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Andrew R. A. Conway

Department of Psychology, University of Illinois, Chicago, IL, USA,

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Jackie Andrade's *Working Memory in Perspective* is a valuable academic exercise for the way in which it forces researchers to turn the microscope on themselves and question fundamental assumptions made in their scientific pursuits. The central question, posed to a group of researchers who are clearly influenced by Alan Baddeley's writings, is essentially, "Will the Baddeley model of working memory survive"? The answer does not come directly. Andrade prefers to present the strengths and weaknesses of the model and leave judgement to the reader. As she states, the future of the model depends on the balance of strengths and weaknesses and the viability of alternative models. Throughout the book, many strengths of the model are revealed, such as the intuitive appeal of the model, the applicability to several areas of research, the simplicity of the approach, and its ability to withstand empirical investigation via a range of methodologies (e.g., dual-task experiments, individual differences studies, computational modelling, neuropsychological studies, and brain imaging experiments). At the same time, many weaknesses are revealed, such as the failure to adequately account for the word-length effect (which calls into question the entire concept of the phonological loop and the assumption of trace decay), the unspecified nature of the central executive (is it a unitary construct or an executive committee?), and questions surrounding the measurement of working memory capacity and the source(s) of individual differences in working memory performance (especially pertaining to atypical development and aging). While Andrade refrains from imposing her own final judgement in the summary chapter, the tone is optimistic and the underlying answer seems to be "yes, the model will survive, once we iron out some of the current weaknesses".

Here I suggest a less optimistic perspective, which might have emerged if two additional questions were asked of the authors:

1. Is the concept of working memory necessary for your research?
2. Are alternative models of working memory better for your research than the Baddeley model?

The first question is a broader one than any of those posed by Andrade. The questions posed in the book (e.g., "What are the strengths of the WM model for your research?") all implicitly assume that the concept of working memory is necessary for each contributor's research program. However, it is not clear whether working memory is a necessary construct for these researchers or, more generally, for the field of psychology. For instance, the Melton (1963) tradition of memory as a unitary construct, with interference as the underlying mechanism of forgetting, is alive and well (see Nairne, 2002). Researchers such as Nairne and Neath are comfortable

explaining specific aspects of short-term forgetting as well as general principles of memory and cognition without reference to the concept of working memory.

Their approach is compelling, and I urge students of the Baddeley tradition to familiarize themselves with this perspective.

The second question is a more directed form of Andrade's "How does it [the Baddeley model] compare with competing models in your field"? None of the contributor's took this question to mean,

"How does the Baddeley model compare to other models of working memory". This is unfortunate, because the days of equating "working memory" with "Baddeley's working memory" are gone. With the publication of Miyake and Shah's (1999), *Models of Working Memory*, researchers now have nearly a dozen models of working memory to choose from to guide their work. Thus, it is conceivable that the concept of working memory will persist, but the Baddeley perspective will not. The leading challengers to the Baddeley tradition, at this point, appear to be Anderson's computational modeling architecture ACT-R (Anderson & Lebiere, 1998; Lovett, Reder, & Lebiere, 1999), Cowan's theoretical framework of memory and attention (Cowan, 1988, 1995, 1999), Ericsson's theory of knowledge and long-term working memory (Ericsson & Delaney, 1999; Ericsson & Kintsch, 1995; see also MacDonald & Christiansen, 2002), and Engle's controlled attention view of working memory (Engle, Kane, & Tuholski, 1999; Engle, Tuholski, Laughlin, & Conway, 1999; Kane, Bleckley, Conway, & Engle, 2001). While some of these approaches have a great deal in common with the Baddeley tradition and in fact owe many of their ideas to Baddeley and Hitch's (1974) original model, they represent alternative ways of thinking about the concept of working memory. Furthermore, as these approaches make their presence felt in other disciplines (e.g., Anderson's influence on artificial intelligence and human factors, Ericsson's influence on learning and education, Engle's influence on psychometrics and neuropsychology), the overall impact of the Baddeley model will diminish.

In summary, Jackie Andrade should be commended for asking some very tough questions of her UK colleagues. The chapters are illuminating with respect to the strengths and weaknesses of the Baddeley approach to working memory. However, the book does not seem to take seriously more revolutionary possibilities, such as (1) working memory being ignored altogether in favour of a more principled unitary theory of memory (i.e., Nairne, 2002), or (2) the Baddeley model being replaced by other models of working memory (see models in Miyake & Shah, 1999).

ANDREW R. A. CONWAY

Department of Psychology, University of Illinois,

Chicago, IL, USA

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