
The sound of ergativity: syntax-prosody mapping in Samoan

There is a long-standing debate on how much syntactic information gets passed to prosody: are syntactic category labels erased, leaving just XP edges, cf. discussion in Hayes (1990)? Or is even that information lost so that syntax only determines the relative ranks of prosodic boundaries (Wagner, 2005)? At the same time, there is little research on the prosodic systems of ergative languages, and none that studies the relationship between prosody and case-marking in an ergative system. This paper presents production data from a native speaker of Samoan showing correlates between intonational events and case-marking in an ergative system: a high boundary tone occurs at the left edge of an absolutive argument. The data implies that the syntactic information passed to prosody is richer than assumed in either Wagner (2005) or traditional models in prosodic phonology.

Samoan is an ergative case-marking Polynesian language with ergative-absolutive (1-a) and absolutive-oblique (1-b) case-marking patterns (Chung, 1978; Mosel and Hovdhaugen, 1992). Previous work on Samoan prosody has proposed that its intonational system is based on stress-driven post-lexical pitch accents (Mosel and Hovdhaugen, 1992; Orfitelli and Yu, 2008; Zuraw et al., 2008). In the formal register, pitch accents typically occur on all content words and are consistently realized as a rising pitch associated with the mora receiving primary stress.

We elicited data from a native Samoan speaker in a soundbooth over 13 weeks of fieldwork and studied the distribution of intonational boundary tones as conditioned by syntax. We found that the presence of high boundary tones (H-) within a sentence was robustly and systematically correlated with case-marking patterns, i.e. ergative-absolutive or absolutive-oblique, and word order, i.e. VSO or VOS, as shown in Table 1 and the intonational contours in Fig. 1.

An H- appears between arguments for ergative-absolutive case-marking in VSO order (Fig. 1a), but not for VOS order (Fig. 1b), and a H- does not appear between arguments for absolutive-oblique case-marking in VSO order (Fig. 1d) but does for VOS order (Fig. 1c). These facts are highlighted in the intonational contours of long sentences shown in Fig. 1. In Fig. 1a (ERG-ABS, VSO) and Fig. 1d (ABS-OBL, VOS), the presence of the H- induced a pitch reset so that the downtrend in pitch prior to the H- was broken. While the particular sentences in Fig. 1 were not designed to highlight the distribution of H- between the verb/predicate and first argument in the sentence also described in Table 1, other sentences we elicited (not shown here) provided evidence that the H- occurred in sentences between the predicate and following argument for ergative-absolutive case-marking with VOS order and for absolutive-oblique case-marking with VSO order.

The distributional patterns in Table 1 were also consistent with data from: (i) verbs that can have either ergative-absolutive or absolutive-oblique case-marking patterns, e.g. *va'ai* ‘to take care of, visit’ (ERG-ABS) and ‘to see, spot’ (ABS-OBL) (Mosel and Hovdhaugen, 1992), and (ii) transitive verbs that can have incorporated objects, e.g. *moe* ‘sleep’ and *moe-moega* ‘bed-sleep’ (Chung, 1978). A straightforward account of the distributional data for H- is that the H- is a boundary tone that occurs at the left edge of an absolutive argument. Preliminary data from subject and object extraction in relative clauses supports this; for instance, an H- is present in an embedded clause between a verb with ERG-ABS case-marking and an absolutive argument (subject extraction), but there is no H- present in an embedded clause between the same verb and an ergative argument (object extraction).

The alternative analysis that the H tone is a lexically assigned tonal case marker is unlikely since high boundary tones appear in other constructions, e.g. in coordinated constructions between the first conjunct and the conjunction. In these cases, as in the examples shown in Fig. 1, pitch reset occurs with the H, a signature of boundary tones at the edges of prosodic phrases. One way we can account for the absolutive-H- mapping is with a case-sensitive alignment constraint between the left edge of a syntactic unit with absolutive case and the left edge of a prosodic phrase.

(1) a. **ergative-absolutive case-marking for *lagona*, (e ERG) ABS**

na lagona e le malini le manu-lele

PAST hear ERG DET.SG marine DET.SG animal-fly

‘The marine heard the bird.’

b. **absolutive-oblique case-marking for *manogi*, ABS (i OBL)**

na manogi le malini i le manu-lele

PAST smell DET.SG marine OBL DET.SG animal-fly

‘The marine smelled to the bird.’

Case-marking	VSO order	VOS order
ERG-ABS	V/Pred ERG H- ABS	V/Pred H- ABS ERG
ABS-OBL	V/Pred H- ABS OBL	V/Pred OBL H- ABS

Table 1: Distribution of H- across case-markings and word orders

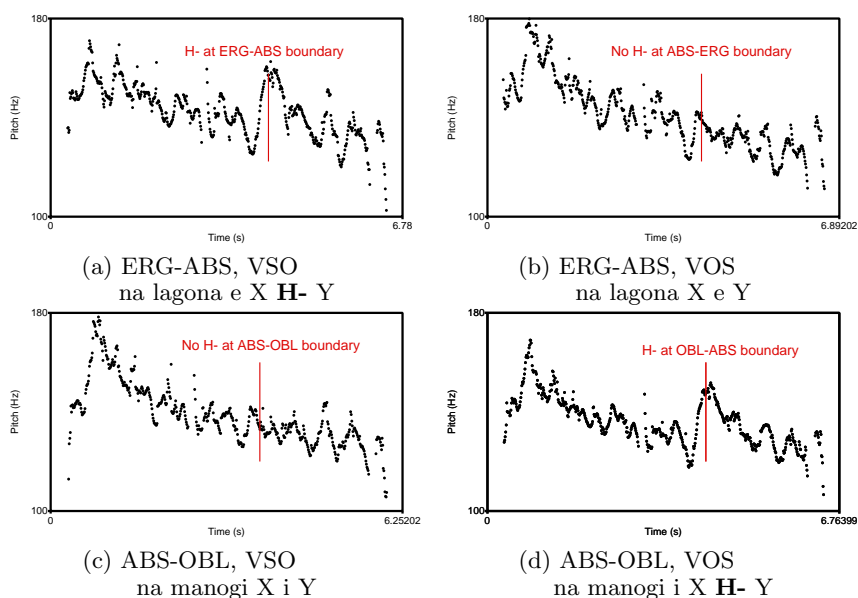


Figure 1: Presence of H- is conditioned by case marking, X and Y defined in (2) below

- (2) X = le maile a le milionea leaga mai Jerusalema i luga o
 DET.SG dog POSS DET.SG millionaire bad PREP Jerusalem OBL on POSS
 le mauga
 DET.SG mountain
 ‘the dog of the bad millionaire from Jerusalem on the mountain’
 Y = le manu-lele a le malini mamalu mai Apia
 DET.SG animal-fly POSS DET.SG marine glorified PREP Apia
 ‘the bird of the glorified marine from Apia’

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