

A Mayan Diagnostic for the Unergative vs. Unaccusative Distinction

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Contribution: Focusing on novel data from Santiago Tz’utujil (ST, Mayan), we introduce a morphosyntactic diagnostic for distinguishing unergative and unaccusative predicates. External arguments (EA) and internal arguments (IA) of transitive clauses behave differently with respect to instances of apparent *optional agreement* (see also Henderson 2008, England 2011). EAs must be indexed for person and number on the verb; IAs need not be. This distinction in behavior extends to the sole argument of intransitive predicates. Some intransitive arguments pattern like IAs in permitting optional agreement. Others pattern like EAs, requiring agreement.

Background: Mayan languages have been claimed to have only unaccusative one-place predicates (Coon 2018). For example in ST, verbs with prototypically unergative meanings are either derived via antipassivization (1) (or passivization) or formed via a *light verb* + *noun* construction (2).

- (1) Iwir x-oq-ixj-ow-a chpam son.
yesterday PRF-A1PL-ROOT-AP-SS PREP.belly dance
'Yesterday we danced.'
- (2) Iwir i-k'e' wunaq x-Ø-ki-tij krer pb'ey.
yesterday PL-two person PRF-A3SG-E3PL-eat race on.street
'Yesterday two people ran on the street.'

Claim: ST has both unaccusative *and* unergative predicates. The sole argument of unaccusative predicates is optionally indexed on the verb, regardless of whether that indexing is achieved via absolutive or ergative agreement. The sole argument of unergative predicates is obligatorily indexed on the verb across both agreement paradigms.

A novel diagnostic for unaccusativity: ST is an ergative-absolutive head-marking language. Ergative (E) agreement indexes the subjects of transitive clauses and possessors. Absolutive (A) agreement indexes objects of transitive clauses and the sole argument of one-place predicates. However, agreement is sometimes optional and optionality is conditioned by grammatical function (3).

- (3) Ajoj x-e-Ø-qa-loq' i-k'e' ab'aj.
1PL PRF-A3PL-Ø-E1PL-buy PL-two stone
'We bought two stones.'
- (4) Ki'e' q'aq' x-Ø-ki-/*ru-/*Ø-kitz'aj k'iy ch'ia.
Two fire PRF-Ø-E3PL-/*E3SG-/*Ø-see many tree
'Two fires burnt many trees.'

Consider transitive clauses. Transitive objects, can but need not, realize absolutive-agreement. It is licit to realize either 3rd plural absolutive *e-* or \emptyset – identical to 3rd singular absolutive (see also (4)). In contrast, transitive subjects must realize ergative-agreement for person and number. It is illicit to realize either 3rd singular agreement, *ru-*, or \emptyset - in place of 3rd plural ergative, *ki-*.

Applying the diagnostic: We propose that the variable patterns of optional agreement, conditioned by grammatical function, diagnose the argument structure of one-place predicates. One-place predicates that permit optional agreement are unaccusative. One-place predicates that require agreement are unergative. One-place predicates in ST differ in patterns of optional agreement. Those with canonical unaccusative meanings can, but need not, realize absolutive-agreement (5). Like transitive objects, these arguments permit either 3rd plural absolutive *e-* or \emptyset . This pattern of optionality suggests that these arguments are unaccusative, generated in Compl-V position.

- (5) Ki'e' laq x-e-Ø-pa'ax-a.
two plate PRF-A3PL-Ø-break-SS
'Two plates broke.'
- (6) I-k'e' ab'aj x-e-Ø-lokup-taj=ela.
PL-two stone PRF-A3PL-Ø-slide-PAS=DIR
'Two stones slid (from here to there).'
- (7) E-Ø-k'ola k'iy ch'ia chu jaay.
A3PL-Ø-EXIST many tree PREP house
'There are many trees in the garden.'
- (8) Penliw e-/*Ø-tzb'ola i-k'e' etzb'al.
PREP.ground A3PL-/*Ø-sit PL-two doll
'There are two dolls sitting on the ground.'

Additional support for this conclusion comes from the observation that the same pattern of optional agreement is found with passive subjects (6) and subjects of existential constructions (7). Passive subjects are commonly thought to be generated in the same position as transitive objects and existentials are held to be analogous to unaccusative predicates (Hazout 2004, Deal 2009).

Now consider, the sole argument of positional predicates (Henderson 2018). In contrast to unaccusatives, passives and existentials, positional arguments *must* realize absolutive-agreement (8). Just as ergative agreement is obligatory with transitive subjects, 3rd plural absolutive agreement is obligatory with positionals. This pattern of obligatory agreement suggests that, like transitive subjects, positional arguments are base-generated in Spec-position. They are unergative.

Additional support for this conclusion comes from the observation that the same pattern of obligatory agreement holds of antipassive subjects (9) and subjects of adjectival (and nominal) predicates (10). Antipassive subjects are commonly thought to be derivationally related to transitive subjects (Polinsky 2016), and non-verbal predicates generate their subject in the specifier of a predicative phrase (Baker 2003).

Furthermore, ergative agreement can be optional as well. Progressives embed nominalized clauses (11). The agreement controller in nominalizations is optionally indexed by ergative morphology. This shows that the agreement controller is generated in complement position. Note too that the obligatoriness of *absolutive agreement* in (8-10) and optionality of *ergative agreement* in (11) demonstrate that the optional/obligatory distinction is not reducible to a morphophonological distinction.

Analysis: These patterns of optionality reflect the contrast between specifiers and complements in at least one of two ways. Complements, but not specifiers, can lack an (unvalued) participant feature (see Harbour 2016). Alternatively, complements can have a reduced structure, e.g. NP vs. DP (Baker 1996, Levin 2015) entailing the absence of participant feature. When a nominal argument in Compl-position bears the participant feature, it triggers agreement. When a nominal argument in Compl-position lacks this feature, it is “invisible” to the agreement probe. Agreement does not obtain. The derivation converges, but the output is the canonical exponence of unvalued phi, i.e., 3SG (Preminger 2014). The existence of two derivations yields surface optionality.

Conversely, specifiers can never reduce. Therefore, agreement always obtains. There is only one well-formed derivation and thus, no surface optionality. Additional support for the view that arguments generated in Spec-position can never reduce comes from the behavior of DP-internal possessors. Possessors, like transitive, antipassive, and positional subjects are generated in a Spec-position – Spec-PossP. Therefore, agreement obtains, yielding 3rd plural ergative morphology.

The relevance of reduction in the noun phrase for the non-determination of agreement is also supported by the behavior of overt or null pronominal arguments. Unlike noun phrases, pronominal arguments of all persons *must* control agreement, regardless of grammatical function.

In (12), the overt DP ‘two flowers’ does not control agreement, cf. (3-4). However, the (null) pronominal object, referring to the same argument *must* control agreement. If pronouns are the realization of D⁰ (Postal 1969, Elbourne 2001), then they cannot be structurally reduced and therefore must trigger agreement (13).

Conclusion: Sole arguments of one-place predicates can be divided into two groups – those that permit optional agreement and those that display obligatory agreement. This distinction serves as an unaccusativity diagnostic, and can be used to demonstrate that Mayan languages, like ST, do have unergative predicates, contrary to previous claims.

- (9) K'iy akox b'inien x-e-/*Ø-kum-sa-n-a
 Many mushroom poisonous PRF-A3PL-/*Ø-die-CAUS-AP-SS
 r-xin nu-tz'i.
 E3SG-RN E1SG-dog
 'Many poisonous mushrooms killed my dog.'
- (10) J'iye'la ab'aj e-/*Ø-nemaq.
 DEM.PL stone A3PL-/*Ø-big
 'Those stones are big.'
- (11) Anen n-imjuen r-/k-/*Ø-loq'-x-ik i-k'e' tz'e.
 1SG E1SG-PROG E3SG-/E3PL-/*Ø-buy-PAS-NMLZ PL-two dog
 'I'm buying two dogs.'

- (12) ki-/*r-/*Ø-tz'b'alil i-k'e ab'aj
 E3PL-/E3SG-/*Ø-color PL-two stones
 'the color(s) of two stones'
- (13) Ya Trey x-Ø-u-tzu' i-k'e' ktz'ej.
 CLF Andrea PRF-Ø-E3SG-see PL-two flower.
 X-e-/*Ø-ru-loq'-pa.
 PRF-A3PL-/*Ø-E3SG-buy-DIR
 'Andrea saw two flowers. She bought them.'