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Exploring the Early Childhood Executive Function and Language Relationship: A Preliminary Analysis

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Abstract

Recent studies demonstrate strong, concurrent relationships between language and EF, particularly during early childhood. However, the literature remains controversial with respect to this relationship. Whereas some studies cite a bidirectional relationship, others suggest that EF is predictive of language gains, while others suggest that it is language which affects EF through conversational practice. Further controversy remains in the literature regarding which components of EF are engaged in the processes. The bidirectionality of current research in this area suggests that perhaps EF and language are best fitted by a curvilinear relationship. This is compounded by the fact that a large number of these studies have employed linear statistical analyses to examine the relationship of the two constructs. Thus, in order to further specify the relationship between EF and language development, we examined monolingual and bilingual infants and toddlers to determine the utility of a curvilinear model to assess the EF and language relationship, what aspect of language inhibitory control most correlates to EF, and whether there is a monolingual/bilingual difference. Results indicate that the EF and language early childhood relationship is best fitted by a curvilinear model.