**Conflicting grapheme-phoneme mappings lead to the production of hybrid L1/L2 sounds by immersed bilinguals**

Adults living in a country where their second language (L2) is spoken are surrounded by both aural and visual information in their L2. Interactions between the phonetic systems of a bilingual´s first language (L1) and L2 are well researched [1], but the influence of grapheme-phoneme mappings (GPMs) on speech production across languages is not well studied outside the language classroom, despite indications that inconsistencies in GPMs across languages impact L2 production for learners in immersion [2].

In this study, 21 native French speakers immersed in Spain for several years named and read Spanish words containing /b/ in initial position. In Spanish, this phoneme is associated with the graphemes <b> and <v>. These graphemes are associated with the sounds /b/ and /v/ in French, respectively. Nineteen control Spanish speakers with no knowledge of French were tested on the same tasks.

We expected that when Spanish /b/ is written as <v>, bilinguals would be influenced by the French fricative /v/ in production. Tokens were analyzed using the plosion index [3], an automatic measurement used to quantify the energy of a plosive burst in relation to the closure phase of the same plosive. Results show that bilinguals produced /b/ less energetically in the /b/-<v> condition than in the /b/-<b> condition. Spanish controls did not differ on their production of /b/-<v> and /b/-<b> To determine whether the bilinguals’ production was due to a direct intrusion of /v/, tokens produced without a clear plosive burst where manually discarded but the result stayed the same.

These data demonstrate that GPMs across languages have an impact on the L2 production of even highly proficient immersed bilinguals. This impact can manifest itself through the fusion of two sounds, one from each language. Such a fusion had been reported before between fricatives [4] and for beginners, but is shown here for the first time for immersed bilinguals and for sounds with different manners of articulation. And what are the implications/take home message?

**References:**

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