

The dyslexia debate: some key myths



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*In our book, *The Dyslexia Debate*, recently published by Cambridge University Press, Elena Grigorenko and I sought to provide a detailed examination of the dyslexia construct in terms of its conceptualisation, operationalisation, and relevance for assessment and intervention. To achieve this, we drew upon extant knowledge across a number of relevant disciplines – genetics, neuroscience, psychology, and education. Our conclusion was that dyslexia was no longer a term that had value for research or practice and, as a result, we recommended that this should be discontinued. In its place there should be a more fine-grained account of particular reading and associated difficulties.*

As the book adopts a heavily scientific stance that does not make easy reading for the non-specialist, I sought to outline some of the key issues, and the implications of these for educational and clinical practice, in a briefing paper that is reproduced below.

In search of a diagnosis: five key dyslexia myths

Many children struggle to learn to read, and some experience literacy problems throughout their lives. When these difficulties become evident, a common reaction from observers runs along the following lines: “Perhaps your child is suffering from dyslexia. You might be wise to get this checked out”. When dyslexia is diagnosed, the parental reaction is often: “Thank goodness that the true nature of my child’s problem has finally been discovered. I only wish that this had been diagnosed earlier, but at least we shall now get the kind of help that my child needs.”

One can locate a series of myths that lie behind these beliefs.

- Myth A: Dyslexia is a special kind of problem that is found in only some children who struggle to decode text.
- Myth B: Special tests are needed to identify which of these children are dyslexic and which are ‘just poor readers’.
- Myth C: Diagnosing dyslexia will remove the risk of false attributions of laziness or stupidity.
- Myth D: A diagnosis of dyslexia will help teachers to select the most powerful ways to intervene.

- Myth E: A diagnosis of dyslexia should rightly result in the allocation of special accommodations (particularly in exams) and additional resources.

The reality is that each of these beliefs is problematic.

Myth A: Dyslexia is a special kind of problem that is found in only some children who struggle to decode text.

While many people assume that specialists agree about what is meant by the term dyslexia, the reality is that it is understood in many different ways. It is hardly surprising, therefore, that estimates of dyslexia often range from 4-20 per cent of the population.

Beyond an agreed focus upon decoding, it begins to get complicated. For some, dyslexia simply refers to all who experience a particular difficulty in decoding text. Identifying this problem for an individual is relatively easy and the child’s teachers should be capable of doing this by means of classroom observations and formal reading tests. Others suggest, however, that not all who struggle in this way are dyslexic and, for this reason, detailed clinical assessment is necessary to identify which poor readers have dyslexia and which do not. Sometimes, the latter group is known as ‘garden variety’ poor readers. As *The Dyslexia Debate* demonstrates, the basis for determining a dyslexic subgroup from a wider pool of poor readers is highly problematic. While a number of symptoms are often found in samples of poor readers, it is wholly unclear which of these might be necessary for a diagnosis of dyslexia.

For some, it is a serious mistake to associate dyslexia ‘narrowly’ with poor decoding as this discounts problems with a range of everyday

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academic, organisational and self-regulatory skills. Indeed, in the opinion of many clinicians, it is possible to have dyslexia even when one's current literacy skills are sound. Such a position greatly complicates matters and opens the floodgates for claims for resources and special assistance. University students diagnosed with dyslexia, for example, whose reading is relatively sound, may be deemed to require help with more general study skills such as how to organise and structure written assignments.

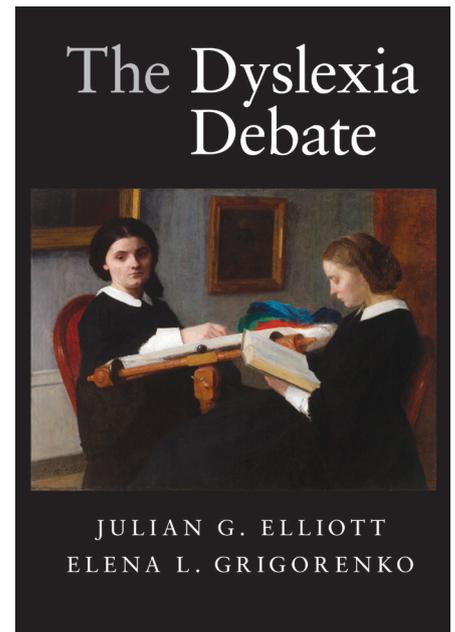
Such differences of opinion render problematic any suggestion that diagnoses of dyslexia can be consistent, meaningful, and valid. They may be welcome, but they can hardly be considered to be scientific.

Some of the various ways that dyslexia is understood by researchers, clinicians and teacher can be found in the following list *The Dyslexia Debate* explains in some detail the problems associated with these conceptions.

- Anyone who struggles with accurate single word decoding.
- Anyone who struggles with accurate and/or fluent decoding.
- Those for whom decoding is merely one element of a more pervasive dyslexic condition marked by a range of comorbid features. This can include so-called 'compensated dyslexics' who no longer experience a severe reading difficulty.
- Those who score at the lowest end of the normal distribution on an appropriate reading test. Cut-off points may vary greatly and typically range between 5-20 per cent.
- Those whose decoding difficulties cannot be explained in alternative ways (e.g., because of severe intellectual or sensory impairment, socio-economic disadvantage, poor schooling, or emotional/behavioural difficulty).
- Those for whom there is a significant discrepancy between reading performance and IQ.
- Those whose reading difficulty is unexpected.
- Those whose poor reading contrasts with strengths in other intellectual and academic domains.
- Those whose reading problems are biologically determined.
- Those whose reading problems are marked by certain associated cognitive difficulties (in particular, phonological, rapid naming, and verbal memory deficits).
- Those poor readers who also present with a range of symptoms commonly found in dyslexics (e.g., poor motor, arithmetical, or language skills, visual difficulties, and low self-esteem).
- Those who demonstrate a discrepancy between reading and listening comprehension.
- Those who fail to make meaningful progress in reading even when provided with high-quality, evidence-based forms of intervention.

Myth B: Special tests are needed to identify which of these children are dyslexic and which are 'just poor readers'.

One of the biggest myths associated with dyslexia is that it should be defined in relation to intelligence. The so-called 'discrepancy definition' of dyslexia recognises as genuine dyslexics only those whose level of reading is significantly worse than would be expected on the basis of their intelligence (typically measured by an IQ test). Research over the past 20 years has demonstrated the folly of this belief. Puzzlingly, while the discrepancy model has been discredited (and is



no longer advocated by dyslexia lobby groups), it is still widely employed by clinicians. In our book, we outline several reasons for this:

1. The link between IQ and dyslexia has a long history and is now steeped in everyday understandings that are not easy to break.
2. Those with IQs that place them in the lowest 1 per cent of the population (and who would normally struggle to cope in mainstream schooling because of their intellectual difficulties) often encounter problems in learning to read.
3. IQ is often used as a criterion when selecting 'dyslexics' for research studies. However, in such instances, this step is usually taken to help isolate underlying cognitive factors that might not otherwise be easily revealed, not because this should be taken as a meaningful diagnostic criterion.
4. Some advocate the continued use of IQ in the assessment of dyslexia because of a perceived lack of alternative procedures. Such a position, of course, is unjustifiable.

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5. IQ tests have long been used in the US and many other countries for determining eligibility for additional education services. Longstanding practices such as these are not easy to dispel.
6. There is a clear relationship between IQ and higher order reading skills of inference, deduction and comprehension. Thus IQ tests may be valuable for providing understanding of broader learning difficulties.
7. The administration of IQ tests is restricted to certain professionals and thus has an influential role in maintaining and preserving professional influence and status.
8. The erroneous notion that dyslexics are all highly intelligent individuals who struggle with decoding (itself a low-level cognitive task) can prove powerful and liberating.

Some argue that while IQ tests are inappropriate for a diagnosis of dyslexia, other tests of underlying cognitive processes (e.g., working memory, rapid naming) can be employed to help to diagnose dyslexia. *The Dyslexia Debate* reviews this issue in detail and shows that relevant studies have provided contrasting findings that have limited value for the design of effective forms of reading intervention. Our current knowledge indicates that it is generally better to concentrate directly on academic skills rather than seeking to improve underlying processes.

Myth C: Diagnosing dyslexia will remove the risk of false attributions of laziness or stupidity.

Many poor readers have been unduly hurt by being treated as lacking in intelligence and a diagnosis of dyslexia often seems to be a sound way to counter this.

However the real problem to be tackled is not that dyslexia had earlier failed to be identified but, rather, that assumptions of low intelligence are made on the basis of reading skills. In reality, IQ and decoding ability are largely unrelated and, for this reason, teachers need to ensure that poor literacy skills do not translate into classroom demands that fail to reflect the child's true intellectual abilities.

The charge of indolence is rather more problematic. Of course, many children will become less motivated and engaged at school when they struggle to cope with literacy. In such cases, some may describe the child as lazy. This term has a pejorative ring that is not helpful and is certainly best avoided. The key task is to encourage the struggling reader to maximise effort even when significant gains are not evident.

One particular danger of using the term dyslexia to offset attributions of laziness is that this criticism might be seen as a fair description of poor readers who have not been given this diagnosis.

In summary, using the term dyslexia to avoid improper understandings of a child as lazy or stupid is to fail to deal with the real problem of inappropriate attributions.

Myth D: A diagnosis of dyslexia will help teachers to select the most powerful ways to intervene.

There is a widespread belief that a diagnosis of dyslexia will help point to appropriate forms of educational intervention. This is wholly incorrect. There is no effective treatment for those who are adjudged to have dyslexia that differs from accepted practices for all children who struggle to decode. What is clearly evident is

that the extensive use of so-called 'whole language' approaches which downplay the role of structured and targeted phonics teaching as a key element of a broader literacy programme is inappropriate for poor readers. A wealth of research evidence has clearly shown that, in comparison with normally reading peers, those who struggle to acquire reading skills typically require more individualised, more structured, more explicit, more systematic, and more intense reading inputs.

High quality research studies that seek to find ways to help tackle severe reading difficulties often refer to their participants as having dyslexia but in the great majority of cases, this term is used as a generic descriptor with no differentiation between dyslexic and other poor decoders.

To date, accumulated scientific studies have not supported the notion that children with severe reading difficulties (whether they are deemed dyslexic or not) can be helped significantly by the use of:

- Physical exercises/perceptual-motor training (sometimes misleadingly labelled as "brain-based"),
- Coloured lenses or overlays,
- Vision therapies,
- Auditory training programmes,
- Fatty acid (e.g., fish oil) supplements, and
- Biofeedback.

Myth E: A diagnosis of dyslexia should rightly result in the allocation of special accommodations (particularly in exams) and additional resources.

There are two key problems here. Firstly, there is the issue of equity and fairness. Myth E is particularly problematic if it results in a failure to provide appropriately for those

poor readers who do not receive a diagnosis of dyslexia. Certainly, there will be many poor readers who, for a variety of reasons, are less able to gain access to labels of this kind. Secondly, given that the basis for a diagnosis of dyslexia is highly problematic, allocating resources on an unscientific basis of this kind is untenable.

Rather than basing provision upon a diagnosis of dyslexia, specialist resourcing should be closely tied to performance over time in relation to the acquisition and development of specific literacy skills. An increasingly popular approach for helping children with a variety of learning difficulties (including reading), is known as Response to Intervention. Here, intervention takes place immediately a child begins to struggle academically. This is preferable to waiting for

the child to continue to fail over time and, in the light of this, eventually seeking an assessment in the hope of ultimately obtaining a (questionable) diagnosis. According to the Response to Intervention model, the form of intervention utilised should be supported by high quality research evidence, and the amount and nature of help provided should be determined largely on the basis of the child's response during the course of the specialised intervention.

Final comments

Anyone who observes the anguish of a child who struggles to read will surely react with a mixture of sadness and sympathy. For parents of such children, the hurt and humiliation will often be compounded by a sense of frustration, impotence, and

uncertainty as to how to help. One thing that many parents feel that they can do is lobby for their child. In such circumstances, it is unsurprising that so many seek a dyslexia assessment with all the advantages that this promises. However, as *The Dyslexia Debate* demonstrates, parents are being misled by claims that such assessments are scientifically rigorous, and that a diagnosis will point to more effective forms of treatment.

It is surely time to adopt a more scientific approach that will ensure that all children who encounter literacy difficulties receive the help that they need.

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