A biclausal analysis of aspect based split ergativity[*]

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While all Mayan languages show basic ergative-absolutive patterns of agreement, many languages show splits. In Chol, clauses in the perfective aspect show an ergative pattern, while non-perfective clauses show what appears to be a nominative-accusative pattern. In this paper I argue that this apparent nominative-accusative pattern is an illusion, and may be reduced to the fact that non-perfective forms in Chol are bi-clausal. This supports the suggestion made in Larsen and Norman (1979) that *all* splits within the Mayan family may be reduced to subordination, and connects to recent work on split ergativity in Basque by Laka (2006). I suggest, following work by Laka, that all aspectually based split ergativity may be connect to greater structural complexity in the non-perfective aspects.
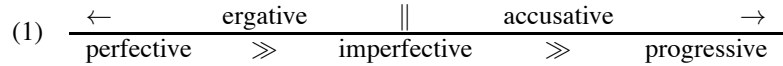
1   Introduction

Languages vary as to whether they mark grammatical relations according to an *ergative-absolutive* pattern or a *nominative-accusative* pattern. In more familiar nominative-accusative systems, the subjects of transitive and intransitive clauses pattern identically (NOMINATIVE) to the exclusion of transitive objects (ACCUSATIVE). In an ergative-absolutive system, in contrast, transitive subjects show special (ERGATIVE) marking; transitive objects pattern with intransitive subjects (ABSOLUTIVE). These systems may be manifested by case-marking on nominals, or by agreement on the predicate.

Many languages, however, show split systems: an accusative system in certain parts of the grammar, and an ergative system in other parts of the grammar. In this paper I focus on aspectually-based split ergativity. It is a

well-known generalization that if a language makes a split somewhere along the aspectual scale in (1), ergativity will be found in the aspects to the left of the split (Dixon, 1979).

(1)

$$\begin{array}{c}\xleftarrow{\hspace{2cm}} \text{ergative} \hspace{1cm} \| \hspace{1cm} \text{accusative} \hspace{1cm} \xrightarrow{\hspace{2cm}}\\ \hline \text{perfective} \quad \gg \quad \text{imperfective} \quad \gg \quad \text{progressive}\end{array}$$

This is the situation described for Chol, a Mayan language spoken in Chiapas, Mexico by about 150,000 people. In Chol the split is made between the perfective and imperfective: perfective clauses show an ergative pattern, while non-perfective (imperfective and progressive) clauses, are described as showing an accusative pattern (Warkentin and Scott, 1980; Vázquez Álvarez, 2002; Gutiérrez Sánchez, 2004). This is shown by the examples in (2) and (3).

In Chol, grammatical relations are head-marked on the predicate. To avoid pre-judging the issue, I use the theory-neutral labels 'set A' and 'set B' common in Mayan literature to refer to the person marking morphemes in the examples below. Set B may be thought of as ABSOLUTIVE; set A marks both ERGATIVE and GENITIVE in the Mayan family. In the perfective clauses in (2), the subject of the intransitive shows the same marking as the object of the transitive: both take the set B morpheme.[1]

(2) CHOL PERFECTIVES (=ERGATIVE-ABSOLUTIVE PATTERN)

    a. Tyi   **a**-k'el-e-**yoñ**.
       PRFV **A2**-watch-TV-**B1**
       'You watched me.'

    b. Tyi   ts'äm-i-**yoñ**.
       PRFV bathe-ITV-**B1**
       'I bathed.'

In the imperfectives in (3) the intransitive subject takes the set A marker just like the transitive subject. Progressives pattern identically and differ only in the form of the aspect marker.

(3) CHOL IMPERFECTIVES (=NOMINATIVE-ACCUSATIVE PATTERN)

    a. Mi   [**a**-k'el-**oñ**   ].
       IMPF   **A2**-watch-**B1**
       'You watch me.'

    b. Mi   [**a**-ts'äm-el   ].
       IMPF   **A2**-bathe-NML
       'You bathe.'

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[1] Chol is written in a Spanish-based practical orthography. Abbreviations in glosses are as follows: 1, 2, 3 – 1st, 2nd, 3rd person; A – set A (ERGATIVE, GENITIVE); ABS – absolutive; B – set B (ABSOLUTIVE); CL – noun class clitic; DEP – dependent; DET – determiner; ERG – ergative; GEN – genitive; IMPF – imperfective; ITV – intransitive verb; LOC – locative; NEG – negative; NML – nominal; PREP – preposition; PRFV – perfective; PL – plural; PROG – progressive; PRON – pronoun; TV – transitive verb.

However, in addition to differences in person-marking between the perfective and non-perfective clauses, we also find *morphological and syntactic differences*. Based on these differences, I will argue below that the non-perfective stems (in brackets) in forms like those in (3) are formally possessed nominals. The set A marker, which gives the illusion of an accusative system, is in fact the GENITIVE; the notional subject (here null *pro*) is a grammatical possessor. The main predicate is the aspectual morpheme, *mi* (imperfective) or *choñkol* (progressive). The one-place aspectual predicate shows the expected set B (ABSOLUTIVE) agreement with its single argument—the nominalized clause; 3rd person absolutive is null. This analysis will be discussed in greater detail below.

Under this proposal, *all* Chol predicates show an ergative-absolutive agreement pattern. The appearance of the split is reduced to the fact that non-perfective clauses are biclausal and involve a subordinated nominal form. This builds on work in Larsen and Norman (1979), who suggest that *all* splits within the Mayan family may be reduced to subordination. I propose this is correct, not just for intransitives, as claimed by Larsen and Norman, but for transitives as well. This also connects to work in Laka (2006), who presents a similar proposal for Basque. Following Laka, I suggest that this analysis may be extended to account for aspectually-based split ergativity more generally.

2   Mayan ergativity and split ergativity

The Mayan language family consists of about thirty languages spoken by over six million people located throughout Mesoamerica and northern Central America. Mayan languages may be divided into six subgroups: Huastecan, Yucatecan, Greater Tzeltalan, Greater Q'anjob'alan, Greater Mamean, and Greater K'ichean (Kaufman, 1976). Despite significant grammatical diversity within the family, all Mayan languages exhibit ergative patterns of verbal inflection (Larsen and Norman, 1979). This can be seen in the K'ichee' examples in (4). In the transitive forms in (4a) we find set A (ERGATIVE) marking the subject, and set B (ABSOLUTIVE) marking the object. Set B (ABSOLUTIVE) marks the intransitive subjects in (4b). Possessors, like the one in the (4c), are marked with set A (GENITIVE).[2]

(4)   K'ICHEE' (K'ICHEAN)
   a.   x-**at**-**u**-ch'ay-oh
        COMP-**B2**-**A3**-hit-FIN
        'He hit you.'
   b.   x-**at**-war-ik
        COMP-**B2**-sleep-FIN
        'You slept.'

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[2] Glosses from languages other than Chol follow those of the original authors.

c. **a**-keej
   A2-horse
   'your horse'   (Larsen and Norman, 1979, 347)

While all Mayan languages show this basic ergative pattern, many show split systems. Just one of the Mayan languages, Mocho (also known as Motocintlec), exhibits a split conditioned by nominal (person) features (Larsen and Norman, 1979, 353); I ignore this split here. Larsen and Norman note that in the rest of the Mayan family splits are triggered by three kinds of factors: 1. occurrence in subordinate clauses; 2. the presence of a focused constituent preceding the verb; and 3. particular aspects.

In all of these instances, the split involves the extension of the set A morpheme—which usually marks transitive subjects and possessors—to certain *intransitive subjects*, as schematized in (5) and (6).

(5) ERGATIVE-PATTERNING   (6) ACCUSATIVE-PATTERNING
     transitive: **A**-stem-**B**   *transitive*:   **A**-stem-**B**
     intransitive: stem-**B**   *intransitive*: **A**-stem

Crucially, there is no distinct NOMINATIVE morpheme. Dixon (1979) refers to this type of system as "extended ergativity". Larsen and Norman (1979) suggest further that *all* of the Mayan splits may in fact be instances of subordination, a position which I defend here. See also Bricker (1981) on Yucatec, and Mateo-Toledo (2003) for a similar proposal for non-ergative patterns in Q'anjob'al. Specifically, I argue below that the non-perfective aspectual morphemes in Chol serve as matrix predicates and take nominalized clauses as complements.

Larsen and Norman (1979, 355) conclude (setting aside the person-based split in Mocho): "From the perspective of Mayan comparative grammar, to explain the nature of split case-marking it would be sufficient to account for why ergative (set A) prefixes are used to cross-reference intransitive subjects in subordinate clauses." Noting that set A marks not just ERGATIVE, but also GENITIVE in Mayan languages, they speculate that intransitive verbs with set A subjects (like the one in (6)), are in fact *possessed nominals*. Though they do not discuss this in detail, the reason that Larsen and Norman propose that only *intransitive* forms are nominalized may be connected to the fact that only intransitives show overt nominal morphology in languages like Chol, or the fact that in order to account for the split it is only *necessary* to propose nominalizations for intransitives (since transitives always show both set A and set B as in (5) and (6)). Below I provide evidence that the nominalization analysis is correct not only for Chol intransitives, but also for transitives as well. I first begin by reviewing the different types of splits found in Mayan languages.

In Q'anjob'alan languages like Jakaltek, we find nominative-accusative patterns in certain aspectless *subordinated* clauses, shown in (7). In the bracketed embedded forms, we see that transitive subjects and intransitive subjects are both marked with set A morphemes.

(7) JAKALTEK (Q'ANJOB'ALAN)

    a. x-Ø-w-ilwe   [hach **hin**-kol-ni   ]
       ASP-B3-A1-try B2 **A1**-help-SUF
       'I tried to help you.'

    b. sab' ichi [**ha**-munlayi]
       early start **A2**-work
       'You started to work early.'   (Craig, 1977, 617)

In some languages of the Mamean and Q'anjob'alan subgroups, the appearance of certain *focussed constituents* before the verb triggers a nominative-accusative pattern. In (8), the bracketed adverbial elements are *not* focussed, and we see a regular ergative-absolutive pattern:

(8) IXIL (MAMEAN)

    a. **i**-b'an-**Ø** [q'oon] kuxhtu7
       A3-do-**B3** slowly just
       'He did it slowly.'

    b. wat-**o7**   [jojli   ]
       sleep-**B1**.PL face.down
       'We slept face-down.'

In (9) the bracketed modifiers are focussed. Note that now both transitive and intransitive subjects are marked with the set A marker. But we also find new suffixes on the verb roots (underlined).

(9)   a. [q'oon] kuxh **i**-b'an-<u>ata7</u>-**Ø**
       slowly   just **A3**-do-DEP-**B3**
       'He did it *slowly*.'

    b. [jojli   ] **ku**-wat-<u>e7</u>
       face.down **A1**.PL-sleep-DEP
       'We slept *face-down*.'   (Ayres, 1983, 39)

The suffixes *-ata7* and *-e7* are transitive and intransitive *dependent* suffixes; they typically signal embedded or dependent verb forms. This suggests that the fronted adverbials are actually matrix predicates. This type of split is then simply another case of subordination (see also Mateo-Toledo, 2003 for a discussion of this phenomenon in Q'anjob'al).

Finally, *aspect-based splits* are found in languages of the Yucatecan group, in the Cholan branch of the Greater Tzeltalan group, as well as in Ixil (Mamean) and Poqomam (K'ichean) (Larsen and Norman, 1979). In all of these languages, we find ergativity in perfective or completive aspects, and accusativity in non-perfective or non-completive aspects (following the hierarchy in (1) above).

(10) MOPAN (YUCATECAN) PERFECTIVE

    a. **in**-lox-aj-**ech**
       A1-hit-SUF-**B2**
       'I hit you.'

    b. lub'-**eech**
       fall-**B2**
       'You fell.'

(11) MOPAN PROGRESSIVE

    a. tan   **in**-lox-<u>ik</u>-**ech**
       PROG **A1**-hit-SUF-**B2**
       'I am hitting you.'

    b. tan   **a**-lub'-<u>ul</u>
       PROG **A2**-fall-SUF
       'You are falling.'   (Larsen and Norman, 1979, 353–354)

Here again, we find set A markers marking both transitive and intransitive subjects in the accusative-patterning progressive forms in (11). As in Ixil above, we find special suffixes (underlined) on the accusative-patterning forms. (Larsen and Norman, 1979, 355) note that the tenses or aspects which condition a nominative-accusative pattern are *always* overtly marked (like *tan* in (11)). They note further that some of these aspect morphemes may be historically traced to verb roots (see also Bricker, 1981). They conclude that nominative-accusative constructions "are to be analyzed diachronically as higher verbs with sentential subjects, that is, as instances of subordination." I argue that this generalization is true for Chol, not just diachronically, but *synchronically* as well.

3   Chol's split

In this section I propose that the imperfective and progressive aspect markers which trigger nominative-accusative patterning function as the main syntactic predicate of the clause, while the semantic predicate is a subordinated nominal form (see Coon, to appear).

(12) PERFECTIVES

    a. Tyi   **a**-|k'el-e|-**yoñ**.
       PRFV **A2**-watch-TV-**B1**
       'You watched me.'

    b. Tyi |ts'äm-i|-**yoñ**.
       PRFV bathe-ITV-**B1**
       'I bathed.'

(13) IMPERFECTIVES

    a. |Mi|-**Ø**$_i$ [$_{NP}$ a-k'el-oñ]$_i$.
       IMPF-**B3**   A2-watch-B1
       'You watch me.'

    b. |Mi|-**Ø**$_i$ [$_{NP}$ a-ts'äm-el]$_i$.
       IMPF-**B3**   A2-bathe-NML
       'You bathe.'

I argue that the imperfective and progressive markers, *mi* and *choñkol*, are one-place (unaccusative) predicates. These predicates take nominalized clauses as their single arguments. They show set B *absolutive* agreement with these arguments—exactly what we expect in an ergative-absolutive system. (Recall that third person set B is null in Mayan languages, though we will see overt set B morphology on these predicates below.) Under this analysis, *all* syntactic predicates (in boxes above) show an ergative-absolutive agreement pattern. I argue that the set A marker in Chol's so-called nominative-accusative forms like those in (13) is serving one of its regular functions: it is the GENITIVE. Here we see another example, this time with an overt possessor (in boldface):

(14) a. Choñkol-Ø$_i$ [$_{\text{NP}}$ **i**-choñ si`   **jiñi wiñik**]$_i$.
          PROG-B3   A3-sell wood DET man
          'The man is selling wood.'
          (lit. ∼ 'The man's selling wood is occurring.')

   b. Choñkol-Ø$_i$ [$_{\text{NP}}$ **i**-wäy-el   **jiñi wiñik**]$_i$.
          PROG-B3   A3-sleep-NML DET man
          'The man is sleeping.'
          (lit. ∼ 'The man's sleeping is occurring.')

The internal structure of the bracketed possessed nominal forms in (14) is given in (15). These complements of the aspectual predicates *mi* and *choñkol* look like regular possessive phrases. The possessor follows the possessum and triggers set A (GENITIVE) agreement on the possessed NP (see Coon, 2009). Compare with the possessive phrase in (16).

(15) a. [**i**$_k$-   [choñ si`   ] **jiñi wiñik**$_k$]
          GEN3- sell wood   DET man
          'the man's selling wood'

   b. [**i**$_k$-   [wäy-el   ] **jiñi wiñik**$_k$]
          GEN3- sleep-NML   DET man
          'the man's sleeping'

(16) POSSESSIVE PHRASE
       [**i**$_k$-   [wakax] **jiñi wiñik**$_k$]
          GEN3- cow   DET man
       'the man's cow'

To review, all predicates in Chol show an ergative-absolutive pattern of agreement. The apparent agreement split is the result of: 1. the fact that the stem forms in non-perfective constructions are possessed nominal constructions, subordinated under an aspectual predicate (all non-finite embedded clauses in Chol, and in many Mayan languages, are nominals); and 2. ERGATIVE and GENITIVE are identical in Mayan languages. There are three main types of arguments for this analysis, which I review briefly below: morphological evidence, distributional evidence, and evidence from the behavior of the aspect markers.

3.1 Morphological evidence

Chol stems appear with different stem-forming morphology, depending on whether the sentence is transitive or intransitive, perfective or non-perfective:

(17) TRANSITIVE STEMS

    a. PERFECTIVE
      Tyi i-kuch-**u**   ixim.
      PRFV A3-carry-TV corn
      'She carried corn.'

    b. IMPERFECTIVE
      Mi   i-kuch-(**e`**)   ixim.
      IMPF A3-carry-DEP corn
      'She carries corn.'

(18) INTRANSITIVE STEMS

    a. PERFECTIVE
      Tyi   jul-**i**-yety.
      PRFV arrive.here-ITV-B2
      'You arrived (here).'

    b. IMPERFECTIVE
      Mi   a-jul-**el**.
      IMPF A2-arrive.here-NML
      'You arrive (here).'

Perfective stems appear with a vowel suffix: a harmonic vowel -$\mathbb{V}$ on transitives, and -*i* on intransitives. These vowel suffixes appear only on *eventive* predicates; they are absent on stative predicates. I propose that they occupy a v^0 head. Non-perfective stems appear with no suffix, or the suffix -*e`* on transitives, and the suffix -*el* on intransitives. The suffix -*e`* is likely related to the Proto-Mayan *dependent* suffix (Kaufman and Norman, 1984, 100), and is also found in Chol dependent clauses, as in (19).

(19) Y-om   [i-kuch-**e`**   ixim].
     A3-want   A3-carry-DEP corn
     'She wants to carry corn.'

This suffix appears to always be optional, and is only possible with a 3rd person object; it may not occur with the overt 1st and 2nd person absolutive markers. As expected, the suffix -*e`* never appears on perfective forms. This lends further support to the claim that the stem forms in the non-perfective are embedded nominal forms—not matrix predicates. The suffix -*el* appears on non-perfective intransitives. Suffixes of the form -*Vl* are found on nominals throughout Chol (Warkentin and Scott, 1980) and other Mayan languages (Bricker, 1981), lending further support to the embedded nominalization analysis proposed above.

3.2 Distributional evidence

In addition to the morphological evidence above, non-perfective stems behave distributionally as nominals. They may: serve as arguments (20a), appear possessed, trigger agreement (20b), appear with certain adjectives and determiners (20c), appear as complements to the preposition *tyi* (20d), and appear in agent nominalizations (20e). Both transitive and intransitive

non-perfective stems appear in these contexts, as shown in (20).[3] As expected, perfective stem forms are ungrammatical in all of these constructions.

(20) NON-PERFECTIVE STEMS IN NOMINAL CONTEXTS

    a. K-om   [**jap kajpej**] / [**wäy-el**].
       A1-want drink coffee   sleep-NML
       'I want to drink coffee / to sleep.'

    b. Choñkol **y**$_i$-ujty-el   **k**-[**juch' waj**]$_i$ / **k**-[**ts'äm-el**]$_i$.
       PROG   A3-finish-NML A1-grind masa A1-bathe-NML
       'My grinding corn / bathing is finishing.'

    c. Mach uts'aty **jiñi kabäl** [**jap lembal**] / [**uk'-el**].
       NEG good DET a.lot drink liquor   cry-NML
       'A lot of drinking liquor / crying isn't good.'

    d. Tsajñ-oñ **tyi**   [**wuts' pisil**]   / [**wäy-el**].
       return-B1 PREP wash clothes sleep-NML
       'I've returned from washing clothes / bathing.'

    e. Añ kabäl **aj**-[**chuk-chäy**] / **aj**-[**tsäm-el**]   tyi   ja`.
       EXT a.lot CL-catch-fish   CL-bathe-NML PREP water
       'There are lots of fish-catchers / bathers in the water.'

3.3   Non-perfective aspect markers are predicates

    The non-perfective aspect markers *mi* (imperfective) and *choñkol* (progressive) pattern as predicates; *tyi* (perfective) does not. The aspect markers *mi* (imperfective) and *tyi* (perfective) have fuller CVC forms that must be used when they host clitics, as in (21). The minimum word requirement is CVC. The aspect markers *mi* and *tyi* require larger forms—*muk'* and *tsa`* respectively— *choñkol* does not.[4]

(21) a. **Muk'-äch** k-ts'äm-el.   (*mi-äch)
        IMPF-AFF A1-bathe-NML
        'I indeed bathe.'

      b. **Tsa`-bi**   majl-i tyi Tila.   (*tyi-bi*)
        PRFV-REP go-ITV PREP Tila
        'It's said she went to Tila.'

    The non-perfective aspect morphemes, argued here to be predicates, may combine directly with an event-denoting nominal; this is impossible with the perfective:

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[3] Things are slightly more complicated with non-perfective transitives with full DP objects. This is discussed in detail in Coon (to appear).

[4] While the larger forms are *required* when additional morphology is attached, they may also be used on their own, with no apparent difference in meaning. More work is required to understand the differences here.

(22) a. Muk' **ja`al** tyi   k-lumal.
IMPF rain PREP A1-land
'It rains in my country.'

b. Choñkol **k'iñijel** tyi   aw-otyoty.
PROG   party   PREP A2-house
'There's a party going on at your house.'

c. * Tsa` **k'iñijel** tyi   aw-otyoty.
PRFV party   PREP A2-house
'There was a party at your house.'

Furthermore, the non-perfective aspect morphemes appear in what have been called *raising* constructions (Robertson, 1980). The subject of the lower clause is co-indexed by set B morphology on the higher predicate. Here we thus see non-null set B morphology on the aspectual predicates. The nominalized verb form must appear subordinated by the preposition *tyi*. This is possible with all lower clause external arguments: transitive subjects (23a), unergative "verbal nouns" (23b), and a small class of intransitives called "ambivalents" which may pattern either with unergatives or unaccusatives (Vázquez Álvarez, 2002) (23c). The perfective morpheme may *not* participate in raising constructions (23d).

(23) a. Muk'-ety$_i$ [tyi   päk' bu`ul] *pro$_i$*.
IMPF-B2 PREP plant bean   2PRON
'You plant beans.'

b. Choñkol-oñ$_i$ [tyi   soñ   ] *pro$_i$*.
PROG-B1   PREP dance   1PRON
'I am dancing.'

c. Choñkol-Ø$_i$ [tyi   uk'-el   ] jiñi ñeñe`$_i$.
PROG-B3   PREP cry-NML   DET baby
'The baby is crying.'

d. * Tsa`-oñ [ tyi   päk' bu`ul] / [tyi   soñ   ] / [tyi   uk'-el   ].
PRFV-B1 PREP plant bean   PREP dance   PREP cry-NML
'I planted beans / danced / cried.'

4   Cross-linguistic implications

The Chol raising forms in (23) are reminiscent of Basque progressive constructions, as analyzed by Laka (2006). While most Basque transitives show an ergative-absolutive pattern, we find a split in the progressive:

(24) BASQUE

a. emakume-a-**k**   ogi-ak   ja-ten   d-it-u
woman-DET-ERG bread-DET.PL eat-IMPF 3ABS-PL-have.3ERG
'The woman eats (the) bread.'

b. emakume-a ogi-ak   ja-ten   ari   da
   woman-DET bread-DET.PL eat-IMPF PROG 3ABS.is
   'The woman is eating (the) bread.'   (Laka 2006:173)

In the non-progressive in (24a), the subject is marked ergative, and the auxiliary *ditu* shows agreement with both the subject and the object. In the progressive, however, the ergative morpheme is absent, and the auxiliary shows agreement only with the subject. (In Basque, then, the split occurs between the imperfective and progressive aspects along the scale in (1) above, whereas in Chol it occurs between the perfective and the imperfective.)

Laka (2006) proposes that the main verb in the progressive is *ari*, which takes a locative complement. She breaks down the suffix *-ten* (glossed IMPF) into a nominalizer *-tze/-te* and a locative *-n*. Under this analysis, *emakumea* 'the woman' does not take ergative marking because it is the single argument in its clause. This analysis also explains the differences in agreement: the progressive auxiliary does not agree with the object *ogiak* 'bread' because it is not in the same clause. Laka argues that the apparent split in Basque can be reduced to the fact that while the non-progressive form in (24a) is monoclausal, the progressive form in (24b) is *biclausal*. Compare Chol and Basque, main predicates in boldface:

(25) a. BASQUE
         [emakume-a]$_i$ [$_{PP}$ ogi-ak   ja-te-n   ] **ari da**$_i$
           woman-DET   bread-DET.PL eat-NOM-LOC   PROG 3ABS.is
           'The woman is eating (the) bread.'   (Laka 2006:173)

      b. CHOL
         Choñkol-Ø$_i$ [$_{PP}$ tyi   k'ux waj   ] [jiñi x-`ixik   ]$_i$.
           PROG-B3   PREP eat   tortilla   DET CL-woman
           'The woman is eating tortillas.'

Despite many other language-internal differences, in both languages we find a biclausal construction in the progressive. This gives the *appearance* of a split system, but in fact we find that predicates are behaving exactly as we expect in an ergative language. Namely, the intransitive aspectual predicates—*ari* in Basque and *choñkol* in Chol—trigger patterns found with other unaccusatives in their respective languages. This results in the absence of ergative marking on the subject in Basque, and set B agreement with the subject in Chol.

In addition to the Chol raising construction in (25b), Chol has the option discussed in the sections above. Namely, the aspectual predicate takes the possessed nominal directly as an argument, as in (26). In both the raising constructions like (25b) and the non-raising construction in (26), the aspectual morpheme behaves as a one-place predicate. In the raising forms, it takes the subject directly as an argument while the verb stem appears subordinated by the preposition. In the non-raising form, the aspectual morpheme combines directly with a nominalized clause; the subject is expressed as a possessor.

(26) **Choñkol**-Ø$_i$ [$_{NP}$ i-k'ux waj   jiñi x-`ixik   ]$_i$.
      PROG-B3   A3-eat tortilla DET CL-woman
      'The woman is eating tortillas.'

      This pattern appears to extend beyond just Chol and Basque. As discussed above, it has been proposed that *all* splits in the Mayan family may be reduced to subordination. Though she does not explicitly extend this analysis to Hindi, Laka notes that Hindi's split shows a similar pattern to that found in Basque:

(27) HINDI

    a. Raam-**ne** roTii$_i$ khaayhii   thii$_i$
       Raam-ERG bread.FEM eat-PERF.FEM was.FEM
       'Raam had eaten bread.'

    b. Raam$_i$ [roTii khaataa   ] thaa$_i$
       Raam.MASC   bread eat-IMPF.MASC   was.MASC
       'Raam was eating bread.'   (Mahajan, 1990)

      In the perfective (ergative-patterning) clause in (27a), the verb shows agreement with the object; the subject appears with an ergative marker. In the imperfective (non-ergative-patterning) clause in (27b), the verb shows agreement with the subject; no ergative marker is present. These facts are consistent with a biclausal analysis. Namely, the subject does not take ergative marking, because it it an intransitive subject. The object is no longer agreed with because it is in a lower clause. More work is needed to determiner whether there exists independent evidence for this approach.

5   Conclusion

      Above I argued that Chol's split system of agreement may be explained in terms of the different structures of perfective and non-perfective clauses. While perfectives are monoclausal, the non-perfectives involve a biclausal structure. The aspectual morphemes behave as matrix predicates; the semantic predicate appears in a nominalized clause. Laka notes that in unrelated languages around the world, the progressive frequently involves a more complex locative construction (Bybee et al., 1994). Mateu Fontanals and Amadas Simon (1999) and Demirdache and Uribe-Etxebarria (2000) argue for universal connections between locative spatial relations and non-perfective constructions. Though more cross-linguistic work is needed, I suggest that aspectually based splits *always* result from structures like those in (28) and (29) (abstracting away from language-internal differences like constituent order, etc.):

(28) ERGATIVE-PATTERNING = *monoclausal*
     [SUBJECT$_{ERG}$] [OBJECT$_{ABS}$] [**Predicate = verb stem**]

(29)   SOURCE OF APPARENT SPLIT = *biclausal*
[SUBJECT$_{ABS}$] [*verb stem* + OBJECT] [**Predicate = aspectual**]

In the ergative-patterning form in (28) the verb stem is the transitive predicate. The object is marked ABSOLUTIVE; agreement is with the object. In the "split" (non-ergative-patterning) form in (29), the real predicate is an *intransitive* aspect marker. The notional subject is the single argument of the aspectual predicate; it is marked ABSOLUTIVE and controls agreement. The verb stem and object are in a subordinated clause. There is no ergative-marking in (29) because there is no transitive predicate.

As Laka points out, if this analysis is correct, we don't need special rules of case assignment or agreement to handle aspectually based splits. Rather, the appearance of a split is the result of the fact that the non-ergative-patterning forms are biclausal. This type of biclausal analyses of split ergativity might then provide an explanation as to why we always find the appearance of a nominative-accusative pattern in the non-perfective forms: If non-perfective forms are more likely to be biclausal, then this is where we'll find the appearance of a non-ergative system. The question of course remains of why this should be the case, and whether this analysis can be extended to other languages with aspectually based splits. I believe this is an interesting avenue for future work.

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