he only uses the reduced form
tan. Seeking to render the Spanish progressive ("gerundio") in Maya, he offers,

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[35]Since Colonial Yucatec Maya, there has been a complex form *ma'táan* of the negator *ma'*, which
   according to Coronel (1998a: 83) triggers the incompletive of intransitive and the subjunctive of
   transitive verbs. It is certainly present in (41). It is not clear whether it contains the morpheme
   táan presently at stake.

among other alternatives, the pair of examples in (42), which illustrates, at the same time, the morphological correlates of the transitivity contrast:

(42) Colonial Yucatec Maya

    a. tan in tzeec, ca lub kuna
       táan =in   tse'k   káa lúub   k'u-nah
       PROG =A.1.SG preach(INCMPL) CONJ fall(CMPL) god-house

       'I was preaching, there the church collapsed'

    b. tan in tzeectic ú than Dios tiob,
       táan =in   tse'k-t-ik   =u t'aan dios ti'-o'b
       PROG =A.1.SG preach-TRR-INCMPL =A.3 word god LOC-3.PL
       ca cim Joan
       káa kim   Juan
       CONJ die(CMPL) John

       'I was preaching god's word to them, there John died' (Beltrán de Santa Rosa 1746: §262)

As may be seen, this is now just a progressive aspect. (43) illustrates the test on susceptibility of serving as the host to a clitic particle, with positive result for contemporary Yucatec Maya.

(43) Modern Yucatec Maya
    Táan wáah =a   bin?
    PROG INT   =A.2 go(INCMPL)
    'Are you going (leaving)?' (Hnazario_406)

In its further development, and again in analogy with the development of the imperfective auxiliary as illustrated by (31b) above, the progressive auxiliary co-alesces with the Set A index which regularly follows it. The full form of the auxiliary survives essentially in writing and, in the oral mode, in cases like (43). The coalescence is a process in two phases. At first, the product of the merger of *táan* with the three singular indexes *in, a, u* is *tíin, táan, túun*, as illustrated by (44).

(44) Modern Yucatec Maya
    Túun   tsikbal.
    PROG:A.3 tell(INCMPL)
    'He was talking.' (Monforte et al. 2011: 48)

This is, however, just a transitional stage rarely represented in writing. In the end, these forms are shortened to *tin, ta, tu* (cf. Briceño Chel 2006: 24f), as in (45).

(45)   Modern Yucatec Maya
       T=u   sáas-tal
       PROG=A3 dawn-FIENT.INCMPL
       káa   h   téek   líik'   y-ich   hun-túul   le   peek'=o'
       CONJ PFV for.a.moment rise(CMPL) A.3-eye one-CL.AN DEM dog=R2
       'It was dawning when one of the dogs suddenly rose his glance'
       (hts'oon_310.1)

In the syntactic configuration illustrated by (45), the progressive clause specifies a situation holding in the background simultaneously with the event described by the following clause. This is functionally equivalent with the combination described in §4.3 (cf. 6b and 11–12), where a nominalized clause subordinated by *ti'* serves as background information for the main clause. In fact, since the products of the merger of the preposition and of the progressive auxiliary with the following Set A index are homonymous, the two constructions are not easily distinguished. It may be assumed that the (much older) model of the nominalized construction played a role in the rather radical reduction of the auxiliary complex.

By the same token, the reduced variant of the progressive auxiliary becomes homonymous with the perfective auxiliary. The two aspects, however, do not thereby become homonymous, since the progressive conditions incompletive status, while the perfective conditions completive status; and these two are distinct for all verbs (cf. Lehmann 2014, §3.4.2). This convergence of two aspectual auxiliaries constitutes an important contribution to the maintenance of the status category, which otherwise might have been grammaticalized to zero (cf. §4.4).

It remains to note that the progressive with *tan* is a Pan-Yucatecan construction; see Bruce S. (1968: 93, 97) for Lacandón, Hofling (1991: 30) for Itzá and Danziger (2011: 125) for Mopán. In Itzá and Lacandón, the reduced forms are as the above-mentioned intermediate forms of Yucatec (44). The full form *tan in wilik* is in free variation with the reduced form of (46) (Bruce S. 1968: 61, 97).

(46)   Lacandón
       tin wilik
       tan=in   wil-ik
       PROG=A.1.SG see-INCMPL
       'I am seeing it' (Bruce S. 1968: 34)

Thus, the progressive auxiliary becomes a bound monophonematic form just like the imperfective auxiliary seen in §4.7.2.

4.7.4 Terminative aspect

The first constituent of Figure 9 is filled by a noun in the cases reviewed in the two preceding sections. This is, however, not the most fertile grammaticalization path for auxiliaries. Apart from modal verboids, the most important subclass of intransitive predicators to fill this position are phase verbs. The central Yucatec phase verbs are *ho'p'* 'start' and a set of verbs including *ch'en*, *ts'o'k*, *haw*, *nik* all meaning 'end'. They are normally impersonal (see already Coronel 1998a: 34f). Personal use is possible with a few of them, but does not generate auxiliaries. In the impersonal construction, actancy is coded on the dependent verb; with some marginal exceptions, there is in Yucatecan no "raising".[36] (47) and (48) illustrate the construction for *ho'p'* 'start' and *ts'o'k* 'finish', respectively. Whether or not the main clause is clefted (#a vs. #b examples), the dependent verb is in the incompletive dependent status.[37]

(47) Colonial Yucatec Maya

    a. hoppi in beeltic
       ho'p'-ih   *=in*   *beel-t-ik*
       start-CMPL(B.3.SG) =A.1.SG make-TRR-DEP.INCMPL
       'I have begun to do it' (Coronel 1998a: 53)

    b. çamal v hoppol in ɔibtic
       sáamal   *=u* *ho'p'-ol*   *=in*   *ts'íib-t-ik*
       tomorrow =A.3 start-INCMPL =A.1.SG write-TRR-DEP.INCMPL
       'tomorrow I will start writing it' (Coronel 1998a: 35)

(48) Colonial Yucatec Maya

    a. ɔoci incanic
       ts'o'k-ih   *=in*   *kan-ik*
       end-CMPL(B.3.SG) =A.1.SG learn-DEP.INCMPL
       'I finished learning / have learnt it' (San Buenaventura 1684: 17r)

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[36] Ch'ol has the same construction; see Aulie & Aulie (1998: 239). According to Coon (2010: §5.2) the Ch'ol auxiliaries which trigger incomplete status do allow raising of the absolutive enclitic.

[37] Smailus (1989: 89) claims it to be in the subjunctive. However, although crucial evidence, with an intransitive dependent verb, appears to be rare, Coronel 1998a: 35 does have *maytoh ts'o'kok in menyali'* 'I have not yet finished working', with *menyal* in the incompletive.

b. çamal v ɔócol in canic
sáamal   *=u*   *ts'o'k-ol*   *=in*   *kan-ik*
tomorrow =A.3 end-INCMPL =A.1.SG learn-DEP.INCMPL
'tomorrow I will finish learning it' (Coronel 1998a: 35)

The phase verb *ts'o'k* 'finish' shown in (48) combines with aspect auxiliaries just like any full lexical verb, e.g. in (25). It continues this life up to the present day. In (49), it regularly goes into the subjunctive required by the construction, and only the translation suggests its auxiliary function.

(49)   Modern Yucatec Maya
     le   *kéen*   *ts'o'k-ok*   *=u*   *pa't-al=e'*
     DEM when.IMPF finish-SUBJ =A.3 form\PASS-INCMPL=TOP

     k=u   *ts'a'bal*   *píib*   ...
     IMPF=A.3 put/give:INCMPL.PASS underground.oven

     'When they have been formed, they are put into the earth-oven ...'
     (chaak_028)

(50)   Modern Yucatec Maya
     beey túun ts'o'k-ol   *=u*   *kuxtal le*   *p'us-o'b=o'*
     thus then finish-INCMPL =A.3 life   DEM hunchback-PL=R2
     'This then was the end of the life of the P'uz.' (chem_ppuzoob_011)

(50) displays a symptom of grammaticalization: the phase verb is in the incompletive, but it lacks both the introductory imperfective auxiliary and the Set A index. This suggests that even in the construction at hand, where the main clause comprises more than just the phase verb, the latter fulfills an auxiliary function, with the form *kuxtal* in its subject not just being an abstract noun, but rather the verbal predicate of the dependent clause core (a case of the zero nominalization described in §4.3).

This grammaticalization process starts in the colonial period. The seventeenth century grammars adduce the phase verbs *ɔoc* 'finish' and *hopp* 'begin' only in order to mention their regular impersonal or personal construction as illustrated by (25) and (47–48) above. It is in the eighteenth century that the ongoing grammaticalization of the third person completive form *ts'o'k*[38] could no longer escape a critical linguist's ear. Beltrán, writing his grammar in Mérida in 1742, observes the expansion of the use of *ts'o'k* as auxiliary in vogue at his time (§§85f), notes

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[38]The grammaticalization of *ho'p'* to an auxiliary will not be described here. Both in Yucatec and in Itzá (Hofling 1991: 105), it is common in narratives and reports to mark a new situation.

that it is a partial competitor to the (firmly established) perfective, quotes some periphrastic forms which are actually in use up to today and opposes violently both to this fashion and to the idea that *ts'o'k* means 'already' (which it does in its function as terminative auxiliary). His verdict is that the perfective is formed without auxiliary or "better" with the auxiliary *t-* (of §4.6 above), while *ts'o'k* means 'finish' and nothing else.

The form of this verb which occupies the clause-initial position, becoming, thus, a component of the grammaticalization path, is the completive form triggered by perfective aspect, as in (51) (where *meyah* – just like *kuxtal* in (50) – can be an intransitive verb with the zero allomorph of the incompletive or an abstract noun).

(51) Modern Yucatec Maya
      (h) ts'o'k   =in   meyah
      PFV finish(CMPL:B.3.SG) =A.1.SG work

      'my work ended = I finished working = I have already worked'
      (Briceño Chel 2000b: 84)

In the sequel, the perfective auxiliary is omitted. In fact, by the evidence of (48), the grammaticalization of *ts'o'k* probably started at a time when the completive alone could make a perfective clause. Otherwise, however, the new auxiliary can maintain its full form even in the colloquial style. It passes the two tests on word status up to the present day, as evidenced by (52).

(52) Modern Yucatec Maya

      a. *Ts'o'k   wáah =in   bo'l-t-ik   =in   p'aax?*
          finish(CMPL:B.3.SG) INT   =A.1.SG pay-TRR-INCMPL =A.1.SG debt

          'Have I paid my debt?'

      b. *Ma' ts'o'k-ok=i'.*
          NEG finish-SUBJ=NEGF

          'No (you haven't).' (hnazario_375f)

There is, however, a reduced form in addition to the full form, although not as widely used as the reduced form of the progressive auxiliary. The auxiliary is then reduced to its initial consonant and coalesces with the Set A clitic, as shown by (53) (cf. Briceño Chel 2000b: 87f).

(53)   Modern Yucatec Maya
   ts'=in   *w-a'l-ik*   *te'x*
   TERM=A.1.SG O-say-INCMPL you.all
   'I have told it to you' (muuch_340)

The terminative is a kind of perfect and therefore in partial competition with the inherited suffixal perfect. They share the semantic component that the situation designated is finished at topic time. Their semantic difference lies in the implication of this fact. The Yucatec perfect implies that the agent has the result of his action at his disposal, while the terminative focuses on the crossing of the end boundary of the situation, which may be counter to expectations.[39])

Like the progressive, *ts'o'k* is a Pan-Yucatecan auxiliary. Its Lacandón form is *ts'ok*;[40] (54) is an example.

(54)   Lacandón
   Ts'ok *=u* *me(n)t-i(k)* *k'ax, …*
   TERM =A.3 make-INCMPL woods
   'He had made the woods, …' (Bruce S. 1974: 24)

Likewise in Itzá, *tz'o'k* is used in terminative function, as shown by (55):

(55)   Itzá
   Tz'o'k-i(h) *=u* *man ka'-p'eel* *k'in, …*
   TERM-CMPL(B.3.SG) =A.3 pass two-CL.INAN day
   'Two days had passed, …' (Hofling 2006, 12:39)

Besides this, Itzá has grammaticalized another phase verb to a terminative auxiliary, viz. the verb *ho'm* (Hofling 1991: 25, 65), whose original meaning is 'wane, abate'.

As an aside, it may be mentioned that the phase verb *ts'o'k* in the imperfective aspect is also the grammaticalization source of a paratactic conjunction that is very widely used in the colloquial register of Modern Yucatec Maya, as witnessed by the monotonous repetition in (56).

(56)   Modern Yucatec Maya
   K=u *ts'o'k-ol=e'* *k=in* *p'o'-ik;*
   IPFV=A.3 finish-INCMPL=TOP IPFV=A.1.SG wash-INCMPL
   'Then I wash it;'

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[39]Terminative aspect is incompatible with a temporal adverb in the same clause (s. Briceño Chel (2000b: 82f)

[40]According to Bruce S. (1968: 81, 93, 99) the function is immediate past.

k=u   ts'o'k-ol=e'
ɪᴘꜰᴠ=ᴀ.3 finish-ɪɴᴄᴍᴘʟ=ᴛᴏᴘ

k=in   ts'a'-ik   t=eh   k'áak'=o' …
ɪᴘꜰᴠ=ᴀ.1.sɢ put/give-ɪɴᴄᴍᴘʟ ʟᴏᴄ=ᴅᴇᴍ fire=ʀ2

'then I put it on fire …' (chakwaah_03f)

The phrase *ku ts'o'kole'* is commonly reduced to *ts'o'(h)le'*, the loss of the auxiliary complex being due to grammaticalization, while the shrinking of the verb form follows regular phonological processes.

4.7.5 From existential via debitive to future tense

The existential predicate in the Yucatecan languages during their entire documented history is the intransitive verboid *yaan*, illustrated by (57).

(57)   Colonial Yucatec Maya
       yan cutz
       yaan kuts
       ᴇxɪsᴛ turkey
       'there are turkeys' (Beltrán de Santa Rosa 1746: §199)

Apart from predicating sheer existence, *yaan* is also the locational copula, as in (58).

(58)   Colonial Yucatec Maya
       tij yan ti yotoch
       ti'   yaan ti'   y-otoch
       there ᴇxɪsᴛ ʟᴏᴄ ᴀ.3-home
       'there he is at his home' (San Buenaventura 1684: 35v)

Furthermore, the canonical construction coding ascription of possession is obtained by substituting a possessed nominal for the central actant of *yaan*, as in (59).[41]

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[41]Interestingly, Beltrán de Santa Rosa (1746: §199) makes the not unreasonable claim that the verboid *yaan* lacks the first and second persons in the existential and possessive uses. However, the first example offered by the *Diccionario de Motul* s.v. *yan* features just the second person in the existential use.

(59)   Modern Yucatec Maya
    yaan =in   nah-il
    EXIST =A.1.SG house-REL
    'I have got a house' (muuch_274)

Once a nominalized verbal complex is substituted for the possessum of the ascription of possession, a debitive construction results. Just as the possessum is ascribed to its possessor in (59), so the obligation is ascribed to the actor of the nominalized verbal complex in (60).

(60)   Modern Yucatec Maya
    ba'l=e'   yan =a   bo'l-t-ik-en
    however=TOP DEB =A.2 pay-TRR-INCMPL-B.1.SG
    'however, you must pay me' (hala'ch_084)

This use is not found in the colonial sources and is documented only in the modern Yucatecan languages. In Itzá, the construction is the same as in Yucatec (Hofling 1991: 25). In Lacandón, the dependent clause core is introduced by the subordinator *ti'*, as shown by (61).

(61)   Lacandón
    yan ti' =a   kaxt-ik   =u   hel
    DEB LOC =A.2 search-INCMPL =A.3 replacive
    'you have to look for another one' (Bruce S. 1968: 81)

The most recent development, first documented in the 20th century oral register, is a pure future without debitive connotations, as in (62), where the speaker articulates what he thinks will certainly happen.

(62)   Modern Yucatec Maya
    yan =u   kaxt-ik-ech   =a   taatah
    DEB =A.3 search-INCMPL-B.2.SG =A.2 father
    'your father will search you' (hnazario_402.1)

This construction is currently ousting the (much older) predictive future (§4.8), which gets pushed back into the formal register.

4.8 Auxiliation based on motion cum purpose: predictive future

The motion-cum-purpose construction is a regular syntactic construction in the Yucatecan branch. It is a complex clause core starting with an oriented motion

verb followed by a verbal clause core in the subjunctive, the latter coding the purpose. As long as nothing precedes the motion verb, the core verb is in plain status subjunctive, as in (63).[42]

(63)   Colonial Yucatec Maya
      t binén in cimez uacax
      t   bin-en   =in   kim-es   wakax
      PFV go(CMPL)-B.1.SG =A.1.SG die-CAUS(SUBJ) cow
      'I went to kill cows' (Beltrán de Santa Rosa 1746, §110)

The central verbs of oriented motion ('go', 'come', 'pass') become irregular in their conjugation on their way to Modern Yucatec. Specifically, they lose the *-Vl* suffix which marks their nominalization and would be expected in their incompletive status (see also (81) below). Moreover, the verb *ben* 'go' becomes *bin* in Yucatec, while in the other Yucatecan languages it becomes *bel*. The changed forms appear both with their lexical meaning 'go' and as auxiliaries.

The motion-cum-purpose construction with *bin* as motion verb is grammaticalized to a future in the Yucatecan branch. Coronel (1998a) already calls it "futuro" and provides examples of it. Beltrán de Santa Rosa (1746: §299, p. 128) lists *bin* as "partícula de futuro", giving examples (64–65) for the intransitive and transitive construction, respectively (29 is another example; see Table 4 for the allomorphs).

(64)   Colonial Yucatec Maya
      bin bolnacén dzedzetàc
      bíin bo'l-nak-en   ts'e'ts'etak
      FUT pay-SUBJ-B.1.SG little.by.little
      'I shall pay little by little' (Beltrán de Santa Rosa 1746: §299, p. 149)

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[42]If the future clause as introduced by *bin* is an extrafocal clause, as in (67) and (69), the full verb goes into dependent = incompletive status.

(65)   Colonial Yucatec Maya
       caix u tancoch in hanale,
       kayx   =u   táankoch =in   haanal=e'
       although =A.3 half   =A.1.SG meal=R3
       bin in ziib tech
       bíin =in   síih-ib   tech
       FUT =A.1.SG present-SUBJ(B.3.SG) you
       'although it is half of my meal, I'll give it to you' (Beltrán de Santa Rosa
       1746: §299, p.129)

The core verb keeps the subjunctive of the source construction.[43] The motion
verb complex has been reduced to the root of the motion verb. This becomes
impersonal like all the other auxiliaries and, in Yucatec and Lacandón, under-
goes an idiosyncratic phonological change: the vowel of the auxiliary *bin* (not
of the lexical verb!) is lengthened and gets high tone in Yucatec. This may be
due to analogy with the progressive auxiliary *táan*, but may also be regarded as
the expression counterpart of the grammatical change. At any rate, the imper-
sonalization and morphological impoverishment of the auxiliary comes under
paradigmaticization and may be ascribed to analogical pressure from the older
auxiliation constructions analyzed in §4.7.[44] (66) illustrates the construction for
both an intransitive and a transitive verb.

(66)   Modern Yucatec Maya
       Bíin suu-nak   yéetel bíin =in   wil-eh.
       FUT return-SUBJ(B.3.SG) and   FUT =A.1.SG see-SUBJ(B.3.SG)
       'He will come back and I will see him.' (xipaal_032)

This future construction finds its place in the tense/aspect/mood paradigm at
the side of three other futures, viz. the debitive future (§4.7.5), the immediate
future (§4.9) and an assurative future not analyzed here. It does not become an
immediate future, as so many futures based on the motion-cum-purpose con-
struction do in other languages. Neither does it contrast with the immediate
future on the time axis, as can be inferred from examples like (65). Instead, it
bears a feature of neutral, objective prediction, which may be related to the im-
personality of its auxiliary and which opposes it to the other three futures. Since

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[43]In Modern Yucatec Maya, the motion-cum-purpose construction itself diverges from its source
   by having the intransitive verb in the incompletive instead of the subjunctive status.
[44]Ch'orti' (a Ch'olan language, thus closely affiliated to Yucatecan) has the same impersonal
   construction with an etymologically unrelated verb meaning 'go'.

this semantic component matters less in what is going to happen next, time reference is often to a remote future. But this is only a favorable circumstance, not a condition for the appropriateness of a prediction.

We find the predictive future at an intermediate stage of grammaticalization. On the one hand, the reduction process mentioned above proves that it is grammaticalized to some extent already at the stage of Colonial Yucatec Maya. (67) provides evidence in the same sense, as it shows that the construction is compatible with an additional, preceding focus constituent.

(67) Colonial Yucatec Maya
bay bin v cíbic Dios teex
bay bíin =u kib-ik Dios te'x
thus go =A.3 do-DEP.INCMPL god you.PL
'thus will god do with you' (Coronel 1998a: 72 = San Buenaventura 1684: 24r)

On the other hand, the predictive future auxiliary stands the clitic placement test to this day:

(68) Modern Yucatec Maya
bíin wáah p'áat-ak-en hun-p'éel k'iin he'bix-ech=a'
FUT INT stay-SUBJ-B.1.SG one-CL.INAN sun/day ever:how-B.2.SG=R1
'will I become like you one day?' (xipaal_092)

The predictive future construction is, again, Pan-Yucatecan. Lacandón conserves a variant of it which is structurally identical to the motion-cum-purpose construction, to be seen in (69).

(69) Lacandón
way k=u bin p'at-al t=in meyah
here IPFV=A.3 go stay-INCMPL LOC=A.1.SG work
'it will stay here for my work' (Bruce S. 1974: 42)

However, it also has the reduced auxiliary construction like Yucatec, as in (70).

(70) Lacandón
b'ihn a-kihn-s-∅-een
bíin =a kíin-s-en
FUT =A.2 die-CAUS(SUBJ)-B.1.SG
'you will kill me' (Bergqvist 2011: 247)

Itzá again has the full motion-cum-purpose construction with future function, to be seen in (71):

(71) Itzá
      way=e' k=in   b'el =in   pak'-t-eech
      here=R3 IPFV=A.1.SG go =A.1.SG wait-TRR(SUBJ)-B.2.SG
      'here I'm going to await you' (Hofling 1991, 15:126)

The origin of the predictive future construction is the motion-cum-purpose construction. It differs from the other tense/aspect/mood auxiliaries analyzed in §4.6–§4.7 in that the emerging marker – the verb 'go' grammaticalized to a future marker – does not originally occupy the clause-initial position described at the beginning of §4.5 and instead is the remnant of a complete superordinate clause. However, the canonical model for an auxiliary construction is Figure 6: the auxiliary is monomorphematic, impersonal and occupies the clause-initial position. In its grammaticalization, the motion-cum-purpose construction is forced into the Procrustean bed of the verbal clause expanded by an initial position, which is the template for the auxiliary construction. This is, thus, a clear example of grammaticalization guided by analogy.

4.9 Auxiliation based on focused progressive: immediate future

As noted in §4.5, the clause-initial position is a melting-pot for constituents of very different kinds, among them the focus. We now come to an auxiliation strategy originating in a focus construction, more specifically, in a verb-focus construction. From there, we get to the immediate future in two steps: First, on the basis of the verb 'go' in focus, a focused progressive is formed. Second, this strategy applies to the 'go' verb of the motion-cum-purpose construction to form the immediate future of its purpose component.

Putting the lexical main verb of a clause into its focus position requires filling the gap that it leaves in the extrafocal clause by a verb meaning 'do'.[45] For this purpose, Colonial Yucatec Maya used a verb *cib* 'do' which is totally irregular and defective. Table 7 presents the forms adduced in Coronel (1998a: 71f).

Already Beltrán de Santa Rosa (1746: §§209f) doubts this paradigm and contends that the verb is defective, being reduced to a "present" form *cah*. The verb is rarely found in a simple transitive clause to code the meaning 'do, make';[46]

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[45]See Lehmann (2008: § 4.3) for a comprehensive account of the underlying information structure and the Yucatec development.

[46]One of the rare examples is (67) above, featuring dependent incompletive status.

Table 7: Partial paradigm of Colonial Yucatec Maya *cib* 'do'

category	form
[fossilized status]	cah
completive	cibah
subjunctive	cib (not *cibib*!)
incompletive dependent	cibic

the lexicon offers other verbs with this meaning. Instead, it is used almost exclusively in focus constructions. A relatively straightforward one appears in (72).

(72)   Colonial Yucatec Maya
       balamil u cah pedro
       balam-il   =u   ka'h Pedro
       tiger-ADVR =A.3 do   Peter
       'Peter makes the tiger / Peter is like a tiger' (lit.: 'tiger-like is what Peter
       does'; Motul s.v. *cah₃*)

At the stage of Colonial Yucatec, the verb is indispensable as a pro-verb in the verb focus construction. The paradigm shown in Table 7 is illustrated by (73).

(73)   Colonial Yucatec Maya

       a. hanál v cah
           han-al   =u   ka'h
           eat-INCMPL =A.3 do
           'he is eating'

       b. hanál v cibah
           han-al   =u   kib-ah
           eat-INCMPL =A.3 do-CMPL
           'he was eating'

       c. hanal bin v cib
           han-al   bíin =u   kib
           eat-INCMPL go   =A.3 do(SUBJ)
           'he is going to eat' (Coronel 1998a: 71; cf. San Buenaventura 1684: 23v)

d. lúbul tu cibah
   lúub-ul   t=u   kib-ah
   fall-INCMPL HOD=A.3 do-CMPL
   'he fell (earlier today)' (Coronel 1998a: 71)

As suggested by the translations of (73a–c), the same construction functions as a progressive in Colonial Yucatec Maya. As a matter of fact, it figures much more prominently in colonial grammars than the simpler progressive with the auxiliary *táan* (§4.7.3). All of them start their account of the conjugation with the periphrastic construction based on *ka'h*, calling it the "presente". (74) completes the example series with a transitive verb.

(74) Colonial Yucatec Maya
      cámbeçah in cah ti pálalob
      kambes-ah   =in   ka'h ti' paal-alo'b
      teach-INTROV(INCMPL) =A.1.SG do   LOC child-PL
      'I am teaching the children' (Coronel 1998a: 72)

While all of the examples (72–74) are focus constructions, there are a number of peculiarities. First, if these were standard cleft sentences, the pro-verb of the extrafocal clause would have to be in dependent status. While this is hard to know for the irregular forms *ka'h* (73a) and *bíin* (73c), the forms of (73b) and (73d) appear to be forms of the plain status. Second, while any constituent can be focused without its form being thereby affected in any way, a finite verb cannot; it must be nominalized. Therefore, the focused verbs in (73–74) show the nominalizing suffixes introduced in §4.3, identical with incompletive (dependent) status. Third, the process is relatively unproblematic with intransitive verbs, as in (73), as their only actant is identical with the subject of *ka'h* and may thus safely be suppressed by the nominalization. Things are more complicated with transitive focused verbs, as in (74). The purpose of the verb-focus construction is to put the verb into focus. Consequently, its dependents remain in the extrafocal clause. Therefore, the verb is detransitivized before it is nominalized. The internal syntax of the extrafocal clause is adapted, too: what was the direct object of the focused verb becomes a prepositional object (Beltrán de Santa Rosa 1746: §172). The verb focus construction is, consequently, marked with plurivalent verbs.

The progressive aspect views what the verb designates as an ongoing situation that the referent of the subject is in. Consequently, the functional locus of the

progressive aspect is in intransitive verbs.[47] The verb focus construction is therefore well suited to get grammaticalized into a progressive aspect.[48] The resulting construction may be dubbed focused progressive (as in Lehmann 2008). Two symptoms of the grammaticalization of the focused progressive construction in Colonial Yucatec Maya will be mentioned: First, its susceptibility to nominalization by coercion, i.e. by having it depend on the preposition *ti'*, as in (75).

(75)   Colonial Yucatec Maya
        ti cimil in cah
        ti'   kim-il   =in   ka'h
        LOC die-INCMPL =A.1.SG do
        'at/by my being ill' (Coronel 1998a: 58)

Second, since the action feature of the basic meaning of *kib* is lost, it combines even with passive verbs, as in (76):

(76)   Colonial Yucatec Maya
        tzicil in cah
        tsi'k-il   =in   ka'h
        obey\PASS-INCMPL =A.1.SG do
        'I am (being) obeyed' (San Buenaventura 1684: 11v)

Modern Yucatec Maya has a verb-focus construction, too, but it is not as central to the conjugation paradigm as the focused progressive appears to be in the grammars of Colonial Yucatec Maya. This has two totally unrelated reasons. The first is that the Colonial Yucatec Maya construction is much more grammaticalized than is the Modern Yucatec Maya verb focus construction, which was renewed with the lexical verb *beet/meent* 'make' (seen in (40) above). The modern counterpart to (73d) would consequently be (77).

(77)   Modern Yucatec Maya
        lúub-ul   t=u   meet-ah
        fall-INCMPL PFV=A.3 make-CMPL
        'fall was what he did' (~ 'all of a sudden, he fell')

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[47]Evidence for this is provided, *inter alia*, by the documented history of the evolution of the progressive aspect in English and in substandard German; see Lehmann 1991: section 3.2.

[48]The progressive aspect of other languages has a similar origin; cf., e.g., Güldemann (2003) for Bantu.

The Colonial Yucatec Maya construction is clearly a kind of progressive aspect, which the Modern Yucatec Maya construction is not; it is rather more of a thetic construction fit for all-new-utterances. The second reason for its prominence in the colonial grammars is a methodological one: The category is not nearly as frequent in the texts as it is in the grammars. The explanation is not hard to find: The grammarians needed to fill up the conjugation paradigms presupposed by Latin grammar (Hanks 2010: 214f). If one looks for a present tense in Colonial Yucatec Maya, the closest analog would appear to be the imperfective aspect described in §4.7.2. This, however, originates in complex sentences, whereas here an isolated verb form was needed. In a decontextualized sentence reduced to a finite verb, all of the emphasis is on the finite verb. Which provokes a verb-focus construction.

On its way into the modern Yucatecan languages, the pro-verb *cib* is further fossilized; only the form *cah/ka'h* occurs in a couple of contexts. This is ousted from its function as a pro-verb in verb-focus constructions by the lexical verb *beet/meent* illustrated in (77). *Ka'h* survives in this function only in the formulaic pattern illustrated by (78).

(78)   Modern Yucatec Maya
       Chéen uk'ul   =u   ka'h.
       only   drink:INTROV(INCMPL) =A.3 do
       'drinking is all he does / he only drinks (all the time)' (Briceño Chel 1998: 77)

Neither is the focused progressive with *ka'h* further grammaticalized to a plain progressive. As we have seen in §4.7.3, the progressive construction which gets established involves a different auxiliary. Instead, verb focusing is applied to the motion-cum-purpose construction analyzed in §4.8. What is put into focus position is the verb *benel/binel/bin* 'go', while the purpose part of the construction is left behind in the extrafocal clause core. The resultant specific construction is, thus, a merger of the focused progressive with the motion-cum-purpose construction. (79–80) illustrate it with an intransitive and transitive full verb, respectively.

(79)   Colonial Yucatec Maya
       benel in cah ti hanal
       ben-el   =in   ka'h ti'   han-al
       go-INCMPL =A.1.SG do   LOC eat-INCMPL
       'I am going to eat' (Coronel 1998a: 50)

(80) Colonial Yucatec Maya
      Binel in cah incambez palalob.

bin-el	*=in*	*ka'h*	*=in*	*kan-bes*	*paal-alo'b*
go-INCMPL	=A.1.SG	do	=A.1.SG	learn-CAUS(SUBJ)	child-PL

      'I am going to teach the children.' (San Buenaventura 1684: 9Br)

As already observed above (fn. 43), on its way to Modern Yucatec Maya, the motion-cum-purpose construction develops an asymmetry conditioned by the transitivity of the full verb which persists into the focused progressive: A transitive full verb (80) is in the subjunctive motivated by the motion-cum-purpose construction, while the status of an intransitive full verb (79) is the incompletive, which is diachronically the pure nominalized form (§4.3). This is in consonance with the latter being subordinated by the preposition *ti*.[49] Again at the stage of Colonial Yucatec Maya, the binary contrast between *bin* 'go' and *tal* 'come' is yet maintained in their grammaticalization, as proved by (81). Observe, by the way, the third person on the pro-verb, obviously in analogy to the third person in the phase verb construction of §4.7.1.

(81) Colonial Yucatec Maya

      a. tal(el) v cah in botic in ppax

tal(-el)	*=u*	*ka'h*	*=in*	*bo't-ik*	*=in*	*p'aax*
come-INCMPL	=A.3	do	=A.1.SG	pay-INCMPL	=A.1.SG	debt

          'I would like to pay my debt' (Coronel 1998a: 69)

Further reduction of the paradigm, however, leads to the consequence that the only verb possible in the Modern Yucatec Maya focused motion-cum-purpose construction is *bin*, and the construction only survives in the modern immediate future, illustrated by the intransitive and transitive sentences of (82).

(82) Modern Yucatec Maya

      a.

bin	*=in*	*ka'h*	*xíimbal*	*ti'*	*le*	*chaan*	*kaah*	*…=e'*
IMM.FUT	=A.1.SG	do	walk(INCMPL)	LOC	DEM	little	village	=R3

          'I am going to walk to that little village' (hts'on_016)

      b.

bin	*=in*	*ka'h*	*=in*	*xíimba-t*	*yuum*	*ahaw*
IMM.FUT	=A.1.SG	do	=A.1.SG	walk-TRR(SUBJ)	master/father	chief

          'I am going to visit the chief' (hts'on_020)

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[49]The documentary situation is such that this latter change appears earlier in the focused progressive than in the motion-cum-purpose construction proper.

The preposition *ti'* no longer shows up in this construction in Modern Yucatec Maya. And as in the focused progressive (76), the full verb does not need to be an agentive verb, as shown by (83–84).

(83) Modern Yucatec Maya
      bin   =in   ka'h kíim-il
      IMM.FUT =A.1.SG do   die-INCMPL
      'I am going to die' (FCP 395)

(84) Modern Yucatec Maya
      bin   =u   ka'h-o'b suut   ba'ba'l-il-o'b
      IMM.FUT =A.3 do-3.PL turn\INTROV demon-ADVR-PL
      'they were becoming demons' (hnazario_415.5)

By desemanticization, the semantic component of motion has disappeared, and what remains is only the direct tie between present topic time and future event time. *Bin … ka'h* is now a complex auxiliary with the value of immediate future.

(85) can serve for the clitic placement test:

(85) Modern Yucatec Maya
      Behe'la'=e' bin   =in   ka'h wáah túun =in   kíins-ech?
      today=R3   IMM.FUT =A.1.SG do   INT   then =A.1.SG kill-B.2.SG
      'And now I shall kill you?' (hk'an_610)

It shows that – in contrast with the *bíin* of the predictive future – the first component of the discontinuous auxiliary cannot be host to a clitic, but the second component can. This is in consonance with the reduction processes to be analyzed in a moment and argues for the structural unity of the discontinuous auxiliary.

The structure of this auxiliation is peculiar within the grammar of Yucatec Maya in several respects. First, this is the only auxiliary which conditions different statuses on the full verb depending on the latter's transitivity, as is shown by (82). This is a reflection of the blending of two different constructions at its origin: The subjunctive on the transitive verb is a reflection of the motion-cum-purpose construction, which requires this status for the purpose verb. The incompletive on the intransitive verb is its nominalized form, which in turn is required by the preposition which originally governed this verbal core. It only remains to find out why the intransitive morphology reflects the verb-focus construction, while the transitive morphology reflects the motion-cum-purpose construction.

Secondly, *bin … ka'h* is the only discontinuous auxiliary of the language. What is more, the real auxiliary in the construction is the component *ka'h*. This, however, does not occupy the clause-initial position taken by all the other auxiliaries of the language. This position is, instead, taken by a verb which has the role of a full verb in the source construction. Thirdly, while *bin* is impersonal like all the other auxiliaries, *ka'h* is the only one with personal inflection. As a consequence, with transitive full verbs, the subject is cross-referenced twice (Briceño Chel 1998: 82), as is apparent from examples like (82b). There is, consequently, much redundancy in this auxiliation. In the colloquial register of Modern Yucatec, the full forms are rarely used. They are normally reduced in phonologically irregular ways, and there is currently much variation in this respect. Briceño Chel (1998: 82, 2000a:88f, 2006: §§1.2, 1.3) notes the fusion of *bin in/a/u ka'h* into *nika'h/naka'h/nuka'h*, as in (86a). If the full verb is transitive and therefore preceded by a Set A index, the *ka'h* of the auxiliary coalesces with it, as in #b.

(86)   Modern Yucatec Maya

   a.   *Ni-ka'h   meyah t=in   kool.*
        IMM.FUT\A.1.SG-do work   LOC=A.1.SG milpa

        'I am going to work on my cornfield.' (Briceño Chel 2000a: 88)

   b.   *Ni-k=in   hant   bak'*
        IMM.FUT\A.1.SG-do=A.1.SG eat:TRR(SUBJ) meat

        'I am going to eat meat' (Briceño Chel 2000a: 99)

Other idiosyncratic mergers occur in a variant of the construction in which the *ka'h* component takes Set B indexes. Using this variant with a transitive verb leads to cross-referencing the subject three times. The reduction processes applied in this context disguise this to a certain extent. Thus, the first syllable of the complex auxiliary in (87) contains the vowel of the 1st person sing. Set A clitic.

(87)   Modern Yucatec Maya
       mi-ka'h-en   =in   wa'l   te'x   …
       IMM.FUT\A.1.SG-do-B.1.SG =A.1.SG say(SUBJ) you.PL

       'I'm going to tell you …' (FCP_043)

However, contractions with clitics of other persons may also contain an *i*, so that the interim result of these changes is an auxiliary which takes Set B suffixes to cross-reference the subject of the clause core. In cases like (87) it leads to

doubling, quite untypical of the language. The only comment one may make on the situation is that before a construction becomes a fixed grammaticalized inflected form, much variation occurs.

The other Yucatecan languages, too, have developed an immediate future on the basis of a focused progressive of the motion-cum-purpose construction involving their cognates of Yucatec *bin* 'go'. (88) shows the focused progressive with the defective pro-verb in Lacandón, which here already assumes an imminent future function (Bruce S. 1968: 80, 101):

(88) Lacandón
ok'ol   *=u*   *kah*
weep-INCMPL =A.3 do
'he is about to cry' (Bruce S. 1968: 80)

Applying this to the motion verb of the motion-cum-purpose construction already illustrated by (69) yields the Lacandón immediate future. Just as in Yucatec, reduction of the immediate future construction involves merger of the Set A index preceding the transitive full verb with the auxiliary *kah* immediately preceding it. Thus, *kah=in/a/u* yields *kin/ka/ku* (Bruce S. 1968: 95, 101), as in (89) (where *kah* must be a variant of *k=a* [do=A.2]) and (90a).

(89) Lacandón
Bin =a   *kah päy-e*   *lu'um-o',*
go =A.2 do   carry-SUBJ earthling-PL
'You are going to take the earthlings with you,' (Bruce S. 1968: 76)

As an alternative to the construction of (69), an intransitive purpose clause may be introduced by the preposition *ti*, as in (90b). This may be seen as a direct continuation of the Colonial construction represented by (79) and is furthermore in analogy with the debitive construction illustrated by (61).

(90) Lacandón

     a. *bin*   *=in*   *k=in*   *wuk'-ik*
        IMM.FUT =A.1.SG do=A.1.SG drink-INCMPL
        'I am going to drink it'

     b. *bin*   *=in*   *kah t=in*   *wuk'-ul*
        IMM.FUT =A.1.SG do   LOC=A.1.SG drink-INCMPL
        'I am going to drink' (Bruce S. 1968: 101)

In (91) from Itzá, the verb *b'el* 'go' is the full verb occupying the focus position in a simple verb-focus construction.

(91) Itzá
    (B'el)   *=u*   *ka'a* *ich* *=u*   *kool.*
    go(INCMPL) =A.3 do/go in =A.3 milpa
    'He is going to his cornfield.' (Briceño Chel 2000a: 90f)

If *b'el* is the motion verb of a motion-cum-purpose construction, an intransitive verb in the purpose clause is subordinated by the preposition *ti*, as in (92), while a transitive verb, as in (93), is in the subjunctive.

(92) Itzá
    (B'el) *=u*   *ka'a* *ti*   *han-al.*
    go   =A.3 do/go LOC eat-INCMPL
    'He is going to eat.' (Bruce S. 1968: 91)

(93) Itzá
    U-ka'ah   *=u*   *b'et-eh*   *=u-yotoch*
    A.3-do/go =A.3 make-SUBJ =A.3-home
    'He is going to make his home' (Hofling 1991, 1:5)

The peculiarity here is that since occurrence of the defective verb *ka'a* is all but limited to the construction with *b'el* in focus,[50] it assumes the sense of 'go' by syntagmatically mediated coding (Lehmann 2014). Consequently, *b'el* becomes redundant and may be omitted. This is true not only for the immediate future developed from the motion-cum-purpose construction, but also for the simple verb-focus construction of (91).[51]

The facts of Mopán, finally, are similar. (94) illustrates the simple verb-focus construction.

(94) Mopán
    T'an *=in-ka'aj.*
    speak =A.1.SG-do
    'I am speaking.' (Hofling 2011: 154)

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[50]Hofling (1991: 17) does present an example with *ka'a* as the main verb meaning 'do'. A similar construction in Ch'ol employs the cognate verb *cha'l* 'do' (Coon 2010, §3.1).

[51]This is mentioned in Briceño Chel (2000a), but not in Hofling (1991).

(95) shows the immediate future construction with an intransitive full verb in the second person (cf. Hofling 2011:153). The #a and #b examples represent the full and reduced variants, resp. The same relationship holds between (96a) and (b), where the pronominal enclitic preceding the transitive verb is involved in the contraction, too. As may be seen, contraction of the auxiliary with the Set A index works similarly as in the Yucatec (86). Moreover, the intransitive verb of (95) is in the incompletive status and subordinated by *ti*, while the transitive verb of (96) is in the subjunctive.

(95)   Mopán

    a. *Bel*　　　*=a*　*ka'a ti*　*wäy-el.*
        go(INCMPL) =A.2 do　LOC sleep-INCMPL
        'You are going to sleep.'

    b. *B=a-ka'a*　*ti*　*wäy-el.*
        go=A.2-do LOC sleep-INCMPL
        'You're going to sleep.'

(96)   Mopán

    a. *Bel*　　　*=in*　*ka'a =in*　*koykin*　　　*=a*　*nene'e*
        IMM.FUT =A.1.SG do　=A.1.SG lay.down(SUBJ) =DEM baby
        'I am going to lay the baby to sleep'

    b. *B=i(n)-k=in*　　　　　*koykin*　　　*=a*　*nene'e*
        IMM.FUT=A.1.SG-do=A.1.SG lay.down(SUBJ) =DEM baby
        'I'm going to lay the baby to sleep' (Briceño Chel 2000a: 95)

The languages of the Yucatecan branch share all the essential properties of the immediate future auxiliation: the discontinuous auxiliary, the multiple cross-reference to the subject and the asymmetry of status marking of the full verb conditioned by its transitivity, which reflects the contamination of two different syntactic constructions operative at the origin of this auxiliation. All four languages reduce this complex auxiliary construction; but as the processes operative here are not phonologically regular, they also differ among the languages.

The grammaticalization of the construction is a process in two main phases:

  a. verb focus construction > focused progressive

  b. focused progressive of auxiliary 'go' > (simple) immediate future.

More in detail, the following minimal steps compose the process:

- The motion verb *bin* 'go' is semantically bleached; the movement component disappears.

- The incompletive or subjunctive verb remaining in the extrafocal clause is reinterpreted as the main verb.

- The internal structure of the complex "*bin* set_A_index *ka'h*" is blurred. By being forced into the Procrustean bed of the initial position, it is reanalyzed as a discontinuous immediate future auxiliary with internal inflection.

- The whole sentence ceases to be complex; it is reinterpreted as a single clause.

- Whatever may have remained of the focal emphasis on the initial verb vanishes; the construction becomes open to different information structures that may be superimposed.

The model of this complex reanalysis is the structure of the simple fully finite clause of Figure 6, in which the initial auxiliary combines with the enclitic subject pronoun and is followed by the verbal complex (as, e.g., in (17b)). The result of the change conforms to that model to the extent possible for a discontinuous auxiliary.

4.10 Auxiliation in Yucatecan languages

The inherited suffixal system, where a minimum aspect system is coded as part of the status category, is renewed, in the period from Proto-Yucatecan to Modern Yucatec, by a large paradigm of aspectual auxiliaries. The sources of these auxiliaries are of different categories and form different syntactic constructions with the clause core. This explains the different status categories that they condition on the full verb. Conditioning them, they render them largely redundant. The new categories mark relatively fine distinctions not only of aspectual, but also of temporal and modal categories.

4.10.1 Syntactic relations

The new set of auxiliaries is structurally completely different from the inherited suffixal status-aspect-mood system. Since it owes its origin essentially to grammaticalization, it is based on syntactic rules operative at the time of its formation. There are four syntactic constructions at work:

a. an adverb modifying the verbal clause (core) following it and leaving its status marking intact

b. complementation, where a relational noun, an impersonal phase verb or modal verboid takes a verbal clause core in the dependent (subsequently incompletive) status as its complement

c. the motion-cum-purpose construction, where a verb of directed motion is followed by its purpose complement, represented by a verbal clause core in the subjunctive

d. the verb-focus construction, which puts the main verb of the clause into focus position, leaving behind in the extrafocal clause a pro-verb with all the dependents of the focused verb.

The primary structural division of this set contrasts construction #a with constructions #b – #d. Construction #a is mono-clausal from the beginning. The auxiliary to-be bears a modifying relation to the clause core, which is syntactically independent. Constructions #b – #d transcend the simple clause; #b and #c are biclausal, #d is clefted. In these, the auxiliary to-be constitutes the main clause, while the clause core depends on it. As a consequence, auxiliation strategy #a leaves the syntactic relations in the clause core intact, while strategies #b – #d require some degree of nominalization of the clause core.

This difference has consequences for the configuration of basic syntactic relations in the clause core. These do not concern the transitive subject. Since Proto-Mayan, this has been cross-referenced in all Mayan languages by the same Set A indexes which also cross-reference the possessor. This produces the ergative pattern of alignment shown by the cross-reference indexes. Since it appears primarily in completive status, which is semantically perfective, one may plausibly assume that assignment of possessive marking to the transitive subject stems, in its turn, from a pre-historic nominalization process. Be that as it may, the subordination of the clause core with auxiliation strategies #b – #d again requires nominalization of the clause core. Since the underlying transitive subject is already marked by a possessive relation, the intransitive subject now remains to be affected. This is why, in all tenses and aspects except the perfective, and also excepting subjunctive mood, it is marked by Set A indexes. The result is a rather peculiar form of aspect-conditioned split subject marking, which occurs in intransitive, not in transitive clauses.[52]

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[52]If the analysis proposed in Coon (2010: §6) is accepted for Yucatecan, the indexing pattern would be ergative throughout, because what looks like accusative marking in almost all aspects actually occurs in subordinate clauses.

4.10.2 Grammaticalization of the auxiliary

Although the four constructions are clearly distinct, they share a clause-initial position which becomes the melting-pot for the aspectual and modal formatives recruited from different sources. Paths #a, #c and #d have been followed only once each in history; path #b has been the most prolific one.

Since the process of renewal and grammaticalization of auxiliaries has not finished, the paradigm is open and heterogeneous both in functional and in structural terms. In contemporary Yucatec, while all of the auxiliaries occupy the same structural position, the older ones are bound while the more recent ones are independent. And although several of them stem from verbs, they share the property of leaving conjugation categories to the full verb while remaining uninflected themselves. This is true with the single exception of the immediate future auxiliary, which is idiosyncratic in many respects.

The grammaticalization of auxiliaries evidences a process of clause union: it shrinks an original biclausal construction into a monoclausal one. This is perhaps clearer in Mayan languages, with their preference for verb-initial position and for impersonal constructions, than in many other languages. The many auxiliary constructions of the Yucatecan languages occupy all conceivable positions on a continuum from a complex sentence consisting of a matrix and a complement clause down to a one-clause sentence. Once the matrix predicate in initial position has been grammaticalized to an auxiliary, one might think that the construction is monoclausal. However, a simple test like the form of the answer to a polar question reveals that the auxiliary keeps being the main predicate.[53] Only after the auxiliary coalesces with the subject cross-reference index is it an irremovable part of a unitary clause.

The coalescence of the auxiliary with the following enclitic subject index is especially interesting. In SAE languages, the auxiliary is an element that hosts the conjugation categories of a finite verb, the most important of these being person and number. These are just the categories that the Yucatecan auxiliary lacks. Instead of denying it auxiliary status on these grounds,[54] it is intriguing to observe that, as a consequence of purely phonological enclisis, it coalesces with the sub-

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[53]While it is clear that the non-completive status suffixes are explained diachronically by the syntactic relation between the auxiliary and the full verb complex, Coon (2010: §2.3.3) insists that non-completive status clauses in Ch'ol are synchronically subordinate to the auxiliary. The imperfective and progressive auxiliaries, which are at stake here, do have a few more verbal properties than the Yucatecan imperfective auxiliary.

[54]Andrade (1955: §4.13) has a rather extensive discussion on the applicability of this term to the formatives in question.

ject indexes which syntactically accompany the following full verb, ending up as
a morphologically complex form which codes not only tense, aspect and mood,
but also person and number like an SAE auxiliary. However, the morphology
– or maybe rather, the phonology – here is treacherous and not transparent to
the syntax: even if merged with the preceding auxiliary, the pronominal index
clearly forms a syntactic constituent not with it, but with the following verb, as
shown in Figure 6 and proved by numerous examples like (4), (6c) and (32–33).

Although according to available descriptions, the complex of auxiliary plus
Set A index is prefixed to the full verb in other Mayan languages, this has not
happened in the Yucatecan languages. First of all, the enclitic status of the Set A
index does not favor its univerbation with the material following it. Moreover,
given the configuration "set_A_index X", neither X nor this binary configuration
is categorially uniform, since X may either be the head of this syntagma or may
be a modifier of a head which is yet to follow (an adjective in a noun phrase or
an adverb in a verbal complex). Consequently, although the auxiliary forms a
phonological complex with the Set A index in many cases, there are syntactic ob-
stacles to the univerbation of this complex with the verb of the following verbal
complex.[55]

The grammaticalization of TAM in Yucatecan languages is a clear example of
convergence of grammaticalization paths starting from different sources. The
convergence is fostered, if not forced, by a rather rigid syntactic framework that
a clause must fit in: First, an element that has scope over a verbal clause core
must precede it. Although there are three distinct structural positions preceding
a verbal clause core, their neutralization and merger into only one position is
already predestined by the structure of Figure 7. Second, all of the operators
that may occupy this position are impersonal. With these two constants to begin
with, practically the only variable is the syntactic relation between the initial
element and the clause core. This then determines the status to be chosen on the
full verb. Since this variation in status is conditioned rather than informative, it
could, in principle, be leveled out with ongoing grammaticalization. However,
phonological reduction has rendered a subset of aspect auxiliaries homonymous.
These aspects can then only be distinguished by the different status categories
that they condition. This, in turn, prevents, for the time being, the disappearance
of the status category.

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[55]Some analysts (e.g. Hofling 1991: 25; Pye 2009: 266) claim the aspect auxiliaries to be prefixes.
They are definitely not, in none of the Yucatecan languages. Hofling (1991: 37) keeps this
analysis up by declaring the adverbs which may occur between the pronominal clitic and the
verb to be "incorporated into the verb". This, however, is not so, witness the conjugation shown
by verbs preceded by such adverbs: the stems do not become complex by this combination,
which shows that it is a syntactic construction.

The methodological lesson from the above for synchronic grammatical description is the following. Although all of the auxiliaries occupy the same structural position immediately preceding the clause core and although we are dealing with periphrastic constructions, a description which aims to account for the status forms of the full verb which accompany the diverse initial aspectual "particles" has to make explicit the syntactic relations between the initial element and the clause core. This, in turn, is facilitated if the grammaticalization source of these elements is taken into account.

5 Conclusion

While many of the grammatical formatives in the Mayan languages are etymologically unrelated, their functional categories and their structural properties are often identical. For instance, Yucatecan and Ch'olan languages share a large portion of the system of TAM auxiliaries; and these appear in the same structural position in all of these languages. What is more: They share particular aspects such as the perfective, imperfective, progressive etc.; but the morphemes appearing in these functions are unrelated. One must infer from this picture that the Mayan languages have been very conservative, over the millennia, as to their grammatical structure, and have limited themselves to renewing the formatives from time to time.

In view of the fact that grammaticalization is again and again hawked as a process of linguistic change, one must emphasize again and again that it is a process of linguistic variation both on the synchronic and on the diachronic axes. Moreover, history is always more complicated than diachrony: Variants that succeed each other on a dimension of grammaticalization co-occur synchronically, both within one language and across sister languages. And what would be a unitary source of a grammaticalized construction if one had to reconstruct it, with consideration of historical data turns out to be a set of variants and competing constructions that contributed in shaping the construction in question.

Abbreviations

A	possessive/subject function	CFP	clause final particle
ADVR	adverbializer	CL	classifier
AN	animate	CMPL	completive
B	absolutive function	CONJ	conjunction
CAUS	causative	COP	copula

DEAG	deagentive		PL	plural
DEB	debitive		PRF	perfect
DEM	demonstrative		PROG	progressive
DEP	dependent status		PRSV	presentative
EXIST	existent		QUOT	quotative
FUT	future		rc	referential clitic
HAB	habitual		R1	clitic of 1st person deixis
HOD	hodiernal past		R2	clitic of 2nd person deixis
IMM	immediate (future)		R3	non-deictic referential clitic
INAN	inanimate		REC.PST	recent past
INCMPL	incompletive		SG	singular
INT	interrogative		SUBJ	subjunctive
INTROV	introversive		TAM	tense/aspect/mood
M	masculine		TERM	terminative
NEG	negator		TOP	topic
NEGF	negator, final part		TRR	transitivizer
PASS	passive		VOC	vocative
PFV	perfective			

References

Andrade, Manuel J. 1955. *A grammar of Modern Yucatec.* Chicago: University of Chicago Library. Microfilm Collection of Manuscripts on Middle American Cultural Anthropology, 41.

Aulie, H. Wilbur & Evelyn W. de Aulie. 1998. *Diccionario ch'ol de Tumbalá, Chiapas, con variaciones dialectales de Tila y Sabanilla* (Serie de vocabularios y diccionarios indígenas Mariano Silva y Aceves 121). Coyoacán, D.F.: Instituto Lingüístico de Verano. Emily F. Scharfe de Stairs (1996 re-editing).

Beltrán de Santa Rosa, Pedro. 1746. *Arte del idioma maya, reducido a sucinctas reglas, y semilexicon yucateco.* México D.F.: Viuda de d.J. Bernardo de Hogal.

Bergqvist, Henrik. 2011. Agentivity and status in Yukatekan languages. In Heriberto Avelino (ed.), *New perspectives in Mayan linguistics*, 242–257. Newcastle upon Tyne: Cambridge Scholars.

Bisang, Walter. 1991. Verb serialization, grammaticalization and attractor positions in Chinese, Hmong, Vietnamese, Thai and Khmer. In Hansjakob Seiler & Waldfried Premper (eds.), *Partizipation*, 509–562. Tübingen: G. Narr.

Briceño Chel, Fidencio. 1998. La gramaticalización del verbo *bin* ("ir") en el maya yucateco. In Zarina Estrada Fernández (ed.), *Memorias del IV encuentro inter-*

nacional de lingüística en el noroeste. 4 volúmenes (Serie Lingüística 1), 69–93. México D.F.: Instituto Nacional de Antropología e Historia.

Briceño Chel, Fidencio. 2000a. La gramaticalización del verbo "ir" en las lenguas mayas de la rama yukateka. In Zarina Estrada Fernández (ed.), *Memorias del V encuentro internacional de lingüística en el noroeste. 3 volúmenes*, vol. 1, 85–101. Hermosillo, México: UniSon.

Briceño Chel, Fidencio. 2000b. La gramaticalización del verbo 'terminar' (*ts'o'okol*) en maya yucateco. *Lingüística Mexicana* 1. 79–91.

Briceño Chel, Fidencio. 2006. *Los verbos del maya yucateco actual: Investigación, clasificación y sistemas conjugacionales*. México D.F.: Instituto Nacional de Lenguas Indígenas.

Bricker, Victoria R. 1981. The source of the ergative split in Yucatec Maya. *Journal of Mayan Linguistics* 2(2). 83–127.

Bruce S., Roberto D. 1968. *Gramática del lacandón* (Departamento de Investigaciones Antropológicas 21). México D.F.: Instituto Nacional de Antropología e Historia.

Bruce S., Roberto D. 1974. *El libro de Chan K'in* (Colección Científica Lingüística 12). México D.F.: Instituto Nacional de Antropologia e Historia, Departamento de Lingüística.

Coon, Jessica. 2010. Rethinking split ergativity in Chol. *International Journal of American Linguistics* 76(2). 207–253.

Coronel, Juan. 1998a. *Arte en lengua de maya*. México D.F.: D. Garrido. 2–55. Repr.: Martínez Hernández (ed.) 1929: 2–55.

Coronel, Juan. 1998b. *Arte en lengua de maya. Edición de René Acuña* (Fuentes para el estudio de la cultura maya 14). México D.F.: Universidad Nacional Autónoma de México, Instituto de Investigaciones Filológicas.

Danziger, Eve. 2011. Once more with feeling: A forbidden performance of the Great Speech of the Mopan Maya. *Anthropological Quarterly* 84(1). 121–140.

de Ciudad Real, Antonio. 1929. *Gran diccionario o Calepino de la lengua maya de Yucatán*. Motul, Yucatán: Convento Franciscano. Unpublished; first printed in Martínez Hernández (1929).

Dik, Simon C. 1981. *Functional grammar* (Publications in Languages Sciences 7). Dordrecht & Cinnaminson: Foris.

Grinevald, Colette & Marc Peake. 2012. Ergativity in Mayan languages: A functional-typological approach. In Katharina Haude & G. Authier (eds.), *Ergativity, valency and voice*, 15–50. Berlin: Gruyter.

Güldemann, Tom. 2003. Present progressive vis-à-vis predication focus in Bantu: A verbal category between semantics and pragmatics. *Studies in Language* 27. 323–360.

Hanks, William F. 2010. *Converting words: Maya in the age of the cross.* Berkeley etc.: University of California Press.

Hofling, Charles A. 1991. *Itzá Maya texts with a grammatical overview.* Salt Lake City: University of Utah 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.

Hofling, Charles A. 2011. Voice and auxiliaries in Mopan Maya. In Heriberto Avelino (ed.), *New perspectives in Mayan linguistics*, 144–159. Newcastle upon Tyne: Cambridge Scholars.

Lehmann, Christian. 1990. Strategien der Situationsperspektion. *Sprachwissenschaft* 16. 1–26.

Lehmann, Christian. 1991. Grammaticalization and related changes in contemporary German. In Elizabeth C. Traugott & Bernd Heine (eds.), *Approaches to grammaticalization. 2 vols.* (Typological Studies in Language 19), 493–535. Amsterdam & Philadelphia: J. Benjamins.

Lehmann, Christian. 2008. Information structure and grammaticalization. In Elena Seoane & María José López Couso (eds.), *Theoretical and empirical issues in grammaticalization* (Typological Studies in Language 77), 207–229. Amsterdam: Benjamins.

Lehmann, Christian. 2014. Indirect coding. In Franz Rainer, Francesco Gardani, Hans Christian Luschützky & Wolfgang U. Dressler (eds.), *Morphology and meaning. Selected papers from the 15th international morphology meeting, Vienna, February 2012* (Current Issues in Linguistic Theory 327), 97–124. Amsterdam: Benjamins.

Lehmann, Christian. 2015. *Variación y normalización de la lengua maya, note = Conferencia magistral en el II Coloquio UNAM en la Península "El Maya Entre la variación y la estandarización". Centro Peninsular en Humanidades y en Ciencias Sociales (CEPHCIS) de la Universidad Nacional Autónoma de México (UNAM), Mérida, Yucatán, del 3 al 5 de noviembre de 2015.* Mérida, Yucatán.

Martínez Hernández, Juan (ed.). 1929. *'Diccionario de Motul maya español' atribuido a Fray Antonio de Ciudad Real y 'Arte de lengua maya' por Fray Juan Coronel.* Mérida, Yucatán: Compañia Tipográfica Yucateca.

Monforte, Jorge, Lázaro Dzul & Rodrigo Gutiérrez Bravo. 2011. *Narraciones mayas.* México D.F.: Instituto Nacional de Lenguas Indígenas.

Pye, Clifton. 2009. Cycles of complementation in the Mayan languages. In Elly van Gelderen (ed.), *Cyclical change* (Linguistics Today 146), 265–284. Amsterdam & Philadelphia: J.Benjamins.

San Buenaventura, Gabriel de. 1684. *Arte de la lengua maya.* México D.F.: Viuda de B. Calderón.

Smailus, Ortwin. 1989. *Gramática del maya yucateco colonial* (Wayasbah publication 9). Hamburg: Wayasbah.

Vinogradov, Igor. 2014. La categoría de incompletivo en las lenguas mayas: Un estudio comparativo de variación semántica. *Studii de gramatică contrastivă* 21. 65–82.

Vinogradov, Igor. 2016. Acerca de la semántica del completivo/incompletivo en las lenguas mayas. *Cuadernos de Lingüística de El Colegio de México* 3(1). 1–44.