

High, Low, and No Absolutive Mayan Syntax: Effects of No Object Raising in Heritage Mam¹

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November 2021

1 Introduction

All Mayan languages are morphologically ergative: transitive subjects are marked with ergative prefixes on the verb, while transitive objects and intransitive subjects are marked with absolutive morphemes (Zavala Maldonado 2017). Coon, Mateo Pedro, and Preminger (2014) propose that there are two different sources of absolutive morphemes in Mayan languages.

Their Mayan Absolutive Parameter classifies languages based on which head licenses absolutive DPs. In HIGH-ABS languages like Mam, the object raises above the transitive subject which allows finite Infl⁰ to license an absolutive morpheme. In LOW-ABS languages like Ch'ol, the object does not raise and an absolutive morpheme is licensed by transitive v^0 . On the surface, the variation correlates with a difference in morpheme order on the verb stem. As seen in the examples from Mam (1) and Ch'ol (2) below, HIGH-ABS absolutive morphemes appear after the Aspect marker while LOW-ABS absolutive morphemes appear lower, post-verbally.²

(1) Mam

Ma **chin** t-il.
PFV ABS.1S ERG.3S-see
'She saw me.'

(England 1983)

(2) Ch'ol

Tyi y-il-ä-**yety**.
PFV ERG.3-see-TV-ABS.2
'She saw you.'

(Coon et al. 2014: 190)

Coon et al. (2014) argue that in HIGH-ABS languages, transitive objects raise to a position *above* the transitive subject while in LOW-ABS languages, objects remain low inside the VP. Coon, Baier, and Levin (2021) and Royer (2021) provide additional evidence that objects raise above the transitive subject in HIGH-ABS languages, connecting this raising to a constellation of properties correlated with syntactic ergativity.

In this paper, I bring in new data from a young Heritage Mam speaker that does not pattern with either HIGH-ABS or LOW-ABS languages in terms of the properties connected to the parameter. Unlike in (1) and (2) above, absolutive morphemes are universally absent in transitive clauses and overt pronouns are used instead.³

(3) Heritage Mam

Ma t-il b'ix **qin**.
PFV ERG.3-see she me

¹ I want to thank Jessica Coon for her feedback and guidance, as well as Justin Royer, and Lydia White. Special thanks to Ix Jimenez-Haham for their generosity and patience 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 All Heritage Mam data are from the author's field notes.

‘She saw me.’

Crucially, it is not the case that absolutive morphology is absent from the Heritage Mam grammar altogether. Absolutive morphemes appear without exception in intransitive clauses where they cross-reference the subject, as shown in (4).

- (4) Heritage Mam
Ma **qo** b’eet.
PFV ABS.1P walk
‘We walked.’

Over the course of this paper, I will provide evidence that the Heritage Mam data patterns in predictably divergent ways from HIGH-ABS and LOW-ABS Mayan such that it requires its own option for parameterization. In section 2, I situate the new data in the context of the Mayan Absolutive Parameter and heritage research in theoretical linguistics. To start, I provide a brief summary of the proposed syntax for HIGH-ABS and LOW-ABS languages to act as a point of comparison for the Heritage Mam data. Coon et al. (2014) argue that variation in HIGH- and LOW-ABS languages can be attributed to features of v^0 . In HIGH-ABS languages, v^0 has an [EPP] feature which causes the object to raise above the subject, allowing it to be licensed by Infl^0 . In LOW-ABS languages, v^0 has a ϕ -probe which licenses the absolutive morpheme in a low position. In section 3, I argue that the Heritage Mam lacks both of these features, resulting in “NO-ABS” properties. In section 4, I introduce two additional points of variation in Heritage Mam that can also be explained by NO-ABS syntax. Finally, in section 5, I conclude with a brief discussion of the implications of NO-ABS variation for our understanding of Mayan ergativity.

2 Situating Mam in the Mayan Absolutive Parameter

In this section, I lay out the empirical and theoretical groundwork for later claims about Heritage Mam syntax. First, I introduce Mam, the primary language studied in this paper. Then, I situate it in the context of the Mayan Absolutive Parameter. Finally, I provide background on the new Heritage Mam data that drives the remainder of the paper’s analysis.

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. Transitive subjects are marked by ergative prefixes on the verb while transitive objects and intransitive subjects are marked by absolutive morphemes. Looking at the following sentences, the absolutive morpheme *chin* refers to the transitive object in (6a) and it refers to the intransitive subject in (6b). The transitive subject in (6a) is marked by the ergative prefix *t-* and there is no ergative marking in the intransitive clause.

- (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)

Mam person morphology differs from other Mayan languages in its use of post-verbal enclitics, as seen in (5). Uniquely, Mam’s standard ergative and absolutive markers only make a four-way person distinction,

necessitating enclitics to differentiate second/third person as well as 1P exclusivity.⁴ The full set of person markers and enclitics is given in (6). Note that when two morphemes are listed, the first appears next to consonants and the second next to vowels.

(6) Ergative and Absolutive Morphology in San Sebastián Mam (Pérez et al 1997: 126)

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

An additional feature to note in the Mam examples above is the linear position of the absolutive morphemes. In both sentences, the absolutive morpheme appears immediately after the Aspect Marker:

(7) ASPECT – ABS – (DIRECTIONAL)⁵ – ERG – VERB STEM – SUFFIX

Following Coon et al. (2014), this morpheme order indicates that Mam is a HIGH-ABS language within the Mayan Absolutive Parameter.

2.2 Mayan Absolutive Parameter

Though all Mayan languages are morphologically ergative, the relative position of the absolutive morpheme is a major point of variation. In Mam, for instance, the absolutive marker always appears directly after the Aspect marker but in Ch'ol, a Tzeltalan branch language from Mexico, it follows the verb stem. As seen in (8a) and (8b), the Ch'ol absolutive marker *-yety* appears after the verb stem in both transitive and intransitive clauses.

(8) Ch'ol

- (a) Tyi y-il-ä-**yety**.
PFV ERG.3-see-TV-ABS.2
'She saw you.'
- (b) Tyi uk'-i-**yety**.
PFV CRY-ITV-ABS.2
'You cried.'

(Coon et al. 2014: 190)

Coon et al. (2014) propose that this difference arises from a parametrical variation in the source of absolutive morphemes in Mayan languages, which they call the Mayan Absolutive Parameter. According to the parameter, there are two different sources for absolutive morphemes in Mayan transitive clauses: finite Infl⁰ in HIGH-ABS languages like Mam, and transitive *v*⁰ in LOW-ABS languages like Ch'ol.

This claim builds on the common assumption that agreement morphemes and clitics are the result of Agree by a functional head with a DP. Following Legate (2008), previous work on Mayan ergativity proposed that transitive *v*⁰ licenses ergative morphemes via Agree with the transitive subject but that different functional heads license absolutive morphemes. Coon et al. (2014) propose that in HIGH-ABS languages, finite Infl always assigns absolutive (on par with abstract nominative) while in LOW-ABS languages, Infl licenses the intransitive subject (like nominative) but transitive *v*⁰ licenses the object (on

⁴ The first-person enclitic has been lost in some dialects (England 1983).

⁵ 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).

par with abstract accusative). Despite being licensed by different heads, the forms are the same because a morphological default realizes both (Legate 2008). These agreement relations are summarized in (9) below.

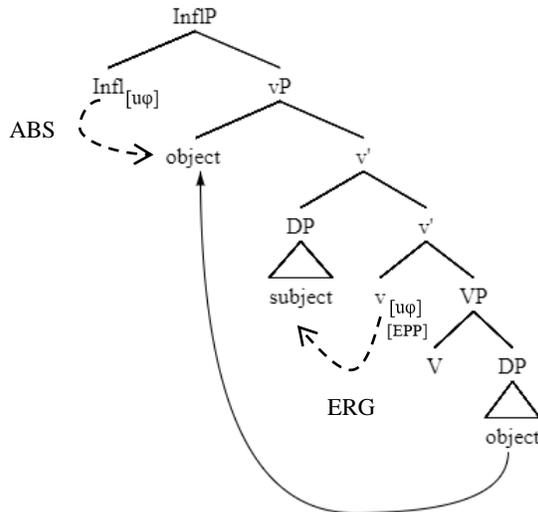
(9) Source of Agreement Morphemes by Language Type

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

All of the agreement relations are ultimately the result of [uφ] probes on v⁰ and Infl⁰. In the transitive, a probe on v⁰ first finds the subject and enters Agree. Then, however, there is variation in which head enters Agree with the object: Infl⁰ for HIGH-ABS and v⁰ for LOW-ABS.

Coon et al. (2021) propose the source of this variation is *object raising*, triggered by an [EPP] feature on transitive v⁰. In HIGH-ABS languages, the [EPP] feature drives the object to raise above the transitive subject and become accessible to the probe on Infl⁰. This is illustrated in (10) where the solid line denotes movement and the dotted lines denote licensing.

(10) Object Raising in HIGH-ABS



In contrast, transitive v⁰ in LOW-ABS languages does not have an [EPP] feature. Without raising, the object remains in its low position and is accessible only to the probe on v⁰.

In summary, parametrical variation in Mayan transitive clauses is the result of the presence of an [EPP] feature on v⁰ which triggers object raising in HIGH-ABS languages. Because LOW-ABS languages only have a [uφ] probe and no [EPP] feature on v⁰, the object remains in its original position and an absolutive morpheme is licensed via Agree with the lower head, v⁰.

Now, let's return to the issue of morpheme order as introduced at the start of this section. We saw in (5) and (7) that in a HIGH-ABS language like Mam, absolutive morphemes appear after the Aspect marker. Following Aissen (1992), the Aspect marker is taken to be located in finite Infl⁰. Following the claim that the object of a HIGH-ABS transitive clause raises to agree with Infl for licensing, it makes sense that the absolutive markers in Mam would appear in the proximity of the Aspect marker (see Aldridge 2004 and Legate 2008 for non-Mayan examples). Because the object of a LOW-ABS language does not raise, it remains in a low position and the absolutive marker appears after the verb stem, just as we saw in Ch'ol.

As the source of the Mayan Absolutive Parameter, object raising is proposed to connect to a constellation of properties, including the linear position of the absolutive morpheme (as just discussed),

the ability to A'-extract subjects, and the presence of absolutive morphemes in non-finite embedded clauses. In these latter two properties (described in more detail in section 3), object raising drives restrictions on subject extraction and absolutive morphemes in non-finite (Aspect-less) conditions. These properties, as they are expressed in HIGH-ABS and LOW-ABS languages, are summarized in (11).

(11) Properties of Transitive Clauses in Mayan Languages

	Source of ABS	Object raising?	ABS before verb root?	Subject extraction?	ABS in non-finite?
HIGH-ABS	Infl ⁰	✓	✓	✗	✗
LOW-ABS	v ⁰	✗	✗	✓	✓

In section 3, I will further examine these properties in the context of determining how they are expressed in the Heritage Mam data.

2.3 Heritage Mam

In the remainder of this paper, I introduce new data from a Heritage Mam speaker. I collected the data through elicitation sessions with a university-age speaker of Mam born and raised in the United States. The speaker has been exposed to Mam since birth by their father who is from San Sebastián (Huehuetenango). Their first languages were Mam and French (from their mother). They were exposed to Spanish in the home and then English at school. Since reaching school age, English has been their primary language.

The speaker's Mam language community consists primarily of their father and the San Sebastián community during annual visits. The speaker's linguistic background aligns with Benmamoun et al.'s (2013: 133) description of a heritage speaker as "an early bilingual who grew up hearing (and speaking) the heritage language (L1) and the majority language (L2) either simultaneously or sequentially in early childhood (that is, roughly up to age 5) but for whom L2 became the primary language at some point during childhood (at, around, or after the onset of schooling)." As such, I refer to this dataset as 'Heritage Mam.'

To assess how the Heritage Mam diverges from 'prototypical' 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. Ixtahuacán and San Sebastián are only 25 kilometers apart and their dialects are very similar. Additionally, the heritage speaker's father is the co-author of the 1997 grammar, providing an ideal source of comparative data. I refer to this dataset as 'Baseline Mam.'

The claims in this paper are founded on the idea that heritage grammars differ from their baseline counterparts in insightful and systematic ways. This variation, usually due to changes in the amount and type of language input during and after acquisition (Polinsky 2018), allows for an interesting alternative avenue through which to examine and test claims of theoretical linguistics. By nature, attrition and divergent attainment in heritage grammars can be useful as counterfactual or alternative evidence for linguistic theories founded on baseline grammars, such as those presented in section 2.2.

In this paper, heritage divergence provides an opportunity to investigate what happens in HIGH-ABS Mayan grammar when part of the HIGH-ABS syntax – specifically, the [EPP] feature on v⁰ – is absent. The resulting effects align both with previous claims from theoretical linguists as well as general trends in heritage language research. Though I have found no work on Mayan heritage grammars, Benmamoun et al. (2013) notes generally that nominal morphology, higher projections of the CP layer, and pro-drop are more vulnerable to divergence in a heritage context. While the Heritage 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 v⁰.

3 Evidence for NO-ABS Syntax

In this section, I compare Heritage and Baseline Mam data to demonstrate that i) the Heritage Mam syntax falls outside of the current Mayan Absolutive Parameter due to its lack of absolutive morphemes in the transitive, and ii) the reason for this divergence is a lack of object raising in transitive clauses.

To support these claims, I first propose a syntax for NO-ABS Mam that explains its lack of absolutive morphemes in transitive clauses. I argue that, unlike Baseline Mam, NO-ABS Mam does not have an [EPP] feature on v^0 . As a result, the object never raises, and is therefore not licensed by Infl^0 . Additionally, it also lacks the absolutive-generating probe on v^0 , like LOW-ABS languages. Together, this means that objects remain low (without [EPP]) and no absolutive morphemes appear (without a ϕ -probe). Then, I demonstrate how NO-ABS Mam patterns with regards to well-established correlates of syntactic ergativity and the Mayan Absolutive parameter. Based on the proposed syntax, I predict NO-ABS Mam to pattern with LOW-ABS languages on properties tied to object raising but to pattern by itself on properties tied to absolutive morphemes in transitive clauses. I provide evidence that this is indeed what happens, supporting the claim that object raising is the source of syntactic ergativity.

3.1 The Case for NO-ABS

The most apparent distinction in the Heritage Mam data is that *transitive* clauses lack absolutive morphemes in all contexts despite the fact that they appear consistently in *intransitive* clauses. To illustrate, we return to the contrastive examples presented in section 1 for Baseline Mam (12) and Heritage Mam (13).

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

(13) Heritage Mam
Ma t-il b'ix **qin**.
PFV ERG.3-see she me
'She saw me.'

The absolutive morpheme in the Baseline Mam sentence occurs after the Aspect marker, as expected. The Heritage Mam example, on the other hand, has no absolutive morpheme at all. Instead, an overt pronoun, here first person singular *qin*, is used to denote the object.⁶ This is objectively different from a bound post-verbal absolutive morpheme like those in LOW-ABS languages because a subject DP, like *b'ix* in (13), can intervene between verb and object pronoun.

The absence of absolutive morphemes is universal in Heritage Mam including in transitive clauses with directionals (14a) and with objects that are full DPs (14b).

(14) Heritage Mam
(a) Ma xi' q-tzyu-'n **teya**.
 PFV DIR ERG.1P-grab-DS you
 'We grabbed you.'
(b) Ma xi' n-xajo-'n **qe kuxb'il**.
 PFV DIR ERG.1S-wash-DS PL car

⁶ Across Mayan languages, absolutive morphemes resemble reduced versions of full emphatic pronouns which only appear in focus constructions (Coon et al. 2014). See section 4.1 for discussion of Heritage Mam pronouns.

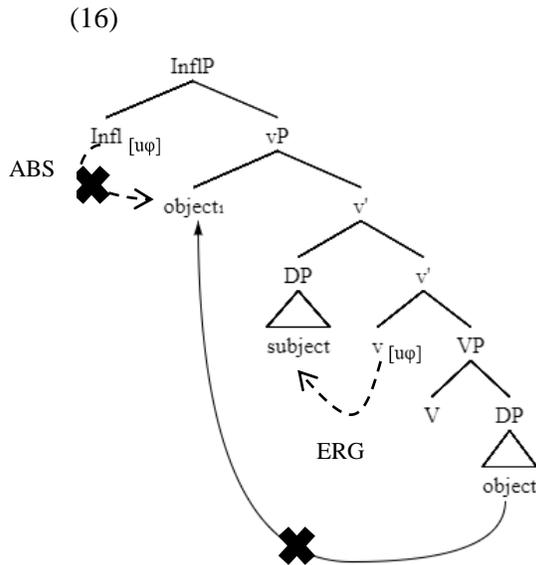
‘I washed the cars.’

Crucially, as noted in section 1, it is not the case that the Heritage Mam grammar lacks absolutive morphology completely. Absolutive morphemes appear as expected in intransitive clauses, cross-referencing the intransitive subject, as seen in (15).

- (15) Heritage Mam
 (a) Ma **chin** ch’iiy.
 PFV ABS.1S grow.
 ‘I grew.’
 (b) Ma **chi** ch’iiy-a.
 PFV ABS.2P grow-ENC
 ‘Y’all grew.’

The morphological forms of these morphemes align with those in Baseline Mam (15), so it is also not the case that morphology or phonology are affecting the differences found in how absolutes appear between Heritage and Baseline Mam.⁷

Instead, I propose that it is the syntax that is driving this variation. The data suggests that intransitive subjects are accessible by Infl^0 but transitive objects are not. Following Coon et al.’s (2014) claim that object raising is the reason that absolutive morphemes can be licensed by Infl^0 for transitive objects, I propose that their absence in the Heritage Mam transitive clauses is the result of a *lack of object raising*. Because the object cannot raise above the transitive subject, the probe on Infl^0 fails and no absolutive morpheme is licensed, as illustrated in (16).



In line with Preminger (2014), I assume that Agree can fail without crashing the derivation.

Similar to LOW-ABS, I propose that the Heritage Mam data’s lack of object raising is underlyingly the result of the absence of an [EPP] feature on transitive v^0 , likely a consequence of divergence or attrition in the heritage context. Because Heritage Mam also does not have the absolutive-generating ϕ -probe on v^0 that LOW-ABS languages have, objects remain low and no absolutive morphemes appear.

⁷ There is slight variation between Heritage Mam and Baseline Mam in the use of accompanying enclitics. The Heritage Mam morphology lacks an enclitic for 1S and does not distinguish exclusivity in 1P (so no enclitic is needed). Additionally, the vowel quality of the 2P enclitic changes after a consonant: /e’/→[i] / C__.

Without an intervening object, the transitive subject freely extracts. The ergative marking on the verb and the absence of an oblique confirm that this is indeed a transitive construction, similar to a transitive clause without subject extraction. The only difference is word order. An absolutive morpheme for the object is missing but this is always the case in transitive NO-ABS clauses.

This HIGH-ABS/NO-ABS pattern holds in other contexts with subject extraction as well. In clauses with subject focus, Baseline Mam requires the use of a valency-reducing construction like the antipassive to extract a transitive subject (20).⁸

- (20) 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)

As expected, this is not the case in NO-ABS Mam. As shown in (21), an ergative subject can be focused from a regular transitive clause. In (21), unlike in the Baseline Mam antipassive in (20), the verb stem is transitive and the object is not demoted.⁹

- (21) Heritage 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)

Alternative morphosyntactic means are not needed to circumvent the EEC in any subject extraction contexts in NO-ABS Mam. In fact, the Heritage Mam speaker judges antipassive constructions of subject extraction to be ungrammatical, providing support that even in HIGH-ABS languages, they may be a last resort to avoid derivational crashes, similar to agent focus constructions in other Mayan languages.

Interestingly, in a NO-ABS sentence with subject extraction where the subject and object are both 3S, the lack of a construction like the antipassive can lead to ambiguity. The question in (22), for example, can be interpreted two ways, with John being the subject or the object.

- (22) Heritage Mam
 Alke ma t-il John?
 who PFV ERG.3S-see John
 ‘Who saw John?/ Who did John see?’

Ambiguity arises in the same context in LOW-ABS languages. Like NO-ABS Mam, these languages also maintain standard transitive structure when extracting arguments: subjects are not explicitly highlighted by a construction like the antipassive. The question in (23), from Ch’ol, mirrors the NO-ABS Mam question in (22) and leads to the same two-way ambiguity.

- (23) Ch’ol
 Maxki tyi y-il-ä jñi wiñik?
 Who PFV ERG.3S-see-TV DET man
 ‘Who saw the man?/ Who did the man see?’ (Coon et al. 2014: 193)

⁸ Italics are used to denote focus in the following glosses.

⁹ The demonstrative *aa* in the Heritage Mam example make this more of a relative clause construction than a strict focus construction but the same principles regarding extraction apply.

The data above demonstrates that NO-ABS Mam does not pattern with HIGH-ABS languages in regards to subject extraction. Because restrictions on subject extraction are the result of object raising, languages that do not have object raising – like NO-ABS Mam and LOW-ABS languages – pattern together instead.

3.3 Non-Finite Embedded Clauses

Another instance of parametric variation for NO-ABS syntax arises in 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), the Mayan Absolutive Parameter predicts that HIGH-ABS and LOW-ABS languages pattern differently in non-finite embedded clauses based on which head licenses objects (Coon et al. 2014). Recall from section 2.2 that in HIGH-ABS languages, absolutive morphemes are licensed by Infl^0 , which means that they cannot appear in non-finite embedded clauses where there is no Infl^0 . In LOW-ABS languages, absolutive morphemes are licensed by transitive v^0 so the absence of Infl^0 has no effect. Absolutive morphemes for intransitive subjects, licensed by Infl^0 in both HIGH- and LOW-ABS languages, are consistently absent in non-finite embedded clauses on either side of the parameter. Instead, we see a syncretism with ergative morphemes which mark intransitive subjects in the absence of Infl^0 .

Similar to what we see with subject extraction, HIGH-ABS languages circumvent the restrictions of non-finite embedded clauses by employing an alternative morphosyntax. Typically, this means that the embedded clause is made intransitive and the single argument is marked by an ergative morpheme. In Baseline Mam, one context in which this occurs is after the relational noun *tu'n* denoting ‘so that.’ When *tu'n* embeds a clause, a single argument marked with an ergative morpheme is allowed (24a) but a transitive clause with two arguments is not (24b).

(24) Baseline Mam

(a) *tu'n t-jaq-eet xaq*
 so.that ERG.3S-open-PASS rock
 ‘so that the rock is opened’

(England 1983: 268)

(b) **tu'n Ø n-jaqoo-'n xaq*
 so.that ABS.3S ERG.3S-open-PASS rock
 ‘so that I open the rock’

Similarly, an intransitive clause that would normally be marked with an absolutive morpheme can only be expressed with an ergative morpheme in a non-finite context.

(25) Baseline Mam

tu'n t-eetz oonb'il
 so.that ERG.3S-arrive help
 ‘so that help arrives’

(England 1983: 268)

In NO-ABS Mam, recall that Infl^0 licenses absolutive morphemes for intransitive subjects but never licenses them for transitive objects due to a lack of object raising (see section 3.1 above). Based on this, we expect two results for NO-ABS non-finite embedded clauses: i) intransitive subjects will require ergative marking because Infl^0 is not present for absolutive licensing; and ii) transitive clauses with two arguments will be perfectly acceptable because transitive objects do not rely on Infl^0 for licensing.

Example (26) shows that the first prediction holds true; the intransitive subject cannot enter Agree with Infl^0 for absolutive licensing so it receives ergative licensing instead.

(26) Heritage Mam

tu'n t-biitz-n-a
 so.that ERG.2S-sing-ENC
 ‘so that you sing

Example (27) demonstrates that the second prediction hold true as well; embedding a transitive clause with two arguments is permitted without requiring an alternative construction.

- (27) Heritage Mam
 tu'n tzaj t-tzyu-'n b'ix qin
 so.that DIR ERG.3S-grab-DS she me
 'so that she grabs me'

In contrast to HIGH-ABS and NO-ABS, LOW-ABS non-finite embedded clauses like (27) from Ch'ol include both ergative and absolutive morphemes.

- (28) Ch'ol
 Mejl [i-kel-oñ].
 be.able.to [ERG.3-see-ABS.1]
 'She can see me.'

(Coon et al. 2014: 202)

With v^0 as the source of ergative and absolutive licensing in LOW-ABS languages, the absence of Infl^0 does not have an effect on transitive or intransitive embedded clauses.

In regards to transitive non-finite embedded clauses, we see that all three parametric options pattern differently based on the source of their absolutive morphemes. In the transitive, HIGH-ABS non-finite clauses lack absolutive morphemes and require an alternative morphosyntax; LOW-ABS non-finite clauses have absolutive morphemes and exhibit standard transitive structure, and NO-ABS non-finite clauses lack absolutive morphemes but still exhibit standard transitive structure.

3.4 Recap

Heritage Mam differs from both Baseline Mam and other Mayan languages in that absolutive morphemes are not licensed for objects in transitive clauses. I proposed that the Heritage Mam syntax differs from HIGH-ABS languages in that it lacks an [EPP] feature on transitive v^0 . This prevents object raising and the licensing of absolutive morphemes by Infl^0 . It also differs from LOW-ABS languages in that it lacks a ϕ -probe on v^0 such that absolutive licensing cannot come from there either. The resulting syntax, referred to here as NO-ABS syntax, is expected to diverge from HIGH-ABS and LOW-ABS Mayan languages in predictable ways. Specifically, it differs from HIGH-ABS languages in that it lacks object raising and it differs from LOW-ABS languages in that it lacks absolutive morphemes in transitive sentences. The data bear this out as summarized in an updated table of the properties of transitive clauses across the Mayan Absolutive Parameter.

(30) Properties of Transitive Clauses in Mayan Languages (including NO-ABS)

	Source of ABS	Object raising?	ABS before verb root?	Subject extraction?	ABS in non-finite?
HIGH-ABS	Infl^0	✓	✓	✗	✗
LOW-ABS	v^0	✗	✗	✓	✓
NO-ABS	n/a	✗	✗	✓	n/a

The pattern of NO-ABS Mam is exactly what is expected in a language which lacks the object raising of HIGH-ABS languages and the ABS-generating v^0 of LOW-ABS languages. Absolutive morphemes are present in intransitive but not transitive clauses; ergative subjects may freely extract; and non-finite transitive clauses with an overt subject and object do not require an alternative morphosyntax.

4 Extensions of NO-ABS and Avenues for Future Work

In this section, I extend the implications of NO-ABS syntax to two secondary phenomena not typically associated with the Mayan Absolutive Parameter. These phenomena are unique to NO-ABS syntax because of the ways in which NO-ABS syntax differs from both HIGH- and LOW-ABS languages: no object raising and no ABS-generating probe on v^0 . The first phenomenon – restrictions on object pro-drop – builds on the claim that licensing from Infl^0 fails in NO-ABS transitive clauses. The second – transitive subjects with absolutive morphemes – is a potential result of the absence of object raising. The source of both of these differences between Baseline Mam and Heritage Mam can be derived from one single, underlying difference: the absence of a feature driving object raising in transitive clauses.

4.1 Restrictions on Pro-Drop

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). In Baseline Mam, for instance, 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). Following these claims, I propose that pro-drop in Mam is licensed by Agree with a functional head and that it is not licensed or permitted when there is no agreement. I will begin by looking at first and second person pronouns, and then turn to third person pronouns.

First and Second Person Pronouns

In section 3, I argued that the reason NO-ABS Mam lacks absolutive morphemes in the transitive is that its objects do not raise to a position where Infl^0 can access them for licensing. Furthermore, unlike LOW-ABS languages, there is no lower probe on v^0 to agree with the object. Following this claim, I propose that pro-drop is also not licensed for transitive objects due to the same agreement failure. Sentences like those in (31) support this claim. In the Heritage Mam grammar, these pronouns are obligatory.

- (31) Heritage 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.'

In Baseline Mam, however, the same sentences require pro-drop; it would be ungrammatical for overt pronouns cross-referencing first and second person objects to co-occur with clitics because, at least according to the grammars (England 1983, Perez et al. 1997), such pronouns do not exist independently.

- (32) 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.’

This data suggests that object raising in Baseline Mam allows Infl⁰ to license both absolutive morphemes and pro-drop for objects in transitive clauses, making overt pronouns unnecessary in the first and second person. For NO-ABS Mam, on the other hand, a lack of object raising prevents Infl⁰ from licensing either absolutive morphemes or pro-drop for transitive objects and DPs are consequently required.

In order to accommodate these restrictions, overt pronouns have been constructed in Heritage Mam for first and second person objects. The constructed pronouns resemble pronoun-like morphemes used elsewhere in the grammar, as illustrated in (32).

(32) Table of NO-ABS Pronouns and Their Proposed Derivations

	NO-ABS pronoun	Non-verbal predicate	Possessed relational noun
1s	<i>qin</i>	<i>aa-qin-a</i>	<i>w-e</i>
1p	<i>qo(‘)</i>	<i>aa-qo</i>	<i>ky-e</i>
2s	<i>te(ya)</i>	<i>aa-y-a</i>	<i>t-e(-ya)</i>
2p	<i>kye(yi)</i>	<i>aa-qo-ya</i>	<i>ky-e(-yi)</i>

I suggest 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 appear to be the same as 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).

Like with first and second person pronouns, pro-drop is prohibited with animate third person objects. However, this is not the case with inanimate third person objects. In (33a), an anaphoric pronoun is obligatory even when the context is clear. In (33b), the inanimate object is dropped from the second clause.

(33) Heritage Mam

- (a) Ma t-il Anna_i t-witz **Maria**_j, b’i’x ma tzaj t-tzyu-’n b’ix_i *(b’ix_j).
 PFV ERG.3S-see Anna ERG.3S-face Maria then PFV DIR ERG.3S-grab-DS she she
 ‘Anna saw Maria and then she grabbed her.’
- (b) Ma tzaj t-laqo-’n John [**jun lob’j**]_i, b’i’x ma tzaj t-wa-’n ma *pro*_i.
 PFV DIR ERG.3S-buy-DS John one banana then PFV DIR ERG.3S-eat-DS he ____
 ‘John bought a banana and then he ate it.’

While this seems to go against the claim that pro-drop cannot be licensed without agreement, it could be the case that inanimates do not require Agree for licensing, following Kalin (2018)’s claim that languages can vary in what features need licensing by Agree. I leave this issue for future work.

Another apparent exception to the relationship of pro-drop and agreement in NO-ABS Mam is seen with third person subjects. In both (33) and (34), overt pronouns are required in NO-ABS Mam for third person subjects in transitive and intransitive clauses.

(34) Heritage Mam

- Ma Ø biitz-n *(**ma**).
 PFV ABS.3S sing-SUF he
 ‘He sang.’

Clearly, these subjects have not failed to enter Agree with a functional head because agreement morphemes are present. However, because third person pronouns are derived from classifiers, they may be functioning differently than first and second person pronouns. First, classifiers do not whenever a full DP does so they may have different agreement relations. Second, they exhibit gender and number features that are not inherently present in the standard person morphology, providing additional semantic information.

Based on this context, I propose that these may not actually be pronouns in the same sense as the first and second person NO-ABS pronouns. Instead, they co-occur with a dropped pronoun. Their presence is thus tied to the presence or absence of the co-indexed DP, not agreement with a functional head. This proposal provides some resolution to the issue of inanimate pronouns as well if we assume that there is no overt classifier for inanimate pronouns in the Heritage Mam.

While more research is needed with regards to third person pronouns in Mam, there is substantial evidence that lack of object raising in NO-ABS syntax results in restrictions on pro-drop for transitive objects. This phenomenon supports the claim that NO-ABS syntax is the result of no object raising and that pro-drop is licensed by agreement.

4.2 Transitive Subjects with Absolutive Morphemes

Another unexpected phenomenon in the Heritage Mam data is the presence of transitive subjects cross-referenced by absolutive morphemes in limited contexts. In example (35) below, it is clear that the 3P absolutive morpheme *chi* refers to the 3P subject ‘all the boys’ and not the 3S object ‘food.’ No ergative marking appears on the verb, despite the fact that both arguments are full DPs (i.e., this is not an antipassive).

(35) Heritage Mam

Kyaqil **qe q'a** ma **chi** wa-'n qe t-wa qe.
 all PL boy PFV ABS.3P eat-SUF PL ERG.3-food PL
 ‘All the boys ate their food.’

While more research is certainly needed to fully understand this phenomenon, the above example shows that the probe on Infl⁰ may be able to access the transitive subject in some contexts. If something in the sentence is allowing ergative agreement to fail or be optional, it is reasonable that the probe on Infl would find the subject. In the sentence presented, there are several non-standard features that could be interfering with ergative agreement: i) the subject has been fronted which could have put it in a position outside of the locality of v^0 (or put something that intervenes in between); ii) there is no directional despite this being nearly obligatory with Mam transitives; and iii) there is a classifier (*qe*) referencing the subject still in subject position (after verb, before object) despite the full subject DP being fronted. If any of these features, or something else, prevents the probe on v^0 from doing its job, absolutive agreement would occur. However, due to the small size of Mam data available, more research is needed to confirm and analyze this occurrence.

The Heritage Mam speaker also proposed an alternative construction for the sentence above, seen in (36), using a directional and the expected ergative marking instead of an absolutive morpheme.

(36) Heritage Mam

Kyaqil qe q'a ma tzaj **t-wa'n** qe t-wa qe.
 All PL boy PFV DIR ERG.3 eat-SUF PL ERG.3-food PL
 ‘All the boys ate their food.’

At first glance, this data suggests that directionals could play a role in determining transitivity or in blocking Infl⁰ from agreeing with transitive subjects in standard transitive constructions (where directionals are almost universally required). However, more data is needed to determine if this is a widespread occurrence or an anomaly resulting from heritage divergence.

5 Conclusion

In this paper, I analyzed data from a heritage speaker of Mam to evaluate the ways in which the speaker's grammar diverges from Baseline Mam. Specifically, I compared the distribution of absolutive morphemes in the Heritage Mam with that of Baseline Mam and Ch'ol in order to situate it within recent research on Mayan syntax. I provided evidence that the Heritage Mam, unlike all other Mayan languages, lacks absolutive morphemes in transitive clauses. Building off Coon et al.'s (2014) Mayan Absolutive Parameter, I proposed that the Heritage Mam data requires a new option for parameterization, which I called NO-ABS. I argued that the source of NO-ABS syntax is a lack of object raising in transitive clauses, as a result of the absence of an [EPP] feature on transitive v^0 . Because objects are not triggered to raise, Infl⁰ cannot access them for agreement. At the same time, there is no ϕ -probe on transitive v^0 (like exists in LOW-ABS) so agreement does not occur at the lower position either. As a result, objects remain low, agreement fails, and no absolutive morphemes are generated.

Based on this proposal, an explanation for many of the Heritage Mam's divergent attributes falls out. A lack of object raising directly results in: i) the absence of absolutive morphemes in transitive clauses; ii) the ability to A'-extract transitive subjects; iii) the ability to maintain two arguments in non-finite embedded clauses; iv) the prohibition of pro-drop for transitive objects; and (v) the ability to license absolutive morphemes for transitive subjects in some contexts.

In the course of this paper, I flagged several new puzzles for future research. The relationship between classifiers and pronouns in Mam is still unknown, particularly as it relates to NO-ABS' Mam's lack of pro-drop for objects. More research is also needed on the role that directionals play in Mam transitive clauses. Finally, there is considerably more space for research of heritage speakers of Mayan and other lesser-studied languages.

This paper has implications on the study of syntactic variation and parameters in the Mayan family. In particular, it provides further support that variation in the licensing of absolutive morphemes in transitive clauses in Mayan is the result of object raising. By extension, it lends evidence to recent claims from Coon et al. (2021) and Royer (2021) that object raising is a driver of syntactic ergativity and its correlates. It reinforces the attested relationship between agreement and pro-drop while also connecting pro-drop to the licensing of clitics. Finally, the paper demonstrates the value of heritage linguistic data for theoretical research, particularly on lesser-studied languages like Mayan that have significant heritage speaker populations.

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