The present study investigates the effects of codeswitching on New Mexican Spanish-English bilinguals' Voice Onset Timing (VOT) production in natural conversation. Specifically, the main goal is to investigate the extent to which the use of English impacts the VOT duration of immediately following Spanish words beginning with /p/, /t/, or /k/ (1). This is contrasted with VOT duration in Spanish-only contexts (2).

1) ... my dad didn’t say anything
    my dad was a very quiet man.
    .. un hombre de pocas palabras. ‘a man of few words.’  (NMSEB, 03DosComadres)

2) y luego ya,
    casi todos se fueron pa’California,
    porque ahí --
    (H)... allá es donde tenían trabajo ‘(H)
    ‘and then already,’
    ‘almost everyone left for California,’
    ‘because there --’
    (NMSEB, 01ElAbuelo)

Here, VOT is defined as the time interval between the release of a stop consonant and the onset of the vocal fold vibration of the following vowel [1]. In English and Spanish, VOT serves to distinguish between voiced (b, d, g) and voiceless (p, t, k) stops. Importantly, Spanish voiceless stops are characterized by a short VOT, and English ones by a long VOT. These differences, however, have been attested primarily in monolinguals, while bilinguals have been shown to demonstrate noticeable deviations from target pronunciation (e.g., [2], [3]; counterevidence, see: [4]), due to cross-language interaction, especially when dealing with phonetically similar phonemes like /p/, /t/, and /k/ ([5], [6]).

Several studies have analyzed the additional impact of codeswitching on bilingual VOTs. Critically, these studies have examined elicited speech in experimental settings, but not through the systematic analysis of natural codeswitching. They have found that the presence of codeswitching increases cross-language interaction, resulting in even greater apparent convergence (e.g. [7]). While elicitation paradigms have allowed researchers to control for diverse variables, the relevance of these findings for natural speech remains to be confirmed (one notable exception is [8]). The corpus used for the present study provides an optimal context to test hypotheses of convergence, phonological or otherwise. The New Mexico Spanish/English Bilingual (NMSEB) corpus [9] consists of sociolinguistic interviews with 39 bilingual speakers for whom codeswitching is a common in-group discourse mode [10]. As a community, they have experienced prolonged and intense language contact over the past 150 years.

Methods and results: Spanish-language utterances immediately preceded by an English utterance, as well as utterances preceded immediately by at least three Spanish-only utterances, were included in the analysis. A total of 50 Spanish words beginning with /p/, /t/, or /k/ in these two types of utterances were measured and compared for VOT duration. Preliminary results show increased VOT duration in Spanish words preceded by English, supporting the prediction made by experimental studies.

Notably, studies of morphosyntactic variables in this same corpus demonstrate no apparent effects of convergence (e.g. [11], [12], [13]). If the present results are confirmed following the extraction of additional tokens, this would be an strong indication of the importance of separating phonological measures of convergence from morphosyntactic ones.