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Authors

Patterson, John D.
Karuza, Elisabeth A.

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Now or Later: Representational Convergence in Simulated Simultaneous and Sequential Bilingual Learning Contexts

John Patterson

Pennsylvania State University, State College, Pennsylvania, United States

Elisabeth Karuza

The Pennsylvania State University, University Park, Pennsylvania, United States

Abstract

In bilinguals, certain concepts across languages come to be represented similarly—a semantic convergence effect that reflects interactivity between languages. The causal factors that affect semantic convergence are not fully understood; this gap may be due to limitations of the correlative methods used in extant work, which assesses the representations of real-world bilinguals. Here, we utilize an artificial language learning paradigm—inspired by the study of category learning—to elucidate causal influences on semantic convergence. We contrast simulated simultaneous bilingual learners with simulated sequential bilingual learners before assessing the representations of both. Bilingual groups are additionally compared to simulated monolingual controls from each language. We report on the pattern of semantic convergence and conclude with implications for theories of bilingual representation.