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Nominalizations and the structure of progressives in Chuj Mayan

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This paper investigates the structure of progressives and nominalizations in Chuj, an understudied Mayan language of Guatemala. Like many other Mayan languages, Chuj shows aspect-based split ergativity: the otherwise ergative head-marking pattern in the language disappears in the progressive aspect. In other Mayan languages—for example Ch'ol (Coon 2010; 2013) and Yucatec (Bricker 1981)—the appearance of a non-ergative pattern in the progressive has been attributed to nominalization. In Chuj, however, there is no clear morphological reflex of nominalization, as is found in other languages in the family. Using data from negation, particle placement, and agreement, we argue that Chuj progressives nonetheless involve an aspectual matrix predicate and a nominalized embedded verb. This provides a clear structural explanation for the split pattern. Finally, we distinguish different types of nominalizations in Chuj: those which are nominalized directly from a root, and those which are nominalized above verbal projections.

1 Introduction

In this paper we investigate the structure of progressive clauses in Chuj, an understudied language from the Q'anjob'alan branch of the Mayan family, spoken in the department of Huehuetenango in Guatemala. We provide evidence that progressive clauses involve an aspectual predicate and an embedded nominalized clause, and that this nominalization is the source of split ergativity in the language. Following previous work on other Mayan languages (Larsen & Norman 1979; Bricker 1981; Mateo Pedro 2009; Coon 2010), as well as cross-linguistically (Laka 2006; to appear; Coon 2013), split ergativity in Chuj may thus be seen as structurally based.[1] This analysis contrasts with approaches in which splits are taken to involve different case/agreement features relativized to particular aspectual values (see e.g. Anand & Nevins 2006; Ura 2006; AnderBois & Armstrong 2016), as well as with proposals in which the split is taken to be purely morphological (e.g. Legate 2014 for nominal splits).

This result is important because the nominal nature of Chuj progressive markers is not at all obvious from their surface form. This contrasts with Mayan languages like Ch'ol, in which there is morphological evidence of nominalization in progressive stem forms (Coon 2013). In fact, while Chuj *does* have stem forms that are very clearly nominalized (*-el forms,* described below), these stems are impossible in progressive constructions. We provide evidence first that there is nevertheless a structural difference between progressive

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[1] Bricker (1981) argues that nominalization is the diachronic source of the split in Yucatec; Mateo Pedro (2009) and Coon (2010; 2013) argue that nominalization is present in the synchronic grammars of Q'anjob'al and Ch'ol, respectively.

and non-progressive constructions, and second, that nominalizations in Chuj may be small
(formed directly from a root, as in the *-el* forms) or large (nominalized above the projec-
tion of verbal material). This connects to existing literature arguing for different sizes of
nominalizations (see e.g. Abney 1987; Grimshaw 1990; Harley & Noyer 1998; Borsley
& Kornfilt 2000; Alexiadou 2001; Embick 2010). Only the latter type—the larger nomi-
nalizations containing verbal material—may appear in the progressive construction; we
connect this to their ability to project arguments (as in Grimshaw's 1990 *Event Nominals*).

The remainder of this paper is organized as follows: section 2 provides background on
split ergativity in the Mayan family, along with details of Chuj's split pattern. As little
descriptive material exists in Chuj—and virtually none in English—section 3 gives a brief
overview of the major characteristics of the language. The core evidence for our proposal
is presented in sections 4 and 5. In section 4 we argue that the progressive aspect mark-
ers are predicates, and in section 5 we demonstrate that the verbs which they embed are
nominalized. In section 6 we present a formal account of the progressive nominalizations,
comparing them with other nominals in the language and with nominalizations cross-
linguistically. We conclude in section 7.

2 Aspect-based split ergativity in Chuj

Like many other Mayan languages, grammatical relations in Chuj are head-marked on
the predicate via two sets of person markers (e.g. Larsen & Norman 1979; Grinevald &
Peake 2012; Coon 2016a; Aissen to appear). In Chuj, the head-marking pattern shows an
aspectual split (see e.g. Buenrostro 2013). Clauses in non-progressive aspects—along with
aspectless nonverbal predicates, discussed below—exhibit an ergative-absolutive align-
ment. Transitive subjects are co-indexed with an ergative prefix, known as "Set A" in
Mayan linguistics. In (1), this is the 1st person plural *ko-*. Transitive objects and intransi-
tive subjects are cross-referenced with a set of absolutive clitics, such as *-ach* in (1), called
"Set B" (conventions for using " = " vs. hyphen for parsing out Set B are described below).[2]

(1) a. **Ix-ach-ko**-chel-a'.
         PFV-B2-A1P-hug-TV
         'We hugged you.'

     b. **Ix-ach**-b'ey-i.
         PFV-B2-walk-ITV
         'You walked.'

In the progressive aspect, as in (2), we find the split: both transitive and intransitive
subjects are now cross-referenced with the Set A prefix series. Set B is impossible on
progressive intransitives, as in (3).

(2) a. Lan   **hach** = **ko**-chel-an-i.
         PROG   B2 = A1P-hug-SUB-ITV
         'We're hugging you.'

     b. Lan   **ko**-b'ey-i.
         PROG   A1P-walk-ITV
         'We're walking.'

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[2] Unless otherwise noted, all data are from our elicitation work with speakers of the Mateo Ixtatán variant of
Chuj. Abbreviations are listed in the appendix. Chuj is written in a Spanish-based practical orthography; see
Domingo Pascual (2007). In some cases, we have modified the glosses and transcription from other sources
to make it consistent with the conventions used here. All translations from Spanish are our own.

(3) *Lan   **hach**=b'ey-i.
     PROG   B2=walk-ITV
     intended: 'You're walking.'

In the terminology of Dixon (1979; 1994), the split pattern in (2) represents an "extended ergative" pattern. One can call it "nominative-accusative" insofar as both transitive and intransitive subjects pattern alike, but note that there are no new "nominative" or "accusative" morphemes; rather, the Set A marker has been *extended* to mark subjects of certain intransitive predicates. This is schematized in (4) and (5).

(4) *Ergative alignment*
         transitive: **B-A**-stem
         intransitive: **B**-stem

(5) *"Extended ergative" alignment*
         transitive: **B-A**-stem
     →   intransitive: **A**-stem

Analogous splits are found in other Mayan languages, described for example in Ch'ol (Coon 2010; 2013), Yucatec (Bricker 1981), and Q'anjob'al (Mateo Toledo 2003); see also Larsen & Norman 1979 for an overview. Compare the Ch'ol perfective and progressive forms in (6) and (7) below. Building on previous work in Mayan, Coon (2010) explains Ch'ol's "extended ergative" split as follows: the progressive aspect marker (*choñkol*) is a *predicate*, which takes a nominalized clause as its complement, as shown in brackets in (7).

(6) *Ch'ol perfective*
     a. Tyi   **i**-jats'-ä-**yoñ**.
         PFV   A3-hit-TV-B1
         'She hit me.'

     b. Tyi   majl-i-**yoñ**.
         PFV   go-ITV-B1
         'I went.'

(7) *Ch'ol progressive*
     a. Choñkol   [$_{NP}$ **i**-jats'-**oñ**].
         PROG   A3-hit-B1
         'She's hitting me.'

     b. Choñkol   [$_{NP}$ **i**-majl-el   ].
         PROG   A3-go-NML
         'She's going.'

We argue that this type of proposal is also correct for Chuj progressives; the structure we propose below is represented in (8).

(8) a. Lan   [$_{NP}$ hach=**ko**-chel-an-i   ].
         PROG   B2=A1P-hug-SUB-ITV
         'We're hugging you.' (lit. ~ 'Our hugging you is happening.')

     b. Lan   [$_{NP}$ **ko**-b'ey-i   ].
         PROG   A1P-walk-ITV
         'We're walking.' (lit. ~ 'Our walking is happening.')

The proposal that the progressive aspect marker is a predicate which embeds the contentful lexical material in some type of complement is not new (see the works cited above), and is discussed explicitly for Chuj in Buenrostro (2007; 2013). Specifically, Buenrostro proposes that *lan* (and its variants, discussed below) is a predicate derived from "a positional root which takes as its argument the clause containing the principal meaning" (Buenrostro 2013: 123). As discussed and observed below, other apparently nonfinite complement clauses in Chuj also show this type of split in person marking.

The questions that remain are **(i)** what is the status of the complement clause? and **(ii)** what triggers the split in person marking? In this paper we argue that the embedded complement clause is a nominalization, and that the split in person marking is directly connected to the nominalized status of the embedded predicate. Crucially, across most of the Mayan family, Set A markers cross-reference not only transitive subjects, but also *possessors*. Compare the 1st person plural Set A markers in the progressives in (8) with the possessive from in (9). Under a nominalization analysis, the notional subjects of progressive forms like those in (8) are grammatical possessors, as indicated by the suggested literal translations above.

(9) **ko**-nun
     A1P-mother
     'our mother'

In Ch'ol, we find clear initial support for the nominalization hypothesis in the morphological form of the complement clause predicates, shown in (10) below. While an intransitive verbal stem appears with the verbal "status suffix" *-i* (discussed in section 3), as in (10a), intransitives in the progressive aspect appear instead with the suffix *-el*, as in (10b). Suffixes of the form *-Vl* appear on nominals throughout Ch'ol and other Mayan languages (see e.g. Bricker 1981), discussed in more detail in Coon (2010; 2013) and in section 6 below.

(10) *Ch'ol intransitives*
      a. Tyi   wäy-**i**-yety.
          PFV   sleep-ITV-B2
          'You slept.'

      b. Choñkol [a-wäy-**el**   ].
          PROG   A2-sleep-NML
          'You're sleeping.'

Unlike in Ch'ol, Chuj shows no morphological difference between stems appearing in perfective and progressive aspects, aside from the change in person marking. Compare the Ch'ol intransitives above with the Chuj intransitives in (11).

(11) *Chuj intransitives*
      a. Ix-ach-way-**i**.
          PFV-B2-sleep-ITV
          'You slept.'

      b. Lan   [ha-way-**i**   ].
          PROG   A2-ITV
          'You're sleeping.'

Buenrostro (2007: 255) explicitly rejects a nominalization analysis of embedded clauses, suggesting instead that these embedded clauses are verbal. Though she does not formalize the nature of the alignment split, one could stipulate that functional projections in matrix

versus embedded intransitive clauses have different case/agreement features, but are structurally and categorically identical. Below we argue that despite the morphological similarities, the stem forms in (11a) and (11b) are nonetheless structurally and categorically different from one another: the former is a verbal stem, while the latter is a nominalization. This analysis is not only empirically supported by the Chuj facts, but also allows for a non-stipulative account of the "extended ergative" person marking system in embedded forms. First, we turn to general background on Chuj.

3 Chuj background

As in other Mayan languages, predicates in Chuj can be divided into two types: *verbal predicates* and *nonverbal predicates* (see Grinevald & Peake 2012; Coon 2016a). The former generally denote events and require a TAM marker, as in examples seen so far above. Nonverbal predicates, like those in (12), generally denote states and never appear with a TAM marker; adjectival and nominal predicates fall into the latter type and do not appear with an overt copula, as shown by the examples in (12a)–(12b). There exist several transitive nonverbal predicates, like 'know' in (12c); as in verbal transitives, the subject is marked Set A and the object is marked Set B.

(12) a. K'ayb'um = in.
          teacher = B1
          'I am a teacher.'

      b. Tzalajnak   ix   ix.
          happy   CLF.FEM   woman
          'The woman is happy.'

      c. W-ojtak = ach.
          A1-know = B2
          'I know you.'

In these examples, temporal distinctions may be made through the addition of adverbial material, or inferred from context. TAM-less nonverbal predicate constructions will be relevant to the discussion of the progressive below.

A template for a Chuj transitive verbal predicate is given in (13); these components are discussed briefly below. For general descriptions of Chuj, see Hopkins (1967); Maxwell (1976); Domingo Pascual (2007); Buenrostro (2013).

(13) TAM — SET B — SET A — Root — VOICE — STATUS SUFFIX

As in other Mayan languages, core nominal arguments are cross-referenced by Set A and Set B markers on the predicate. In discourse-neutral contexts nominal arguments appear post-verbally, but may also appear in preverbal topic/focus positions (see England 1991; Aissen 1992 on Mayan generally, and Bielig 2015 on Chuj). Both VOS and VSO orders are possible, and further work is needed to determine the factors governing this distribution in Chuj (see England 1991 and Clemens & Coon 2016 on postverbal argument order in Mayan). As described for other Q'anjob'alan languages (e.g. Craig 1986 for Popti' and Zavala 2000 on Akatek), Chuj possesses a series of nominal classifiers which appear either preceding nominals in referential contexts (14a), or alone as pronouns (14b) (Buenrostro et al. 1989; Hopkins 2012b).

(14) a. Ix-way   **ix**   unin.
          PFV-sleep   CLF.FEM   child
          'The girl slept.'

    b.   Ix-way   **ix**.
            PFV-sleep   CLF.FEM
            'She slept.'

Chuj Set A and Set B markers are given in (15). As is common throughout Mayan, Set A (ergative markers) are prefixes, while Set B (absolutive markers) are clitics (see Maxwell 1976 on Chuj, Grinevald & Peake 2012; Coon 2016a for Mayan generally). Both series are discussed in more detail below.

(15)

	Set B (absolutive)		**Set A** (ergative/possessive)	
			_C	_V
1s	*hin*	1s	*hin-*	*w-*
2s	*hach*	2s	*ha-*	*h-*
3s	Ø	3s	*s-*	*y-*
1P	*honh*	1P	*ko-*	*k-*
2P	*hex*	2P	*he-*	*hey-*
3P	*heb'*	3P	*s-…heb'*	*y-…heb'*

The initial *h-* of these morphemes is not pronounced as such, but is an orthographic convention used to indicate the absence of an epenthesized word-initial glottal stop (initial glottal stop is inserted before other vowel-initial forms in Chuj, discussed for example in Buenrostro 2004; see Bennett 2016 on glottal stop epenthesis in Mayan). Constrast for example *onh* [ʔoŋ] 'avocado' with *h-onh* [oŋ] 'your avocado'. For this reason, we use *h-* only word-initially, though some authors do not transcribe it. As in other Mayan languages, note that there is no overt 3rd person absolutive marker, a fact which will be relevant below. Third person plural for both ergative and absolutive arguments is indexed with the plural marker *heb'*, restricted to humans and possibly some other high animates.

  Preverbal TAM markers in Chuj are shown in (16), and discussed in more detail in Buenrostro (2007) and Carolan (2015). The past perfective marker *ix* may be dropped, as in Q'anjob'al (Mateo Toledo 2011); in Chuj, the alternation between *ix* and Ø appears to indicate a difference in recent versus more distant past, discussed in Carolan 2015.[3] We assume following Aissen (1992) and other work on Mayan languages that the aspectual particles *tz*, *ix/Ø*, and *ol* occupy finite Infl^0; the status of *lan* is discussed in detail below.

(16)   *Chuj TAM markers*

tz	imperfective
ix/Ø	past perfective
ol	prospective
lan	progressive

Chuj intransitive and transitive forms in each of the first three aspects are illustrated in (17)–(18).

(17)   *Intransitives*
    a.   Tz-ach-b'ey-i.
          IPFV-B2-walk-ITV
          'You walk.'

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[3] Carolan notes that the distinction between Ø in the past perfective and the absence of a TAM marker as in nonverbal predicates can be determined by the stem form, as well as interpretation, also discussed by Mateo Toledo (2011) for Q'anjob'al.

b. Ix-ach-b'ey-i.
PFV-B2-walk-ITV
'You walked.'

c. Ol-ach-b'ey-ok.
PROSP-B2-walk-IRR
'You will walk.'

(18) *Transitives*
a. Tz-ach-in-chel-a'.
IPFV-B2-A1-hug-TV
'I hug you.'

b. Ix-ach-in-chel-a'.
PFV-B2-hug-TV.
'I hugged you.'

c. Ol-ach-in-chel-a'.
PROSP-B2-A1-hug-TV
'I will hug you.'

Stem-final status suffixes are found throughout Mayan languages, and vary with transitivity and clause type. In both imperfective and perfective stem forms, intransitives appear with the status suffix *-i* and transitives appear with the transitive suffix *-V'*, here *-a'*.[4] These status suffixes are typically dropped when not in phrase final position, as in many other Mayan languages (see e.g. Henderson 2012). In the prospective forms in (17c) and (18c), the pattern is similar except that intransitives appear with the irrealis suffix *-ok*, discussed further below.

Contrasts between imperfective, perfective, and prospective constructions in (17) and (18) on the one hand, and progressives in (19) and (20), on the other, will be the focus of the remaining sections.

(19) Lan   ha-b'ey-i.
PROG   A2-walk-ITV
'You're walking.'

(20) Lan   hach=in-chel-**an-i**.
PROG   B2=A1-hug-SUB-ITV
'I'm hugging you.'

Note that unlike in the perfective, imperfective, and prospective aspects, the stem in the progressive is written orthographically as a separate word from the aspect marker (see e.g. Buenrostro 2004; 2007; Domingo Pascual 2007), an intuition shared by speakers we have consulted. As previewed in section 2, intransitives appear with Set A marking cross-referencing their subjects, rather than the Set B marking found on intransitives elsewhere in the language. Finally, note that in the transitive form the verb stem appears with a suffix, *-an*, glossed following Buenrostro (2004) as SUB for "subordinate clause", and then the *intransitive* suffix *-i*. We offer an account for this morphology in section 6 below.

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[4] Vowel quality of the transitive status suffix depends on the root: for non-back vowels, the suffix is *-a'*, while for roots with [o] and [u] the vowel of the suffix is identical to the root vowel. So-called "non-root" or derived transitives in Chuj appear with the suffix *-ej*, not discussed here, though see Buenrostro (2013) for more on the Chuj verb system.

A note on the status and placement of the Set A (ergative, possessive) and Set B (absolutive) morphemes is in order, and will be relevant to the discussion below. As noted above, Set A morphemes are prefixal; following Coon (to appear) we assume that Set A agreement is the spell-out of a low, in situ agreement relationship between the head that introduces the external argument (i.e. Voice^0 or possessessive n^0) and the external argument itself (see also Wiltschko 2006 on ergative agreement in Halkomelem Salish). We propose, following Coon, Mateo Pedro & Preminger (2014) on Q'anjob'al, that Set B morphemes are the result of clitic doubling which arises due to an *Agree* relationship between the head responsible for licensing the absolutive argument, and the argument itself ("the associate" of the clitic double; see e.g. Anagnostopoulou 2003; Harizanov 2014). In verbal predicates like those in (17)–(18), this head is the TAM marker, located in Infl^0 (discussed further in section 6 below). Infl^0 licenses the absolutive argument and triggers cliticization of the Set B morpheme, which attaches to the TAM marker. The structure of a verbal predicate, like the transitive in (18b) above, repeated in (21), is shown in (22).

(21)   Ix-ach-in-chel-a'.
        PFV-B2-A1-hug-TV
        'I hugged you.'

(22)
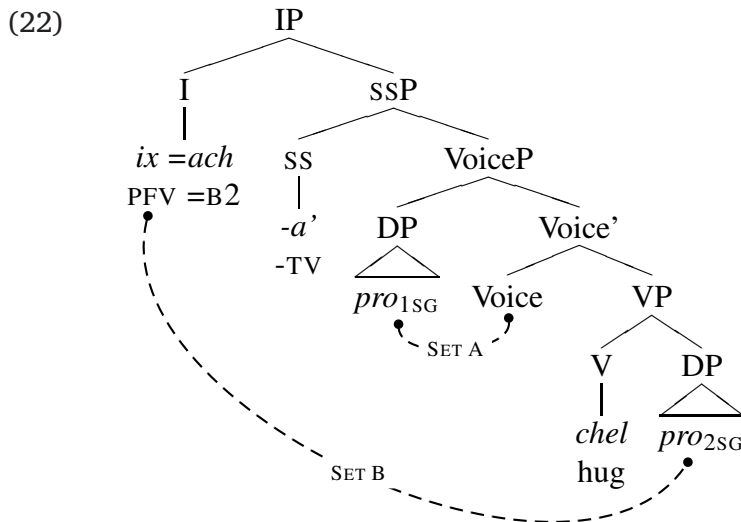
The verb root undergoes head movement through Voice^0 to the status suffix, forming the verb stem. We represent v^0/Voice^0 as a single head, though nothing critical hinges on whether there is a null v^0 or the two are "bundled" (see Harley to appear). Following Clemens & Coon (2016), we label the head hosting the status suffix simply SS^0; what is important here is that it is a head at the edge of the verbal projection. Set A agreement is the result of a local relationship between the Voice^0 head and the in situ external argument, spelled out as a prefix on the stem: *in-chel-a'* (see Coon to appear for Ch'ol). The TAM head enters into an *Agree* relationship with the object, triggering the Set B clitic double on the TAM particle *ix*. In non-progressive aspects, we follow others in writing the complex as a single phonological word and do not represent clitic boundaries internal to these stems. This is consistent with the prosodic behavior of Set B morphemes and is supported by speaker intuitions as well as preliminary phonetic data (Cora Lesure, p.c.). We assume

following previous work that Set B markers in Chuj are syntactic clitics, but that prosodic effects may affect their phonological realization.[5]

We offer a detailed proposal for the structure of progressives, including the attachment of Set A and Set B morphemes, below. First, in section 4 we show that the progressive *lan* behaves as a nonverbal predicate, while the other aspect markers *ix/Ø*, *tz*, and *ol* do not. As noted above, this part of our analysis accords with other work on Chuj, for example discussion in Buenrostro (2007; 2013). Next, in section 5 we provide evidence for our more controversial proposal that the forms embedded under the progressive marker are nominalizations.

4 Progressives as predicates

This section investigates the behavior of the progressive aspect marker *lan* in Chuj. We show that it behaves like other nonverbal predicates in Chuj with respect to negation (section 4.1) and particle placement (section 4.2). Finally, in section 4.3, we compare *lan* to other embedding verbs in the language and discuss a likely origin for the marker *lan* as originating from a positional predicate; see also Pascual (2007) on Q'anjob'al.

4.1 Negation

In non-progressive aspects, negation in Chuj is expressed by a preverbal particle, here *man*, and a particle *laj* which follows the verb stem, as shown by the transitive and intransitive prospective sentences in (23). Note that *-ok*—which normally appears on prospective intransitives, even in non-final position—is absent from the negated intransitive in (23b); compare (17c) above.

(23) a. **Man** ol-ach-in-chel   **laj**.
          NEG   NEG
          'I will not hug you.'

      b. **Man** ol-in-b'ey   **laj**.
          NEG   PROSP-B1-walk   NEG
          'I will not walk.'

In the imperfective aspect the negative marker *man* and the imperfective morpheme *tz* combine to form *max*, and in the perfective aspect *man* and the perfective *ix* combine to form *maj*, shown in (24). Despite this difference, *laj* consistently follows the verb stem in these forms, as in (23).

(24) a. **Max**   hin-chi'   **laj**   nok'   chib'ej.
          NEG.IPFV   A1-eat   NEG   meat
          'I don't eat meat.'

      b. **Maj**   honh=y-il   **laj**   winh   ewi.
          NEG.PFV   B1P=A3-see   NEG   CLF.MASC   yesterday
          'He didn't see us yesterday.'

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[5] Buenrostro (2013) represents both TAM and Set B morphemes as phonological clitics; for example, a stem like (21) is written as *ix=ach=in-chel-a'*. Based on preliminary phonetic data (Cora Lesure, p.c.), this appears to be borne out in the progressive aspect. However in non-progressive aspects, given the general inability of certain prosodically-governed material to appear within the stem (discussed in section 4.2), we provisionally adopt the proposal in Bennett, Harizanov & Henderson (2015) for Kaqchikel in which a prosodic "smothering" operation turns the stem into a single inseparable word. The phonology of the progressive aspect is discussed further in section 4.

Negation in the progressive aspect follows a different pattern, shown in (25). First, the progressive morpheme *lan* appears with the irrealis marker *-ok*, seen in (25) below. Second, note the difference in placement of the particle *laj*: in (23) *laj* follows the verb stem, while in (25) it follows the progressive marker.

(25) a. **Man** lan-**ok** **laj** hach = in-chel-an-i.
          NEG   PROG-IRR   NEG   B2 = A1-hug-SUB-ITV
          'I'm not hugging you.'

      b. **Man** lan-**ok** **laj** hin-b'ey-i.
          NEG   PROG-IRR   NEG   A1-walk-ITV
          'I'm not walking.'

Compare the *lan* forms in (25) with the negated stative predicate *k'ayb'um* 'teacher' in (26). The progressive morpheme *lan* patterns with other nonverbal predicates in taking the suffix *-ok*; the PRED-*ok* stem in both is followed by the particle *laj*.

(26) **Man** hin = k'ayb'um-**ok** **laj**.
      NEG   B1 = teacher-IRR   NEG
      'I'm not a teacher.'

As two anonymous reviewers point out, the distribution of irrealis *-ok* and negative *laj* not, in and of lead to the conclusion that *lan* is a predicate. Under one possible analysis, *laj* is an enclitic that attaches to the first prosodic word in a certain domain, regardless of its lexical category; since the progressive *lan* is an independent word, we would predict the difference between (23)/(24) and (25) on purely phonological grounds. Indeed, one reviewer notes that the distribution of the cognate particle in K'ichee', *ta(j)*, discussed in Henderson (2012), is prosodically governed and is not restricted to attaching to predicates. Similarly, *-ok* appears on elements of various categories—e.g. numerals, directionals—in irrealis contexts. While further work is needed to fully understand the nature of both *-ok* and *laj* in Chuj, their distribution here both reinforces the claims that (i) progressive *lan* behaves differently from the other aspect markers, and (ii) that it patterns with other nonverbal predicates in Chuj.

Craig (1977: 93) reports similar facts for related Popti' (formerly Jakaltek), also from the Q'anjob'alan branch. A Popti' negated progressive is shown in (27a), and can be compared with the negated intransitive stative predicate in (27b). Craig notes that "[t]he fact that *lanhan* is a higher predicate and a stative verb is indicated by the negative construction."[6]

(27) *Popti'* (Craig 1977: 94)
      a. Mat **lanhan**-oj ha-wayi.
          NEG   PROG-IRR   A2-sleep
          'You are not sleeping.'

      b. Mat **sonlom**-oj hach.
          NEG   marimba.player-IRR   B2
          'You are not a marimba player.'

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[6] One might wonder about the semantic classification of the progressive predicates as "stative", given that progressives describe an event which has a dynamic initiation and progression (see Ramchand 2008). We leave the semantics of *lan* as a topic for future work, noting there that formally the progressive predicates pattern with other nonverbal predicates in Mayan, both in terms of their distribution (as in (12) above), as well as in their inability to appear preceded by other aspectual markers (*ix lan…*).

4.2 Particles

The particles =*xo* 'already' and =*to* 'still' provide additional evidence for a structural difference between the progressive and non-progressive markers. Specifically, just as with negation above, the progressive morpheme behaves as a nonverbal predicate with respect to the distribution of =*to* and =*xo*. Examples (28) and (29) below show the contrast between verbal and nonverbal predicates. In NVPs like (28), =*to* and =*xo* attach directly to the predicate.

(28)   *Nonverbal predicates*
  a.   Tzalajnak=**to**   ix   unin.
       happy=STILL   CLF.FEM   child
       'The girl is still happy.'

  b.   K'ayb'um=in=**xo**.
       teacher=B1=ALREADY
       'I am already a teacher.'

In the verbal predicates in (29), =*to* and =*xo* appear sentence-initially attached to an added morpheme *to*. The morpheme *to* is also a complementizer used to embed finite clauses, and we suggest that it is inserted here in order to host the clitic.[7]

(29)   *Verbal Predicates*
  a.   To=**to**   ol-ach-ko-chel-a'.
       C=STILL   PROSP-B2-A1P-hug-TV
       'We will still hug you.'

  b.   To=**xo**   ix-onh-b'ey-i.
       C=ALREADY   PFV-B1P-walk-ITV
       'We already walked.'

Specifically, one might analyze forms like (29) along the lines of English *do*-support.[8] Compare the behavior of (North American) English negative =*n't*, which may attach to auxiliary verbs (30a)–(30b) and copular *be* (30c), but requires *do*-insertion in other contexts (30d)–(30e):

(30)   a.   Mary is**n't** going
       b.   Mary has**n't** gone
       c.   Mary is**n't** a teacher
       d.   Mary does**n't** have the book
       e.   *Mary has**n't** the book.

Assume that like English =*n't*, Chuj =*to* and =*xo* must cliticize to a certain head position in the derivation. In some cases, this position may be filled by movement, in which

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[7] Buenrostro (2013: 121) reports variation in the placement of =*to* and =*xo* in some verbal predicates. In addition to forms with an initial *to*, like those in (29), she provides forms like (i), in which the clitic follows the prospective *ol*.

(i)   Ol=**to**=in-mujlaj-ok.
     PROSP=STILL=B1-work-IRR
     'I will still work.'

More work is needed to determine if this is a more general point of variation. It is worth noting that the only forms like (i) provided by Buenrostro involve the prospective *ol* (not perfective *ix* or perfective *tz*) the prospective shows independent differences, such as the appearance of the irrealis -*ok* in intransitives (see (17) above). We leave this as a topic for future work, noting that under the prosodic smothering account discussed in footnote 5, this type of variation may be attributed to features of the aspect marker.

[8] We thank an anonymous reviewer for fuller discussion of this idea.

case the particle attaches to the moved head: the NVP in (28). In other cases, movement is blocked and the complementizer *to* is inserted, as in (29).

We now turn to progressives. Again in parallel with the behavior of nonverbal predicates, *to* is not inserted in the progressive aspect. Instead, the particles =*xo* and =*to* attach directly to the progressive marker, as shown in (31) and (32).

(31) a. Lan=**xo**   hach=ko-chel-an-i.
          PROG=ALREADY   B2=A1P-hug-SUB-ITV
          'We're already hugging you.'

      b. Lan=**xo**   ko-b'ey-i.
          PROG=ALREADY   A1P-walk-ITV
          'We're already walking.'

(32) a. Lan=**to**   hach=ko-chel-an-i.
          PROG=STILL   B2=A1P-hug-SUB-ITV
          'We're still hugging you.'

      b. Lan=**to**   ko-b'ey-i.
          PROG=STILL   A1P-walk-ITV
          'We're still walking.'

Note that unlike with the negative particle *laj* in section 4.1 above, it is not obvious how a prosodic analysis would capture the fact that =*to*/=*xo* attach to the progressive *lan* in (31) and (32), but require the insertion of a C^0 head in the case of verbal predicates in (29). However, a consistent generalization emerges under the proposal that the progressive *lan* simply is a nonverbal predicate. NVPs—perhaps due to an absence of added functional structure found on verbal predicates—may move to the position to which =*to* and =*xo* attach (by assumption, C^0). We suggest that the added functional structure (i.e. status suffixes the aspectual) found on verbal predicates blocks this movement and the dummy element *to* is inserted in order to host the clitics.

Setting aside the details of the verbal and nonverbal predicates, the important point here is again that the progressive marker *lan* behaves exactly like other nonverbal predicates in its ability to combine directly with =*to* and =*xo*. As with the facts in the previous section, this difference in behavior does not in and of itself point to a categorical difference between *lan* and other aspect markers. However, the fact that *lan* not only behaves differently from the other aspectual morphemes, but also consistently behaves like nonverbal predicates, lends support to this analysis. Adopting the proposal of Buenrostro (2007; 2013), we propose that the progressive morpheme simply is a nonverbal predicate, on par with other NVPs, shown in (33).

(33) a. Tzalajnak=**to**   [ix   unin   ].
          happy=STILL   CLF.FEM   child
          'The girl is still happy.'   =(28b)

      b. Lan=**to**   [ko-b'ey-i   ].
          PROG=STILL   A1P-walk-ITV
          'We're still walking.'   =(32b)

In section 5 we argue that the structural similarity extends to the complements in (33), in brackets, which we propose are both nominal. First we turn to the origin of the progressive marker.

4.3 Progressives and positional predicates

Finally, we compare the progressive marker *lan* with other embedding verbs. Note that the stem forms embedded under the progressive aspect marker in (34a) and (35a) are identical to stem forms which appear under elements that are clearly matrix predicates, like *yamoch* 'begin' in (34b) and (35b).

(34)   a.   **Lan**   hin-munlaj-i.
            PROG   A1-work-ITV
            'I'm working.'

       b.   **Ix-in-yamoch**   hin-munlaj-i.
            PFV-A1-begin   A1-work-ITV
            'I began to work.'

(35)   a.   **Lan**   hach=in-chel-an-i.
            PROG   B2=A1-hug-SUB-ITV
            'I'm hugging you.'

       b.   **Ix-in-yamoch**   hach=in-chel-an-i.
            PFV-A1-begin   B2=A1-hug-SUB-ITV
            'I began to hug you.'

But what kind of a predicate is *lan*? First note that *lan* is the most common progressive marker we have encountered in our work on Chuj, Domingo Pascual (2007: 155) also lists *wan*, Hopkins (2012a) has both *wan* and *wal*, Buenrostro (2013: 149) gives *lan, wan,* and *lanhan,* and Buenrostro (2004) adds *leman*; examples from Buenrostro are in (36).

(36)   *Chuj* (Buenrostro 2004: 262)
      a.   **Lan**   y-il-an   heb'.
           PROG   A3-see-SUB   PL
           'They are seeing it.'

      b.   **Wan**   s-way   winh.
           PROG   A3-sleep   CLF.MASC
           'He is sleeping.'

      c.   **Leman**=to   y-ak'-an   lesal   winh.
           PROG=STILL   A3-give-SUB   pray   CLF.MASC
           'He is still praying.'

While we have yet to determine whether there is any semantic difference among these markers, we suggest that the fact that there are several is consistent with the progresive being expressed as a *lexical predicate*—not as a functional aspectual particle (in contrast with *tz, ix,* and *ol*).[9]

  Buenrostro (2013: 123) proposes that the progressive comes from a positional root (see also Pascual 2007 on Q'anjob'al). Positionals form a distinct class of roots in Mayan languages, identifiable by their semantics (usually referring to physical features or spatial configuration), as well as by the distinct morphology required to form stem forms (see e.g. Haviland 1994; Henderson 2016). In Chuj, positional roots form stative predicates with the addition of the suffix *-an* (Hopkins 1967). The progressive *lan* may be a reduced version of the positional *lanh*; *lanh* can appear with the positional suffix *-an,* forming a

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[9] Hopkins (2012a) notes that *wal* is used for past progressive while *wan* is used for present progressive. We have not yet confirmed this distinction in our work.

stative positional predicate meaning something like 'extended (over some space)', as in
(37a). Compare this with the positional root *linh* 'standing' in (37b).

(37)   *Chuj* (Domingo Pascual 2007: 190)
    a.   **Lanh**-an   ek'   kamix sat lu'um.
        extended-POS DIR shirt   on ground
        'The shirt is lying (extended, carelessly) on the ground.'

    b.   Linh-an   ek' nok'   chej.
        standing-   DIR CLF.ANIMAL horse
        'The horse is standing.'

Cross-linguistically, it is unsurprising to find a locative basis for progressive expressions.
Just as the shirt in (37a) is extended over space, the event in the progressive is extended
over time; see Bybee, Perkins & Pagliuca (1994) for cross-linguistic similarities between
locative and progressive constructions, and discussion for Mayan in Coon (2013).

    Just as the predicate *lanhan* in (37a) combines with a nominal complement—*kamix*
'shirt'—we argue that the reduced progressive form *lan* is also a nonverbal predicate, and
that the stem form it embeds is a nominalized verb. In the following section, we review
evidence in favor of treating the complement of *lan* as a nominalization.

5 Complements as nominalizations

In this section we provide evidence in favor of treating the stem form embedded under the
progressive as a nominalization. Like other nominals, these stems may: serve as subjects
(section 5.1) and trigger agreement (section 5.2). In section 6 we provide further details
on the structure of these forms and the typology of nominalization. While progressive
stems differ from other nominal forms in Chuj with respect to certain diagnostics (e.g.
they may not appear with demonstratives), we show that these differences are expected
from a cross-linguistic point of view.

    Recall that while the predicative nature of *lan* has been proposed in previous work on
Chuj (see also Mateo Toledo 2003; 2013 on Q'anjob'al), the proposal that its complement
is nominal is new. The nominalization analysis advocated for here provides an explana-
tion for the split in person marking in embedded clauses: Set A is found in both transi-
tive and intransitive subjects because these are grammatical possessors (see e.g. Larsen &
Norman 1979). This work not only contributes to our understanding of the typology of
nominalization, but also provides a natural account of the person split in Chuj progres-
sives and embedded clauses more generally.

5.1 As arguments

The progressive stem forms we are examining are shown again in brackets in (38) and
(39). In (38) we observe the main facts that need to be explained: (i) the intransitive
stem in (38a) appears with Set A (ergative/possessive) marking co-indexing the thematic
subject, and (ii) the transitive stem in (38b) appears with a suffix *-an*, followed by what
appears to be the intransitive suffix *-i*.

(38)   a.   Lan   [hin-b'ey-i   ].
        PROG   A1-walk-ITV
        'I'm walking.'

    b.   Lan   [hach=in-chel-an-i   ].
        PROG   B2=A1P-hug-SUB-ITV
        'I'm hugging you.'

Recall that the suffix -*i* drops when it is not in phrase final position, as shown by the forms
in (39) with overt postverbal arguments.

(39) a. Lan   [s-way   winh   ].
          PROG   A3-sleep CLF.MASC
          'He's sleeping.'

      b. Lan   [ko-xik-an   te'   k'atzitz].
          PROG   A1P-chop-SUB CLF.WOOD   wood
          'We're chopping wood.'

Like other nominals, the bracketed stem forms in (38) and (39) can appear as subjects.
The nonverbal predicate in (40) has a regular possessed noun as its subject. Recall that
as in other Mayan languages, there is no overt equative copula in Chuj.

(40) Man   te   wach'-ok laj   [$_{NP}$ **ko**-kape].
      NEG   very good-IRR NEG   A1-coffee
      'Our coffee isn't very good.'

Progressive stem forms may also appear as subjects, as in (41); compare the progressive
stems in (39) above. A non-progressive (e.g. perfective) stem form, like the transitive in
(42) which lacks the suffix -*an*, is ungrammatical in this context.

(41) a. Man   te   wach'-ok laj   [$_{NP}$ **s-way**   **winh**   ].
          NEG   very good-IRR NEG   A3-sleep CLF.MASC
          'His sleeping isn't very good.'

      b. Man   te   wach'-ok laj   [$_{NP}$ **ko-xik-an**   **te'** **k'atzitz**].
          NEG   very good-IRR NEG   A1P-chop-SUB CLF   wood
          'Our chopping wood isn't very good.'

(42) *Man   te   wach'-ok laj   [$_{NP}$ **ko-xik**   **te'** **k'atzitz**].
       NEG   very good-IRR NEG   A1P-chop CLF   wood
       intended: 'Our isn't very good.'

As with nominalizations in English, not all nominalizations are appropriate as subjects
to all predicates (see section 6.3 below), but with the right context, these are acceptable.
Another set of examples is discussed by Buenrostro (2004: 256), shown in (44). Just as a
possessed noun can appear as the subject of an aspectual predicate like *lajw* in (43), so too
can the intransitive and transitive progressive stems in (44).

(43) Ix-lajw-i   [$_{NP}$ **hin-wakax**].
      PFV-finish-ITV   A1-cow
      'My cows finished (i.e. died).'

(44) a. Ix-lajw-i   [$_{NP}$ **ko-b'o'-an**   **ko-kape**   ].
          PFV-finish-ITV   A1P-make-SUB A1P-coffee
          'We finished making our coffee.'

      b. Ix-lajw-i   [$_{NP}$ **hin-munlaj-i**].
          PFV-finish-ITV   A1-work-ITV
          'I finished working.'

5.2 Triggering agreement

In the forms above, the bracketed nominalization serves as the *intransitive* subject of either a nonverbal predicate (41), or of a verb in the perfective aspect (44). If these bracketed forms are true arguments, we expect them to trigger *absolutive* person marking. Recall, however, that there is no overt 3rd person absolutive agreement in Chuj (this holds for Mayan more generally). Compare, for example, the perfective intransitives in (45).[10]

(45) a. Ix-**in**-way-i.
          PFV-B1-sleep-ITV
          'I slept.'

      b. Ix-**ach**-way-i.
          PFV-B2-sleep-ITV
          'You slept.'

      c. Ix-Ø-way   **winh**   **unin**.
          PFV-B3-sleep   CLF.MASC   boy
          'The boy slept.'

Under the analysis presented here, the intransitive predicate *lajwi* 'finish' in (44) "shows" null, whether it is a regular nominal, as in (44a), or a nominalized clause as in (44b). Analogously, if the progressive aspect marker *lan* is the predicate, and its complement is a nominal argument, we do not expect to find any overt reflex of this relationship. Compare the progressive form in (46a) with the nonverbal predicate in (46b).

(46) a. Lan-Ø$_i$ [$_{NP}$ ko-mixnaj-i   ]$_i$.
          PROG-B3   A1P-bathe-ITV
          'We're bathing.' (lit. ~ 'Our bathing is happening.')

      b. Tzalajnak-Ø$_i$ [$_{NP}$ winh   winak]$_i$.
          happy-B3   CLF.MASC   man
          'The man is happy.'

While the absence of morphology in the forms above is consistent with our account, it is hard to draw conclusions from missing morphology. If these nominalizations are true arguments, we expect them to also govern the appearance of *overt* 3rd person Set A morphology. This prediction is borne out. Compare the more complex perfective and progressive forms in (47) below. The appearance of 3rd person Set A morphology in the example in (47b) may initially come as a surprise: it is absent from the perfective form in (47a), and note that the thematic subject is 1st person plural.

(47) a. Ix-numx-i   ko-mixnaj-i.
          PFV-stop-ITV   A1P-bathe-ITV
          'We stopped bathing.'

      b. Lan   **s**-numx-i   ko-mixnaj-i.
          PROG   A3-stop-ITV   A1P-bathe-ITV
          'We're stopping bathing.'

Our analysis of these two sentences is shown in (48).

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[10] We represent a null morpheme in (45c) and in forms below for clarity, but this is not intended to represent an analysis in favor of a null morpheme as opposed to the absence of any morpheme at all. Rather, we include it to demonstrate that the absence of an overt morpheme is expected for 3rd person absolutive arguments.

(48) a. Ix-numx-i   [$_{NP}$ ko-mixnaj-i   ].
          PFV-stop-ITV   A1P-bathe-ITV
          'We stopped bathing.' (lit. ~ 'Our bathing stopped.')

      b. Lan   [$_{NP}$ **s**$_i$-numx-i   [$_{NP}$ **ko-mixnaj-i**   ]$_i$].
          PROG   A3-stop-ITV   A1P-bathe-ITV
          'We're stopping bathing.' (lit. ~ 'Our bathing's stopping is happening.')

In (47a)/(48a), the intransitive matrix verb *numxi* takes the possessed nominal *komixnaji* 'our bathing' as its single absolutive argument. Since (like all other nominalized verbs) the argument is 3rd person singular, we see no overt agreement morphology. The progressive in (47)/(48) is more complex. As usual under this analysis, *lan*—unlike *ix*—must take a nominal complement. Here, it is a complex possessive construction *snumxi komixnaji*, literally, 'our bathing's stopping'. We propose that *komixnaji* 'our bathing' is the grammatical possessor of the nominal *numxi* 'stopping'. Note that the nominal form of 'stop' in (48b) is homophonous with the verbal form in (48a); we return to this below.

  Like other possessors, *komixnaji* follows the possessum and triggers Set A marking on it: here 3rd person *s-*. Compare the complex possessive construction in (48b), repeated in (49a), with the uncontroversial complex possessive form in (49b).

(49) a. [$_{NP}$ **s**$_i$-numx-i   [$_{NP}$ ko-mixnaj-i   ]$_i$]
              A3-stop-ITV   A1P-bathe-ITV
          'Our bathing's stopping.'

      b. [$_{NP}$ **s**$_i$-pat   [$_{NP}$ ko-nun   ]$_i$]
              A3-house   A1P-mother
          'Our mother's house.'

To summarize, while there is no overt morphological evidence for the nominalization of stem forms embedded under the progressive aspect morpheme (i.e. no dedicated nominalizing morpheme), we argue that the distributional facts here lend support to an analysis of these forms as nominal. In particular, our account provides a natural explanation for the appearance of 3rd person Set A agreement on complex progressive constructions like (47b).

  Nonetheless, the progressive forms do not pass all nominal tests in the language. Furthermore, as one reviewer points out, non-nominal clauses might also be expected to serve as subjects and to trigger 3rd person agreement. In section 6 we propose a structure of the progressive stem forms as nominalizations that include (possibly complex) internal verbal structure. Following much previous work on nominalization, we suggest that differences in behavior between the progressive stem forms and other derived nominals fall out from differences in the size of the nominalizations. We argue that the appearance of Set A (*possessive*) person marking on subjects is best understood under this account.

6 The structure of nominalizations

In this section we provide an analysis of the internal structure of progressive stem forms. In section 6.1 we review a concern raised by Buenrostro (2007) about transitive nominalizations, and suggest based on previous work on nominalizations that this is not a problem for Chuj. Next, in section 6.2, we discuss formal details of our account

of the nominalization of progressive stems. We argue that progressive stem forms are nominalized above a verbal projection and that the Set A agreement cross-references the grammatical possessor. The possessor controls a phonetically null argument in the subject's base thematic position—that is, in progressive stem forms, arguments are projected internal to the nominalization. Finally, we compare the embedded progressive forms with other smaller nominal forms in 6.3.

6.1 Transitives and intransitives

In this section, we present a specific proposal for the structure of the nominalized intransitive and transitive forms. First, it is worth noting that Buenrostro (2007) has discussed these constructions, and concluded that the forms embedded under *lan* are not nominal:

> "One of the most frequent explanations for [the progressive] complement clause consists in saying that these are nominalized verbs. The explanation is based in the idea that the ergative marker of the intransitive verb is interpreted as possessive. However, when we see [transitive examples] this hypothesis is not sustainable, since the transitive verb stem has both of its person markers" (Buenrostro 2007: 255).

Chuj perfective and progressive forms are presented in (50) and (51) for comparison. Note that Buenrostro's concern is with forms like the embedded transitive in (51a), which appears with a Set A marker co-indexing the subject, and morpheme co-indexing the object.

(50)　a.　Ix-ach-ko-chel-a'.
　　　　　PFV-B2-A1P-hug-TV
　　　　　'We hugged you.'

　　　b.　Ix-onh-b'ey-i.
　　　　　PFV-B1P-walk-ITV
　　　　　'We walked.'

(51)　a.　Lan　　[_{NP} **hach**=**ko**-chel-an-i　　].
　　　　　PROG　　　B2=A1P-hug-SUB-ITV
　　　　　'We're hugging you.'

　　　b.　Lan　　[_{NP} ko-b'ey-i　　　　].
　　　　　PROG　　　A1P-walk-ITV
　　　　　'We're walking.'

The assumption underlying Buenrostro's concern is that nominalizations must be intransitive. Indeed, based on comparison with many other Mayan languages, this is a reasonable expectation. In languages like Mam (England 2013) and Q'eqchi' (Berinstein 1985), nonfinite embedded forms must first be detransitivized—i.e. passivized or antipassivized—in order to undergo embedding. In the Q'eqchi' form in (52a), for example, the embedded verb is an *incorporation antipassive*: an antipassive morpheme appears on the transitive root, and the object must be bare and nonreferential (see Massam 2001 on pseudo noun incorporation). In the nominalized form in (52b), only the notional object is expressed on the embedded verb, cross-referenced with Set A marking (see also Imanishi 2014 for this type of construction in Kaqchikel).

(52)   *Q'eqchi'* (Berinstein 1985: 265–269)
    a.   Laa'in t-inw-aj   [lo'-o-k   tul   ].
          PRON1 ASP-A1-want   eat-AP-NF banana
          'I want to eat bananas.'

    b.   T-inw-aj   [aaw-il-bal   ].
          ASP-A1-want   A2-see-NML
          'I want to see you. (lit. 'I want your seeing.')

Coon, Mateo Pedro & Preminger (2014) offer a formal account for why embedded transitives are impossible in some, but not all, Mayan languages, which we review briefly in section 6.2 below. Relevant here is first, that there is no a priori problem with a nominalization which appears with a thematic object/patient (i.e. is transitive), and second, that the presence or absence of an internal argument may give us clues to the internal structure of the nominalization. Grimshaw (1990), for example, discusses two types of nominalizations: Result Nominals (RNs) and Event Nominals (ENs; also known as Process Nominals). The former may denote a variety of things related to the verb, and have no internal argument structure. The latter have some verbal properties: they denote complex events and obligatorily project arguments. We will argue that the progressive stems in Chuj belong to the latter type.

   Grimshaw points out that many nominals in English are ambiguous between Result Nominals and Event Nominals, and that this ambiguity gives rise to the appearance of optionality of the complement (i.e. the thematic object, *the patient* in (53)). For example, the English verb *examine* in (53a) requires a complement, while the nominal *examination* in (53b) apparently does not.

(53)   English nominals (Grimshaw 1990: 47).
       The doctor examined *(the patient).
       The doctor's examination (of the patient) was successful.

However, as Grimshaw points out, this optionality disappears when the form is disambiguated. For the ambiguous nominal *expression* in (54), the modifier *frequent* forces a complex Event Nominal reading. While a complement need not occur under a Result Nominal reading, omitting the complement when the EN reading is forced is ungrammatical, as shown by the contrast between (54a) and (54b).

(54)   English nominals (Grimshaw 1990: 50)
    a.   *The frequent expression is desirable.
    b.   The frequent expression of one's feelings is desirable.

The distinction between simple RNs and complex ENs also has an effect on the interpretation of possessors. In (55a), Grimshaw (1990: 48) notes that the possessor, *John*, may be understood as the "possessor, author, or taker of the exam". However, in (55b)—when the noun behaves as a theta-role-assigning EN—the possessor must be interpreted as a thematic agent.

(55)   English possessors (Grimshaw 1990: 48)
    a.   John's examination was long.
    b.   John's examination of the patients took a long time.

We argue that Chuj transitives like (51a) above, repeated here in (56), are comparable to English forms like the one in (55b)—namely, they are complex Event Nominals.

(56)   Lan   [$_{NP}$ hach = ko-chel-an-i   ].
        PROG   B2 = A1P-hug-SUB-ITV
        'We're hugging you.' (lit. ~ 'Our hugging of you is happening.')

Of course, the *semantic* ability to take a complement may be separated from the *syntactic* licensing mechanisms required (see e.g. Grimshaw 1979). While an English verb like *examine* in (53a) above may appear with a nominal complement, the nominal form *examination* requires the addition of the preposition *of* in (53b). Following work by Ordóñez (1995) for Popti' and Coon et al. (2014) for Q'anjob'al, we argue that the Chuj suffix *-an*—which appears in embedded transitive forms like (56)—serves a similar function to that of English *of*: it is required in order to license the transitive object in a nominalization. In Chuj, we propose below that transitive objects are normally licensed by finite Infl^0 (vs. English v^0), giving us the desired result that all transitive nominalizations will require *-an*.

6.2 Licensing and nominalizations

Following Chomsky (2000; 2001) (and much preceding work), we assume that nominals must be assigned abstract case in order to be licensed in the derivation, and that case is assigned by functional heads, for example v^0 and finite Infl^0. A range of work on ergative languages seeks to understand the licensing mechanisms found in these systems (see e.g. Aldridge 2008; Coon & Adar 2013; Deal 2013 for recent overviews). Within the Mayan family, Coon, Mateo Pedro & Preminger (2014) argue that Q'eqchi' and Mam are examples of what Legate (2008) refers to as *absolutive = nominative* (ABS = NOM) languages—languages in which absolutive arguments are licensed via agreement with T^0/Infl^0 (see also Bok-Bennema 1991; Campana 1992; Murasugi 1992, and others). Ergative is assigned inherently by transitive to the external argument in its thematic position (Woolford 1997). In a transitive clause, finite Infl^0 must license the object across the inherently-licensed subject. This type of system—previewed in (22) above—is schematized in (57) for transitives and (58) for intransitives.[11]

(57)   Transitive

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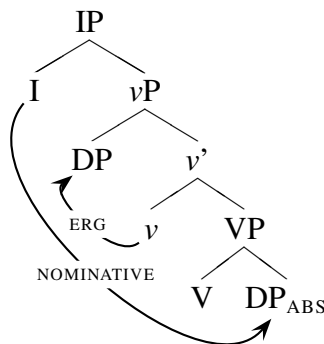
[11] An unaccusative intransitive is represented in (58). We assume that unergative subjects in Chuj would be licensed in the same way (see Coon 2016b).

(58)   Intransitive

```
              IP
            /    \
          I       vP
          ⟨      /  \
           \    v     VP
            \   |    /  \
         NOM  V    DP_ABS
```
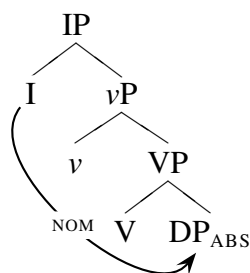
As Legate notes, in an ABS = NOM language absolutive arguments are predicted to
be uniformly absent in nonfinite embedded clauses, which lack finite Infl[0].[12] Though
Coon et al. (2014) do not discuss Chuj in any detail, Chuj fits the pattern of its close
relative Q'anjob'al, which is argued to be an ABS = NOM language, like Mam and
Q'eqchi'.[13]

Building on work on cognate suffixes in Popti' by Ordóñez (1995), and in Q'anjob'al
by Coon et al. (2014), we argue that the suffix -an in Chuj nonfinite embedded tran-
sitives is the realization of a functional head capable of licensing the internal argu-
ment. In other words, -an may be thought of as an accusative case assigning head,
insofar as it licenses transitive objects, or, in Ordóñez' terms, as an incorporated
(case-assigning) preposition. What is crucial for us here is that an analysis of -an as
a case-assigner both (i) explains its presence in nonfinite embedded transitives (and
its absence in intransitives); and (ii) explains the ability for an absolutive argument
to appear internal to a nominalization. Specifically, we propose that the nominal
stem forms embedded under the progressive aspect marker are nominalized *above* the
projection containing -an, explaining the possibility for full transitives to appear in
nominalizations.

For concreteness we assume, following Coon et al. (2014), that the suffix -*an* occupies
a special kind of Voice[0] head, and that this head assigns case to the transitive object and
merges the thematic subject in its specifier position, as shown in (60). Unlike regular
transitive Voice[0], the head occupied by -*an* does not assign inherent ergative case to the
subject position (compare (22)), which is occupied by PRO.

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[12] This type of ergative system contrasts with an *absolutive = default* (ABS = DEF) system, in which absolutive is
a morphological default, collapsing two different underlying mechanisms of syntactic licensing: objects are
licensed by v^0 (i.e. accusative), while intransitive subjects are licensed by Infl[0] (i.e. nominative). Ch'ol is an
example of the latter type of language: absolutive arguments are possible in embedded transitives—since
they are licensed by v^0—but impossible in embedded intransitives. See Coon et al. (2014) for discussion.

[13] Specifically, Chuj is a "HIGH-ABS" language and the extraction of transitive subjects generally requires the
use of an Agent Focus construction. As shown in (i), the suffix -*an* doubles as the Agent Focus suffix, as does
the cognate suffix -*on* in Q'anjob'al:

(i)   Mach   ix-man-**an**   ixim   wa'il?
       who   PFV-buy-AF   CLF   tortilla
       'Who bought the tortilla?'

Building on other work on ergative extraction restrictions (e.g. Campana 1992; Bittner & Hale 1996), Coon
et al. (2014) argue that the extraction of transitive subjects in Q'anjob'al is the result of a case assignment
problem: transitive objects must move above the subject in order to be licensed by Infl[0], trapping the erga-
tive subject in its base position. The Agent Focus construction fixes this problem by bringing in an addi-
tional case-assigner. We do not discuss this further here in the interrerst of space, but note that this account
provides a unified explanation of the appearance of -*an* in both embedded transitives and Agent Focus
environments.

(59) Lan   [$_{NP}$ hach = **ko**-chel-an-i   ].
      PROG   B2 = A1P-hug-SUB-ITV
   'We're hugging you.' (lit. ~ 'Our hugging you is happening.')

(60)   Step 1: The embedded verb stem
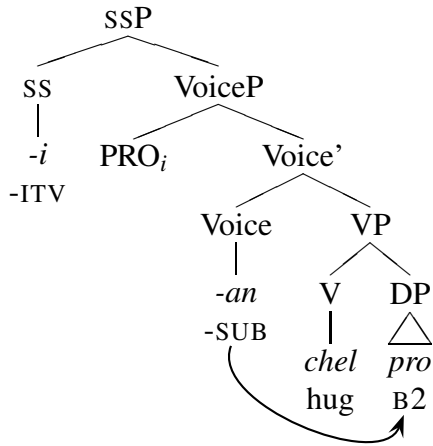
We adopt the proposal in Coon et al. (2014) that the presence of the *intransitive* status suffix in these forms is connected to the fact that the subject position is occupied by controlled PRO. As discussed in section 3, the verb root—here *chel* 'hug'—undergoes head-movement through Voice⁰ up to the head hosting the status suffix, resulting in the stem *chel-an-i,* in line with Baker's Mirror Principle (Baker 1988).

   Nominalization occurs above the verbal projection, as shown in (61). A possessor is merged in Spec,*n*P, controlling the null embedded subject. We assume that just as Set A marking in the verbal domain reflects an agreement relation between Voice⁰ and the external argument, Set A marking in the nominal domain reflects an isomorphic relationship between possessive n^0 and the possessor (see Coon to appear). In (61), the root again undergoes successive cyclic head movement, this time landing at the top of the nominal projection.

(61)   Step 2: Nominalization
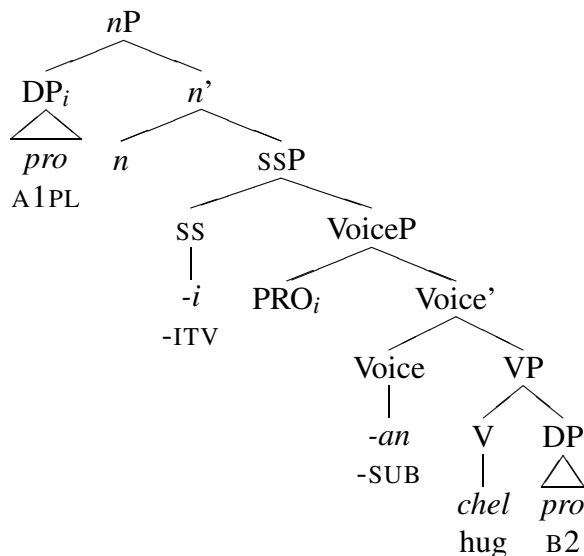
As previewed in section 3, we connect the position of the Set B clitic to the head responsible for licensing the absolutive argument. In verbal predicates, $Infl^0$ licenses absolutive arguments and the Set B clitic double attaches to the TAM particle, as in (21)–(22) above. When $Infl^0$ is missing, *-an* is inserted to license the transitive object and Set B cliticizes to the embedded stem (i.e. the minimal word containing the head which triggered the doubled clitic).

The structure for intransitives is somewhat simpler, as there is no need for an additional licensing mechanism. The single argument of the intransitive is a controlled PRO, which is controlled by the possessor merged in Spec,*n*P above the verbal projection headed by the status suffix. A structure for the sentence in (62) is shown in (63).

(62)   Lan   [$_{NP}$ **ko**-b'ey-i   ].
        PROG   A1P-walk-ITV
        'We're walking.' (lit. ~ 'Our walking is happening.')

(63)
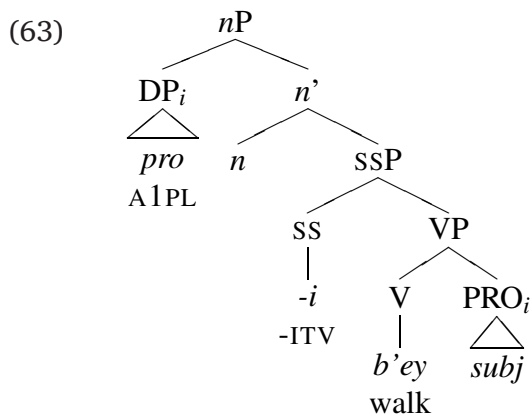
The proposed structures for transitive and intransitive progressive stems account for the core facts we sought to explain. First, both transitive and intransitive subjects are cross-referenced by Set A marking. Under our approach, this is because both subjects are controlled PRO; the overt argument is a co-indexed grammatical possessor. Second, the presence of a special suffix *-an* in embedded transitives is connected to the fact that transitive objects are normally licensed by finite $Infl^0$, which is absent in embedded environments. In languages such as Mam and Q'eqchi', transitives are simply impossible in nonfinite embedded contexts (see (52) above). Languages of the Q'anjob'alan branch, however, have a special licensing morpheme inserted in exactly those environments in which transitive objects require case. The appearance of the intransitive status suffix *-i* is connected to the fact that the embedded subject does not receive ergative case; see Ordóñez (1995) and Coon et al. (2014) for extensive discussion of these constructions.

A final issue remains: in both transitive and intransitive progressive stems in (61) and (63), we represent a null nominalizing head, n^0. Recall that Chuj contrasts with some other split-ergative Mayan languages in having no clear morphological evidence of nominalization. Compare, for example, the Chuj progressive intransitive in (64) with the Ch'ol progressive intransitive in (65).

(64)   *Chuj*
        Lan   [$_{NP}$ ha-way-**i**   ].
        PROG   A2-sleep-ITV
        'You're sleeping.' (lit. ~ 'Your sleeping is happening.')

(65) *Ch'ol*
      Choñkol [_NP_ a-wäy-**el**   ].
      PROG   A2-sleep-NML
      'You're sleeping.' (lit. ~ 'Your sleeping is happening.')

We propose that both languages share the underlying structure in (63). However, while Chuj has a null n^0 and an overt verbal status suffix, Ch'ol exhibits the reverse. The fact that we do not find two overt morphemes is perhaps unsurprising, given (i) the tendency for status suffixes to delete in non-phrase-final position in many Mayan languages, and (ii) the fact that vowel hiatus is frequently resolved by syncope (Bennett 2016). One possibility is that the choice of whether to realize the verbal status suffix *-i* (Chuj) or the nominalizing head *-el* (Ch'ol) is simply a morphological accident.

A plausible alternative is that the suffix *-i* found in Chuj progressive stems is in fact a n^0 head, which is accidentally homophonous with the intransitive status suffix. In his discussion of Q'anjob'al, Mateo Pedro (2009) notes formal similarity between the Q'anjob'al progressive stem suffix *-i* and the nominalizer *-ik* in Kichean-branch languages. Here we do not take a stance on whether *-i* in progressives is the ITV marker, or an accidentally homophonous nominalizer, but simply note that either possibility is compatible with the analysis presented above.

6.3 Types of nominalization: -i vs. -el

In section 5 above we reviewed evidence for the nominal nature of the stem forms analyzed in sections 6.1–6.2. Specifically, these stems may appear as sentential subjects and may trigger 3rd person singular Set A agreement in certain constructions. However, the progressive stem forms do not pass all distributional tests for nouns in the language, and indeed we find certain deverbal stems which are more transparently nominal than the progressive stems above. Compare the forms in (66) below, discussed in Buenrostro (2007).

(66) *Chuj* (Buenrostro 2007: 262)
      a. Ix-in-b'at   [wa'-**el**   ].
          PFV-B1-go   eat-NML
          'I went to eat.'

      b. Ol-ach-b'at   [mol-**oj**   kape].
          PROSP-B2-go   gather-NML   coffee
          'You will gather coffee.'

Here we focus on the intransitive forms like (66a), which provide a more direct comparison with intransitive *-i* forms discussed above, though we return briefly to *-oj* forms like (66b) below. As noted above, suffixes of the form *-Vl* are found on nominals across Mayan (see e.g. Bricker 1981). If our analysis above is on the right track, we then have two types of nominalized intransitive stems in Chuj:

(67)

Root		*-el* nominals	*-i* nominals
wa'	'eat'	*wa'-el*	*wa'-i*
munlaj	'work'	*munlaj-el*	*munlaj-i*
lolon	'speak'	*lolon-el*	*lolon-i*
…		…	…

We propose that the differences in behavior between these two groups of nominals fall out from independently observed differences in types of nominals cross-linguistically.

Specifically, the *-el* nominals belong to Grimshaw's class of Result Nominals (RNs), while the *-i* nominals found in progressive stems correspond to Grimshaw's Event Nominals (ENs), introduced in section 6.1 above (see also Abney 1987; Harley & Noyer 1998; Borsley & Kornfilt 2000; Alexiadou 2001; Embick 2010 on different types of nominalizations).[14]

First, note that both *-el* and *-i* nominals may appear as subjects for example of the nonverbal predicate in (68); we return to the differences in translations below.

(68) a. Man te wach-ok-laj [ko-munlaj-el].
          NEG very good-IRR-NEG A1P-work-NML
          'Our work isn't very good.'

      b. Man te wach-ok-laj [ko-munlaj-i].
          NEG very good-IRR-NEG A1P-work-ITV
          'Our working isn't very good.'

Furthermore, with certain aspectual verbs, such as *yamoch* in (69), either form is possible.

(69) a. Ix-a-yamoch [ha-munlaj-el].
          PFV-A2-begin A2-work-NML
          'You began to work.' (lit.: 'You began your work.')

      b. Ix-a-yamoch [ha-munlaj-i].
          PFV-A2-begin A2-work-ITV
          'You began to work.'

However, as shown in (70), the *-el* forms may also appear with the indefinite *jun*, the demonstrative particle *tik*, and as shown in (70a), may be fronted to preverbal focus position.[15] The corresponding *-i* nominal in (70b) is impossible with any combination of these markers.

(70) a. [A jun munlaj-el tik] ch'oklaj.
            FOC one work-NML DEM strange
          'This work is strange.'

      b. *[A jun munlaj-i tik] ch'oklaj.
            FOC one work-ITV DEM strange
          intended: 'This work is strange.'

A second point of difference directly relevant to the proposal in this paper is that *-el* forms are banned or strongly dispreferred in progressive environments, as shown in (71a). Progressives instead require the *-i* forms discussed in section 6.1, shown in (71b).

(71) a. *?Lan [ko-munlaj-el].
             PROG A1P-work-NML
             intended: 'We're working.'

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[14] The *-el* and *-oj* nominals correspond roughly to what Mateo Toledo (2013) calls "infinitives" in Q'anjob'al, and the *-i* forms correspond to his "aspectless clauses". A main difference discussed is that the former does not necessarily appear with person marking, while the latter does. See other works in Palancar & Zavala (2013) for detailed discussions of different sizes of embeddings in Mayan languages. In this section we explore the possibility that differences between these groups are connected to different levels at which the stems are nominalized.
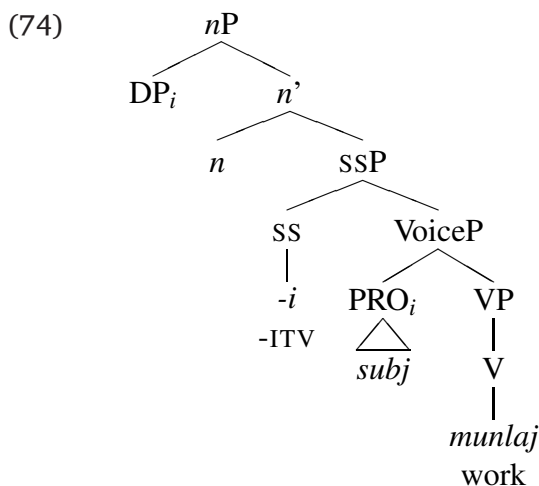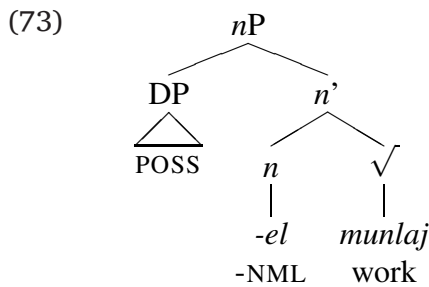
[15] As noted in section 3, Chuj has a series of nominal classifiers (see e.g. Craig 1986; Zavala 2000; Hopkins 2012b), which have a determiner-like function. However, these generally do not appear on abstract nouns and are correctly predicted to be absent from both *-i* and *-el* nominalizations.

    b.   Lan   [ko-munlaj-i   ].
            PROG   A1P-work-ITV
            'We're working.'

These properties are summarized in the table in (72). While the *-el* and *-i* forms
pattern similarly with respect to the diagnostics in rows (a) and (b), the diagnostics
in rows (c) and (d) make *-el* forms look "more nominal" and *-i* forms look "more
verbal". We tie this contrast to independent work on nominalization, arguing that
only *-i* nominals contain verbal structure and thus correspond to Grimshaw's Event
Nominals.

(72)

		-el nominal	*-i* nominal
a.	be a subject	✓	✓
b.	complement of *yamoch*	✓	✓
c.	*jun, tik,* FOC	✓	*
d.	complement of PROG	*	✓

Structurally, we propose that the differences here fall out naturally from an analysis in
which *-el* forms are nominalized lower in the structure, as in (73), while *-i* forms are
nominalized above the verbal projection, as in (74) and discussed in section 6.2.

(73)

```
                nP
              /    \
           DP       n'
          /▲\      /  \
        POSS     n      √
                 |      |
                -el   munlaj
               -NML    work
```

(74)

```
               nP
             /    \
          DPᵢ      n'
                 /    \
               n      SSP
                     /    \
                   SS     VoiceP
                   |      /    \
                  -i   PROᵢ    VP
                 -ITV  /▲\      |
                      subj      V
                                |
                              munlaj
                               work
```

Crucially, only the *-i* forms project an argument structure, here a thematic subject (PRO);
the *-el* forms do not. Either form may then appear with a possessor, but in the more com-
plex *-i* nominalization, the possessor controls a null PRO in thematic subject position.
This explains the fact—independently discussed for English in (55) above—that while

the possessor in (73) may bear any contextually appropriate relation to the work, the possessor in (74) must be understood as the person or entity carrying out the work.[16]

This analysis explains several other facts. First, note that the appearance of the nominal suffix *-el* only in the smaller form is consistent with our suggestion in section 6.1 above that in the more complex *-i* forms, as in (74), n^0 and the verbal status suffix are effectively "competing" for a single morphological slot; in Chuj, *-i* happens to win.[17] However, with no verbal status suffix is present in the smaller structure in (73), *-el* surfaces.

Second, because the *-i* nominalizations contain a verbal projection, we might expect to find verbal valence-altering morphology, such as a passive, internal to these *-i* stems. On the other hand, we propose that *-el* nominalizations are nominalized directly from the root, and these should therefore not be compatible with passives. This prediction is borne out. Recall from (69) above that either *-el* or *-i* forms may appear as the complement of the matrix verb *yamoch* 'begin'. However, while the passive stem in (75b) behaves like other intransitive nominalized forms (i.e. the subject is co-indexed with Set A morphology, and this stem may also appear under the progressive *lan)*, *-el* is impossible on the passive stem in (75a).

(75)   a.   *Ix-in-yamoch   [hin-chel-chaj-el   ].
             PFV-B1-begin   A1-hug-PASS-NML
             intended: 'I began to be hugged.'

       b.   Ix-in-yamoch   [hin-chel-chaj-i   ].
             PFV-B1-begin   A1-hug-PASS-ITV
             'I began to be hugged.'

As a reviewer points out, we make the prediction that *-el* nominalizations should also be impossible for transitives: in the absence of the *-an* Voice[0] head discussed in section 6.2, nothing would license the transitive object. Because *-el* attaches directly the root, *-an* cannot be inserted. Indeed, this prediction is correct, as shown in (76):

(76)   *Ix-in-yamoch   [hach = in-chel(-an)-el   ].
        PFV-B1-begin   B2 = A1-hug-SUB-NML
        intended: 'I began to hug you.'

Though we do not examine the *-oj* forms from (66b) above in any detail here, note that these also appear to have a reduced structure, also discussed in Buenrostro (2013: 134).[18]

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[16] A reviewer asks about the possibility of arbitrary PRO readings in the absence of an overt possessor to bind PRO. Initial evidence suggests that these may indeed possible; compare the examples in (i).

   (i)   a.   Lan   s-chanhalw-i   { winh   / heb' / …}.
               PROG   A3-dance-ITV   CLF.MASC   3PL
               'He/they is/are dancing.'

         b.   Lan   s-chanhalw-i.
               PROG   A3-dance-ITV
               'People are dancing.'

   In (ia), the stem is followed by either one of a set of nominal classifiers referencing the subject (recall from above that these have a pronominal function), or by the human plural morpheme *heb'*. In the absence of a classifier or plural marking, an impersonal reading occurs, as in (ib). Though further work is needed on this topic, the fact that PRO would nonetheless trigger Set A agreement is compatible with discussion for Ch'ol embedded nominalizations in Coon (to appear).

[17] We do not claim that this competition is part of the synchronic grammar, but simply suggest this as a possible diachronic explanation for the difference between these forms. Coon (2013) discusses different sizes of nominalizations in Ch'ol, both of which appear with *-el*. Chuj may then provide morphological evidence for a difference in nominalization size.

[18] In earlier work, Maxwell (1976) considers *-oj* to be an "infinitive" marker for transitives; Buenrostro (2013) suggests it is better characterized as a nominalizer.

For example, while a bare non-referential object may appear as the complement as in (66b), repeated in (77a) below, a full referential DP *te' kape* 'the coffee' is impossible, as in (77b).[19] This is again consistent with the proposal from section 6.2 above that the morpheme *-an* is required in embedded transitives to license the direct object.

(77) a. Ol-ach-b'at   [mol-**oj**   kape   ].
          PROSP-B2-go   gather-NML   coffee
          'You will gather coffee.'

      b. *Ol-ach-b'at   [mol-**oj**   te'   kape   ].
          PROSP-B2-go   gather-NML   coffee
          intended: 'You will gather the coffee.'

Returning to the properties in (72), the fact that both *-i* and *-el* nominals may serve as a subject—see row (a) in (72)—is consistent with the fact that both forms are ultimately nominal in nature. Turning to row (b) in (72), we note that aspectual verbs like 'begin' are frequently optional *restructuring* verbs (Wurmbrand 1998; 2001). Crucially, restructuring verbs are verbs which combine with smaller embedded elements, generally taken to lack an embedded (e.g. PRO) subject. If this is on the right track, *yamoch* could be considered an optional restructuring verb in Chuj. In (69a) it combines with a small complement (restructuring), while in (69b) it combines with a larger complement (non-restructuring).

   The restriction of D^0-level elements to appearing only with smaller *-el* forms in row (c) of (72) above has some cross-linguistic precedent. Compare the ungrammaticality of determiners and demonstratives with English *poss*-ing gerunds (see Lees 1963; Borsley & Kornfilt 2000). Under the analysis presented here, the Chuj *-el* forms are analogous to English nominals like *criticism*, which do not project verbal functional material (Grimshaw's RNs). The *-i* forms are comparable to English gerund forms, like the one in (78b). While nothing in the present analysis predicts the fact that one form should appear with D^0 elements and the other should not (see Grimshaw 1990 and Harley & Noyer 1998 for some discussion), we suggest that our analysis gains support from this crosslinguistic parallel.

(78) a.   We discussed this/that/the **criticism of the book**.
      b. *We discussed this/that/the **criticizing the book**.

Finally, we suggest that the difference in argument structure of *-i* and *-el* nominals is related to the contrast in their ability to appear under the progressive *lan*, shown again in (79).

(79) a. Lan   [ha- [munlaj PRO] -i   ].
          PROG   A2-   work
          'You're working.'

      b. *?Lan   [ha- [munlaj] -el   ].
          PROG   A2-   work   -NML
          intended: 'You're working.'

The progressive *lan* is an intransitive predicate which takes only a single argument: the possessed nominalized clause. We suggest that the impossibility of *-el* nominals under *lan* may be related to a preference for thematic roles to be assigned by predicates. In (79a),

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[19] Recall from section 3 above that nominal classifiers have a determiner-like function in Q'anjob'alan languages and are restricted to occurring with referential nominal expressions.

the null subject is projected and assigned a thematic role inside the nominalized clause, controlled by the higher possessor; in (79b) the participant is associated only with the possessor position, literally equivalent to 'Your work is happening'. Though this latter form is at best highly marked (not unlike its literal English translation), note that *lan* may appear with small nominal complements—a plain noun *k'in* in (80a) and an RN *munlajel* in (80b)—with the addition of the directional *em* 'down' in (80).

(80) a. Lan   em   ha-k'in.
          PROG   DIR.down   A2-day/party
          'Your party is happening.'

      b. Lan   em   munlaj-el.
          PROG   DIR.down   work-NML
          'Work is happening.'

The examples in (80) suggest that there is no syntactic restriction preventing *lan* from combining with "smaller" nominals. We leave the semantic contribution of the directional as a topic for future work, noting for now parallels with existential-type constructions cross-linguistically, for example in English: *A party is going *(down)* or *There is a lot of work ?(in the alley)*; see also Bybee et al. (1994) on cross-linguistic relations between progressive and locative constructions, noted above.

7 Conclusions

In this paper, we examined progressive constructions in Chuj, an understudied Mayan language of Guatemala. Building on work on other Mayan languages, we suggested that the appearance of a split in person marking in the progressive aspect is due to differences in structure between progressive and non-progressive aspects. Namely, the progressive aspect marker behaves as an intransitive predicate, taking a nominalized verb form as its complement.

First, in section 4, we showed that the progressive aspect marker behaves unlike perfective (*ix/Ø*), imperfective (*tz*), and prospective (*ol*) aspects in a number of respects, and instead patterns with the Chuj class of nonverbal predicates in terms of the appearance of negation and aspectual particles. Next, in section 5 we provided evidence that the complement to the progressive maker shares certain properties with other nominals in the language. In particular, it may saturate the argument position of a predicate and may trigger overt 3rd person singular agreement on a head.

In section 6 we proposed a structural account of these forms, comparing them with different types of nominalizations cross-linguistically, and within Chuj. Specifically, we argued that these progressive stems are nominalized above the vP layer and project argument structure, corresponding to Grimshaw's (1990) Event Nominals. Following work on Ch'ol by Coon (2010; 2013), we proposed that subjects are null PROs, controlled by possessors generated in the nominalized nP layer. Taken as a whole, the analysis of these forms both accounts for the presence of Set A marking on embedded intransitives, as well as the appearance of the suffix *-an* in embedded transitives (required to case-license the embedded object in the absence of finite Infl^0).

Finally we examined a different "more noun-like" type of nominal stem form. Though more work is needed to fully understand the range of differences between intransitive *-i* and *-el* nominals, the proposal that *-i*-nominalizations occur above vP and contain a thematic PRO (ENs), while *-el*-nominalizations are smaller (RNs), accounts for a range of facts and makes clear connections between nominalization in Chuj and nominalization in other languages.

While the core analysis of Chuj's progressive aspect builds on existing work in Mayan, the result that Chuj progressive stems are nominalized is not trivial, since—unlike other languages for which such studies have been conducted—there is no overt morphological difference between intransitive verbal stems and intransitive nominal stems in Chuj. We thus hope to have shown how the careful investigation of distribution of forms can result in differences which are not apparent on the surface.

Future work is needed to understand the semantics of these *lan* constructions, including the dispreference for Result Nominals under *lan*. Another avenue for further investigation is the range of contexts in which the nominalized "progressive" stem forms appear. In related Q'anjob'al, Mateo Toledo (2003), developed in Mateo Toledo (2013), identifies other environments in which these stem forms—which he labels "nonfinite forms"—are used, including in adverbial clauses and depictive secondary predicates (see also Pascual 2010 and Mateo Toledo 2012). Preliminary evidence suggests that these uses can be found in Chuj as well, as shown by the sentences in (81).[20]

(81)   *Chuj* (Buenrostro 2009: 118; 231)
        a.   Winhaj   Xun   te   jelan   [s-b'ey   winh   ].
               CLF   Juan very   quick   A3-walk   CLF.MASC
               'Juan walks quickly.'
        b.   Te   lajan   wal   [hex = k-il-an-i   ].
               very   same   EMPH   B2P = A1P-see-SUB-ITV
               'We see you looking alike.'

Following Mateo Toledo (2013) on Q'anjob'al, we suggest that all of these involve embedding. Under the analysis laid out above, there is nothing *progressive* about the stem forms themselves; rather, the progressive interpretation comes entirely from the embedding predicate *lan*. Under this analysis, the forms in (81) involve stative predicates (i.e. *te jelan* and *te lajan*); see also Henderson & Coon (2016) on adverbial embedding in Kaqchikel. Unlike previous work, we maintain that all of these embedded forms are nominalized. The different sizes of nominalization discussed above provide an explanation for the fact that these forms pass some, but not all, nominal diagnostics (discussed in Mateo Toledo 2013 for Q'anjob'al), and this nominalization provides a straightforward account of the appearance of the shift in person marking in all of these constructions.

Abbreviations

Abbreviations in glosses are as follows: A – Set A (ergative/possessive); ABS – absolutive; AF – Agent Focus; B – Set B (absolutive); CLF – nominal classifier; DEF – default; DEM – demonstrative; DET – determiner; DIR – directional; FOC – focus; IPFV imperfective; IRR – irrealis; ITV – intransitive verb suffix; MASC – masculine; NEG – negation; NML – nominal; NOM – nominative; PASS – passive; P – plural; PFV perfective; POS – positional suffix; PROG – progressive; PROSP – prospective; SUB – subordinate clause suffix; TV – transitive verb suffix.

Acknowledgements

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[20] We are grateful to an anonymous reviewer for bringing these sentences to our attention, and for discussion of Q'anjob'al literature.

Competing Interests

The authors have no competing interests to declare.

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