

1 Introduction An overarching debate on the interface between syntax and prosody has been whether or not mismatches between the two components of grammar should be tolerated. While some theories posit systematic mismatches (Selkirk 1980, 1984, 1995; Nespor and Vogel 1986), other theories posit no mismatches at all: prosody is determined by (surface) syntax (Steedman 1991; Wagner 2005, 2010). This paper contributes to this debate by investigating “phrasally” governed morphemes in two understudied Mayan languages, Chuj and K’ichee’. Contrary to previous Mayan-specific work on the syntax-prosody interface (e.g. Aissen 1992, 2017; Henderson 2012), we argue for the latter view by showing evidence that apparent syntax-prosody mismatches are due to the obligatory right extraposition of certain constituents.

2 Data Like other Mayan languages (Henderson 2012; Aissen 1992, 2017), Chuj and K’ichee’ feature a set of morphemes (phrase-final morphs) whose distribution appears to be governed by syntactic or prosodic boundaries. Among these are so-called “status suffixes” (SS), found in both languages. Consider the Chuj examples of the transitive status suffix *-a’* (parallel K’ichee’ examples are found in Henderson 2012):

- (1) a. Ix-ach-w-il- *(a’) .
 PFV-2S-1S-see-SS
 ‘I saw you.’ (utterance final)
- b. [CP [CP Tato tz-in-ha-mak’- *(a’)] ol-ach-in-mak’- *(a’)] .
 if IPFV-1S-2S-hit-SS PROSP-ABS2S-ERG 1S-hit-SS
 ‘If you hit me, I will hit you.’ (CP adjunct)
- c. Ix-w-al- *(a’) [CP to ix-in-xit ek’-i] .
 PFV-1S-say-SS C PFV-1S-go pass-SS
 ‘I said that I went.’ (CP complement)
- d. Ix-w-il- *(a’) [DP winh winak] .
 PFV-1S-see-SS the man
 ‘I saw the man.’ (DP complement)

As shown above, the transitive status suffix *-a’* must appear: utterance finally (1a), at the right edge of a CP (1b), before the left edge of a CP (1c), but not when a non-CP constituent immediately follows the verb (1d). This suggests that the distribution of status suffixes might be conditioned by syntax.

3 Henderson (2012) On this phenomenon in Kichee, Henderson first considers the syntactic account in (2).

- (2) *Henderson’s (rejected) syntactic account*

Phrase-final morphs appear: i) at the right edge of CPs (1a-1b); or
 ii) before the left edge of another CP (1c).

Henderson rejects this account for two reasons. First, it seems unattractive to have a disjunctive generalization as in (2). Second, there are cases where arguably no CP boundary is in sight. Consider (3), also found in Chuj, where a status suffix surfaces before what appears to be the relational noun *r-umal* (3P-for) in so-called “reason adjunct” clauses. Henderson argues that such clauses constitute PPs, making it impossible to derive the distribution of the status suffix in terms of CP boundaries.

- (3) Xin-kos- *(ik) [PP r-umal [CP xin-chakin- *(ik)]].
 INFL-tire-SS 3SG-because/for INFL-work-SS
 ‘I am tired because I worked.’ (K’ichee’, Henderson 2012)

Instead, Henderson proposes an edge-based prosodic account:

- (4) *Henderson’s prosodic account*

Phrase-final morphs appear iff they are final in the intonational phrase.

Crucially, this theory hinges on there being systematic mismatches between prosodic and syntactic structure to account for cases like (3).

4 Proposal We propose an alternative to Henderson 2012, which explains ostensible mismatches between syntax and prosody by showing evidence that extraposition is involved and that the mismatch is only apparent (as in Wagner 2010 and Hirsch and Wagner 2015). Specifically, we propose that the syntactic generalization in (5) captures the entire distribution of status suffixes:

- (5) PROPOSAL: status suffixes appear iff they are at the right edge of a CP.

The argumentation is two-fold. First (4.1), we argue for the alternative syntactic account in (5), which does away with the disjunctive conditions on the placement of status suffixes (see (2) above) by proposing that obligatory right extraposition of CPs is involved. Second (4.2), we show evidence from Chuj that reason-adjunct clauses such as (3) also right extrapose, and that they constitute CPs, not PPs.

4.1 Alternative syntactic account The account in (5) derives the obligatoriness of the status suffix in (1a) and (1b) for free. In both cases, the status suffix(es) appear(s) at the right edge of the CP. To derive data like (1c), where it is not immediately clear that the status suffix appears at a right boundary, we argue that Chuj CPs obligatorily extrapose to a high right position outside the domain of the matrix CP. Obligatory right CP extraposition is independently proposed for a number of Mayan languages (e.g. Craig 1977; Aissen 1992). Evidence for right extraposition comes from: (i) *the position of VP adjuncts*: while VP adjuncts must follow DP complements, they must precede CP complements and adjuncts, see (6); and (ii) *word order*: while sentences with DP objects exhibit the expected VOS order (both languages are VOS and we assume subjects occupy a right VP specifier, following Aissen 1992), CP complements must follow the subject (forcing VSO), suggesting CP complements move, see (7). The same distribution is observed in K'ichee'.

- (6) W-ab' {ewi} [to tz-ex-b'at-i] {*ewi}. (7) Ix-y-al t_i {ix} [to ix-ach-b'at-i]_i {*ix}.
 1S-hear yesterday C IPV-2P-go-SS PFV-3S-say she C PFV-2S-go-SS
 'I heard (yesterday) that you're going (yesterday).' 'She said that you went.'

4.2 Reason adjunct clauses as CPs, not PPs The remaining data to account is (3). Under the current analysis, the obligatoriness of status suffixes before reason adjuncts can only be explained if they also right extrapose. Adverb placement shows this is correct (8). But recall that for Henderson, the prime motivation for positing a syntax-prosody mismatch was based on the fact that reason-adjunct clauses constitute PPs (though note that there is no consensus on the status of subordinating conjunctions, see e.g. Haumann 1997). However, evidence from adverb placement in Chuj suggests that they do not. Contrary to CPs and the reason adjunct clause in (8), adverbs are optionally placed on either sides of PPs, as shown in (9).

- (8) Hin-man {ewi} [yojto ol-a-k'an-a'] {*ewi} (9) Tz-in-b'at {k'ik'an} [PP t'a ha-pat] {k'ik'an}.
 1S-buy yesterday because FUT-2S-ask-SS IPV-1S-go tomorrow to 2S-house
 'I bought it yesterday because you will need it.' I'm going to your house tomorrow.'

This suggests that contrary to CPs, which *obligatorily* extrapose, Chuj PPs *optionally* extrapose. As expected, status suffixes optionally arise before PPs in Chuj (10), but are obligatory before reason-adjunct CPs (11):

- (10) Ix-in-chi- (a') [PP y-uj ix Malin]. (11) Ix-in-chi- *(a') [CP yojto ay hin-wejel].
 PFV-1S-eat-SS 3-for CLF Malin PFV-1S-eat-SS because EXT 1S-hunger
 'I ate (it) for Malin.' 'I ate (it) because I was hungry.'

5. Outlook The new syntactic evidence discussed in this paper shows that alleged syntax-prosody mismatches can be resolved if we take evidence of syntactic extraposition into account. Since syntax and prosody match, an alternative to (5) could be to state the generalization in terms of prosodic phrasing. I leave open whether the distribution of status suffixes would be better stated in terms of syntax or prosody.

Finally, it remains to be seen whether this type of analysis could eliminate the need for syntax-prosody mismatches required in other related work on Mayan languages. For instance, Aissen (1992) posits InP/CP mismatches to account for the distribution of phrasally conditioned morphemes in Tsotsil and Popti' (Jakaltek). However, the proposed mismatches no longer seem to be required if we force CPs to extrapose to a position outside the domain of the matrix CP (as assumed here), instead of restricting their extraposition to the specifier of the maximal projection from which they originate (as assumed in Aissen 1992).

Selected references: Aissen, J. 1992. Topic and focus in Mayan. *Language* 45-80; Henderson, R. 2012. Morphological alternations in the intonational phrase edge. NLLT; Wagner, M. 2010. Prosody and recursion in coordinate structures and beyond. NLLT; Hirsch, A. & M. Wagner. 2015. Rightward movement affects in prosodic phrasing. NELS 45.