# Reading Research— Theory and Practice

T. Gary Waller and G. E.
MacKinnon (Eds.)
Reading Research: Advances in
Theory and Practice, Vol. 1
New York: Academic Press, 1979.
272 pp. $18.50

G. E. MacKinnon and T. Gary
Waller (Eds.)
Reading Research: Advances in
Theory and Practice, Vol. 2
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*Review by*
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In response to their concerns about the difficulty of keeping up with the research on reading and about the lack of communication and interaction among disciplines engaged in reading research, Waller and MacKinnon have created a serial publication entitled *Reading Research: Advances in Theory and Practice.* The edited volumes are meant to include "systematic and substantive reviews and syntheses, both empirical and theoretical, and . . . integrative reports of programmatic research" (p. ix). The first two volumes, under review here, each are organized around a topic (Volume 1, reading readiness; Volume 2, learning to read) and include contributions by educators, educational researchers, and psychologists.

Perusal of the chapters in the two books establishes that the editors' concern about fragmentation and lack of communication is justified. Indeed, the books constitute microcosms of the insular worlds of psychologists and educators engaged in reading research. In my view, however, the volumes represent minimal efforts to ameliorate the situation.

A series with goals such as those outlined by the editors optimally provides articles integrating information across disciplinary lines, commentary and discussion among psychologists, educators, and others, and tutorial essays analogous to N. V. Smith's (1979) "Syntax for Psychologists" or B. Comrie's (1980) "Phonology: A Critical Review" to educate one discipline in the relevant aims, methodologies, and findings of another. In fact, however, there is very little of the

first type of article and essentially none of the other two. Instead, the editors' approach has been a much less exacting one of collecting review articles from researchers whose interests jointly, but typically not individually, span the range from basic to directly applied research. Many of these articles in themselves are interesting and informative; however, articles within a volume bear little relation one to another except that they all address the volume's topic. Consequently, the communication and interaction among subgroups that Waller and MacKinnon consider seriously lacking in the field are almost entirely lacking in the books.

Nonetheless, there are things to be learned both from each volume considered as a collection and from the individual contributions to each. What is primarily to be learned from the collection has less to do with reading readiness or learning to read than it has to do with the nature of the research field. Selected individual contributions, however, provide useful insights into the volume topics.

Basic and applied research compared
As for the research field itself, most striking to me is the contrast the volumes reveal between the approaches to research of applied as compared to basic researchers. Contributions by applied researchers make up the bulk of the chapters in the pair of volumes (indeed, the volumes contain far more "practice" than "theory"). These investigators have stringent criteria as compared to basic researchers for identifying research as "ecologically valid" (see, in particular, Coleman's chapter in Volume 2). This has a number of consequences. One is that their investigations tend to be minimally abstracted from the settings to which they will be applied. A correlate is that their research methodologies and measures are sometimes less "clean" than those of basic researchers. Similarly, sources of evidence that basic researchers would reject are sometimes invoked—for example, anecdotal evidence from the classroom (e.g., Rawson, Volume 1).

Another consequence is that some applied researchers disparage basic research. For example, "As might be expected, however, studies performed by theoretically inclined psychologists used language and learning populations that are of scant importance to reading" (Coleman, Vol. 2, pp. 185–186) and,

"Most research on reading tells more about the behavior of teachers and psychologists than it does about that of beginning readers" (Torrey, Vol. 1, p. 135). A correlate of this attitude occasionally is ignorance of relevant contributions by basic research. For example, Torrey addresses the role that phonology and, in particular, the sound system of English should and does play in reading. She finds the role minimal, asserting, for example, that "sounding out is not very useful at any functional level of reading" (p. 128) and that "even unskilled beginners at reading quickly associate words with meanings *rather than sounds*" (p. 128, italics mine) as evidenced by the semantic paralexic errors they make (in her example, reading "little" as "small"). She should have written "especially unskilled readers," because semantic paralexic errors are hallmarks of acquired deep dyslexia (e.g., Coltheart, Patterson, & Marshall, 1980) and, to my knowledge, are not particularly associated with success in reading.

I think that Torrey's assessment would be different if she were aware of some relevant facts and research findings. Historically, writing systems have uniformly evolved *away* from those in which symbols reflect only meaningful units of the language and toward systems in which symbols directly reflect sounds of the language (e.g., Gelb, 1963; Gleitman & Rozin, 1977). This progression is difficult to rationalize if, right from the start and forever after, readers ignore the relation between written symbol and sound. Moreover, research findings show a relationship in the beginning reader between reading performance and both sound-analysis skills and knowledge of spelling–sound relationships. Some of this literature is reviewed by Ehri in the chapter immediately preceding Torrey's.

Individual contributions
Individual contributions to the two volumes in some cases are provocative or provide useful information. On the provocative side for different reasons are contributions by Coltheart (Vol. 1) and Coleman (Vol. 2).

Coltheart provides an interesting discussion of the concept of reading readiness, which he argues may be a misleading one. Reading readiness is sometimes written about as if it were a development that a child grows into and that an educator has to wait for. Coltheart points out, however, that readiness to read is

unlikely to be primarily a matter of maturation as, say, readiness to walk seems to be. Indeed, if a child fails reading readiness tests, it may signify no more than that he or she needs to be *taught* the skills that readiness tests measure— just as later he or she will be taught to read.

Coleman offers an alternative approach to answering applied questions— an alternative to the approach of basic researchers, whose findings, in his view, can rarely be generalized to natural settings. A common statistical model for psychologists recognizes subjects as a random sample from a larger population but treats all other variables in the experimental design as fixed. Statistically significant outcomes based on this model can be generalized from the subject sample to the population they represent, but cannot be generalized beyond the selection of values comprising any fixed effects. Treating other variables in the experiment as random rather than fixed effects does not solve the problem of generalizability. There are many *constants* in experiments that, were they variables, might be shown to interact with effects of interest in the study. If they do, then results of experiments in which the values of a potential variable are constant would not generalize to other settings with different values of the variable. Most basic researchers ignore or simply accept the restrictions to generalizability that practical conditions of testing impose. Coleman makes a different proposal, however. He suggests that "behavioral scientists" (by whom, it turns out, he means applied educational researchers and not, happily, basic researchers) should adopt the "craftsman's" approach to acquisition of knowledge. If they want to discover what words are easiest to learn to read, they should design experiments to ask this question directly without initially seeking to understand why easy words are easy. This frees them from the basic researcher's job of trying to isolate and identify variables that are critical in causing an effect. Moreover, they should do so insofar as possible using just the stimulus materials and populations to whom the outcomes of their research will be applied. Coleman's own research program attempts to answer important practical questions in this way.

Articles that I found most useful are by Coltheart and Ehri in Volume 1 and by Taylor in Volume 2. Coltheart discusses a difficulty with attempts to com

pare groups of readers on reading achievement if the groups are matched on IQ. Because IQ matching is a common way of attempting to equate reading groups in general abilities, many researchers will find this article relevant and important. The difficulty with IQ matching is the mathematical fact (McNemar, 1962) of "regression to the mean," which ensures, for example, that good and poor readers matched IQ based on the results of just one IQ test will *not* be matched in general abilities. Coltheart suggests equating the groups on IQ by matching based on each individual's regressed, rather than raw, IQ score.

Ehri provides a review of the literature, including her own research, on the "linguistic insights" achieved by children as they learn to read. The article is important in pointing out just how little prereaders know explicitly about their spoken language. Concepts that are obvious to the skilled reader (for example, that sentences are composed of words and words of phonological segments) may not be available to the beginning reader to help rationalize the structure of the written language.

Taylor's article is the closest approximation to a tutorial article that the volumes provide, and many researchers will find her discussion of writing systems, including that of English, a useful resource.

## Concluding remarks

Although these and other individual contributions make worthwhile reading, together the chapters of a volume do not constitute a publication that will retard fragmentation of the research field or promote communication and interaction among disciplines engaged in reading research. The articles in a volume do not cohere as a collection, and the contributors in general do not cross disciplinary lines. If a series with the aims of this one is to succeed, the editors must play a more active role than one of collecting manuscripts by experts on a broadly defined topic. In particular, the editors might consider compiling a reading list of papers on a topic from the educational (psychological) literature and requesting commentary by psychologists (educational researchers) and reviews of relevant work in their own discipline. At the very least, in future volumes the editors should consider writing commentaries on individual contributions or providing a concluding chapter to each volume that

attempts to bring together, if possible, the ideas and findings of individual contributions. I find the present series a rather lethargic effort to meet its goals.

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