Title
The impact of polysemous meanings on bilinguals’ representations across languages

Permalink
https://escholarship.org/uc/item/1zx6b9cp

Journal
Proceedings of the Annual Meeting of the Cognitive Science Society, 45(45)

Authors
Floyd, Sammy
Gleason, Liam J.
Jaffe-Dax, Sagi
et al.

Publication Date
2023

Peer reviewed
The impact of polysemous meanings on bilinguals’ representations across languages

Sammy Floyd
MIT, Cambridge, Massachusetts, United States

Liam J. Gleason
University of Texas at El Paso, El Paso, Texas, United States

Sagi Jaffe-Dax
Tel Aviv University, Tel Aviv, Israel

Christine Potter
University of Texas at El Paso, El Paso, Texas, United States

Abstract

Bilinguals activate both languages during language comprehension. However, most evidence for co-activation involves phonology: when hearing the first syllable of ‘lemon’, Spanish-English bilinguals activate ‘lechón’. We tested whether structures of meaning are also co-activated: for example, since Spanish’s limón means both ‘lime’ and ‘lemon’, do Spanish-English bilinguals activate both meanings when prompted with ‘lemon’?

Spanish-English bilinguals (n=101) and English monolinguals (n=54) saw everyday objects and heard corresponding or incorrect labels. Incorrect labels involved Spanish extensions (lime for lemon) or non-Spanish extensions. Participants were equally accurate in rejecting Spanish vs. non-Spanish extensions, suggesting bilinguals’ comprehension was not impeded by related Spanish meanings. However, both groups were slower to reject Spanish extensions, suggesting related words can slow processing. Thus, our results suggest that meaning and sound may not exert the same influence across languages. Ongoing research includes other groups of bilinguals to investigate the specificity of these effects.