

Should we dispense with the D word?



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The word dyslexia seems to arouse strong emotions, both for and against, and has a chequered history. Viewed by some as a device to spare the blushes of middle-class parents whose children struggle to learn to read, it is seen by others as a credible explanation for the reading difficulties their child has been experiencing.

In their recently published book, *The Dyslexia Debate* (www.cambridge.org/us/academic/subjects/psychology/educational-psychology/dyslexia-debate), Joe Elliott and Elena Grigorenko open up a can of worms. But it is a can that needed opening, and we applaud these authors for bringing this important issue up for discussion and debate. Elliott and Grigorenko argue that the term 'dyslexia' should be abandoned – that it is an imprecise and unhelpful label that does nothing to assist the individuals to whom it is applied.

So what do Elliott and Grigorenko say, and why do they say it?

Two key points need to be made before proceeding. First of all, this debate is largely about terminology. Elliott and Grigorenko are not denying the reality of children's reading difficulties, or that these difficulties need to be identified and treated as early as possible. What they are arguing is that giving the label of "dyslexia" to children who experience such problems is not helpful.

Secondly, it is important to keep in mind that reading ability falls on a continuum in the population; it is normally distributed like height or weight. This means that deciding whether a child does or does not have a reading difficulty will always involve applying a

somewhat arbitrary cut-off. In this sense, a diagnosis of dyslexia is similar to a diagnosis of obesity, but quite different from a diagnosis of, say, measles where it is clear when someone has it and when they don't.

With these points in mind, let's look more closely at Elliott and Grigorenko's two main arguments.

1. There is no agreement about how to diagnose dyslexia

Elliott and Grigorenko's first key point is that applying the label of dyslexia is intrinsically unscientific because there is no universally agreed set of criteria for its diagnosis. What one clinician might call dyslexia, another does not. Some apply the label to any child who struggles with learning to read; others apply it only when the reading difficulty is accompanied by strengths in other intellectual domains; still others when the reading difficulty is associated with particular cognitive 'markers' such as phonological or visual deficits. And even within these different definitions, there is variability associated with where the cut-off for an impairment is applied: consequently, estimates of the prevalence of dyslexia may range from 3-20 per cent of the population.

It is undoubtedly true that the term 'dyslexia' has been used in a wide variety of contexts over the years, and that this has led to considerable confusion. We think that three particular factors have contributed to the problem:

Firstly, there has been a failure to distinguish between research and clinical uses of the term. Researchers often select samples of 'dyslexics' with very specific profiles. They do so in order to answer particular research questions, or to control for factors in which they are not interested in a certain context. For example, they may select their



sample to have average or above average IQ, so that this factor does not influence their results. But the fact that the use of these specific selection criteria can be valuable in a research context does not mean that they should necessarily inform a clinical diagnosis of dyslexia. Similarly, researchers may decide that, for their experimental purposes, 'dyslexia' will be defined very generously as those students scoring below one standard deviation from the mean. But this does not necessarily mean that this (relatively large) proportion of the population (about 16 per cent) should be regarded as dyslexic and hence in need of special treatment and/or afforded educational dispensations.

Secondly, there has been a tendency to conflate symptoms and causes within definitions of dyslexia. Sometimes the condition is defined purely in terms of the presenting problem – a reading accuracy and/or fluency difficulty – with the diagnostician remaining agnostic as to its underlying cause. In other cases, the definition incorporates a particular theoretical perspective as to why the reading difficulty arose in the first place. The most prominent and certainly widely-supported of these theories centres on underlying language-based phonological deficits, but there are also a host of other neural, visual and attentional theories. Given the wide range of theories as to the causes of dyslexia, it is not surprising that this has generated an equally wide range of definitions.

Thirdly, the term is widely used, and very frequently misused, by non-experts in the field and by the mainstream media. The label is particularly popular with promoters of dyslexia "cures" of dubious merit, including such things as: nutritional supplements, exercise regimes, coloured glasses and 'high frequency' ear plugs. The briefest of Google searches confirms this fact – and

this, of course, only serves to add to the confusion.

But, these points aside, is it the case that there is no generally agreed set of criteria for the diagnosis of dyslexia? We think that this may be overstating the case. Amongst experts in the field, there is in fact a substantial degree of consensus about what is meant by the term and how it should be defined in a clinical context. Dyslexia is widely viewed as a severe and enduring reading difficulty that persists despite high quality instruction and evidence-based intervention. This is enshrined in documents such as the Rose report (<http://webarchive.nationalarchives.gov.uk/20130401151715/https://www.education.gov.uk/publications/eOrderingDownload/0201-2006pdf-EN-01.pdf>) in the UK and the report of the Australian Dyslexia Working Party (2010) (www.dyslexiaaustralia.com.au/DYSWP.pdf).

The definition of dyslexia above is effectively couched within the widely-accepted 'Response to Intervention' model of remediation (RTI) (www.musec.mq.edu.au/community_outreach/musec_briefings#17):

a model that seeks to match the amount and nature of reading intervention to the support needs of the child. In doing so, it provides relatively straightforward means of distinguishing between children who are performing poorly on reading measures because they have not received the appropriate instruction for some reason and children who are performing poorly because they have severe and enduring learning difficulties that require sustained intervention (whom we might classify as having 'dyslexia' or some other label).

The RTI model works as follows: all children receive a systematic program of scientific evidence-based reading instruction right from the outset of schooling, i.e., a program of instruction that is predicated upon

what reading scientists have found to be critical and most effective in terms of teaching children to learn to read. This is referred to as Tier 1 instruction. The reading progress of all students is closely monitored, and those children whose performance, following instruction, is poor on curriculum-based measures, regardless of the reason, are identified as low-progress readers and are provided with more intensive small-group reading instruction. This is referred to as Tier 2 and typically involves about 20 per cent of the age cohort. (In some socially disadvantaged areas, of course, this figure will be much higher.) The progress of Tier 2 children is again closely monitored and those who continue to have low scores, that is, who are not "responding to Tier 2 intervention", are provided with even more intensive one-on-one intensive remediation and support. This is Tier 3 instruction.

Children who still struggle following a period of intensive Tier 3 intervention or who progress at an unusually slow rate, are viewed as having, a severe and enduring reading difficulty that persists despite high quality instruction and evidence-based intervention. This has been estimated to be about 3 per cent of the population of students. Thus, without needing to look to underlying causes, or to associated deficits, a small subgroup of children can be identified who can reliably and consistently be given a diagnosis of 'dyslexia' on the basis of their need for continuing intensive literacy instruction. However, it is generally viewed as important to gather additional clinical information from appropriate professionals at this point to contribute to the development of effective individual education plans (IEPs) with recommendations for both remediation and accommodations.

There are two key features of this definition. First, it makes a

distinction between children who are struggling with reading because they have not had the appropriate instruction (perhaps because they have not attended school regularly, or have had poor teaching) and those who are struggling despite having had sufficient opportunities. Secondly, it focuses the diagnosis at the level of reading itself. Scientists have come a long way in developing precise and detailed theories of the reading process, and these have been translated into valid and reliable clinical assessment tools. It is our view that, armed with these tools, well-trained clinical experts are in a stronger position to provide a scientifically-informed diagnosis of dyslexia than Elliott and Grigorenko suggest. Whether the actual term 'dyslexia' is used or some other label is employed, this small group exists and can be identified.

It is only fair to note, however, that while RTI does have the potential to improve reading outcomes significantly and will, in addition, identify students at risk of reading failure far earlier, create a more equitable system and should result in better ongoing monitoring and assessment of all students, we are only seeing a minority of schools implementing anything even vaguely resembling RTI at this stage in Australia. This makes the use of it, at this point, as the mainstay identification model challenging, to say the least. This is not to say, however, that it should not be an important goal. It also means that until RTI is established, students will not necessarily be picked up as falling behind until later in primary school or even into secondary school. This means that the transition through the three tiers is not as straightforward as it is in the early years. Identified students will simply move straight into a Tier 2 or even Tier 3 intervention. And finally, while it is our firm view that the RTI model has many advantages, it is

viewed by some as being limited in that it does not individualise, it does not diagnose, and it does not classify.

2. Reading interventions will be the same whether dyslexia is diagnosed or not

The second key point made by Elliott and Grigorenko is that a diagnosis of dyslexia does not have any implications for treatment. Again, they are broadly correct. Let us suppose that two eight-year-old girls present at a clinic, both of whom can barely read. One girl has frequently been ill and has attended school only intermittently over the past two years. As a result, she has fallen behind in learning to read. The other girl has a history of struggling to learn to read in spite of having been provided with additional instruction. The latter child might well be diagnosed with 'dyslexia'; the former most likely not. But the programs of intervention put in place for each child would most likely differ very little in both content and method. A large body of evidence tells us that the most effective thing we can do for each of these children is to provide them with systematic, intensive evidence-based reading remediation, targeted at the gaps in their reading skills.

So does this mean, as Elliott and Grigorenko argue, that a diagnosis of dyslexia (or some other label) is unnecessary and redundant? Again, we feel that this may overstate things. Although the nature of the treatments provided to these children will be similar, the evidence tells us that their length and intensity are likely to be quite different. Our first girl should respond quickly and well once she receives the required intervention; our second girl, by definition based on the RTI model, is likely to need sustained and ongoing support. She may need one-on-one assistance and, ultimately, compensatory technology.

More generally, the fact that

the treatment is similar across the spectrum of a condition does not mean that there is no justification for giving a label to those at the extreme end. In the same way that the diagnosis of 'obesity' serves to identify the most severe and at-risk cases along the continuum of weight, and the diagnosis of 'hypertension' serves to identify the most severe and at-risk cases along the continuum of blood pressure, a diagnosis of dyslexia can identify the most severe and at-risk cases along the continuum of reading. Such labels focus attention and resources where they are most urgently needed. Where we might disagree is in the term we use to describe such children and their condition.

There remain the quibbles about terminology. Many researchers and clinicians do not like the term 'dyslexia' because it medicalises the condition and invokes a disease model that is not appropriate. They prefer a term like 'reading disability' or 'reading impairment'. Others, however, counter that the use of a medical term like dyslexia attracts attention and resources to a problem that may not be so forthcoming if these other terms were used. And as Dorothy Bishop notes, this concern seems to be borne out in the case of the much less visible condition of 'Specific Language Impairment' (<http://deevybee.blogspot.com.au/2010/12/whats-in-name.html>). Finally, not to be underestimated is the positive effect that a diagnosis of dyslexia has on the parents and children involved, validating their concerns and often providing a much-needed boost to self-esteem. For these reasons, there is considerable divergence in the field as to which label should be preferred (and indeed divergence even amongst we three authors!).

Elliott and Grigorenko argue that the most important thing is that all children who encounter literacy difficulties receive the help that they

need. We could not agree more. At the end of the day, what we choose to call the small proportion of students with severe and persistent reading problems is not nearly so important as ensuring that they receive the support that they need. In the past, passionate advocates for dyslexia may have gilded the lily by claiming that up to 20 per cent of children are dyslexic (and some still do). This is unhelpful and ultimately counter-productive since government agencies will balk at the expense of providing special treatment and dispensations for such a large proportion of the population. Nor is such expenditure warranted when the reading difficulties of the vast majority of low-progress readers may readily be attended to in school with effective small group Tier 2 and

individualised Tier 3 interventions. *Kevin Wheldall is an Emeritus Professor of Macquarie University and Director of the MultiLit Research Unit. You can follow him on Twitter (@KevinWheldall) where he comments on reading and education (and anything else that takes his fancy). You can also follow his blog, 'Notes from Harefield: Reflections by Kevin Wheldall on reading, books, education, family and life in general' (www.kevinwheldall.com). Email: kevin.wheldall@pecas.com.au.*

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