The Effect of Bigraph Training on Oral Reading in an Individual with Deep Dyslexia

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Introduction

The mechanisms underlying deep dyslexia have typically been explained using cognitive neuropsychological models where damage to multiple routes is necessary to produce the disorder (e.g., the phonological-phonemic routes). More recently, Lambon Ralph and his colleagues (Crisp & Lambon Ralph, 2006) have put forth a primary systems hypothesis which proposes a breakdown in the phonological system as the underlying mechanism for deep dyslexia.

Current treatments for deep dyslexia have focused on improving the phonological route by training grapheme to phoneme correspondences. In a previous study, both authors and their colleague performed a case study on a woman who had suffered a stroke and was later found to have a reading profile consistent with deep dyslexia. The participant underwent training to learn the sound relationship for consonant and vowel combinations (CV and VC) that were not used in their non-word or word combinations (CVC words). The effect of bigraph training was measured by a series of probes for which the participant had to choose between the sound of a CVC word and the sound of the CV or VC combinations that were not used in their non-word or word combinations. The current study and its results lends support for the primary systems hypothesis as the underlying mechanism for deep dyslexia. Therefore, future research directions need to include a broader range of treatment options and approaches to help individuals with deep dyslexia.

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Future Research Directions

Future research should investigate these training methods in conjunction with other phonological treatment to obtain more generalizable skills within participants.

References


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