Dyslexia: All in their heads?

**Dyslexia, Learning and the Brain.**

Roderick I. Nicolson and Angela J. Fawcett


*Reviewed by Catherine Scott*

Dr Catherine Scott, Swinburne Professional Learning, Swinburne University of Technology, Po Box 218, Hawthorn Vic. 3122 Australia E-mail: clscott@swin.edu.au
I would like to start the review of Nicolson and Fawcett’s book on dyslexia with an imaginative exercise. It’s the late 19th century and an eminent doctor describes in a journal article the case of a person afflicted with a disabling and life-limiting set of symptoms. The publication of the case study is rapidly followed by the description of a number of other individuals possessed a similar set of signs and symptoms, leading to the discovery that a measurable percentage of any human population presents with a similar syndrome. As medical knowledge and skill in biochemical and biophysical techniques increases it is discovered that the disorder is caused by a chromosomal abnormality of a discrete and specific nature.

The first reported case of dyslexia was made in the late 19th century, 1896 to be precise, and was that of Percy, a 14 year old boy of normal intelligence whose reading and writing skills were nearly non-existent. A new disorder – ‘dyslexia’ – was born. Subsequently the existence of considerable number of other children who failed to learn to read adequately despite normal levels of cognitive ability enshrined the notion that ‘dyslexia’ was a ‘real entity’.

Psychology has long followed the medical model and so, since the discovery of Percy’s affliction, the hunt has been on for its biological basis. Unlike our hypothetical chromosomal abnormality the search has not led to a neat solution and the discovery of a discrete physical cause. Rather, as Nicolson and Fawcett observe of the research into dyslexia “It is hard not to get confused. The more one reads, the more confusing it gets” (p. 4). Moreover, unlike the case of
chromosomal abnormality, there is little evidence that the disorder even exists outside English-speaking cultures, but more of that later.

Most recently, genetic studies and brain imaging have been added the mire of confusion. However, unlike the cases of chromosomal abnormality or cancer, say, which one does or does not have, reading attainment is not characterized by two discrete and non-overlapping states: it is mapped on a continuum. Looked at this way, there is no evidence that poor readers are biologically distinct from good readers.

Nicolson and Fawcett’s aim is to cast some light on and make sense of the welter of confusing and frequently contradictory information. They provide a careful analysis of the history and findings of dyslexia studies. They also tellingly observe that dyslexia is a ‘one symptom’ disorder, characterized solely by poor reading. Moreover, this one symptom is influenced by a number of important environmental factors, including family background and the quality – or lack of it - of reading instruction. Herein lies the solution to the whole question, if only Nicolson and Fawcett could step back far enough from the received wisdom to see it.

Regrettably, the book’s noble purpose is doomed to failure from the outset by Nicolson and Fawcett’s acceptance of two major fallacies: the very existence of dyslexia as a discrete disorder and what McGuinness (2005) calls The Dogma about its underlying cause.
Readers may be startled by the claim that dyslexia does not exist, however, evidence from cross-cultural studies on reading development demonstrate that failure to learn to decode written text is an affliction of English-speaking children (McGuinness, 2004). As an example, studies by Wimmer and Goswami (1994) comparing normal English and Austrian 7 and 9 year olds demonstrated that Austrian 7 years olds, with one year’s reading instruction, read as rapidly and fluently as English 9 year olds with four years of instruction, while making half as many errors. Comparisons of very poor readers in Austria and England (Landerl, Wimmer and Frith, 1997) revealed that children regarded as poor readers in Austria decode accurately but read slowly, whereas English ‘dyslexics’ struggle to decode words.

It goes without saying that any culturally-linked characteristic must have, not the physical cause that keeps many researchers busy in its pursuit, but a cultural cause. The cultural cause of reading failure has two components: the complex, non-transparent nature of the English spelling code, and the ineffective, not say harmful, methods used to teach it. The latter have their origins in a variety of issues, most crucially lack of understanding of how the English spelling code works, which leads to the use of non-systematic forms of instruction McGuinness calls ‘junk phonics’ (2004) or to ‘whole language’ methods, which often eschew phonics instruction completely, or to motley combinations of both of these.

Nicolson and Fawcett reveal a strong commitment to the standard of position on dyslexia – that it is a ‘real’, neurologically-based condition – when they attempt to counter the reasonable observations made many who teach or interact with children but do not have research careers in specific learning difficulties to
defend, that is, that supposedly dyslexic children can be taught to read with the appropriate instruction. This, the authors hint, is the height of naivety: it is confusing the symptom – reading difficulties – with the cause: ‘dyslexia’. However, given that the authors also observe that the only symptom of dyslexia is poor reading, it could seem that in this situation commonsense has the edge on scientific ‘wisdom’.

The Dogma to which McGuinness refers and to which Nicolson and Fawcett defer, is that underlying reading failure is the result of a deficit in the development of phonological awareness. This theory can be traced back to early work by Liberman (1973), which rapidly came to dominate the field and evolved from an hypothesis to a theory and finally a full-blown dogma, accepted by most researchers in the area. Unfortunately there remains little or no evidence of any scientific merit to support it, but this has not stopped researchers seeking the supposed neurological basis for the ‘deficit’. Rather, everyone believes it because that is what everyone believes, and few people go back to the beginning to examine the basis of the theory.

Nicolson and Fawcett’s book is another brick in the wall of the edifice erected to the existence of and biological causality of dyslexia. The existence of the edifice represents a real tragedy because it excuses the failure of the education systems of the English-speaking world to properly instruct children in reading. The consequences of this are appalling: countless individuals are condemned to a life of diminished possibility and to an image of themselves as flawed and not-quite-right, with the added dread that they may pass on their ‘bad genes’ to their children and thus condemn them to a similar fate.
The history of research into dyslexia is a case study of how science can go terribly wrong. Psychology has schismed into many tribes and sects and the lack of communication between those studying language development and those researching reading attainment has meant that The Dogma has gone unchallenged by the very relevant findings on language development. The ‘human factor’ issue that people are highly unlikely to relinquish a long and distinguished career in researching a topic no matter how poor the factual basis of the phenomenon, guarantees that the bad news from outside the fold is more likely to be brushed aside than taken on board. These facts alone probably assure that people will be trying to make sense of the confused and confusing research into that one symptom ‘disorder’, ‘dyslexia’, for quite some time yet.

References


