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Possible Mechanisms of Bilingual Advantage on Creativity

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Abstract

Bilinguals are purported to be more creative than monolinguals, but the mechanism for this bilingual advantage is still unresolved, with several different accounts proposed. Others have challenged the existence of bilingual advantages in general. We examine existence as well as hypothesized semantic network difference based mechanisms for the relationship between bilingualism and creativity here by measuring creativity and fluency for monolinguals and bilinguals. The fluency measure allowed us to analyze the structure of individuals semantic networks (average shortest path length, clustering coefficient, and modularity). We found no differences in creativity between monolingual and bilingual participants, with a Bayesian test showing substantial evidence for the null hypothesis. We did find that aspects of semantic network structure predicted creativity. These findings suggest that, contrary to previous work, the bilingual advantage does not exist in the realm of creativity.