High, Low, and No Absolutive Mayan Syntax:
Effects of No Object Raising in Mam[1]

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1 Introduction

- All Mayan languages are morphologically ergative (Zavala Maldonado 2017) but they vary in whether ergativity has an effect on the syntax as well.
- Coon, Mateo Pedro, and Preminger (2014) propose that variation in syntactic ergativity in Mayan is a result of different sources of absolutive morphemes.
- MAYAN ABSOLUTIVE PARAMETER
  - In HIGH-ABS languages, the object raises *above* the transitive subject which allows finite Infl^0 to license an absolutive morpheme.[2]

    (1) Mam
    Ma **chin** t-il.
    PFV ABS.1S ERG.3S-see
    'She saw me.' (England 1983)

  - In LOW-ABS languages, the object does not raise and an absolutive morpheme is licensed by transitive v^0.

    (2) Ch'ol
    Tyi y-il-ä-**yety**.
    PFV ERG.3-see-TV-ABS.2
    'She saw you.' (Coon et al. 2014: 190)

- Coon, Baier, and Levin (2021) suggest that the parameter is a result of variation in the features on v^0 in transitive clauses. Along with Royer (2021), they also link object raising to a constellation of other properties correlated with syntactic ergativity.
- In this talk, I bring in new data from a young, heritage Mam speaker that does not pattern with either HIGH-ABS or LOW-ABS languages in these properties.
- Unlike other Mayan languages, this Mam lacks absolutive morphemes in transitive clauses.[3] As such, I call it NO-ABS Mam.

(3) NO-ABS Mam
Ma t-il b'ix qin.
PFV ERG.3-see she me
'She saw me.'

- Crucially, absolutive morphemes do appear in intransitive clauses where they cross-reference the subject.

(4) NO-ABS Mam
Ma **qo** b'eet.
PFV ABS.1P walk
'We walked.'

In this talk:

- I argue that this Mam requires a new option for parametrization – NO-ABS – because it has no source of absolutive morphemes in transitive clauses.
- In line with the original Mayan Absolutive Parameter, I propose that NO-ABS' divergence is driven by variation in the features on transitive v^0.
- I provide evidence that the resulting NO-ABS syntax varies predictably from HIGH-ABS/LOW-ABS in properties tied to syntactic ergativity and agreement.

2 Mam and the Mayan Absolutive Parameter

2.1 Background on Mam

- Mam is an Eastern Mayan language with over 600,000 speakers (Pérez Vail 2014). It is spoken primarily in western Guatemala in the departments of Huehuetenango, Quetzaltenango, and San Marcos (England 2017).
- Like all Mayan languages, Mam shows morphological ergativity.

(5) (a) Transitive
Ma **chin** ok **t**-tzeeq'a-n-a.
PFV ABS.1S DIR ERG.2S-hit- DS-ENC
'You hit me.' (England 1983: 62)

(b) Intransitive
Ma **chin** b'eet-a.
PFV ABS.1S walk-ENC
'I walked.' (England 1983: 58)

[1] I thank Jessica Coon, Justin Royer, Lydia White, the McGill MULL lab, and the TOMILLA conference. Special thanks to Ix Jimenez-Haham for teaching me about their language. Any errors in data or interpretation are my own.

[2] I follow Leipzig glossing conventions (https://www.eva.mpg.de/lingua/pdf/Glossing-Rules.pdf) with the addition of the following abbreviations: DEP – dependent, DIR – directional, DS – directional suffix, ENC – enclitic, RN – relational noun, SUF – suffix.

[3] Unless otherwise noted, all Mam data are from the author's field notes.

- As seen in the examples above, the absolutive morpheme always appears immediately after the Aspect Marker:

  (6) ASPECT – **ABS** – (DIRECTIONAL)[4] – ERG – VERB STEM – SUFFIX

- Following Coon et al. (2014), this indicates that Mam is syntactically ergative and can be classified as a HIGH-ABS language within the Mayan Absolutive Parameter.

2.2 Mayan Absolutive Parameter

- The Mayan Absolutive Parameter proposes that variation in syntactic ergativity depends on the source of absolutive morphemes in transitive clauses (Coon et al. 2014).
- Languages whose absolutive morphemes originate high in Infl^0 (HIGH-ABS) are syntactically ergative; those whose absolutive morphemes originate low in v^0 (LOW-ABS) are not.

  (7) Source of Agreement Morphemes by Language Type

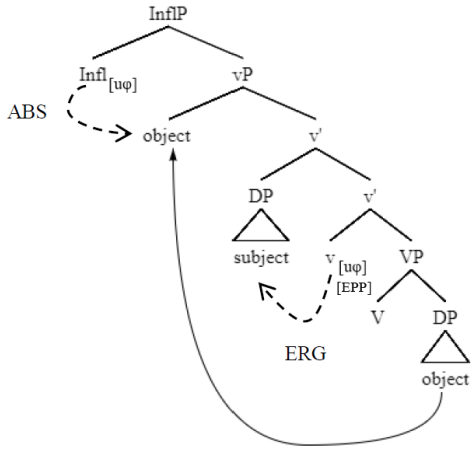
	Intransitive Subject	Transitive Subject	Transitive Object
HIGH-ABS	Infl^0	v^0	Infl^0
LOW-ABS	Infl^0	v^0	v^0

- Assumptions:
  - Agreement morphemes and clitics are the result of Agree by a functional head with a DP.
  - Agreement relations are the result of [uφ] probes on v^0 and Infl^0
  - Though different functional heads license absolutive morphemes, a morphological default realizes both (Legate 2008).
- Variation arises because of *object raising*, triggered by an [EPP] feature on transitive v^0 in HIGH-ABS languages (Coon et al. 2021).
  - In HIGH-ABS languages, the [EPP] feature makes objects raise above the transitive subject and enter Agree with Infl^0, generating an absolutive morpheme.
  - In LOW-ABS languages with no [EPP] feature, the object remains in its original position and is found by a [uφ] probe on v^0, generating an absolutive morpheme.

[4] Directionals are reduced versions of verbs of motion used with transitive verbs in almost all sentences. The only transitive verb stems that do not appear with directionals are *il* (see), *-aj* (want), and *ky'i'* (not want).

- Object raising gives rise to a constellation of other properties as well (Coon et al. 2021, Royer 2021; as you saw yesterday).

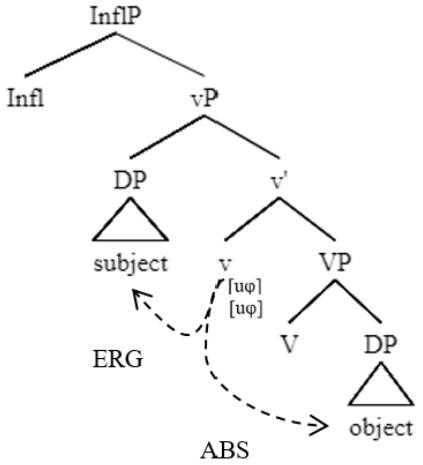
  (8) HIGH-ABS w/ Object Raising



HIGH-ABS Properties

- ABS comes from Infl^0
- ABS appears before verb root
- Subjects cannot be extracted
- No ABS in non-finite clauses

(9) LOW-ABS w/o Object Raising



LOW-ABS PROPERTIES

- ABS comes from v^0
- ABS appears after verb root
- Subjects can be extracted
- ABS in non-finite clauses

- The remainder of this talk will focus on how NO-ABS Mam fits into the parameter.

2.3 Data for This Talk

- NO-ABS Mam
  - I collected the data through elicitation sessions with a university-age speaker of Mam born and raised in the United States.
  - While Mam was one of their first two languages, by school age, their primary language was English. They speak Mam with their father and extended family in Guatemala.
- Baseline Mam
  - I draw on data from the two published reference grammars of Mam – England 1983 on Ixtahuacán Mam; and Pérez and Jiménez 1997 on Cajolá and San Sebastián Mam.
  - The heritage speaker's father is the co-author of the 1997 grammar.
- While the NO-ABS Mam differs from Baseline Mam, its grammar is internally consistent and, as I show below, all the differences presented can be attributed to variation in features on v^0.

3 Evidence for a Third Option in the Parameter

The new Mam data doesn't fall into any option of the Mayan Absolutive Parameter. I propose that a lack of object raising and therefore a lack of agreement with objects results in a third option for the parameter: NO-ABS**.**

3.1 The Case for NO-ABS

- In NO-ABS Mam, *transitive* clauses lack absolutive morphemes in all contexts.

(10) Baseline Mam Transitive
Ma **chin** t-il.
PFV ABS.1S ERG.3S-see
'She saw me.'

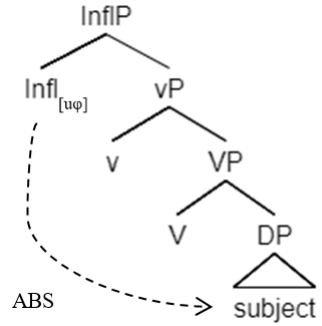
(11) NO-ABS Mam Transitive
Ma t-il b'ix qin.
PFV ERG.3-see she me
'She saw me.'

- However, absolutive morphemes appear universally in *intransitive* clauses.

(12) Baseline & NO-ABS Mam Intransitive
Ma **chin** ch'iiy.
PFV ABS.1S grow.
'I grew.'

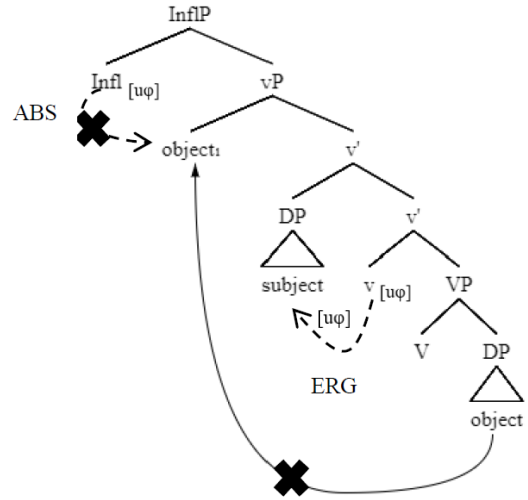
- Clearly, intransitive subjects are accessible by $Infl^0$.

(13) Baseline/ NO-ABS Mam Intransitive



- But, as in (11), transitive objects are not…
- **Proposal 1**: A *lack of object raising* prevents objects from entering the proximity of $Infl^0$.
  - Transitive objects can't raise, the probe on $Infl^0$ fails and no absolutive morpheme is licensed.

(14) NO-ABS Mam Transitive



- **Proposal 2**: This Mam requires a third option for parametrization – NO-ABS – which accounts for its syntactic variation.
  - Like LOW-ABS, the NO-ABS Mam's lack of object raising is the result of the absence of an [EPP] feature on transitive v^0.

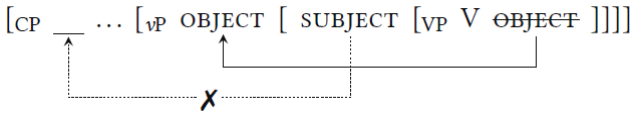
- However, like HIGH-ABS Mam, it does not have a absolutive-generating φ-probe on v^0.
- The result is that objects don't raise and agreement fails.[5]

- **Predictions**:
  - NO-ABS Mam should pattern differently from HIGH-ABS languages in subject extraction because it lacks object raising.
  - NO-ABS should pattern on its own in transitive non-finite embedded clauses because it lacks absolutive morphemes completely.

3.2 Subject Extraction

- Recall that HIGH-ABS languages are syntactically ergative.
- In Mayan, HIGH-ABS languages exhibit the Ergative Extraction Constraint (EEC; see Aissen 2017) which prohibits ergative subjects from being A'-extracted in transitive clauses.
- Coon et al. (2014) argue that *object raising* is the source of the EEC: raised objects intervene with subject extraction in HIGH-ABS.

(15) Object Raising Blocks Subject Extraction (Coon et al. 2021)



- Baseline Mam circumvents the EEC by using the antipassive to avoid object raising.

(16) Baseline Mam
Alkyee x-**Ø** tzaj tzyuu-n [ky-e kab' xinaaq]?
who PROX-**ABS.3S** DIR grab-ANTIP [POSS.3P-RN two man]
'Who grabbed the men?' (England 1983: 280)

- Because NO-ABS Mam lacks object raising, we expect it to extract ergative subjects without need of the antipassive and the data supports this.

(17) NO-ABS Mam
Alkee ma tzaj **t**-tzyuu-'n qe xinaaq?
who PFV DIR **ERG.3S**-grab-DS PL man
'Who grabbed the men?'

- The ergative marking on the verb and the absence of an oblique confirm that this is a transitive construction.

- In clauses with subject extraction for focus, Baseline Mam also requires the use of the antipassive to extract a transitive subject but NO-ABS Mam does not.

(18) Baseline Mam
Cheep Ø-Ø-tsyuu-n [ky-i'j kab' xinaaq].
Jose PFV-DEP-ABS.3S-grab-ANTIP [POSS.3P-RN two man]
'*José* grabbed the men.' (England 1983: 215)

(19) NO-ABS Mam
Aa John ma tzaj t-tyzu-'n qe xinaaq.
DEM John PFV DIR ERG.3S-hit-DS PL man.
'*John* grabbed the men.' (lit. it's John who grabbed the men)

- In fact, the NO-ABS Mam speaker judges subject extraction constructions using antipassive to be ungrammatical.
- NO-ABS Mam patterns with LOW-ABS languages and not HIGH-ABS languages in regards to subject extraction due to its lack of object raising.

3.3 Non-Finite Embedded Clauses

- In Mayan, non-finite embedded clauses lack the Aspect markers that appear before the verb in matrix clauses.
- Assuming that the Aspect marker is located in finite $Infl^0$ (Aissen 1992), there is no $Infl^0$ in non-finite clauses.
- Recall from (7), reproduced below, that $Infl^0$ is the source of absolutive morphemes in transitive HIGH-ABS clauses and in all intransitive clauses.

(7) Source of Agreement Morphemes by Language Type

	Intransitive Subject	Transitive Subject	Transitive Object
HIGH-ABS	**$Infl^0$**	v^0	**$Infl^0$**
LOW-ABS	**$Infl^0$**	v^0	v^0

- In HIGH-ABS non-finite clauses, therefore, we see that standard transitive clauses can't be embedded and intransitive clauses use ergative marking (instead of absolutive) for the subject.

(20) Baseline Mam
(a) *tu'n [**Ø** **n**-jaqoo-'n xaq]
so.that ABS.3S ERG.3S-open-PASS rock
'so that I open the rock'

[5] Following Preminger 2014, I assume that agreement can fail without crashing the derivation.

(b) tu'n [**t**-jaq-eet xaq]
so.that **ERG.3S**-open-PASS rock
'so that the rock is opened' (England 1983: 268)

- In NO-ABS Mam, object agreement always fails so Infl^0 never licenses absolutive morphemes in transitive clauses…but Infl^0 still licenses absolutive in intransitive clauses.
- Based on this, we expect two results for NO-ABS non-finite embedded clauses:
  - embedding standard transitive clauses will be perfectly acceptable
  - intransitive subjects will require ergative marking
- The data supports these predictions.

(21) NO-ABS Mam Non-Finite Transitive
tu'n [tzaj **t**-tzyu-'n b'ix **qin]**
so.that DIR ERG.3S-grab-DS she me
'so that she grabs me'

(22) NO-ABS Mam Non-Finite Intransitive
tu'n [**t**-biitz-n-a]
so.that **ERG.2S**-sing-ENC
'so that you sing

- NO-ABS Mam differs from HIGH-ABS languages in its ability to embed transitive clauses in non-finite contexts because it lacks object agreement.
- It also differs from LOW-ABS languages where non-finite embedded transitive clauses are acceptable but display absolutive morphemes from v^0.

(23) Ch'ol
Mejl [**i**-kel-**oñ**].
be.able.to [ERG.3-see-ABS.1]
'She can see me.' (Coon et al. 2014: 202)

3.4 Quick Recap

- SYNTAX
  - NO-ABS Mam differs from HIGH-ABS languages in that it *lacks an [EPP] feature* on transitive v^0 so objects stay low.
  - NO-ABS Mam differs from LOW-ABS languages in that it *lacks a φ-probe* on v^0 so object agreement fails and absolutive morphemes are not licensed.
  - Objects do not have to be agreed with in NO-ABS Mam.
- PARAMETRIC PROPERTIES
  - NO-ABS Mam differs from HIGH-ABS languages in properties requiring object raising and from LOW-ABS languages in properties requiring object agreement.
  - The pattern of NO-ABS Mam is exactly what is expected in a language where neither Infl^0 nor v^0 agree with the object.

4 Further Evidence for No Object Agreement

- In Baseline Mam, pro-drop is permitted for all arguments and is in fact obligatory for first and second person arguments because the language does not have overt pronouns (England 1983).
- In NO-ABS Mam, overt object pronouns are required in the absence of absolutive morphemes in transitive clauses (ie pro-drop is not allowed).
- The correlation between agreement and pro-drop has been discussed in previous work, going back to Huang 1982.
  - Baker (2008) suggests that in radical pro-drop languages, full agreement is needed in order to license pro-drop.
  - This aligns with Mayan languages where pro-drop only occurs in agreeing positions (subjects, objects, and possessors).
- **Proposal 1**: pro-drop in Baseline Mam is licensed by Agree with a functional head.
- **Proposal 2**: pro-drop in Heritage Mam is not licensed for transitive objects because agreement never occurs.

<u>First and Second Person Pronouns</u>

- In Baseline Mam, pro-drop is required for first and second person objects.

(24) Baseline Mam
(a) Ma **chin** t-il-a.
PFV ABS.1S ERG.2S-see
'You saw me.'
(b) Ma **qo** t-il John.
PFV ABS.1P ERG.3S-see John
'John saw us.'
(c) Ma **chi** xi' n-tzyu-'n-e'.
PFV ABS.2P DIR ERG.1S-grab-DS-ENC
'I grabbed you all.'

- In NO-ABS Mam, however, first and second person pronouns are obligatory for objects because agreement fails and pro-drop can't be licensed.

(25) NO-ABS Mam

(a) Ma t-il-a **qin**.
PFV ERG.1S-see-ENC me
'You saw me.'

(b) Ma t-il John **qo'**.
PFV ERG.3S-see John us
'John saw us.'

(c) Ma xi' n-tzyu'n **kyey**.
PFV DIR ERG.1S-grab y'all
'I grabbed you all.'

- Recall that, according to the grammars (England 1983, Perez et al. 1997), overt pronouns do not exist in Mam.
- I suggest that overt pronouns have been constructed in Heritage Mam specifically to circumvent restrictions on pro-drop.

(26) NO-ABS Pronouns and Their Proposed Derivations

	NO-ABS pronoun	Non-verbal predicate	Possessed relational noun
1s	***qin***	*aa-qin-a*	*w-e*
1p	***qo(')***	*aa-qo*	*ky-e*
2s	***te(ya)***	*aa-y-a*	*t-e(-ya)*
2p	***kye(yi)***	*aa-qo-ya*	*ky-e(-yi)*

- Fun pattern: it appears that the first person pronouns are derived from non-verbal predicates and the second person pronouns are derived from the possessed relation noun *-e*, used to denote obliques and possession.

Third Person Pronouns

- NO-ABS Mam third person pronouns resemble the gendered classifiers *ma* ('man') and *b'ix* ('woman') and the plural marker *qe* from Baseline Mam.
- In Baseline Mam, classifiers can occur when the third person DP has been "deleted" but are not obligatory (England 1983: 158).
- In NO-ABS Mam, pro-drop is prohibited with animate third person objects, but not with inanimate third person objects.

(27) NO-ABS Mam

(a) Ma til Anna$_i$ **Maria$_j$**, b'i'x ma tzaj t-tzyu-'n b'ix$_i$ *(**b'ix$_j$**).
PFV see Anna Maria then PFV DIR ERG.3S-grab-DS she her
'Anna saw Maria and then she grabbed her.'

(b) Ma tzaj tlaqo'n John [**jun lob'j**]$_i$, b'i'x ma tzaj t-wa-'n ma *pro$_i$*.
PFV DIR buy John one banana then PFV DIR ERG.3S-eat-DS he ___
'John bought a banana and then he ate it.'

- Following Kalin (2018), I suggest that animacy may be a feature that does not require licensing by Agree in Mam.
- Interestingly, overt pronouns are required in NO-ABS Mam for third person subjects even though agreement occurs.

(28) NO-ABS Mam
Ma Ø biitz-n ***(ma).**
PFV ABS.3S sing-SUF he
'He sang.'

- **Proposal**: third-person 'pronouns' are actually classifiers. Their presence is not licensed by agreement but instead required in the absence of a co-indexed DP.
  - This proposal can also resolve the issue of inanimate pronouns if we assume that there is no overt classifier for inanimate pronouns in Heritage Mam.
- **Takeaway**: object agreement is allowed to fail in NO-ABS Mam when it does, pro-drop is no longer licensed.

4 Conclusion

- The newly documented Mam, unlike other Mayan languages, lacks absolutive morphemes in transitive clauses and therefore requires a new option – NO-ABS – to situate it within the Mayan Absolutive Parameter.
- Key components of NO-ABS syntax:
  - no [EPP] feature on transitive v^0 so objects don't raise.
  - no φ-probe on transitive v^0 so low objects never enter Agree.
- Following this proposal, all of Heritage Mam's variation predictably falls out:
  - the absence of absolutive morphemes in transitive clauses
  - the ability to A'-extract transitive subjects
  - the ability to maintain two arguments in non-finite embedded clauses
  - the prohibition of pro-drop for transitive objects
- Implication: object raising is the source of variation in absolutive licensing in Mayan and, by extension, that object raising is a driver of syntactic ergativity

- Future Work:
    - Tessa Scott (UC Berkeley) recently presented data from San Juan Atitán Mam that also supports the claim for a third parametric option for Mam, using native speaker data.
    - In SJA Mam, transitive objects have 'default' 3S absolutive marking (typically null) and overt pronouns; there is no evidence that object agreement is actually occurring. Additionally, SJA Mam has constructed object pronouns.
    - More research is needed but initial data suggests that change away from HIGH-ABS may be ongoing in contemporary Mam (particularly in casual contexts) and that the claims presented here are indicative of a language-wide shift to NO-ABS syntax. → Could this happen elsewhere in other Mayan or ergative languages?

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Appendix

(29) Person Morphology in San Sebastián Mam (Pérez et al 1997: 126)

	Ergative	Absolutive	Enclitic
1S	*n-/w-*	*chin*	*-a/-ya*
2S	*t-*	*Ø/tz'-*	*-a/-ya*
3S	*t-*	*Ø/tz'-*	
1P (excl.)	*q-*	*qo/qo'*	*-e'/-ye'*
1P (incl.)	*q-*	*qo/qo'*	
2P	*ky-*	*chi*	*-e'/-ye'*
3P	*ky-*	*chi*	

(30) Person Morphology in NO-ABS Mam

	Ergative	Absolutive	Enclitic
1S	*n-/w-*	*chin*	
2S	*t-*	*Ø/tz'-*	*-a/-ya*
3S	*t-*	*Ø/tz'-*	
1P	*q-*	*qo/qo'*	
2P	*ky-*	*chi*	*-i/-yi*
3P	*t-*	*chi*	