The emergence of an inflectional edge tone morpheme in Samoan
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Although intonational tones that occur at phrase edges are typically assumed to mark prosodic constituency, the position of a tone is not diagnostic of its source, e.g. Gordon (2014). In this paper, I present evidence drawing a distinction between a high edge tone in Samoan that is morphological, and others whose source is likely to be prosodic phrasing. The tones have a similar phonetic realization: pre-boundary lengthening occurs, and all are attracted to the edge rather than stress. However, the one I argue is morphological is not only rarely promoted to a larger, low boundary tone, but also has a plausible diachronic source from reassociation of an orphaned tone.

Samoan is a non-tonal VSO language where absolutive case on the direct object of a transitive sentence and the subject of an intransitive sentence has been said to be unmarked (Chung, 1978; Collins, 2014). However, it was observed in intonational fieldwork with a single consultant that a high edge tone (H-) occurs on the final mora of the phonological material preceding absolutive (ABS) arguments (Yu, 2011), and this observation was also supported by Calhoun (2015). This paper builds on this previous work with a range of prosodic data collected from seven consultants to address issues of prosodic organization raised by the ABS high tone. (Fig. 1a shows mean f0 contours of the realization of ABS H- in ditransitive sentences with first argument liona and 2nd argument nunua.) Samoan and other Polynesian languages are not tonal, and Samoan has other high edge tones that reliably appear: at the right edge of a fronted argument and the right edge of a coordinated argument preceding a conjunction or disjunction. But our current evidence suggests that the ABS H- is distinct from the other H-‘s in how it comes into prosodic organization because it is a tonal morpheme, and that it diachronically emerged from tonal reassociation from stress on the preposition ia, which a few authors have remarked can optionally but rarely mark absolutive case (Hovdhaugen 1987; Mosel & Hovdhaugen 1992; Vonen 1988).

The realization of the ABS high and the other high tones is similar: lengthening occurs at the right edge when both ABS and coordination are present, compared to in N-Adj constructions when H is absent. Moreover, Fig. 1, shows that even when stress position is varied in the argument where the coordination high is realized at the right edge, a high tone always surfaces at the right edge of the argument; the same pattern occurs for the other high tones, too. (Native words in Samoan only receive primary stress in the penult or ultima, so English proper names were used to elicit word-initial stress.) Thus, these Hs are attracted to the right edge, and not part of a pitch accent.

But while the realization of the different high tones may be similar, we have found two properties that distinguish the distribution of the ABS high from the other H-‘s that may reveal that it has a different source. First, in our corpus of data, instead of a H- surfacing in fronting and coordination, we have sometimes observed a L boundary tone, typically followed by a pause and always by pitch reset; this rarely occurs for ABS and may reflect stability in the realization of a morpheme.

Second, they never volunteered ABS ia, but our consultants allowed ia where the H- appears. However, they did not admit ia before ergative, oblique or bare NP (e.g., pseudoincorporated object) arguments, where H- does not occur, nor in coordination or in fronting where other (non-ABS) high tones occur. In production, it clearly appeared that ia is sometimes preceded by a large
prosodic break (Fig. 2a), other times, it is so (segmentally) reduced, that only a high tone remains of its exponence; in Fig. 2b it has been reduced and diphthongized with the preceding vowel. This supports the hypothesis that the diachronic source of the ABS high is the reassociation of ia’s pitch accent with the left adjacent tone bearing unit, after segmental elision, although the synchronic status of ia remains unclear. This is observed only with ia because it is the only case marker that is bimoraic and, consequently, a bearer of stress that can receive a pitch accent; all other case markers are monomoraic and unstressed (no source tone). Finally, the puzzle of why the resulting H docks to the left may be because in general, functional elements that group rightward syntactically group leftward prosodically (Himmelmann, 2014), as we have found in preliminary analysis of phrasing and disfluencies in two corpora of Samoan narratives.

(Fig. 1a) H- appears on right edge preceding ABS

(Fig. 1b) Coord. H- attracted to right edge

(Fig. 2a) Pronunciation of ABS ia preceded by pause

(Fig. 2b) Pronunciation of reduced ABS ia