Behavioural alignment has been found to occur in many aspects of human behaviour, including speech (Chartrand & Bargh 1999). Within speech, choice of lexical item (Garrod & Doherty 1994), speech rate (Giles et al. 1991), pitch and vocal intensity (Goldinger 1998), and acoustic characteristics of segments (Babel 2009, Nielsen 2008) are all subject to alignment. Research on phonetic convergence (alignment of the acoustic-phonetic properties of segments) has found that talkers imitate the phonetic characteristics of the speech of another talker in non-social situations, such as in rapid shadowing (Goldinger 1998), and in social situations, such as during conversation (Evans et al. 2010, Pardo 2006). Much of the previous research has focused on convergence between speakers of the same dialect (and primarily of English); however, the pattern of phonetic convergence across two dialects may be distinct since it could involve the perceptual salience of the differences between the dialects. Trudgill (1986) suggests that the more salient a particular difference is, the more talkers will converge upon it. In contrast, Kim, Horton & Bradlow (submitted) found that the more distinct two talkers’ language backgrounds were, creating greater language distance between the talkers, the less phonetic convergence occurred.

The present study investigates phonetic convergence during spontaneous conversation between speakers of Spanish from Madrid (MS) and Buenos Aires (BAS) in order to determine whether the extent to which speakers converge depends on the perceptual salience of the particular dialectal difference upon which they are converging. Six differences between the dialects were investigated including those predicted to be highly perceptually salient (such as the realization of orthographic <z>, <ci>, and <ce> as /θ/ by MS speakers and as /s/ by BAS speakers), moderately salient (such as the apical realization of /s/ in MS and the laminal realization in BAS), and least salient (such as the presence of the so-called exceptional hiatus (Hualde 1997, 1999) in the speech of MS speakers, but not BAS speakers) via a map task experiment (Anderson et al. 1991) testing 10 pairs of talkers (one talker from each dialect area). A perception task functioned as a metric to establish salience of the six dialectal differences for each participant and a repetition task determined that any lack of convergence would not be the result of an inability to articulate sounds in the contrasting dialect. All participants performed a sentence reading task before and immediately after exposure to the contrasting dialect.

Statistical analyses comparing the acoustic data collected in the sentence reading task pre- and post-conversation suggest that, while the more salient a particular difference is, the more it will be converged upon, there exists a salience threshold after which the difference is too great and convergence drops off sharply. Specifically, the dialectal differences found to be least perceptually salient only showed modest shifts in the speech of the participants towards each other (15% of the baseline discrepancy), while differences that were of intermediate salience were converged upon more (55% of baseline discrepancy), and those found to be highly salient converged very little in some cases (5%) or not at all in most cases.

This study helps clarify issues of perceptual salience in phonetic convergence contributing to our understanding of second dialect acquisition, and dialect contact and change in multi-dialectal regions. In addition, it provides the first examination of Spanish in the emerging body of research on phonetic convergence in spontaneous conversation.
References


Kim, M., W. Horton, & A. Bradlow (submitted). "Phonetic Convergence in Spontaneous Conversations as a Function of Interlocutor Language Distance."

