Discrepancy between the Perception and Production of Stop Consonants by Spanish Heritage Speakers in the United States

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The present study investigated the production and perception of Spanish and English voiced and voiceless stop consonants by Spanish heritage speakers who are more dominant in English. Previous studies have argued that it is impossible to control two languages exactly the same way as two monolinguals, even for bilinguals who are fluent in both languages. L1-L2 phonetic interference, the direction and strength of which is determined by language dominance, is inevitable. The aim of this study was to identify whether Spanish heritage speakers whose English (L2) is stronger than Spanish (L1) have their Spanish stop consonants influenced by their English stop consonants, and whether similar tendencies occur in both production and perception. Since native speech perception reaches stability prior to native speech production, it was of interest whether Spanish heritage speakers perform similarly to native English speakers and differently from native Spanish speakers in their production of English and Spanish stop consonants and, vice versa, in their perception. Heritage speakers’ productions of Spanish and English word-initial stop consonants were acoustically analyzed by measuring their Voice Onset Time (VOT). With regard to heritage speakers’ perception, a perception task was conducted with cue-manipulated stimuli. Heritage speakers’ performances were compared to those of native speaker controls. Results show that Spanish heritage speakers did not differ significantly from native English speakers in the production task, while they did in the perception task. Regarding the Spanish stop consonants, the opposite tendencies occurred: Spanish heritage speakers’ production significantly differed from that of native Spanish speakers, whereas their perception did not. The discrepancy found in the production and perception experiments suggests that even though production and perception share a link they should not be considered the same. Thus, the present study concluded that it is necessary to investigate both the production and perception of bilinguals in order to see the big picture of the phenomenon of L1-L2 phonetic interference.