## **BOOK REVIEW**

Brady, S. A., Braze, D., & Fowler, C. A. (Eds.). (2011). *Explaining individual differences in reading: theory and evidence*. New York: Psychology Press. 257 pp.

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Abstract. This review of Explaining individual differences in reading: theory and evidence by editors Brady, Braze, & Fowler provides highlights of current research trends relevant to reading acquisition and reading disabilities.

Keywords. reading acquisition, reading instruction, reading disabilities, phonological awareness, orthographical awareness

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This book is a review of current reading research, particularly since the publication of the National Reading Panel (NRP) report (National Institute of Child Health and Human Development, 2000). For decades, the Phonological Deficit Hypothesis (PDH), first proposed in the1970s, has dominated the discussion of reading instruction - even as many educators have clung to whole word and rudimentary phonics instructional approaches. The editors and chapter authors pay tribute to Don

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Shankweiler's pivotal contributions to the field of literacy while heeding his call to refine the theory, explore the implications for instruction, and suggest next steps for researchers and educators.

The book contains four major sections. The first part includes only a single chapter describing various theories of phonology and how they relate to reading acquisition. The four chapters of part two are dedicated to the discussion of phonological factors in learning. Among others, it addresses these topics: phonological precursors in infants and toddlers, the self-teaching hypothesis, transfer of reading skills to writing skills, teacher preparation and attitudes in the post-NRP and No Child Left Behind (NCLB) era, and the relationship between dialect and phonological awareness (PA). The three chapters of the third part focus on discovering individual differences in reading that cannot be fully explained by the PDH. These chapters include a critical look at attention deficit/hyperactivity disorder (ADHD); specific language impairment (SLI); shallow and deep orthographies; and deficits in grammar, vocabulary, and oral language skills. Finally, the remaining three chapters in part four are a review of emerging genetic, biological, and neurological explanations of reading development and disabilities. An author index and subject index at the back of the book provide quick access to particular topics.

This book is well-written and logically arranged; however, varying degrees of expertise are necessary for comprehension. The discussion of the response to the PDH in the educational community and political arena includes careful clarification of terminology that may be misconstrued outside of academia (Brady, 2011). Other authors assume not only a detailed understanding of field-specific terms, but also a familiarity with research methodologies and reasonable facility with statistical analysis. Figures and tables serve as comprehension aids, but some require statistical expertise for interpretation. The subject index is lacking for two reasons: First, a topic referred to in multiple chapters may be linked only to the chapter in which it was most prominently discussed. Also, simple terms are sometimes embedded within headings that presuppose a degree of familiarity with the material.

As a relative newcomer to this field of study, I found this book to be a valuable resource. While it may lack depth in addressing select issues, it offers breadth for those seeking an overview of the field as it stands. Based on the title alone, readers may be surprised to find that this book is written almost exclusively through the lens of phonology. The NRP (2000) report gave almost equal attention to the roles of alphabetics/phonics, fluency, comprehension, teacher preparation, and computer technology. In contrast, the editors and the authors successfully make the case that phonological processing is not a distinct aspect of reading acquisition but categorically relates to literacy development. This challenges the reader to consider that phonological processes are pervasive and may mask another suspected, yet still elusive, factor that is critical to a comprehensive picture of reading development, including accurate accounts of special cases such as dyslexia.

Using phonology as a lens, the authors go well beyond the scope of the NRP report to expose interesting results with the hope of compelling both educators and

researchers to critically re-evaluate their assumptions. Some connections are made that may previously have seemed tangential; for example, because writing skills are most often developed in tandem with reading, investigation was warranted, and results suggested that reading depends on writing and vice versa, with both having a phonological component (Perfetti, 2011; Share, 2011). In addition, the relationship between PA and reading is not as straightforward as previously imagined. As a case in point, while remediation of phonological awareness provided benefit, it did not always result in improved reading fluency, leading to the supposition that learning rate or orthographical awareness deficit may be a confounding factor (Olson, 2011). Alternatively, co-morbidity, possibly with ADHD or SLI, may explain special cases (Snowling, 2011). The range of the book will likely provoke readers to question their beliefs and broaden their appreciation of the complexity of reading acquisition.

The lack of overt instructional advice suggests the intended reader is not the typical classroom reading teacher; however, this book has a place in graduate courses for educators. Given the current trends towards research-based educational practices, exposing common misunderstandings and limitations or competing interpretations of statistically significant findings is important. Additionally, educators must be motivated to consider the vital importance of aspects of reading development that are not easily detected during classroom observation or with the use of typically mandated assessments. This book provides a springboard for accomplishing both of these goals. Ideally, educators seeking post-baccalaureate training with a specialty in reading are entering programs with the expertise to comprehend this text as well as the desire to expand their knowledge at least to the depth and breadth of this book. This publication is an excellent reference for graduate students and faculty.

I come to the study of reading development by way of mathematics education. After noticing commonalities among students - from elementary school to university - who struggle to read and write symbolic mathematics in my classroom, I began to question their reading abilities in general. So began my quest to better understand how students interact with printed text. This book deepened my understanding of reading acquisition and provided relevant resources for further investigation as I consider the role of reading in mathematics education.

## **AUTHOR NOTE**

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