London Review of Education
Vol. 4, No. 1, March 2006, pp. 1–3

Editorial

The idea for this special issue developed from a conversation that took place between symposium contributors at a meeting of the Experimental Psychology Society held in April this year. The symposium was convened as a tribute to the work of Max Coltheart in motivating research into reading development. Max has published many theoretical and experimental papers on 'dual route' theory. In his paper for this special issue, Max outlines how, according to the theory, skilled readers of English use two procedures for recognizing and reading aloud printed words. One is a sight/whole word (lexical) recognition process and the other is a non-lexical decoding process that operates on sub-word segments for converting print to sound. Max describes the different processing components involved in these two procedures and outlines the evidence for the theory, as well as explaining how it can be applied to the acquisition of reading skill. A number of researchers have adopted this framework in carrying out experimental studies of the acquisition of printed word recognition and naming. Morag Stuart reviews research showing how children build up the sub-components of the two procedures. In the course of the review, Morag addresses questions currently being asked by educationalists, including the optimal timing, nature and pace for phonics teaching.

Tim Bates reviews the role of genetics in explaining individual differences in reading and spelling. Evidence from twin studies is reviewed and the issue of whether some genes are specific for lexical and non-lexical components of the reading system is raised, together with the association of reading difficulties with other disorders, such as ADHD. Linkage studies and association studies are discussed and point to genes that cut across diagnostic categories.

Anne Castles reviews evidence for the existence of patterns of reading difficulty in children that would be predicted on the basis of the dual route model. Case study reports and group sub-typing studies are discussed which contrast children who have problems reading exception or irregular words (indicative of a difficulty with lexical processing) with those who have problems with non-word reading (indicative of non-lexical processing difficulty). Anne discusses possible causes for the different types of reading difficulty, while acknowledging that very many poor readers have difficulty with many aspects of reading rather than just one process, and advocates model-driven assessment.

Of course not all psychological research into reading development has been conducted using the dual route framework. Max contrasts the dual route approach with the connectionist approach to theorizing about word recognition in his paper.

ISSN 1474-8460 (print)/ISSN 1474-8479 (online)/06/010001–03

DOI 10.1080/13603110600574298

This approach is discussed early in the paper of Maggie Snowling and Charles Hulme. Maggie and Charles discuss the interaction of language systems with reading skill and how disorders of language can impact on reading. They show how phonological difficulties can affect children's ability to learn letter sounds, while difficulties with vocabulary and grammar can affect reading comprehension. They also review recent intervention studies that have successfully targeted these language and reading-related processes in an attempt to remediate reading difficulties in young children.

Kate Nation and Philip Angell examine how text reading comprehension develops in children. They discuss the independence and interdependence of word-level reading and the ability to comprehend what has been read. The causes of difficulties in reading comprehension in children who have adequate single word reading skill are reviewed: text level weaknesses (inference making, monitoring, story structure appreciation), oral language weaknesses (vocabulary, morphosyntax, interpretation of non-literal language) and memory problems; although it is noted that the direction of causation in relation to memory is unclear. Kate and Philip identify omissions from the NLS Searchlights model and highlight implications of research for the teaching of reading comprehension.

Last but not least, the paper by Chris Singleton and Lisa-Marie Henderson reviews the role of visual factors in reading, together with the way in which disorders of the visual system can impact on reading. Evidence for and against the magnocellular deficit theory of reading difficulties is discussed, as is the negative consequence of visual stress for reading, and measures available to alleviate this condition. Chris and Lisa-Marie make the point that our understanding of reading would be much improved if visual factors were integrated into theories that currently focus almost exclusively on phonology. Happily, the review illustrates how this situation is beginning to change.

I am grateful to the Editor of *London Review of Education*, Ronald Barnett, for facilitating this special issue on the Psychology of Reading. I am also most grateful to the contributors—condensing their papers down to 4500 words was very difficult, but this has allowed for coverage of many important fields of reading development research. To return to the reason for producing the special issue alluded to in the first line of this introduction, I don't think I can express the thoughts of those of us who took part in the conversation on 6 April 2005 any better than Morag does in the conclusion to her paper:

> Over the past quarter of a century, psychological research has made considerable progress towards delineating and understanding the ways in which children learn to read the words on the page. … Unfortunately, too little of this research is known to those responsible for teaching children to read. Understanding what 'successful' children do should allow us to design teaching programmes that better ensure the successful progress of all children.

I hope readers of this special issue will be convinced that it is now time for closer links between psychological research and the teaching of reading to be forged.

Jackie Masterson
University of Essex, UK

Notes on contributor

Jackie Masterson is a Professor in the Psychology Department at the University of Essex. Her research interests are in the areas of literacy development and disorders, and naming processes. She is a co-author of the *Single word spelling test* (nferNelson), and a number of other resources for assessment and intervention.