

Orthographic effects in the production of the Spanish rhotics: Evidence from Haitian Creole speakers in Tijuana, Mexico

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It is a well-known fact that rhotics ('r' sounds) are difficult sounds to acquire as a second language (e.g., Major 1986; Rafat, 2015; Patience, 2018). This study will investigate the effect of orthographic input on the production of Spanish tap-trill (e.g., <pero> ['pe.ro] vs. <perro> ['pe.ro] 'dog') contrast by Haitian Creole (HC) speakers living in Tijuana, Mexico. Some of the most prominent models of L2 speech learning such as, the Speech Learning Model (Flege, 1995) are auditory-based only but recent work has shown that exposure to orthographic effects can promote first-language (L1) phonological transfer (Rafat, 2016; Bassetti, Escudero & Hayes-Harb, 2015, Young-Scholten & Langer, 2015), trigger a perceptual illusion (Rafat, 2015; Rafat & Stevenson, 2018) or promote L2 acquisition (Showalter & Hayes-Harb, 2013). Although, most previous studies have focused on initial or naïve learners (Bassetti, 2018), this study will focus on intermediate and advanced HC learners of Spanish. Whereas Mexican Spanish the rhotic is realized as a tap [ɾ], trill [r] and fricative rhotic (Canfield, 1981), in Haitian Creole, a French-lexifier creole, the rhotic phoneme occurs as a voiced velar fricative [ʝ]. Moreover, the tap-trill phonological contrast does not exist in HC. Based on previous studies (Showalter & Hayes-Harb, 2013; Rafat & Stevenson, 2018), it is predicted that exposure to orthographic input will affect the production of the tap and the trill by HC speakers. The participants included 30 HC speakers who were between the ages of 25-45, had lived in Tijuana, Mexico for two years and self-reported as intermediate or advanced learners. The control group consisted of 5 monolingual native speakers of Spanish from Tijuana, Mexico. Participants were assigned to an orthographic condition, where they performed a reading task in Spanish and a picture-naming condition in Spanish, where they were presented pictures via a PPT presentation and had to name the pictures. Data was also elicited from them in HC and French, separately. The participants also completed a background questionnaire, and a language attitude survey. The stimuli consisted of 65 Spanish words. The stimuli were controlled for stress, word position and syllabic influence. 1950 tokens were analyzed acoustically using PRAAT. The preliminary results suggest that learners had difficulty producing both the tap and the trill. However, trills were produced at a higher rate in the orthographic than the picture-naming condition (15.96% and 4.28%, respectively). The orthographic condition also resulted in a slightly higher rate of tap production than the picture-naming condition (40.2% and 36.8%, respectively). Other asymmetries between the two conditions will be reported. The current results contribute to our understanding of the role of orthography in L2 speech learning by showing that orthographic input may have a positive effect in intermediate and advanced learners, when a phonological contrast is difficult to acquire. The findings also have implications for the models of L2 speech learning and indicate that L2 speech learning is a multi-modal event.

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