DYSLEXIA

Beyond the myth

ROD NICOLSON *comments on the recent Channel 4 programme and subsequent media coverage.*

SEPTEMBER'S Channel 4 *Dispatches* programme 'The myth of dyslexia', which was trailed as indicating that dyslexia is primarily an emotional construct, has certainly led to an ongoing outpouring of emotion and criticism in the media and on websites. But since the programme, surprisingly little has been heard from appropriately qualified psychologists. My aim in this analysis is to attempt a more considered view.

The main academic protagonist was the educational psychologist Julian Elliott, with other contributions from six dyslexia specialists. The programme argued that 'dyslexia is a myth' and that poor readers are poor readers regardless of whether they are dyslexic. Therefore there is no value in even attempting to classify a child as dyslexic, since the same treatment should be used for all such children. In a subsequent clarification, Elliott argued that he was not saying that dyslexic children are 'faking it' but that 'their difficulties are so wide-ranging that the term dyslexia is not helpful'.

The programme also mentioned the established view that dyslexia reflects a phonological difficulty – 'a part of the brain processing the tiniest sounds in words is not working properly' – but noted that there are also powerful environmental factors in terms of both home circumstances and the additive effects of poor reading ability. It then moved to public policy implications, arguing that the National Literacy Strategy (NLS) was ineffective. It highlighted Peter Hatcher's Cumbria reading intervention project – which is aimed at a systematic and early intervention to support all readers, whether dyslexic or not – proposing that this is the answer to teaching reading.

I am by no means a disinterested commentator. I chaired the 5th International Conference of the British Dyslexia Association, and I certainly don't think dyslexia is a myth. Furthermore, with Angela Fawcett I have published the cerebellar deficit hypothesis which was sideswiped by the programme. So I was never going to like it. There were in fact some valuable observations. But one needs to sort the wheat from the chaff.

Valid points

Dyslexic children do show phonological difficulties, and these are a major cause of their difficulties learning to read. Non-dyslexic poor readers also show equivalent phonological problems. It is also true that current approaches to supporting poor readers are nothing like as effective as one would hope.

Dyslexia is one of the most common special educational needs, with a prevalence of at least 5 per cent. Dyslexia support is indeed a major drain on the resources of the education system, and a major financial and emotional drain on the resources of the families involved. Early problems learning to read do frequently lead to a vicious circle of disaffection and reading avoidance.

'There remains a divide between educational and academic psychologists'

Interventions at age six are much more effective than interventions at age eight, than at age ten, and so on; and a systematic, well-planned intervention with trained staff and whole-school implementation is going to be more effective than ad hoc interventions.

The programme also highlighted undoubted difficulties in diagnosing dyslexia – there is no complete consensus as to how this should be done. Many dyslexic children also seem to show problems outside the literacy domain, as the programme argued. There is a surprisingly large overlap between attention deficit, specific language disorder and dyslexia in terms of secondary symptoms shown. However, there is a divide between psychologists such as Elliott who believe that it is necessary for a diagnostic category to be exclusive to be of value, and psychologists such as me who consider that in many ways secondary symptoms are as informative as primary symptoms, and may lead towards the development of classification systems based on underlying causes rather than manifest symptoms.

The 'complementary' interventions, which the programme took a swipe at, are based on the idea of treating some underlying problem rather than the symptoms. While there are consistent, published, fully controlled, demonstrations that these interventions do indeed prove beneficial, controversy arises from whether they really do 'cure' the underlying causes or whether the effects derive more from other factors such as motivation.

Finally, it is true that dyslexia is big business, with major financial opportunities for anyone inventing a more effective intervention. There are various 'lobbies' whose existence and lobbying distorts the 'normal science' investigations. These are usually beneficial but can also be counter-productive, by stimulating research in artificially small domains without encouraging consideration of the broader picture. The lobbies almost always distort research by introducing a political and an adversarial dimension.

Obvious failings

The fact that 50 per cent of the variance in dyslexia is genetic means that dyslexia does have a clear and distinct basis, and hence cannot be a 'myth'. Full stop.

The 'myth' argument is also incoherent in places: the experts in the programme argued that phonological problems were the defining feature of dyslexia, then it was argued that the NLS and the Dyslexia

Institute interventions (which are strongly phonologically based) are not working, and finally that augmenting phonology with fluency was a more effective approach. Is phonology the key or isn't it?

As for whether support for dyslexic children disadvantages other poor readers, while it may be the case in some US states it is not so in the UK. Since the 1994 Code of Practice for SEN equal provision is made for all children with special educational needs. Dyslexia has no special status. The major emphasis on SEN support in the UK has been early identification and support, from four years upwards. There are solid pre-school screening tests that provide good predictive information about which children may have difficulties learning to read.

Fundamental but less obvious problems

The fundamental confusion perpetrated by Elliott arises from the argument based on the 'new' fact that (a) children with low IQ can be helped just as much with reading problems as children with a high IQ, providing it's the right reading programme and providing it's implemented in the right way; so (b) either every child with poor reading ability is dyslexic, or none of them is; and thus (c) dyslexia is a myth. I'm just speechless. The first assertion is a good example of straw man. No one has ever suggested that children with generalised learning difficulties can't learn to read. The fact that, despite their lower general intelligence, these children learn to read no worse than dyslexic children is the whole point of the enigma of dyslexia. Assertion b exemplifies the fallacy of the excluded middle – if you're not with me you're against me. Assertion c confuses aetiology with treatment. Aspirin relieves the symptoms of headache and backache, but they're not the same affliction.

A subtler confusion derives from dual uses of the term 'cause' in dyslexia research. For an educationalist, the key issue is 'What is the cause of the reading disability?' – why don't they learn to read? For an academic psychologist, the question means, what cognitive or neurological factors underlie the reading problem. These are separate issues. It may be (though I doubt it) that the appropriate ways to help poor readers learn to read are independent of the underlying cause of their problems. Without establishing the underlying causes, and attempting to match teaching strategy to individual strengths and weaknesses, it's hard to say. All phonological deficit theorists acknowledge that a key requirement is to identify the underlying cause(s) of the phonological deficits. There are differing views as to the cause(s) of these problems, some specific to the 'phonological module', and some more general, including the magnocellular sensory systems or cerebellar deficits. Visual problems may well be treatable by coloured lenses. Cerebellar problems may well be treatable by exercise treatments. Nutritional problems may well be treatable by nutritional interventions. There is solid

peer-reviewed evidence in support of each of these interventions, but these should be seen as complementing rather than substituting for good educational practice.

There's also the problem of 'all-or-none' theorising, in statements such as assertion b above, and arguing from single cases to general cases – 'this girl does not have coordination difficulties and yet has difficulty learning to read, hence the cerebellar deficit hypothesis must be wrong' and 'this Down's syndrome girl has learned to read, despite low intelligence, therefore intelligence is irrelevant to reading disability' – obviously flawed arguments. With three million (5 per cent) dyslexic people in the UK it is unlikely that all have an identical cause. If 50 per cent show balance difficulties, and that indicates cerebellar problems, then that is a non-negligible 1.5 million.

What should psychologists do?

There remains a divide between educational and academic psychologists. Educational psychologists highlight issues such as cost and equity, whereas academic psychologists investigate the underlying causes of the differences in brain function. Any successful approach requires collaboration between these groups.

'Evidence' was much mentioned in the documentary, but with no obvious facts. Surely what we need to develop is a series of benchmarks for literacy intervention, for different approaches, so that parents should be able to make an informed choice as to whether or not to purchase an additional intervention for their child.

The mismatch between diagnosis and treatment is indeed unfortunate. It arises partly from the need for a 'formal' diagnosis, which is needed for legal purposes, and a 'pedagogical' diagnosis, which should inform the development of an appropriate support system. We need to work on how to combine formal and pedagogic approaches, preferably incorporating modern views of brain function.

Looking to the future, one key objective for the entire educational system is surely to provide an educational environment that permits each child to attain the literacy skills necessary to function well in today's society, in an effective and cost-effective fashion. Enhancements to current best practice are valuable, but the idea that a one-size-fits-all approach can achieve this aim goes against almost all findings in cognitive, developmental and differential psychology. Progress towards this goal will involve a collaboration between the many stakeholders in education, special needs and academia.

The furore caused by the programme can stimulate the field to move towards this collaborative and systematic approach. The BPS, in conjunction with stakeholders, can take an active role in steering progress away from the whirlpools of dogma, the cliffs of inertia, and the maelstrom of political opportunism.

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WEBLINKS

Julian Elliott's article from the Times Educational Supplement: *tinyurl.com/9mzx5*

Follow-up article: *tinyurl.com/bwnb9*

British Dyslexia Association response: *www.bdaweb.co.uk/bda/news.html*

Dyslexia Institute response: *www.dyslexia-inst.org.uk/responsetoch4TV.htm*