



REVIEWS



Review of "The Dyslexia Debate"

by Julian Elliott and Elena Grigorenko

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A great deal is written about dyslexia in research journals and popular articles, too much for anyone to keep fully abreast of. So when a book comes along which summarises much of the literature in a balanced and constructive way we should be very grateful.

Is "The Dyslexia Debate" balanced and constructive? I think it provides a very helpful guide to the research literature, but I don't feel that the social policy side is so well considered. I feel Joe Elliott, who has been campaigning against dyslexia for many years, has not considered carefully enough how parents, educators and governments think about and organise educational policy around reading difficulties and dyslexia.

The key question the book asks, in the first chapter, is "Is dyslexia a scientifically rigorous construct that has meaningful value for research and educational/clinical practice?". The authors feel that the question is often over-simplified to, "Does dyslexia exist?" which results in strong outpourings of feeling from aggrieved parents and sufferers but does not really address the question of scientific validity. They do not doubt that biologically based reading difficulties really exist. But, they argue, we need to consider how literacy problems can best be understood, and crucially whether dyslexia is a rigorous scientific construct that adds to our

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capacity to help those with reading difficulties.

Elliott and Grigorenko argue strongly that attempts to reach a widely agreed definition of dyslexia have been unsuccessful. Many people support the British Psychological Society (BPS) "working" definition,

"Dyslexia is evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty. This focuses on literacy learning at the "word" level and implies that the problem is severe and persistent despite appropriate learning experiences."

But Elliott and Grigorenko point out some consider the BPS definition is too inclusive and mistakenly includes some poor readers who are not true dyslexics; on this view, dyslexia is most evident in cognitive differences; it can even be quite a strong focus for a "dyslexic identity". Reading difficulties may not be very evident or may have been overcome. This view sometimes leads to a position where poor readers may or may not be dyslexic. In other words, dyslexics are a subgroup of all children with reading difficulties.

Others feel it is too exclusive, because some "compensated dyslexics" may reach a stage when they are able to read and write well enough but still experience organisational difficulties. There is also substantial controversy over whether reading comprehension difficulty should be considered a type of dyslexia or a separate disorder.

But without a reasonably precise definition, we cannot be sure that assessments are measuring the same thing, that two diagnoses of dyslexia mean the same, or that two research studies supposedly about dyslexia are really investigating the same phenomenon. They point out that the recent debate in the US about whether to talk about dyslexia or learning disorders in DSM-V proposed that we should talk about "specific learning disorders" of three types, reading fluency (aka dyslexia), written expression and mathematical difficulties. The reason DSM-V backed away from saying that dyslexia was the best name for the reading difficulty was a lack of international consensus on what it is.

In the second and third chapters they review evidence in detail of cognitive and biological explanations of dyslexia. The reviews provide a balanced picture of attempts to analyse dyslexia. It suggests that although phonological processing difficulty appears to explain more variance in students using English than any other deficit, a combination of other factors including naming speed, visual processing, attentional factors, working memory and executive functioning also predict dyslexia.

Quoting Pennington, they conclude that,

1. *The etiology of complex behavioural disorders is multi-factorial and involves the interaction of multiple risk and protective factors which can be either genetic or environmental,*
2. *these risk and protective factors alter the development of the neural systems that mediate cognitive functions necessary for normal development, thus producing the behavioural symptoms that define these disorders;*
3. *no single etiological factor is sufficient for a disorder and few may be necessary;*
4. *consequently, comorbidity among complex behavioural disorders is expected because of shared etiological and cognitive risk factors; and*
5. *the liability distribution for a given disease is often continuous and quantitative rather than discrete and categorical.*

In other words, we should not expect the definition of dyslexia, or any other similar disorder, to be simple; we have to map the risk and protective factors without expecting neat bundles or discrete syndromes to emerge, and they will usually depend on quantitative criteria.

The third chapter reviews neuroscientific studies of the brain, grouping them into four types:

- 1) studies of how the "reading brain" does its job in adults: the brain systematically engages specific pathways, automatising processes as much as possible, in predictable areas of the brain;
- 2) studies of reading acquisition: the brain of a competent reader is very different from that of a beginning reader;
- 3) comparisons of typical and disabled readers: unfortunately definitional problems have seriously hampered the generalisability of results;
- 4) brain imaging within intervention studies: the authors suggest this new area holds the best hope for the future contribution of neuroscience to the dyslexia debate.

The chapter provides some detailed explanation of where we have reached in understanding how brains read, but the main point is to evaluate what our current understanding tells us about the dyslexia debate. They conclude that neuroscience

is not yet capable of resolving the dyslexia debate, and does not yet provide a way to identify a dyslexic subgroup from among the larger group of poor readers. Nor does it provide a way to identify which students might benefit from a particular intervention. Indeed, if Pennington is right, there may not be a dyslexic subgroup.

Genetics is even less likely to be able to come up with practical tools to identify dyslexia or to pinpoint effective interventions in the short or medium term. We can be sure that reading is partly controlled by genes, but the processes by which genes, in interaction with child rearing, nutrition, health and education, affect reading development remain extremely unclear, and perhaps are less clear now than when the Human Genome was first mapped.

The fourth chapter looks at interventions and assessment: how should dyslexia be identified and how can we help people with dyslexia? I found the review of intervention research thought provoking and interesting. My own modest contribution to the corpus was not included but it seemed to be consistent with what Elliott and Grigorenko say, (I examined differences between individualised and standardised intervention tools in England at ages 8-9, and found they were about equally effective). They quote research I read then (about 10 years ago) and I agree with what they say about it.

They go on to review more modern research which I found fascinating. For example, Marianne Wolf and colleagues have done a number of recent studies comparing the RAVE-O programme designed to deal with a fluency or naming speed deficit, and other more phonologically focused programmes. The results suggest similarly positive outcomes, with little difference in programme effectiveness when programmes included quite a broad range of language components addressing a variety of core deficits. However, the gains for daily intervention over 70 hours were modest.

The main message, however, is that there is really only one type of intervention for which there is good evidence of effectiveness: "it is now widely accepted that a systematic phonics approach usually leads to superior reading skills when compared to non-phonics or non-systematic phonics approaches." (p129). Early intervention is also very important, and they also support a well-organised Response to Intervention model (RTI), in which changes in class teaching (Tier 1), additional small group teaching based within the class (Tier 2) and more intensive individualised intervention, usually outside the class (Tier 3).

If there is really only one type of intervention, why, they ask, do we need such long and complex psycho-educational assessments, using cognitive testing when really we only need to know about the reading and writing skills? In other words, isn't most

educational psychology assessment of dyslexia a fraud?

As a psychologist who does a lot of assessments where the key question is, "does my child have dyslexia?" I probably can't give an unbiased answer. I do think some psychological assessment is unnecessarily complex and uses mistaken concepts (such as discrepancy analysis). I agree that in the UK this is more evident when university students are seeking exam accommodations, even though the student long ago achieved a satisfactory mastery of reading and writing; but the answer is for universities to worry less about the strict timing of exams and the finer points of their top grades, and perhaps to provide standard score guidelines on what constitutes a disadvantage, as the UK QCA did some time ago.

It is also evident when a small number of parents are seeking UK government funding for expensive specialised schools for dyslexics; entry is often through the SEN Tribunal where dyslexia can be a very powerful label; the answer is to find a fairer way to fund entry to such schools, and to persist with the government's intermittent efforts to address the problem of supporting children with SEN in mainstream schools through improving mainstream (Tier 1) teaching.

The Dyslexia Debate probably isn't going to persuade those psychologists who make a living from providing such assessments. Most mainstream dyslexia assessment in the UK is now (I think) done by specialist teachers, as Elliott would like. I am biased, of course, but I have seen as much bad specialist teacher assessment as psychological.

Elliott and Grigorenko's case is that continuing definitional confusion about dyslexia means that we are better talking about reading disability. It is relatively straightforward to identify children with reading difficulties, and researchers should generally not go beyond that. In other words, the problem with the BPS definition was in saying it was talking about dyslexia, not in the coverage ("accurate and fluent word reading and/or spelling").

If, in spite of Pennington, researchers still want to try and pin down the combination of risk and protective factors that might be "dyslexic", then they can, but they should make clear that they are not starting with a dyslexic sample, they are trying to find a way to reliably identify one.

Must educational policies wait for clear answers from research? They rarely do. But are cognitive and biological research the only kinds we need?

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Elliott and Grigorenko don't have a clear social-theoretical view of the dyslexia phenomenon. Perhaps none of us do, but this seems to me to be very much the missing chapter in their book. They assume throughout that findings and social policy decisions in one country or even one culture (the Anglo centric research hegemony?) apply equally well across other countries and cultures.

From a Singapore perspective, it is pretty obvious that how the UK and the US arrange the supply of assessments and interventions for children with reading difficulties does not apply straightforwardly here. In Singapore there is no SEN law, there are no quantitative criteria for how severe a reading difficulty must be and the government will only accept that a child is dyslexic if a psychological report says so - if a "diagnosis" is given - so professional judgement is conclusive. Provision is either school based or through tuition centres. There are no special schools for dyslexia. Joe Elliott thinks we in Singapore identify too many children as dyslexic. But we don't pick out two groups (dyslexic and non-dyslexic poor readers) and if we err on the side of helping even very mild difficulties, who loses?

In Singapore over 90% of children receive some additional tuition every week. If the Dyslexia Association of Singapore can provide high quality tuition, and parents can always pull their children out if they don't like it, who loses? There are probably weaknesses - Singapore has no quantitative criteria for exam accommodations, and parents either have to wait for the overstretched government psychologist or pay for a private one, and of course this favours the well off, which is not very "meritocratic".

We only have some (now outdated) Singaporean normative measures of literacy. We have to use US and UK norms. But in Singapore, we don't need the complex and extremely expensive SEN bureaucracy that Statements in the UK and IEPs in the US have created. Parents and the government seem committed to arranging help for children with reading and spelling difficulties, using the dyslexia construct. We need to identify all the children who need help early; no-one does that yet but Singapore seems to be moving in the right direction.

Elliott and Grigorenko nod briefly towards "sociocultural perspectives" (p175) but argue that "advances of research into reading disability" invalidate radical disability accounts, and suggest that the dyslexia construct "sustain[s] a vast industry geared to providing assessments, diagnoses and treatments." It would be helpful to see what evidence there is for and against this conspiracy theory account of the "dyslexia industry". There have been some sociological attempts to analyse special education in the UK (eg Sally Tomlinson, "The Sociology of Special Education", 1982), but they have not been widely understood or well developed.

In my opinion, international perspectives provide ways of comparing country-wide

attempts to improve reading outcomes. It would be helpful to see which approaches, dyslexic or reading disability, seem to offer better outcomes by comparing across countries.

Elliott and Grigorenko make approving reference to the Frith multi-level model (behavioural, cognitive, biological), which sits alongside "the environment". The model is helpful in seeing how the various natural science disciplines fit together but it does not make the vital distinction between "natural" and "social" environments. How a society construes an area like reading disability/dyslexia involves social forces which can be studied. Radical disability theory is only one approach. If we don't study them, we are just pushed and pulled with those forces. Elliott and Grigorenko want to chide those who believe the dyslexia construct has significant social value as "unscientific". But if they are not prepared to use science to understand social policy, are they not also unscientific?

So I think Joe Elliott misses the benefits of the dyslexia construct in some societies. In the UK, there was a gradual shift in the willingness of professionals to use the term "dyslexia" during my entire working life there. It eventually seemed to many that, in spite of the fuzzy definition, on balance there was more to be gained by bringing together "specific learning difficulties" and "dyslexia" than from trying to make a distinction, which was very difficult to explain to non-professionals.

Many parents and children preferred the term "dyslexia". It has a lot more impact. Some people adopt a "dyslexic identity" - "I'm dyslexic and I'm proud of it," they say - and gain strength and perseverance from it. Can Elliott's scientific view of reading disability encompass this personal dimension? I think his view is too narrow.

If you are worried about enough effort and resources going to help children with reading difficulties (as anyone who has worked in UK education should be) you need politicians and the public to be prepared to pay to get it right. The UK adopted an RTI approach to reading disability but either failed to fund it properly, expected too much of the primary schools or failed to take enough account of social class disparities (depending on whose side you are on).

Singapore appears a good example of a society that has adopted "dyslexia" and made it work. Elliott and Grigorenko may drag some societies backwards: those on the other side of the dyslexia

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debate say that only a dyslexia construct has the power to make society do enough about reading difficulties. Of course, we need social research to support this thesis!

All research needs to be well grounded; Elliott and Grigorenko have done a very good job of summarising the cognitive, biological and intervention research. They have not taken the same care with their summary of the social policy options. Research in all disciplines into reading disability/dyslexia needs to take care with the definition of reading disability and dyslexia, separating but also linking explanations at different levels, not least the social.

ABOUT THE AUTHOR



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Tim has a BA in Psychology & Philosophy from Oxford University, a PGCE from Redland College, and an MSc in Educational Psychology from University College, London. He worked as a teacher in primary, secondary and special settings for 9 years, and as an educational psychologist mainly for English Local authorities for more than 20 years. He also served as SEN Officer for Northampton for 8 years, administering the area's statutory SEN procedures. He worked for 3 years in a private dyslexia specialist school (Egerton-Rothesay) as its in-house psychologist, and for a while he led the DAS research team in Singapore. His own doctoral research was on literacy interventions in the middle primary years, and was particularly interested in the roles of teachers and teaching assistants in helping children with literacy difficulties. He is now a Consultant Educational Psychologist for the Specialised Educational Services division of DAS.