

The influence of language background and exposure on phonetic accommodation

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By 2044, the United States will consist of more people belonging to today’s minority groups than non-Hispanic Whites (Colby & Ortman 2015), which means that more people will be exposed to bilingual speech. According to previous research (Bent & Bradlow 2003, 2008; Kim et al 2011; Sancier & Fowler 1997), we may expect this exposure to increase both intelligibility of and convergence to bilingual speech, leading to the emergence of more English varieties in the near future. This is especially true for communities where the bilingual population exceeds the monolingual population (Labov 2014).

In this research, I explore the influence of language background and exposure to bilingual speech on phonetic accommodation, both at the level of the individual and the speech community. Specifically, I examine whether English monolinguals and Spanish-English bilinguals, either from a predominately monolingual or predominately bilingual community, vary their speech when interacting with an English monolingual speaker versus a Spanish-English bilingual speaker. Additionally, I examine whether speakers are more likely to converge after being primed with monolingual or bilingual features and whether this convergence persists over time.

In an experimental study, I compare the speech of English monolinguals and Spanish-English bilinguals from Miami, FL, (which is 68% Hispanic) and from a college town in the North East, USA (which is 7% Hispanic)—4 participant groups, 20 participants each. The Miami participant groups represent speakers who have had more exposure to bilingual speech and more ties to the bilingual community (Carter & Lynch 2015; Enzinna 2015, 2016).

pibby					
mouse					
		muddy			
grail	tobu	fuddy	mouth	coafey	
chail	tofu				
	joy	satty			

Figure 1. Example of board

Participants complete an interactive communication task, where they are presented with a board on a computer screen and asked questions about the words on the board. Using Figure 1 as an example, participants are asked, “What is by the word *mouse*?” Their expected response is, “*Pibby* is by the word *mouse*.” These questions are asked by either a MONOLINGUAL or BILINGUAL VOICE over a headset. *Mouse* and *pibby*, both in yellow squares, are ‘word pairs’.

The word pairs are structured to include the following variables, examined in the experiment: VOT, final dark /l/, flapping, and vowel qualities. The BILINGUAL VOICE has significantly shorter VOT durations, a greater F2-F1 for final /l/ (a light /l/), and different formants for /ɪ, ε, ʌ, ɑ, o, u/, compared with the MONOLINGUAL VOICE. The words that only occur in the participants’ responses (e.g., *pibby*) always encode a variable, and the words that occur in the questions (e.g., *mouse*) only encode a variable half of the time. Thus, half of the word pairs are primed. For example, for the variable VOT, a primed word pair is *tofu-tobu* and an unprimed pair is *mouse-pibby* (Figure 1).

Preliminary results indicate that speakers from a predominately bilingual community (Miami)—even monolinguals—converge more with the BILINGUAL VOICE for some features, namely /p, t/-VOT, final /l/, and /ɪ, ε, ʌ/, while speakers from a predominately monolingual community (college town)—even bilinguals—converge more with the MONOLINGUAL VOICE. Participants converge more during primed word pairs, and convergence increases throughout the study.

These findings help to explain Miami’s emerging Spanish-influenced variety of English (Enzinna, 2015, 2016), as well as any future English varieties that emerge as the demographics of the U.S. begin to change.