Acquisition of the Spanish Rhotics by L2 Learners

Timothy L. Face and Mandy Menke
University of Minnesota

Studies have shown that /ɹ/ is a socially marked feature and seen as being stereotypical of American speech by speakers of Spanish (Berkowicz, 1986; Dowd, 1984; Elliot, 1997; Zuengler, 1988). The use of English /ɹ/, as opposed to the Spanish alveolar trill or tap, is nonetheless typical for English speakers of Spanish (e.g. Elliot, 1997; Face, 2006; Major, 1986). Previous L2 studies have pointed to the difficulty native English speakers have in acquiring both Spanish rhotics. While accuracy in production increases for both sounds as proficiency level increases, taps tend to have higher rates of accuracy than trills (Face, 2006; Reeder, 1998). Production of the trill appears to vary widely by learner (Major, 1986), but even advanced majors and minors have been reported to only produce the trill in approximately one-fourth of the contexts (Face, 2006). Recent work has begun to describe the errors made by learners (Face, 2006; Kaiser, 2008; Major, 1986; Rose, 2008), but the stages of development for taps and trills are not yet clear. In addition, while the research to date supports the general notion that Spanish rhotics are acquired late by English learners of Spanish, it does not inform us of how close to native English-speaking L2 learners of Spanish are able to get with respect to these sounds. Finally, existing studies do not take into account the surrounding linguistic context.

This study sets out to address some of the gaps in the research related to the acquisition of Spanish rhotics by L2 learners. It looks at learners from a wider variety of levels – 4th semester, graduating Spanish majors, Ph.D. students of Spanish, and Spanish-speaking professionals who have studied Spanish for 25+ years – and considers the larger linguistic context and learner’s approximations to the native norm. Twenty subjects at each of the above mentioned levels participated in this study by reading aloud an adapted, authentic Spanish-language short story. Rhotics were analyzed with a spectrogram using Praat acoustic software. Twenty intervocalic tokens of trill r (10 word-initial and 10 word-medial), and twenty intervocalic tokens of tap r (10 word-medial and 10 word-final) were selected for analysis. Learner productions were coded as a tap, trill, assibilated variant, alveolar approximant, or other. All other productions were described so as to be able to more completely document the developmental process learners pass through in acquiring the Spanish rhotics.

Unlike previous studies which look at a limited group of subjects, this study examines a wider range of subjects and shows that this sound class does indeed improve over longer periods of time, nonetheless even the most advanced do not produce target-like rhotics in all cases. Preliminary results indicate that target-like productions are more common word-internally than word-initially (for the trill) and word-finally (for the tap). There are also indications that even advanced L2 Spanish speakers lack target-like productions of trills, substituting instead a variety of complex sounds, apparently in order to distinguish the articulatorily more complex trill from the articulatorily simple tap. By tracking non-target productions across learner levels, from early learners to the most advanced, this study provides insight into the phonological development of L2 Spanish learners over a much broader range of abilities than has been considered in previous studies.


