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Developmental Differences in Semantic Search Strategies Between Monolingual and Bilingual Children

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Abstract

In semantic fluency tasks, speakers name as many category exemplars as possible within a time limit. After age 8 to 9 years, bilinguals produce fewer words in semantic fluency tasks than monolinguals (e.g., Friesen et al., 2015). This effect may result from differences in how monolinguals and bilinguals search their semantic networks (e.g., Sandoval et al., 2010), which we examined here. Five- to 11-year-old monolinguals and bilinguals ($n=300$) completed a semantic fluency task. Monolinguals produced more words with age ($r=.27$, $p=.001$), whereas bilinguals did not ($r=.11$, $p=.43$). However, with age, bilinguals ($r=-.32$, $p=.016$)—but not monolinguals ($r=.04$, $p=.65$)—produced lower frequency words. Additionally, Latent Semantic Analysis revealed bilinguals to produce more semantically similar words in sequence with age (bilinguals: $r=-.26$, $p=.05$; monolinguals: $r=.02$, $p=.83$). These findings suggest bilingual children may develop more efficient semantic search strategies than monolinguals.