



Split ergativity and nominalization in Mayan

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Outline

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2. Split ergativity in Mayan
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1. Ergativity: Overview

- **Ergativity:** The intransitive subject (= S) and the transitive object (= O) form a natural class, to the exclusion of the transitive subject (= A), in terms of morphological marking (= morphological ergativity) and/or syntactic operations (= syntactic ergativity) (see Comrie 1978; Dixon 1979, 1994; Aldridge 2008; McGregor 2009; Polinsky 2016; Deal 2015 for an overview).
 - ❑ *Alignment:* the way grammatical relations (e.g., A and O) are distinguished from each other by morphosyntax
 - ❑ **Ergative alignment: A≠S=O**
 - ❑ **Accusative alignment: A=S≠O**
 - About a quarter of world's languages are estimated to be ergative (Dixon 1994).
 - **Split ergativity:** As often noted, it is rare that ergative languages are consistently "ergative" throughout grammar (Anderson 1976; Comrie 1978; Moravcsik 1978): many ergative languages display a *non-ergative alignment pattern* such as accusative alignment in certain environments.
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- **Aspect-based split ergativity:** it is likely that ergative alignment is observed in *perfective aspect*, while non-ergative alignment is found in *non-perfective aspect* such as habitual/progressive aspect (Silverstein 1976; Comrie 1978; Dixon 1979, 1994; Coon 2013, etc.).
 - While Mayan languages display a prototypical ergative alignment pattern through head-marking (in the sense of Nichols 1986), most of them exhibit aspect-based split ergativity: the alignment in *perfective aspect* is ergative, whereas the one in *non-perfective aspect* (e.g., progressive aspect) is accusative (or non-ergative).
 - Notes on the terminology for Mayan data:
 - Set A markers = ergative (A) and genitive
 - Set B markers = absolutive (S and O)
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2. Split ergativity in Mayan

Ergative alignment: A≠S=O

Kaqchikel: perfective aspect

- (1) a. yin x-e-in-tz'ët rje'
I PFV-B3PL-A1SG-see they
'I saw them.'
- b. rje' x-e-wär
they PFV-B3PL-sleep
'They slept.'
- c. rje' n-ø-ki-kanuj xta Ana
they IPFV-B3SG-A3PL-look.for CL Ana
'They are looking for Ana.' (Imanishi 2020b)

S	Set B
A	Set A
O	Set B

Table 1: Ergative alignment in Mayan

Accusative alignment: A=S≠O

Kaqchikel: progressive aspect

- (2) a. y-in-ajin che [ki-k'ul-ik ak'wal-a']
IPFV-B1SG-PROG PREP A3PL-meet-NMLZ child-PL
'I am meeting children.'
- b. y-in-ajin che [atin-ik].
IPFV-B1SF-PROG PREP bathe-NMLZ
'I am bathing.' (Imanishi 2020a)

➤ Both S and A are cross-referenced by Set B, whereas O is by Set A.

S	Set B
A	Set B
O	Set A

Table 2: Accusative alignment in Kaqchikel

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- **Puzzle** The alignment between grammatical relations and Set A/B markers in the accusative side varies within Mayan languages (Robertson 1980; Mateo Pedro 2009; Imanishi 2014, 2020a, b).
- The accusative alignment found in languages like Ch'ol and Q'anjob'al contrasts sharply with the one found in Kaqchikel.
- Both S and A are cross-referenced by Set A, whereas O is by Set B: *extended ergative* (Dixon 1979, 1994).

Ch'ol: progressive aspect

- (3) a. Choñkol-ø [i-jats'-oñ]. b. Choñkol-ø [i-majl-el].
PROG-B3SG A3SG-hit-B1SG PROG-B3SG A3SG-go-NMLZ
'She's hitting me.' 'She's going.' (Coon 2013)

S	Set A
A	Set A
O	Set B

Table 3: Accusative alignment in Ch'ol/Q'anjob'al

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3. Split ergativity and nominalization

- Building on a biclausal analysis of the ergative split in Basque (Laka 2006), Coon (2010, 2013) has proposed that the structure of the accusative system in Ch'ol is *biclausal* (see also Larsen and Norman 1979; Bricker 1981; Law et al. 2006 among others for a precursor of this analysis).
- The biclausal analysis can be extended to the accusative side of Kaqchikel and other Mayan languages, as I have proposed (2014, 2020a, b).
- Under this analysis, an aspectual predicate (e.g., *choñkol*), which acts as an intransitive predicate, takes as its complement a non-finite clause that consists of a **nominalized** verb.

Biclausal structure of the accusative side of Ch'ol

(4)(=3b) [Choñkol-∅ [vP_{NOMNL} i-majl-el (= *her going*)]]

→ lit. *Her going is taking place.*

(modeled after Coon 2010, 2013)

- Set A in examples like (3) could then be taken *as genitive*: **no special alignment rules are necessary** (see Zavala Maldonado 2017 for a different view).
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4. Correlation between the variation in alignment and nominalization

- **Question**

How can this analysis capture the contrastive alignment patterns between Kaqchikel and Ch'ol/Q'anjob'al?

- **Hypothesis**

A particular property of nominalizations in a given language correlates with the type of accusative alignment patterns (Imanishi 2014, 2020a,b).

- o In a Mayan language with the Kaqchikel-type accusative alignment (Set A=O), nominalizations **may not contain an external argument of their base**.
 - o In a Mayan language with the Ch'ol/Q'anjob'al-type accusative alignment (Set A=S/A), (a subset of) nominalizations **may contain an external argument of their base**.
 - In addition, nominalizations of a transitive base in Kaqchikel need to be independently *intransitized* via strategies such as passivization and antipassivization (see Imanishi 2014, 2020a for details).
 - For example, (2a) could be analyzed as *I'm engaged in children's being met*: Set A→ak'wala' 'children' (*passivization*).
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- In Kaqchikel-type languages, nominalizations of *transitive* and *unergative* verbs may not contain their subject, whereas those of *unaccusative* verbs may.

Kaqchikel: the nominalizing suffix *-ik*

Transitives

(5) ?*ri ru-k'at-ik ri tinamit r-oma ri a Juan

DET A3SG-burn-NMLZ DET city A3SG-RN(because.of) DET CL Juan

x-ø-xib'i-n.

PFV-B3SG-scare-ANTIP

'(intended) The burning of the city by Juan was scary.' (Imanishi 2020a)

Unergatives

(6) *nu-b'iyin-ik

A1SG-walk-Nmlz

'(intended) my walking' (ibid.)

Unaccusatives

(7) ri ru-tzaq-ik ri a Juan üt.

DET A3SG-fall-Nmlz Det CL Juan good

'Juan's falling is good.' (ibid.)

- Unlike in Kaqchikel, nominalizations in languages like Ch'ol and Q'anjob'al may contain an external argument.

Ch'ol

(8) Mach uts'aty [a-jats'-oñ].

NEG good A2SG-hit-B1SG

'Your hitting me isn't good.' (Coon 2013)

- **Recap:** Whether nominalizations in a given language may contain an external argument can be a differentiating factor for the type of accusative alignment in Mayan.
 - o See Imanishi (2014, 2020a) for why this particular property of nominalizations is related to the type of accusative alignment.
 - o The analysis builds on Alexiadou's (2001) seminal work on nominalizations of various Indo-European languages, suggesting that Mayan and Indo-European (and other) languages share a lot more than we might expect!

5. Further issues

- While I have shown that Kaqchikel nominalizations display both nominal and verbal properties (= *mixed categories*) just like English gerunds in Imanishi (2014, 2020a), more work is necessary on the syntactic properties of nominalizations in other Mayan languages (see also Zavala Maldonado 2017).
- Burukina (2021) presents counterexamples to the generalization that Kaqchikel nominalizations may not contain an external argument. More needs to be done to see if the generalization holds in Kaqchikel and across Mayan.
- If the generalization about Kaqchikel is correct, it is not entirely clear why there is such a restriction on its nominalizations. Comparative work on other Mayan languages promises to provide important insights into this question.

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