

# Q and A with ... Max Coltheart

In this first in a series of interviews with leading authorities in the field of reading and related skills, Kevin Wheldall talks to Max Coltheart.

## About Max

“I was born outside Melbourne in 1939 and grew up outside Canberra and outside Bega. First time in a big city was when I went to the University of Sydney in 1957, where I spent 10 years, ending up with a PhD. Then wandered: jobs at Monash University, University of Waterloo (Canada), University of Reading, University of London, Macquarie University. Surprised to find myself still at Macquarie after 30 years. Don’t know why the wandering stopped. Wondering hasn’t stopped, though: still as interested in research as I ever was.”

## Max’s many awards and honours include the following:

- President’s Award, British Psychological Society, 1987.
- Honorary Life Member, British Psychological Society, 1987.
- Elected Fellow of the Academy of Social Sciences of Australia, 1988.
- DSc (Macquarie University), 2001.
- Elected Fellow of the Australian Academy of Science, 2001.
- Foundation Australian Research Council Federation Fellow, 2002-2007.
- Australian Commonwealth Centenary Medal, 2003.
- President, Learning Difficulties Australia, 2008-2009.
- AM (Member, Order of Australia), 2010.
- DLitt (honoris causa), Macquarie University, 2010
- Eminent Researcher Award, *Australian Journal of Learning Difficulties*, 2015.

## Max, how did you first become interested in research in reading?

It happened because I am an intellectual parasite, Kevin.

When I moved from Australia to Canada in 1969, to the University of Waterloo, I had been doing research on basic processes in visual perception, which had been the topic of my PhD. At Waterloo, no-one was working on that, but there was a fun group working on letter recognition. So I hooked up with them and published some papers with them.

Then when I moved from Canada to England in 1972, to the University of Reading, there was an interesting group doing research on visual word recognition; so I hooked up with them, and published some papers with them.

And after I moved from Reading to the University of London in 1975 to be Professor of Psychology there, I got to know an undergraduate student – Morag Stuart – who was a schoolteacher and who taught me a lot about



**Max Coltheart**

what it was like to teach children to read and why some children find this so hard. I got very interested in this: more parasitism. She went on to do a PhD with me, we published together, and she is now an Emeritus Professor at the Institute of Education in the University of London.

### **Who has most influenced your thinking about reading and why?**

Three British cognitive psychologists: John Marshall (no longer with us), John Morton and Alan Allport. Interacting with them face-to-face in the 1970s on many occasions taught me how to do cognitive psychology, and how to think in accurate theoretical terms about skilled reading, learning to read, and children's reading difficulties.

### **What do you consider to be the most important contribution you have made to the scientific study of reading?**

No question about this: it is my development of the dual-route model of reading.

This model says that skilled readers have available to them two different ways of reading aloud (i.e. dual routes from print to speech).

The first way is to recognise a whole word in the reader's orthographic lexicon (i.e. sight vocabulary) and use that to look up the word's pronunciation in a phonological lexicon (store of word pronunciations). This route can be used for all words that are familiar to the reader, regardless of whether the word is regular or not. Regularity is irrelevant to this way of reading aloud. All familiar words, regular or irregular, can be read aloud this way. Nonwords cannot be read aloud correctly by this method. The technical name for this route is "lexical route" (since it uses lexicons).

The second way is to apply GPCs (grapheme-phoneme correspondence rules) to the string of letters. This is the only way nonwords can be read aloud. This method also succeeds with regular words. It fails – produces an incorrect response – for irregular words, simply because these words disobey the GPC rules. The technical name for this route is "nonlexical route" (since it does not use lexicons).

Since this is how skilled readers read aloud, it is what children have to learn if they are to become skilled readers. This provides an important guide for the assessment and treatment of children's reading difficulties.

### **Could you recommend one of your own books or papers that you consider to be particularly important?**

For the *Nomanis* audience, I might suggest Coltheart, M. (2015). 'What kinds of things cause children's reading difficulties?' *Australian Journal of Learning Difficulties*, 20, 103-112.

### **What do you consider to be the next frontier in reading research?**

Acceptance of the idea that there are several different types of struggling readers, not just a single category of children who are having difficulty in learning to read. The evidence that this is so is very strong. Once it is accepted

*Teacher training includes almost nothing on how children learn to read, why some find it so difficult, and what can be done about this, even though research by reading scientists has discovered a great deal about these matter*

– Max Coltheart

widely enough, the diagnostic and therapeutic impact will be immense, because diagnosis will be thought of as deciding which type of difficulty in learning to read a child has, and that decision will indicate which type of treatment is appropriate for that particular child.

### **What do you consider to be the barriers to improved reading instruction in our national and/or state school systems?**

Teacher training includes almost nothing on how children learn to read, why some find it so difficult, and what can be done about this, even though research by reading scientists has discovered a great deal about these matters. So most primary teachers arrive in their first job knowing nothing about how to teach reading. This is sometimes expressed as "science has not penetrated the classroom", but that's the wrong way of thinking about it. It is more accurate to say: "Science has not penetrated the curricula of teacher training institutes." That's the barrier that needs to be overcome if reading instruction in schools is to be improved.

### **What sorts of books do you like to read for pleasure?**

Crime and spy series: Harry Bosch, Cliff Hardy, Jack Reacher, Lucas Davenport, Virgil Flowers, Spenser, Guido Brunetti, Jack Irish, George Smiley, 'Harry Palmer' (Len Deighton), Raylan Givens. Disgracefully, I gulp each new one down in less than a day. A year later I can read it again since I remember so little of it. And the following year too.

### **What is your favourite novel and why?**

*Here's Luck* by Lennie Lower (1930). The hero of this novel, and his son, were Sydney Larrikins, and so was the author, instantly sacked in 1930 by Frank Packer from his high-paying journalist job at the *Daily Telegraph* for insulting Noel Coward at an official dinner ("Gentlemen, I give you ... the queen"). Australia's funniest book: pure comic genius. Still in print! Every subscriber to *Nomanis* should read this book!