# Anti-clitic host requirement on second position clitic in SJA-Mam 

Introduction. In a dialect of Mam (Mayan) spoken in San Juan Atitn, Guatemala (SJAM), polar questions are expressed by adding the second position clitic $=m$. This clitic can attach to a plethora of categories including determiners, tense markers, and negation. In this paper I first argue that the placement of the clitic involves an instance of Local Dislocation as defined by Embick and Noyer (2001): polar $=m$ attaches to the immediately linearly adjacent Morphological Word (MWd). Evidence for this type of Local Dislocation comes from focus constructions in which $=m$ lowers onto the first MWd inside of the focused phrase. However, normal second position attachment is violated when the first word ends in a clitic: $=m$ never attaches to the right of another clitic, even if the other clitic forms a phonological word with immediately adjacent material. I conclude that the polar clitic in SJAM has an anti-clitic host requirement, a requirement which is sometimes in conflict with its second-position requirement and SJAM phonotactics. The repair for such conflict is either attachment inside of the first phonological word or insertion of semantically null material to host $=m$.
Distribution of $=\boldsymbol{m}$. The polar clitic $=\boldsymbol{m}$ appears in all polar questions, in clausal second position. Elements that can occupy the first position are determiners, tense, aspect, auxiliaries, negation, question words, locative predicates, and relational nouns (the Mayan correlate of adpositions; England 1983). In $\boldsymbol{? ?}$, mix jun, 'nobody,' is focused and appears in first position. In ??, $=m$ attaches after mix, the negation.
a. Mix jun ma kub' sch'in-t a u'j.

NEG ONE REC.PST ASP read-AF DET book
'Nobody read the book.'
b. Mix $=m$ jun ma kub'schin-t a u'j? NEG = POLQ ONE REC. PST ASP read-AF DET book
'Did nobody read the book?'
As in other Mayan languages, relational nouns in SJAM show agreement with the noun they introduce. In polar questions in which a relational noun occupies the first position, the polar clitic does not attach to the agreement prefix (the first morpheme/subword), but attaches the entire complex relational noun.
(2) T-e $=m$ t-txu o txi t-q'on Noah jun ne tal txian?

2/3SGA-RN =POLQ 2/3SGA-mother PST ASP 2/3SGA-give Noah one CLF small dog
'Did Noah gave a puppy TO HIS MOTHER ?'
The main pattern of $=m$ attachment is straightforward: $=m$ appears at the end of the first phonological word, regardless of its morphological complexity. Based on data like those in ??, I argue that the morphological operation responsible for the placement of $=m$ is Local Dislocation (Embick and Noyer 2001). Local Dislocation occurs after vocabulary insertion, can be vocabulary sensitive and operates according to linear adjacency. This contrasts with Lowering, a similar morphological operation which occurs before vocabulary insertion and operates on syntactic structure, not linear adjacency.
Exceptions. There are three cases where $=m$ does not attach to the end of the first phonological word. In two cases, $=m$ infixes into the first word and in one case extra phonological material is inserted specifically to host $=m$, similar to do-support in English. In the first type of case, if the word in first position includes an enclitic, $=m$ attaches before the enclitic. For example, in (3), we might predict $a j=m$, but instead the form is $a=m=j$.
[ $\mathrm{A}=m$ =j xuj o b'aj wan-t wab'j ] o tz'ok b'yon-t a Eric?
$[\mathrm{DET}=\mathrm{POLQ}=\mathrm{RP}$ woman PST ASP eat-AF tortilla ] PST ASP hit-AF DET Eric
'Did the woman who ate the tortilla hit Eric?'
Note that the /amj/ form here is not simply due to the phonological markedness of alternative order /ajm/; this string is indeed licit in SJAM, e.g. in (4). Another instance of infixing $=m$ is before the agreement clitic =ni, shown in (4).
(4) T-aj $=m \quad=n i \quad$ jun lo'b'j?
$2 / 3$ SA-want $=P O L Q=N O N 3 R D$ INDEF banana
'Do you want a banana?'
The pattern with $a m j$ in (3) is different from the pattern with tem in ??. In both cases, the first phono-
logical word is morphologically complex. In the case of the relational noun, $t e$, the $=m$ attaches outside of the complex word. In the case of $a m j,=m$ attaches inside of the word. If $t e$ and $a j$ have the same structure, the difference in $=m$ attachment is surprising. I propose that the reason that $=m$ attaches inside of $a j$ and not $t e$ is that $=j$ is a clitic. Similarly, in (4), $=m$ attaches inside of the clitic $=n i$. The generalization is that $=m$ cannot attach outside of another clitic.
Host requirements for clitics. We know that clitics can place requirements on their hosts. I argue that $=m$ has an anti-clitic host requirement. Local Dislocation of $=m$ on to a structure ending in a clitic prompts another iteration of Local Dislocation (within the first phonological word) in order to ensure the host is not a clitic. The anti-clitic host requirement must not apply to all clitics in SJAM, as $=j$ and $=n i$ freely attach outside of $=m$. A consequence of an anti-clitic host requirement is that morphemes must be specified for their clitic status as an index or feature. The polar clitic $=m$ has two requirements: i) be in clausal second position (achieved through Local Dislocation) and ii) do not attach to another clitic. When these requirements are in conflict due to a phonological word in first position which ends in a clitic, Local Dislocation applies again within the word to satisfy both requirements.
$T z u$-support. The last case of non-canonical $=m$ placement occurs when the element in first position is itself a clitic, specifically one without a vowel. The imperfective aspect in SJAM is expressed by an $n=$ proclitic which can attach to absolutive markers, positionals, directionals and verbs. In (5), the polar clitic $=m$ cannot undergo normal Local Dislocation as it would attach to a clitic. A second iteration of Local Dislocation inside of the first word would result in inverting the two clitics, $/ \mathrm{mn} /$, which is not a proper phonological word in SJM. Another possible site for attachment would be onto the end of the entire verb, $n=x k u n$. However, assuming the verb does not form a single complex head with the imperfective proclitic, attaching $=m$ to the verb would skip too many heads and violate the linear adjacency principle of Local Dislocation, ruling out the form $n=k x u n=m$. The repair for the $m=/=n$ incompatibility is the insertion of semantically null material $t z u$-.
a. $N=$ xkun q'a i'x.

IMP= chew boy corn
'The boy is chewing corn.'
b. Tzu $=m \quad \mathrm{n}=\quad$ kxun q 'a i ' x .
tzu =POLQ IMP= chew boy corn
'Is the boy chewing corn?'
The insertion of $t z u$ - in (5) motivates a third requirement of $=m$ : attachment must result in a phonotactically acceptable word. In (5), the phonotactic requirement is at odds with the anti-clitic host requirement. This conflict is repaired by insertion of phonological material in first position to host $=m$. The phenomenon of insertion as a repair is similar to do-support in English. The difference is that $t z u$-support in SJAM seems to be phonologically motivated.
Conclusion. In SJAM, the placement of the polar clitic operates on morphological structures while simultaneously being sensitive to the clitic-status and phonology of its potential host. The instances of infixation of $=m$ is evidence of endoclisis: clitics appearing word internally, a cross-linguistically rare phenomenon (Smith 2013). The $t z u$-support constitutes evidence for a phonologically motivated repair for violation of the anti-clitic host requirement. While it is well known that clitics can place requirements on their hosts, these requirements are typically either morphological/syntactic or phonological. In SJAM polar clitic placement, the host needs to be specified morphologically as a non-clitic and phonologically as a string X , for which $\mathrm{X}=m$ is a phonotactically acceptable word. These simultaneous requirements support a single module of the grammar which enforces constraints of morphological and phonological wellformedness (Wolf 2008).
References. Embick, D., and Noyer, R. 2001. Movement operations after syntax. Linguistic inquiry, 32(4), 555-595. • England, N. 1983. A grammar of Mam, a Mayan language. University of Texas Press. - Smith, P. W. 2013. On the cross-linguistic rarity of endoclisis. In Annual Meeting of the Berkeley Linguistics Society (Vol. 39, No. 1, pp. 227-244). - Wolf, M. 2008. Optimal interleaving: Serial phonology-morphology interaction in a constraint-based model. UMass Amherst.

