

The intonational phonology of Samoan revisited

An understanding of the intonational phonology of Samoan presents a valuable contribution to our understanding of prosodic typology. Samoan is an Austronesian language and a verb-initial language, and prosodic work on these kinds of languages is still relatively limited. Moreover, the distribution of sentence-medial edge tones challenges assumptions about the relation of edge tones to prosodic constituency, and the distribution of sentence-final tones raises questions about the definition of nuclear accent.

Starting from Mosel and Hovdhaugen (1992), previous literature has presented different analyses of aspects of Samoan intonational phonology (Orfitelli and Yu, 2009; Yu, 2011; Calhoun, 2015; Yu and Özyıldız, 2016; Calhoun, 2017; Yu and Stabler, 2017; Howard, 2018; Yu, Accepted), with only some points of consensus. What is agreed on is that Samoan stress is predictably assigned with moraic trochees at the right edge in prosodic words (Zuraw et al., 2014), and that stress licenses a rising pitch accent. Second, the appearance of sentence-medial edge tones is predictably conditioned on non-prosodic factors such as syntax or information structure. Finally, declaratives and interrogatives have different tonal events occurring at the end of the intonational phrase. Where alternative analyses have been proposed have been: (1) pitch accent types and scaling, (2) where/if sentence-medial edge tones are associated in the prosodic hierarchy, and (3) whether IP-final tones are prominence-lending or not and, nuclear accents or not. For each of these issues, we will review previous analyses and argue for an analysis we think best fits the current data (based on re-evaluation of previous work and original fieldwork).

Pitch accents Orfitelli and Yu (2009) proposed a pitch accent inventory of (LH)*, H*, and !H* (this last occurring IP-finally in interrogatives) and that noted that “pitch accents are typically realized on all content words”. However, Calhoun (2015, 2017); Yu and Stabler (2017); Yu (Accepted) noted that sometimes content words did not seem to receive a pitch accent, or that the pitch accent was highly reduced. Calhoun (2015, 2017) proposed a pitch accent inventory of L+H*, L+!H*, H*, and !H* and proposed that information structure systematically conditions: pitch range scaling via downstep, the presence of weaker accents (lacking a leading L target), or the lack of pitch accent at all. Yu and Stabler (2017); Yu (Accepted) made no attempt to analyze scaling and weakening of pitch accents. Based on original analysis of data systematically manipulating information structural conditions and the distance between adjacent high tone targets from pitch accents and high edge tones, we notice systematic effects of information structure on pitch accent scaling. However, we also observe that instances of tonal crowding are common due to the nature of Samoan stress assignment, so that weakened/“missing” pitch accents may sometimes be due to tonal crowding rather than (or in addition to) information structure.

Sentence-medial edge tones Orfitelli and Yu (2009); Yu (2011) hypothesized that a high edge tone (H-) occurs at the right edge of phonological material immediately preceding absolutive arguments, the conjunction *ma* in coordination, and at the right edge of fronted ‘o-marked arguments (non verb-initial orders). The H- was posited to be an intermediate phrase (ip) tone. L- was also posited to occur IP-finally together with an L% tone, under the theory-internal assumption of an inviolable strict layer constraint. Yu (2011) noted that all observed H- tones were tightly linked to syntactic structure and raised the possibility that the absolutive H- might be a tonal case marker in addition to/instead of being an ip tone. Calhoun (2015) confirmed the presence of H- in absolutive and fronted constructions and posited that all H- tones arose as tones marking the right edge of phonological phrases via an indirect mapping from syntactic to prosodic constituency.

However, Calhoun (2017); Yu and Stabler (2017) both found low and high sentence-medial edge tones that reliably co-occurred with pauses and that high edge tones did not appear with constructions presumed to be absolutive. Calhoun (2017) assumed that pauses were not relevant for characterizing edge tones and thus proposed that all of the sentence-medial edge tones were phonological phrase tones mapped directly from information structure. In contrast, Yu and Stabler (2017); Yu (Accepted) presented evidence that the presence of an absolutive H- was insensitive to prosodic factors such as argument length and speech rate, while low and high edge tones co-occurring with pauses variably occurred in a range of syntactic positions. Moreover, Yu (Accepted) showed that the distribution of absolutive H patterned with that of the other (segmental) case markers in Samoan. Yu and Stabler (2017); Yu (Accepted) thus partitioned sentence-medial edge tones into two classes: (1) high edge tones arising from the spellout of specific syntactic constructions and not associated with prosodic constituency, and (2) high and low edge tones reliably co-occurring with pauses that are prosodic boundary tones: ip or IP tones. Here, we argue that current evidence best supports the partition proposed in Yu and Stabler (2017); Yu (Accepted), and that the edge tones that reliably co-occur with pauses are IP tones. For example, a pitch accent-boundary tone combination that only otherwise occurs IP-finally also appears with these edge tones. We also evaluate the possibility of unifying syntactically determined H tones as marking accentual phrase edges.

IP-final tones and nuclear accent Calhoun (2015, 2017); Howard (2018) propose that IP-final tones are non-prominence lending edge tones associated with stress, i.e., phonological phrase tones L+(!)H- or, in interrogatives, (!)H+L-, followed by L%. Calhoun (2015) points out that: (1) declaratives often end in a rising tone and suggests that in such cases, the L% has been truncated, and (2) although the last f₀ peak in the IP associated with stress breaks downtrends, listeners do not perceive it as prominent. Moreover, Calhoun (2015) proposes that nuclear accent in Samoan is at the left edge of IPs, in the first phonological phrase, in part because it occurs with the largest pitch range in the IP. Orfitelli and Yu (2009) calls the final f₀ events nuclear pitch accent followed by an IP tone, showing that the position of the final pitch accent is sensitive to the position of stress in the final word. We show that whether the nuclear accent is IP initial or final depends on whether nuclear accent is defined by position, properties of tonal alignment and interaction with edge tones, or defined by mapping from information structure, and that the definition of nuclear accent is a moving target in intonational phonology literature.

References

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