

Research Article

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Morphosyntactic features of progressive in the K'iche'an languages of the Mayan family

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Abstract: The article deals with the morphosyntactic features of the aspectual category of progressive in K'iche'an languages. The analysis is carried out using methods of intragenetic typology. It is proposed to clarify Vinogradov's classification of progressive in the Mayan languages in relation to the K'iche'an group. Three types of K'iche'an progressive as well as three strategies for the distribution of ergative–absolutive markers in the progressive are proposed. The boundary between the uniclausal and biclausal analyses of complex aspect constructions in Mayan languages is proposed. The application to K'iche'an languages Robert Dixon's generalization for aspectually based split ergativity is also described. Three strategies of verb argument marking in the progressive constructions are determined. It was found out that all aspectually conditioned splits in the ergative–absolutive strategy of argument marking in K'iche'an languages are observed in progressive (or historically progressive) constructions.

Keywords: Mayan progressive, split ergativity, Tense/Aspect/Modality, argument marking

1 Introduction and background

The current work is organized as follows. Section 1 provides some information about the genetic classification of K'iche'an languages, as well as some theoretical framework of the progressive, K'iche'an TAM systems and also presents the method and objectives of the current work. In Section 2 of this work, the summary of predicate structure and status suffixes in K'iche'an languages is given. The overview of progressive constructions is proposed. Section 3 represents an attempt at the typology of K'iche'an progressive constructions. In Section 4, the argument marking strategies are observed. Section 5 represents the overview of splits in the ergative–absolutive marking. It is noted that all aspectually conditioned splits are observed in progressive (or historically progressive) constructions.

The languages of the K'iche'an group are part of the K'iche'an-Mamean branch of the Mayan language family (Campbell and Kaufman 1985). They are distributed mainly in Guatemala and partly in El Salvador and Belize. According to Ethnologue (Eberhard et al. 2019), the K'iche'an group consists of ten languages combined into five subgroups: subgroup of proper K'iche'an languages (K'iche', Achi, Sacapulteco, Sipakapense), Kaqchikel-Tz'utujil (the languages of Kaqchikel and Tz'utujil), Poqom languages (Poqomam and Poqomchi'), Q'eqchi' and Uspanteco form separate subgroups.

One of the characteristic and notable features of the Mayan languages is the category of the so-called “extended aspect” (Vinogradov 2013a). Comrie noted that aspectual meanings characterize the internal development of a situation over time (Comrie 1976, 33). As a morphosyntactic category, the extended aspect category also includes temporal and/or modal meanings.

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The progressive category is part of the aspect category. In the work of Bybee et al. (1994, 126), it is indicated that the progressive considers the action to continue at the agreed time. It is also noted that progressive refers primarily to dynamic predicates, rather than static ones, and that to perform an action in progressive it is necessary to constantly apply energy. In this case, states last without constant application of energy, except when something ends these states.

This study analyzed data from grammatical descriptions of nine K'iche'an languages: K'iche', Achi, Sacapulteco, Kaqchikel, Tz'utujil, Poqomam, Poqomchi', Q'eqchi' and Uspanteco. The main research method in this article is comparative analysis within the framework of intragenetic typology.

In the languages of the K'iche'an group, the number of Tense/Aspect markers varies from language to language, but progressive is present in all K'iche'an languages (Table 1).

Aspectual semantic meanings in K'iche'an languages are grammaticalized in the corresponding aspectual prefixes, with the exception of progressive.

(1)	Achi (Ampérez Mendoza 2008, 55)	
	<i>k-in-tze'n-ik</i>	
	INC-1sg.b-laugh-SS	
	“I laugh.”	
(2)	Tz'utujil (García Ixmatá 1993, 72)	
	<i>x-in-aa-to'</i>	
	COMPL-1SG.B-2SG.A-help	
	“You helped me.”	
(3)	Q'eqchi' (Caz Cho 2007, 68)	
	<i>yoo-k-in</i>	<i>r-il-b'al</i>
	PROG-SS-1SG.B	3SG.A-see-NMLZ
	“I am seeing him/her.”	

Progressive in K'iche'an languages, as in many other Mayan languages, is not directly part of the morphological characteristics of the verb, but is expressed by lexical or syntactic means. Thus, examples (1) and (2) demonstrate that the incomplete and the complete are affixes in the verb complex. While (3) shows that the progressive, in this case – in the Q'eqchi' language, is expressed using the auxiliary positional root *yoo-* “to be in process.”

A number of interesting features of progressive constructions can be associated with the complex nature of the progressive, such as the aspect-based split ergativity.

The main objectives of this work are, first, to identify points of cross-linguistic variation of progressive constructions in K'iche'an languages. Second, clarification of the progressive classification in the Mayan

Table 1: Tense/Aspect category in K'iche'an languages (the “+” sign means presence, “—” means absence)

	Compleutive	Incompletive	Perfective	Progressive	Potential
K'iche'	+	+	+	+	—
Achi	+	+	+	+	—
Sacapulteco	+	+	—	+	+
Kaqchikel	+	+	+	+	+
Tz'utujil	+	+	—	+	+
Poqomam	+	+	+	+	+
Poqomchi'	+	+	+	+	+
Q'eqchi'	+	+	—	+	+
Sipacapense	+	+	—	+	+
Uspanteco	+	+	—	+	+/- (expressed by incompletive markers contextually with tense adverbs)

languages by Vinogradov in relation to the K'iche'an languages. Third, observation of argument marking strategies in K'iche'an progressive constructions, as well as identification of aspect-based splits.

2 Some information about the progressive structures in the K'iche'an languages

In Section 2.1, the main information about the clause in K'iche'an languages is presented: Section 2.1.1 presents the argument marking strategy and the morpheme order in the K'iche'an predicate; Section 2.2.2 gives the K'iche'an status suffixes characteristics. In Section 2.2, the overview of progressive constructions in each of nine analyzed K'iche'an languages is given.

2.1 The structure of the predicate

2.1.1 Predicate

The K'iche'an languages like all Mayan languages are ergative head-marking languages (see Nichols 1986). Grammatical relations are expressed by special agreement morphemes in the predicate structure. The grammatical meanings of the subject of the transitive verb and the genitive are expressed by a series of ergative morphemes, or as they are commonly called in Mayan linguistics – the set A markers. The set B markers are absolute markers that express either the subject of an intransitive action or the object of a transitive action, as in examples (1, 2, 3). The set A markers in K'iche'an languages (as well as in many other Mayan languages) have two options – preconsonantal (_C) and prevocalic (_V).

K'iche'an languages are characterized by the following generalized arrangement of morphemes in the predicate structure: T/A-B-A-root-suffix. The Tense/Aspect marker appears first, followed by the set B morpheme (absolute), which in the case of a transitive action precedes the set A marker (ergative), followed by the root and, if present, the status suffix, or the nominalization marker.

2.1.2 Status suffix

The status suffix, or category suffix, in the Mayan languages is a grammeme of the status category. The category of the status is related to the transitivity of the verb and is also related to the aspectual characteristics of the clause. Pye (1991) indicated four contexts for the appearance of the status suffix: (1) aspect, (2) transitivity, (3) presence of a derivation suffix, and (4) position in the clause.

In Proto-Mayan, status suffixes indicated transitivity/intransitivity of the predicate, as well as modality: declarative or optative (terms according to Robertson) (Robertson 2014, 61). The cited paper reconstructs the following status suffixes for Proto-Mayan (Table 2).

A special feature of status suffixes is their appearance only in the final position in the clause (Vinogradov 2013a, 257–259). However, in the Q'eqchi' (4, 5, 27) and Poqomchi' (20, 29) languages the

Table 2: Reconstruction of status suffixes for Proto-Mayan

	Declarative	Optative
Intransitive	*-ik	*-oq
Transitive	*-o/-u (the singarmonic element is selected)	*-a'/-o'/-u'

status suffixes precede the absolute enclitics, and in the case of third sg, that is, when the absolute morpheme is expressed by *-ø*, the status suffix is absent (see Vinogradov 2017, 2019).

The connection of status suffixes with the grammaticalization of aspectual categories in K'iche'an languages is interesting. Often, aspectual categories require one of the status suffixes in addition to their own affixes. In this case, the paradigm of the elements of aspectual categories has a non-linear character and is represented as a branched hierarchical dependence.

2.2 Formation of the progressive in K'iche'an languages

2.2.1 Progressive in Q'eqchi' (Caz Cho 2007, Academia de Lenguas Mayas de Guatemala 2003, Academia de Lenguas Mayas de Guatemala 2004, Stewart 2016)

Progressive in the Q'eqchi' language consists of two parts: the first is a marker of progressive, and the second is a semantic predicate. Both parts are connected by a preposition (mandatory for an intransitive verb and optional for a transitive verb). The progressive marker is the positional root *yoo-* with a set B morpheme.

Transitive action: 1. Progressive marker [Positional root + set B/subject] + 2. (preposition) + 3. main semantic predicate [set A/object + root + suffix] or possessed verbal noun (4).

(4)	Q'eqchi' (Stewart 2016, 77)			
	<i>yoo-k-in</i>	<i>chi</i>		<i>aa-sak'b'al</i>
	PROG-SS-1SG.B	PRE		2SG. A-hit
	"I am hitting you."			

Intransitive action: 1. Progressive marker [Positional root + set B/subject] + 2. preposition + 3. main semantic predicate [verbal noun] (5).

(5)	Q'eqchi' (Academia de Lenguas Mayas de Guatemala 2004, 100)			
	<i>yoo-k-in</i>	<i>chi</i>		<i>se'ek</i>
	PROG-SS-1SG.B	PRE		smile
	"I am smiling."			

2.2.2 Progressive in K'iche' and Achi (López and Sis 2004, Suy Tum 1988, Ampérez Mendoza 2008)

Progressives in K'iche' and Achi are formed in two ways. First method: using the auxiliary intransitive predicate *tajin*. This auxiliary predicate may optionally contain the completive and incompletive markers. In this case, the semantic predicate contains markers of the completive/incompletive, markers of the sets A or B (6). The second method is when the aspectual predicate *tajin* contains markers of Tense/Aspect and grammatical person. The semantic predicate is introduced using a preposition. In this case, the semantic predicate appears either in the form of an infinitive or a verbal noun. The infinitive is introduced using the preposition *pa* (7), the noun – using the preposition *chi* (8).

(6)	K'iche' (López and Sis 2004, 69)		
	<i>x-tajin</i>	<i>x-in-xojow-ik</i>	
	COMPL-PROG	COMPL-1SG.B-dance-ss	
	“I was dancing.”		
(7)	Achi (Ampérez Mendoza 2008, 59)		
	<i>k-at-tajin</i>	<i>pa</i>	<i>chaak</i>
	INC-2SG.B	PRE	work
	“you are working.”		
(8)	K'iche' (López and Sis 2004, 70)		
	<i>x-in-tajin</i>	<i>chi</i>	<i>u-to'-ik</i>
	COMPL-1SG.B-PROG	PRE	3SG.A-help-NMLZ
	“I was helping him.”		

2.2.3 Progressive in Uspanteco (Can Pixabaj 2007)

Progressives in Uspanteco are formed in two ways. The first method: the aspectual predicative *tijin* is used. The subject of this predicate is always expressed in the third person of singular of the absolute and refers to the following (transitive or intransitive) verbal predicate (9). The second way: the subject of the non-verbal predicate *tijin* can refer to any grammatical person. The main verb in this case appears in the form of a verbal noun and is introduced using the preposition *chi*: B + *tijin* + [*chi* + verbal noun] (10).

(9)	Uspanteco (Can Pixabaj 2007, 149)		
	<i>ø-tijin</i>	<i>at-atin</i>	<i>taq</i>
	3SG.B-PROG	2SG.B-bathe	PL
	“You (politely) are bathing.”		
(10)	Uspanteco (Can Pixabaj 2007, 152)		
	<i>at-tijin</i>	<i>chi</i>	<i>w-il-iik</i>
	2SG.B-PROG	PRE	1SG.A-see-NMLZ
	“you are seeing me.”		

2.2.4 Progressive in Tz'utujil (Dayley 1981, García Ixmatá 1993)

To express the progressive, the aspectual predicate *taji(i)n* is used, which is always accompanied by Tense/Aspect markers. The semantic verb can be expressed as an infinitive with the preposition *ch(i)* (12) or as a finite form (11). In the case of transitive verbs, the infinitive of the passive voice with the preposition (13) is taken in the case of a formally expressed patient.

(11)	Tz'utujil (García Ixmatá 1993, 73)		
	<i>n-in-tajiin-i</i>	<i>n-in-wa'-i</i>	
	INC-1SG.B-PROG-SS	INC-1SG.B-eat-ss	
	“I am eating.”		
(12)	Tz'utujil (Dayley 1981, 326)		
	<i>n-in-tajin</i>	<i>chi</i>	<i>wa'iim</i>
	INC-1SG.B-PROG	PRE	eat (INF)
	“I am eating.”		

(13)	Tz'utujil (Dayley 1981, 326)				
	<i>n-in-tajin</i>	<i>chi</i>	<i>tijoj</i>	<i>tiij'ij</i>	
	INC-1SG.B-PROG	PRE	eat (INF.PASS)	meat	
	“I am eating meat.”				

2.2.5 Progressive in Sacapulteco (Mó Isém 2007)

The Sacapulteco language uses two ways to form a progressive. The first method: the predicate *tijin* is marked with an incompletive marker and marker of a grammatical person. In this case, the semantic predicate is expressed by a verbal noun with the preposition *che* or *pi*. If the semantic predicate is transitive, then it appears in the form of a possessed verbal noun, but the ergative marker in this case is coreferential to the object (14). The second way: the preposition is not used, the semantic predicate appears with the status suffix *-ek* (15).

(14)	Sacapulteco (Academia de Lenguas Mayas de Guatemala 2001b, 21)				
	<i>k-in-tijin</i>	<i>che</i>	<i>ri-q'ap-iik</i>	<i>li</i>	<i>chajoob'</i>
	INC-1SG.B-PROG	PRE	3SG. A-cut-NMLZ	ART	mallow
	“I am cutting this mallow flower.”				
(15)	Sacapulteco (Academia de Lenguas Mayas de Guatemala 2001b, 109)				
	<i>ki-ø-tijin</i>	<i>tujn-ek</i>	<i>pi</i>	<i>li</i>	<i>tujb'al</i>
	INC-3SG.B-PROG	teach-ss	PRE	ART	school
	“he is teaching at the school.”				

2.2.6 Progressive in Kaqchikel (Academia de Lenguas Mayas de Guatemala 2006, Patal Majzul et al. 2000, García Matzar 2007)

Kaqchikel uses the intransitive predicate *-ajin* (16). The aspectual predicate can attach TAM-markers and markers of grammatical persons (17), and can also have the forms *tajin* and *najin*.

(16)	Kaqchikel (Academia de Lenguas Mayas de Guatemala 2006, 66)				
	<i>tajin</i>		<i>n-ø-in-mestaj</i>		
	PROG		INC-3SG.B-1sg.a-forget		
	“I am forgetting about it.” (The incompletive in Kaqchikel has two prefixes: <i>y-</i> and <i>n-</i> , the latter is used only before the marker of third singular absolutive)				
(17)	Kaqchikel (Academia de Lenguas Mayas de Guatemala 2006, 66)				
	<i>y-a-tajin</i>		<i>y-a-mes-on</i>		
	INC-2SG.B-PROG		INC-2SG.B-sweep-AP		
	“you are sweeping.”				

2.2.7 Progressive in Poqomam (Santos Nicolás and Benito Pérez 1998, Benito Pérez 1994)

The particle *naak* is used to express the progressive in Poqomam. *Naak* does not change morphologically in any way. The semantic intransitive predicate attaches the status suffix *-a* (18), the transitive predicates use the same affixes as the potential (except for the prefix of third sg., which is omitted) (19).

(18)	Poqomam (Santos Nicolás and Benito Pérez 1998, 95)
	<i>naak</i> <i>ni-b'ej-a</i>
	PROG 1SG.A-walk-NMLZ
	“I am walking.”
(19)	Poqomam (Santos Nicolás and Benito Pérez 1998, 95)
	<i>naak</i> <i>k-in-ri-to'-om</i>
	PROG INC-1SG.B-3SG.A-help-POT
	“he is helping me.” (In the case of Poqomam, I am not inclined to believe that the suffix <i>-om</i> is a kind of dependent suffixes as in Mateo Pedro (2009), since the predicate in the structure of which it is located has no signs of nominalization).

2.2.8 Progressive in Poqomchi' (Academia de Lenguas Mayas de Guatemala 2001a, Buc Choc 1996)

Poqomchi' uses two ways to form a progressive. The first method: the aspectual predicate *k'ahchi'* attaches the subject markers of the absolute, while the semantic predicate is used with the preposition *chi* (20); intransitive predicates appear in the form of a noun, transitive predicates – with the marker of the anti-passive *-w-* and with the suffix *-ik*. The second way: the predicate *k'ahchi'* is auxiliary. The main verb attaches the markers of the set A, the preposition is not used in this case (21).

(20)	Poqomchi' (Robertson 2014, 144)
	<i>k'ahchi'-k-in</i> <i>chi</i> <i>wir-ik</i>
	PROG-SS-1SG.B PRE sleep-NMLZ
	“I am going to sleep.”
(21)	Poqomchi' (Robertson 2014, 144)
	<i>k'ahchi'</i> <i>nu-wir-ik</i>
	PROG 1SG.A-sleep-NMLZ
	“I am sleepy.”

3 Types of progressive in K'iche'an languages

In Section 3.1, Vinogradov's classification of Mayan progressive is analyzed. Robertson's reconstruction of the Proto-Mayan progressive is observed. The relation between the aspectual and main predicates is shown. In Sections 3.2–3.4, the three types of modern K'iche'an progressives are discussed. The results of such a discussion are presented in Section 3.5.

3.1 Structure of the progressive

In the work of Vinogradov (2013b, 129), the author gives a classification of the Mayan languages by the type of progressive which we have combined in Table 3.

Table 3: Groups of Mayan languages by type of progressive

	Group 1	Group 2	Group 3	“Intermediate” group	Group 4
Type of progressive	No special marker	Progressive is a full part of the grammatical aspectual system	Expressed lexically and accompanied by markers of other aspectual categories	Expressed syntactically using a non-verbal predicate and an additional clause	

Table 4: Aspectual predicates in K'iche'an languages

Group <i>taji(i)n/tiji(i)n</i>	Group <i>yoo-</i>	Group <i>naak</i>	Group <i>k'ahchi</i>
Kiche <i>tajin</i>	Q'eqchi' <i>yoo-</i>	Poqomam <i>naak</i>	Poqomchi' <i>k'ahchi</i>
Achi <i>tajin</i>			
Kaqchikel <i>tajin/ajin</i>			
Tz'utujil <i>tajin</i>			
Sacapulteco <i>tjin</i>			
Uspanteco <i>tjin</i>			

K'iche'an languages, except for Poqomam, are assigned by the author to the third group, in which progressive is expressed by lexical means, and also, as a rule, is accompanied by grammemes of other aspectual categories. Poqomam is assigned to the fourth group of languages that express progressive syntactically.

As noted above, progressive in K'iche'an languages is a complex category. For its formation, special intransitive or positional predicates are used, often having a meaning close to "continue", "be in the process". Following (Coon and Carolan 2017) we call such predicates aspectual.

In the K'iche'an languages, the following aspectual predicates are used to form a progressive (Table 4).

Table 4 shows that Uspanteco and the subgroups of the proper K'iche'an and Kaqchikel-Tz'utujil languages use the most etymologically similar predicates.

In Robertson (2014, 80), the supposed structure of progressive in Proto-Mayan is reconstructed (22a) and (22b). The basis was the structure of the progressive category in the Kunen dialect of the K'iche' language.

(22a)	For an intransitive verb: PROG-B PRE V.NMLZ
(22b)	For a transitive verb: PROG-B PRE A.V.NMLZ.PASS

As shown, there were most likely two predicates in this structure of the Proto-Mayan progressive. The first one is an aspectual predicate that takes the absolute marker, and the second one is the main predicate that expresses the lexical meaning. Moreover, according to Robertson (2014, 80), the second predicate was always expressed by a verbal noun and was part of the prepositional group (Figure 1). It should also be noted that in the case of transitive verbs (22b) with a formally expressed patient, the nominalized semantic verb takes the passive voice.

Today, in modern K'iche'an languages, a variety of ways of forming a progressive can be observed. Some of them co-exist interchangeably.

In any case, there are two main participants in the formation of the progressive in the K'iche'an languages: the auxiliary aspectual predicate and the main semantic one.

A certain typology of progressive in K'iche'an languages was presented in England (1988, 73), where three types of aspectual predicates and their syntactic interaction with the main predicates are given. Aspectual predicates can be expressed by a particle, an intransitive, or a stative verb. As stated in England (1988, 73), if the aspectual predicate is expressed by an immutable particle, then the main predicate is expressed by the finite form of the verb. Also, if the aspectual predicate is expressed in the finite form of the verb, the main predicate appears in the form of a verbal noun in the prepositional phrase. Moreover, in the case of intransitive verbs, the aspectual predicate is marked with the subject marker – the absolute marker, and the main predicate is an unmarked verbal noun. In the case of transitive verbs, the aspectual predicate is also marked with an absolute, and the main predicate contains an ergative marker, that is, it appears in the form of a possessed verbal noun.

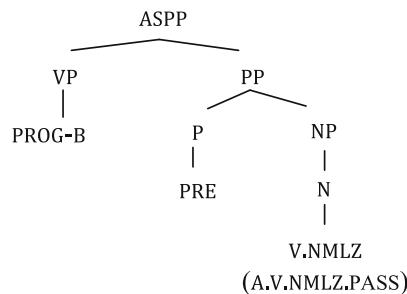


Figure 1: Reconstructed structure of the progressive in Proto-Mayan.

It seems that in the K'iche'an languages, the possibility of representing the main predicate as a possessed verbal noun is not always related to the transitivity of this predicate, which will be demonstrated below.

Having considered the morphosyntactic features of the aspectual predicates of progressive, we noted the following three types of progressive formation in the languages of the K'iche'an group.

3.2 The first type

The aspectual predicate is not subject to change, it does not attach any affixes and is expressed essentially by a particle, or can take markers of the absolute, but does not take markers of aspectual categories.

In our opinion, this method is the only way to express progressive in the Poqomam language. It is also possible in the Kaqchikel (dialects of San Miguel Pochuta, San Juan Sacatepéquez, San Marcos la Laguna, Santa María Cauqué), K'iche', Q'eqchi' (27), Uspanteco (28), and Poqomchi' (29).

(23a)	Poqomam (Santos Nicolás and Benito Pérez 1998, 95)
	<i>naak</i> <i>a-b'ej-a</i>
	PROG 2SG.A-walk-NMLZ
	“you are walking”
(23b)	Poqomam (Santos Nicolás and Benito Pérez 1998, 95)
	<i>naak</i> <i>ti-ri-to'-om</i>
	PROG 2SG.B-3SG.A-help-POT
	“he/she is helping you”

It can be seen from examples (23a) and (23b) that in both cases the aspectual predicate is expressed by an immutable verbal particle *V_{PART} naak*, which is a derivative of the positional root *nak-* with the meaning “to be (situated)” (Benito Pérez 1994, 53). Thus, diachronically, the particle *naak* was a matrix predicate with situational valence, and the following semantic predicate represented its sentential subject. Therefore, from a historical point of view, it could be assumed that there are two clauses – the main one with the predicate *naak* and the marker of the third singular absolute (-)ø- and the dependent one – semantic predicate, to which the morpheme (-)ø- would be coreferent. Unfortunately, I am not familiar with diachronic studies that would reconstruct the mechanism of attaching absolute morphemes in various historical states of the Poqomam language. Therefore, it cannot be determined with certainty the location of the absolute marker in the predicate structure. It is likely that as the verbal properties of the aspectual predicate *na(a)k* weakened, the absolute morpheme changed its position in the structure of the predicate. Based on the HIGH-ABS model common to the K'iche'an languages (Coon et al. 2014), the form ø-*na(a)k* can be represented. However, given that *na(a)k* is a progressive marker, i.e., Tense/Aspect marker, then given the

history of progressive constructions in the K'iche'an languages (see Robertson 2014), one can also represent the form *na(a)k-ø*.

However, in Santos Nicolás and Benito Pérez (1998) and in Benito Pérez (1994), *naak* is called a particle, and there is no indication that it can attach the morphemes of the absolutive of other persons. Therefore, based on such a paradigm criterion, it does not seem possible in this case to consider the construction of the progressive as biclausal, and therefore the morpheme *(-)ø* is not distinguished when glossing, since it is considered to be absent.

In addition, as shown in (23b), with transitive verbs, the aspectual particle is combined with the finite form of the verb, marked with another aspectual category – the potential *-(V)m*. It should be noted that the affix *-(V)m* may be similar to the dependent marker *-on* found in some Q'anjobalan languages (Mateo Pedro 2009). However, in the case of Poqomam (23b), the form with the affix *-(V)m* attaches an absolutive marker, which, in our opinion, indicates the verbal nature of this form rather than the nominalized one. This gives us the right to say that we are dealing with the finite form of the verb, and not with nominalization, as in the case of the dependent marker.

In the case of intransitive verbs, as in (23a), the main predicate appears in the form of a possessed verbal noun, in which the possessive prefix (set A marker) *a-* indicates the logical subject of the intransitive action. Similar behavior of the intransitive predicate in progressive is also observed in the closely related Poqomchi' language (24a). Whereas transitive predicates in Poqomchi' are expressed by nominalized verb complexes (24b). It should also be noted that the main predicate in progressive in the Poqomchi' and Poqomam languages does not attach prefixes of other aspectual categories. These facts distinguish the Poqom languages (Poqomam and Poqomchi') from a number of other K'iche'an languages that use *V_{PART}* to express progressive.

(24a)	Poqomchi' (Buc Choc 1996, 122)					
	<i>k'ahchi'</i>	<i>aw-eliik</i>				
	PROG	2SG.A-COME OUT.NMLZ				
	"you are coming out."					
(24b)	Poqomchi' (Academia de Lenguas Mayas de Guatemala 2001a, 56)					
	<i>k'ahchi'-ø</i>	<i>ru-tob'eeem</i>	<i>i</i>	<i>qa-tinamiit</i>	<i>i</i>	<i>towiib'</i>
	PROG.3SG.B	3SG.A-HELP.NMLZ	ART	1PL.A-VILLAGE. POSS.N	ART	COOPERATIVE
	"the cooperative is helping our village."					

For example, in the languages Kaqchikel (25a) and K'iche' (26a), the intransitive semantic predicates in progressive constructions with *V_{PART}* do not have possessive markers. The absolutive marker in their structure indicates the subject of the intransitive action. In the case of transitive predicates, as in (25b) and (26b), they are expressed in complexes with a verbal noun, just as in the Poqom languages. Attention should be paid to the fact that both intransitive and transitive predicates, in addition to the markers of grammatical persons, also attach the prefixes of the compleative or the incomplete.

(25a)	Kaqchikel (Patal Majzul et al. 2000, 59)					
	<i>tajin</i>		<i>y-in-b'iyin</i>			
	PROG		INC-1SG.B-WALK			
	"I am walking."					
(25b)	Kaqchikel (Academia de Lenguas Mayas de Guatemala 2006, 66)					
	<i>tajin</i>		<i>y-at-ki-to'</i>			
	PROG		INC-2SG. B-3PL.A-Help			
	"they are helping you."					
(26a)	K'iche' (López and Sis 2004, 69)					
	<i>tajin</i>		<i>x-ex-ojow-ik</i>			

	PROG		COMPL-3PL.B-dance-ss
	“they were dancing.”		
(26b)	K'iche' (López and Sis 2004, 70)		
	<i>tajin</i>	<i>k-ø-a-to'</i> -o	
	PROG	INC-3SG. B-2SG.A-help-ss	
	“you are helping him/her.”		

As shown below, the aspectual predicate *tajin* in K'iche' (30) and Kaqchikel (34) can have more pronounced verb properties and attach markers of other aspectual categories, as well as all morphemes of the absolute paradigm.

In this type, in my opinion, it is necessary to distinguish Uspanteco somewhat. In the paper of Can Pixabaj (2007, 149), it is noted that Uspanteco allows two options. The first is, as in (28a), when the aspectual predicate *tijin* takes only the third-person singular absolute. Thus, we have two clauses: the main one is the aspectual predicate *tijin* with a zero marker of third sg of absolute *ø*, the only argument of which is the subordinate clause – the semantic predicate expressed by a verbal noun (Can and Angelina 2007, 149). The second, as in (28b) and (28c), when the aspectual predicate attaches the absolute marker of any person, but the main intransitive predicate is expressed by a verbal noun without aspect or grammatical person markers, which is part of the prepositional phrase (28b). The semantic transitive predicate is expressed by a verb complex with markers of other aspectual categories and grammatical persons (28c).

(27)	Q'eqchi' (Caz Cho 2007, 68)		
	<i>yoo-k-o</i>	<i>(chi)</i>	<i>r-il-b'al</i>
	PROG-SS-1PL.B	(PRE)	3SG.A-SEE-NMLZ
	“we are seeing him/her.”		
(28a)	Uspanteco (Can Pixabaj 2007, 149)		
	<i>ø-tijin</i>	<i>at-atín-ik</i>	
	3SG.B-PROG	2SG.B-SWIM-SS	
	“you are swimming.”		
(28b)	Uspanteco (Can Pixabaj 2007, 149)		
	<i>oj-tijin</i>	<i>chi</i>	<i>wiik'</i>
	1PL.B-PROG	PRE	eat.v.NMLZ
	“we are eating.”		
(28c)	Uspanteco (Can Pixabaj 2007, 150)		
	<i>ø-tijin</i>	<i>t-ø-a-chap</i>	
	3SG.B-PROG	INC-3SG.B-2SG.A-CATCH	
	“you are catching him/her.”		
(29)	Poqomchi' (Academia de Lenguas Mayas de Guatemala 2001a, 59)		
	<i>k'ahchi'-k-eeb'</i>	<i>maq'aj</i>	<i>ak'al</i>
	PROG-SS-3PL.B	take away	land
	“they are taking the land away.”		

However, the question arises, how can a particle (as in the first type of the given classification) be distinguished from a predicate with the third-person singular morpheme of the absolute, which is not formally expressed in any way (e.g., the difference between (28a) and (28c))? Above, a paradigmatic approach to resolve this issue was taken. In this case, the aspectual predicate *tijin* in Uspanteco in other contexts can attach any markers of the absolute, so it is possible to assume the presence of valence in the example (28a).

3.3 The second type

An aspectual predicate can take markers of a completive and incompletive, without attaching the markers of grammatical persons. In this way, a progressive can be formed in K'iche', as in (30a) and (30b).

(30a)	K'iche' (López and Sis 2004, 70)	
	<i>x-tajin</i>	<i>x-ø-nu-to'-o</i>
	COMPL-PROG	COMPL-3.SG.B-1SG.A-help-ss
	“I was helping him/her.”	
(30b)	K'iche' (López and Sis 2004, 70)	
	<i>ka-tajin</i>	<i>k-in-atin-ik</i>
	INC-PROG	INC-1SG.B-swim-ss
	“I am swimming.”	

It should be noted that although the markers of absolute in the structure of the aspectual predicates in (30a) and (30b) are not distinguished, it is necessary to assume the possible presence of the morpheme third sg of absolute (-ø-) in the structure of the aspectual predicate. The semantic predicate, expressed in this case by the finite form, can represent the sentential subject of the aspectual predicate. Therefore, the morpheme -ø- in the predicate *tajin* in (30a) and (30b) can be coreferent to the complex of the main semantic predicate, that is, it can always be third sg and be expressed by a morphological zero.

3.4 The third type

An aspectual predicate can have a full lexical meaning and is expressed by the finite form of the verb, that is, it takes markers of other aspectual categories and markers of grammatical persons. This method is acceptable in the K'iche' and Kaqchikel languages; it is, in my opinion, the only acceptable way to form a progressive in the Achi, Tz'utujil, and Sacapulteco languages. In this case, the main predicate can be expressed by a verbal noun in the prepositional phrase (31, 32), a possessed verbal noun in the prepositional phrase (35), a finite verb form with markers of grammatical persons, a completive (33), or an incompletive (16).

(31)	K'iche' (López and Sis 2004, 69)		
	<i>x-at-tajin</i>	<i>pa</i>	<i>xojow-em</i>
	COMPL-2SG.B-PROG	PRE	dance-NMLZ
	“you were dancing.”		
(32)	Achi (Ampérez Mendoza 2008, 59)		
	<i>k-in-tajin</i>	<i>pa</i>	<i>chaak</i>
	INC-1SG.B-PROG	PRE	work
	“I am working.”		
(33)	Tz'utujil (García Ixmatá 1993, 73)		
	<i>x-in-tajin-I</i>	<i>x-ø-nu-k'is</i>	
	COMPL-1SG.B-PROG-SS	COMPL-3SG.B-1SG.A-finish	
	“I was finishing this.”		
(34)	Kaqchikel (Academia de Lenguas Mayas de Guatemala 2006, 66)		
	<i>y-oj-ajin</i>	<i>y-e-qa-chäp</i>	
	INC-1PL.B-PROG	INC-3PL.B-1PL.A-catch	
	“we are catching them.”		

(35)	Sacapulteco (Mó Isém 2007, 181)		
	<i>k-in-tijin</i>	<i>che</i>	<i>a-ta'-iik</i>
	INC-1SG.B-PROG	PRE	2SG.A-help-NMLZ
	"I am helping you."		

3.5 Variability of morphosyntactic features of aspectual predicates in progressive

The results of the analysis of the morphosyntactic features of aspectual predicates in progressives in the K'iche'an languages are shown in Table 5.

Table 5 shows that the greatest variability is observed in K'iche' and Achi, which show the possibility of three interchangeable types of aspectual predicates. Only Kaqchikel allows two types: the first and the third, but it is needed to keep in mind that they are used in different dialects. One possible type of aspectual predicates is presented in Uspanteco, Sacapulteco, Poqomchi', Tz'utujil, Poqomam, and Q'eqchi'.

At the same time, in each of the morphosyntactic types of aspectual predicates, there is the possibility of expressing a semantic predicate both in the form of a finite verb form, and in the form of a verbal noun or a possessed verbal noun, which in turn can be included in a prepositional or nominal phrase.

4 Distribution of subject–object markers in the progressive

In this section, the three schemes of distribution of subject–object markers between the main predicate and the aspectual one are argued.

Coon et al. (2014) noted the interesting variability of the position of absolute morphemes in the predicate structure in the Mayan languages. The authors divide all the Mayan languages into two groups: languages with a “high” absolute (“HIGH-ABS”) and “low” (“LOW-ABS”). In languages with a “high” absolute, the absolute marker follows immediately after the aspect marker, and in languages with a “low” absolute, the absolute marker appears at the end, that is, it follows after the verb stem (Coon et al. 2014, 191).

According to my observation, all the considered K'iche'an languages belong to the group with a “high” absolute. For example, in (36) it is shown that the absolute marker follows immediately after the completive marker, preceding the ergative marker, which is already followed by the verb stem.

Table 5: Morphosyntactic features of aspectual predicates in progressive in K'iche'an languages

	The first type	The second type	The third type
K'iche'	+	+	+
Achi	+	+	+
Sacapulteco	—	—	+
Kaqchikel	+	—	+
Tz'utujil	—	—	+
Poqomam	+	—	—
Poqomchi'	+	—	—
Q'eqchi'	+	—	—
Uspanteco	+	—	—

(36)	Q'eqchi' (Academia de Lenguas Mayas de Guatemala 2004, 104) <i>x-in-aa-sik'</i> COMPL-1SG.B-2SG.A-look for "you were looking for me."
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It is noteworthy that in the K'iche'an constructions of the progressive, the distribution of ergative and absolute markers (in Mayan linguistics, the terms "set A" for the ergative and possessive and "set B" for the absolute) varies with the strengthening of the verbal properties of the aspectual predicate. Three strategies for the distribution of ergative and absolute markers in the progressive can be noted.

The first strategy is when the aspectual predicate is a particle (37), or a predicate with a sentential subject (38). In the case of (37), the semantic predicate may contain markers of Tense/Aspect and grammatical persons, while the aspectual predicate either does not contain any markers. In the case of (38), the aspectual predicate is marked with the third sg of the absolute (-*ø*), while the main predicate is expressed by the nominalized verb.

(37)	PROG (T/A)B-A-stem-(status suffix)
(38)	Ø-PROG (-ø) A-stem(nominalized verb)

The second strategy – the aspectual predicate is a "verb-like" element (Preminger 2014, 6). In this case, the markers are divided: the aspectual predicate attaches the absolute, and the semantic predicate, if it is transitive, attaches the ergative, and if the semantic predicate is intransitive, it does not attach the subject marker, since the subject is already expressed in the structure of the aspectual predicate. It is important to note that in this case, the semantic predicate no longer attaches the markers of other aspectual categories, as in the scheme (39).

(39)	B-PROG (-B) (A-)stem
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The third strategy – the aspectual predicate is expressed by a finite predication. In this case, both predicates attach the same markers of the absolute, and if the semantic predicate is transitive, then it (and only it) also attaches the ergative, as in the scheme (40).

(40)	T/A-B-PROG T/A-B (-A)-stem
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Schemes (38) and (40) obviously demonstrate two clauses. In the case of (38), there is a subordination: a main clause with an aspectual predicate and a dependent clause with a semantic predicate. In the case of (40), it is rather a composition, since the predication are not nested in one another.

Schemes (37) and (39), in my opinion, demonstrate examples of a single clause of the progressive construction.

The most interesting scheme to us is (39). As mentioned many times above, progressive in the K'iche'an languages is complex. This scheme is closest to the reconstructed progressive structure in Proto-Mayan (example (22), Figure 1). But in the reconstruction of the Proto-Mayan progressive, the nominalized semantic predicate is included in the prepositional phrase. Whereas, for example, in Q'eqchi' and Poqomchi' – the vivid representatives of scheme (39) – the use of the preposition is optional (in the case of Q'eqchi' – the PRE is obligatory for intransitive progressives). In addition, as also mentioned above, Q'eqchi' is a language with a "high" absolute. Therefore, it is expected that in the predicate structure, the absolute marker should be placed before the stem in transitive verbs and before the ergative marker, followed by the stem in transitive verbs. The positional root *yoo-* is intransitive. Its single valence is replaced by the subject marker. However, this absolute subject marker, as we see from (27), is placed after the stem: *yoo-k-ø*.

5 K'iche'an progressive and split ergativity

In this section, the splits in the ergative–absolutive strategy in the K'iche'an progressives are observed. It is argued that all aspectually conditioned splits in the K'iche'an ergative–absolutive strategy of argument marking are observed in progressive (or historically progressive) constructions.

Anderson and Comrie noted that it is very rare for ergative-type languages to always consistently implement an ergative–absolutive argument marking strategy (Anderson 1976, Comrie 1978). Many ergative languages exhibit split ergativity. In other words, there will be an ergative–absolutive strategy in some parts of the grammar, while others will have a non-ergative one (Silverstein 1976).

Parts of the grammar of ergative languages where the accusative marking scheme of verb arguments operates are described in detail in Tsunoda (1981). Among the most common types of split ergativity, the author identifies the following: TAM-splits (in Tense/Aspect/Modality constructions), NP-splits (splits in nominal phrases), verb splits, and splits in certain types of clauses.

In Dixon (1994), a generalization is proposed that if a language shows split in aspectual constructions, then an ergative–absolutive strategy can be found in perfective meanings and a nominative–accusative strategy – in progressive meanings (41).

(41)	ergative perfective	>>	 imperfective	accusative >> progressive
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In my opinion, this generalization is only partially true for the K'iche'an languages. Three marking schemes in progressive constructions in the studied K'iche'an languages (42–44) are noted.

(42)	Ergative–absolutive marking strategy		
		S	O
	Intransitive	Abs	—
	Transitive	Erg	Abs

(43)	Nominative–accusative marking strategy 1		
		S	O
	Intransitive	Abs	—
	Transitive	Abs	Erg

(44)	Nominative–accusative marking strategy 2		
		S	O
	Intransitive	Erg	—
	Transitive	Erg	Abs

At (42), the classical scheme of ergative–absolutive marking is applied. In other words, the subject of a transitive action is contrasted with a non-transitive subject and a transitive object. In this case, the transitive subject is coreferent to the ergative marker in the predicate structure, and the intransitive subject and transitive object are coreferent to the absolutive marker in the predicate structure. This scheme is valid for the progressive constructions in Uspanteko (28), K'iche' (26, 30) (in the first and second identified types of progressives), as well as for the languages Tz'utujil (33) and Kaqchikel (34), but only when the arguments are not formally expressed. Thus, there are no splits in these cases.

Schemes (43) and (44) do not morphologically distinguish between the subjects of transitive and intransitive action, but contrast them with the object. With some degree of conditionality, precisely because

of the contrast between the subject and the object of action, these strategies can be called nominative–accusative. While at the same time in Dixon (1994, 214) it is noted that in the nominative strategy the subject remains unmarked. However, in (43), the subject of both transitive and intransitive actions is coreferent to the absolute, and in (44) to the ergative morphemes in the predicate structure. In any case, these strategies cannot be called ergative in any sense. Thus, there is a TAM-split. In Salanova (2007, 47), all splits in Tense/Aspect/Modality structures are reduced to aspectual splits.

According to Coon (2010) in the Mayan languages, splits in nonperfective aspectual forms are observed. This conclusion is based on the observation that most often it is the nonperfective forms that are complex. According to my observations, the only complex aspectual structure in the K'iche'an languages has only the progressive, as well as the imperfect future tense in Poqomchi' (see Buc Choc 1996, 123). However, according to Robertson (2014, 113), the aspectual predicate of the imperfective future *na* is etymologically derived from the aspectual predicate of the progressive *naak*. In Colonial Poqomchi', *na(k)*- was a marker of progressive. In modern Poqomchi', *k'ahchi'* replaced *na(k)*- in the progressive, and the particle *na* remained to form the imperfective (Robertson 2014, 144). Thus, in my opinion, all aspectually conditioned splits in the ergative–absolute strategy of argument marking in K'iche'an languages are observed in progressive (or historically progressive) constructions.

In the case of splitting, as mentioned above, two alternative ergative–absolute strategies can be observed: (43) and (44). In the case of (43), the intransitive and transitive subjects are marked with an absolute, and in the case of (44) with an ergative. Scheme (43) is valid for the progressive constructions in Q'eqchi' (27), K'iche' (31) (only in the third type), Sacapulteko (35), as well as for the languages Kaqchikel (45) and Tz'utujil with a formally expressed argument. For example, in the case of (45), there is a pronounced object in the sentence, which, in my opinion, changes the strategy of argument marking. In this case, the object “children” is coreferent not to the absolute, but to the ergative marker *ki-* in the structure of the predicate *k'ul*.

(45)	Kaqchikel (Imanishi 2019, 412)			
	<i>y-in-ajin</i>	<i>che</i>	<i>ki-k'ul-ik</i>	<i>ak'wal-a'</i>
	INC-1SG.B-PROG	PRE	3PL.A-meet-NMLZ	child-PL
	“I am meeting children.”			

Scheme (44) assumes that the subject of the transitive and intransitive actions is coreferent to the ergative, and the object is an absolute marker in the predicate structure. This scheme is valid for Poqomam (23) and Poqomchi' (24).

6 Conclusion

Thus, having considered the morphosyntactic features of the progressive category in K'iche'an languages, three types of progressive in the K'iche'an languages are identified and described as the verbal properties of the aspectual predicate become stronger – from the particle to the finite form. Three strategies for the distribution of absolute and ergative markers in the K'iche'an progressive constructions were also noted and described as the verbal properties of the main semantic predicate became stronger. A boundary was also drawn between the uniclausal and biclausal analyses of progressive constructions in K'iche'an languages. All of this helped to apply Robert Dixon's generalization of aspect-based split ergativity to K'iche'an languages and identify three strategies of argument marking in progressive constructions. It was found out that all aspectually conditioned splits in the ergative–absolute strategy of argument marking in K'iche'an languages are observed in progressive (or historically progressive) constructions.

Abbreviations

1	first person
2	second person
3	third person
A	set A
B	set B
abs	absolutive
ap	antipassive
AspP	aspectual phrase
compl	completive
erg	ergative
inc	incomplete
nmlz	nominalization marker
np	nominal phrase
pass	passive voice
pl	plural
pot	potential
PP	prepositional phrase
pre	preposition
prog	progressive
sg	singular
ss	status suffix
v.nmlz	verbal noun
VP	verb phrase
VPart	verbal particle

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