

The stop contrasts of Bernese in Misiones and Ohio

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This presentation takes a look at the stop contrasts of Bernese as spoken by two heritage communities in Misiones, Argentina (MB) and Ohio, USA (OB). Thus, this project takes a look at two geographically independent but linguistically related language dyads (Scontras & Putnam, 2020) into consideration to pinpoint a change within the sound system for these speakers. The heritage language in both of these communities is Bernese, but the larger surrounding societal language is Spanish in Misiones and English in Ohio. Each of these languages has a different stop contrast. The active phonological feature for Spanish is [slack] that distinguishes voiced from voiceless stops, while English uses [spread] to distinguish the stop series, as summarized in Table 1. Bernese uses neither. Instead, the primary acoustic correlate for the stop contrast in Bernese is a durational measurement called closure duration (CD). As ‘fortis’ consonants have longer closure durations than the relatively shorter ‘lenis’ consonants, the difference is viewed as one of a singleton-geminate distinction.

Table 1: Laryngeal contrast distribution for English, Spanish, and Bernese

	/b/	/p/	/p ^h /
English		[] VOT: 0-20ms	[spread] (glottis) VOT: >30ms
Spanish	[slack] (vocal cords) VOT: <0ms	[] VOT: 0-20ms	
Bernese	No Laryngeal contrast, but durational difference in closure (fortis stops 1.6-2.7x length of lenis stops)		

In order to identify a change within a level of the sound system, a modular framework is used (Natvig, 2019). This framework is based on the Stability Gradient by Van Coetsem (1988) and it can account for a change due to impositions that occur at the phonetic, phonetic-phonological level, or phonological level based on acoustic correlates, such as closure duration and VOT. The various levels are shown in Figure 1 below.

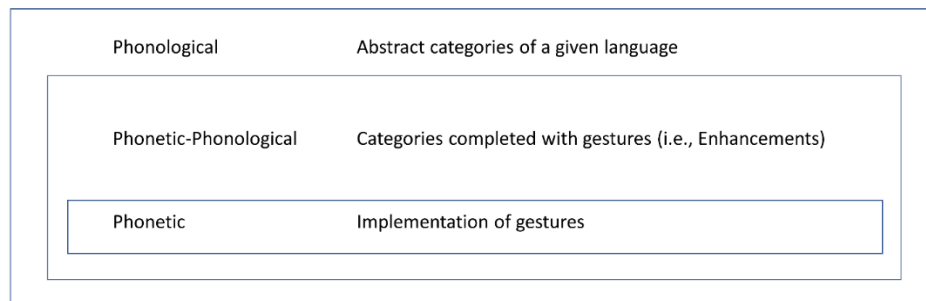


Figure 1: Levels of Representation in the sound system (Natvig, 2019, p. 92)

For this project, the word-medial environment is focused upon, since it is the only word position that contains both potential acoustic correlates (CD & VOT) to distinguish the stop series, even in isolated words. The results indicate that CD remains the main acoustic correlate for both communities. However, the results reveal that there is not merely a change at the phonetic level for OB that would see altered CDs. Instead, VOT seems to become a secondary cue for the OB speakers, suggesting a change in the phonetic-phonological level. Thus, acting as an enhancement to increase the contrast within the stop series. MB does not seem to make use of a secondary correlate, as statistical analyses indicate that CD remains the sole robust correlate.

References

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