



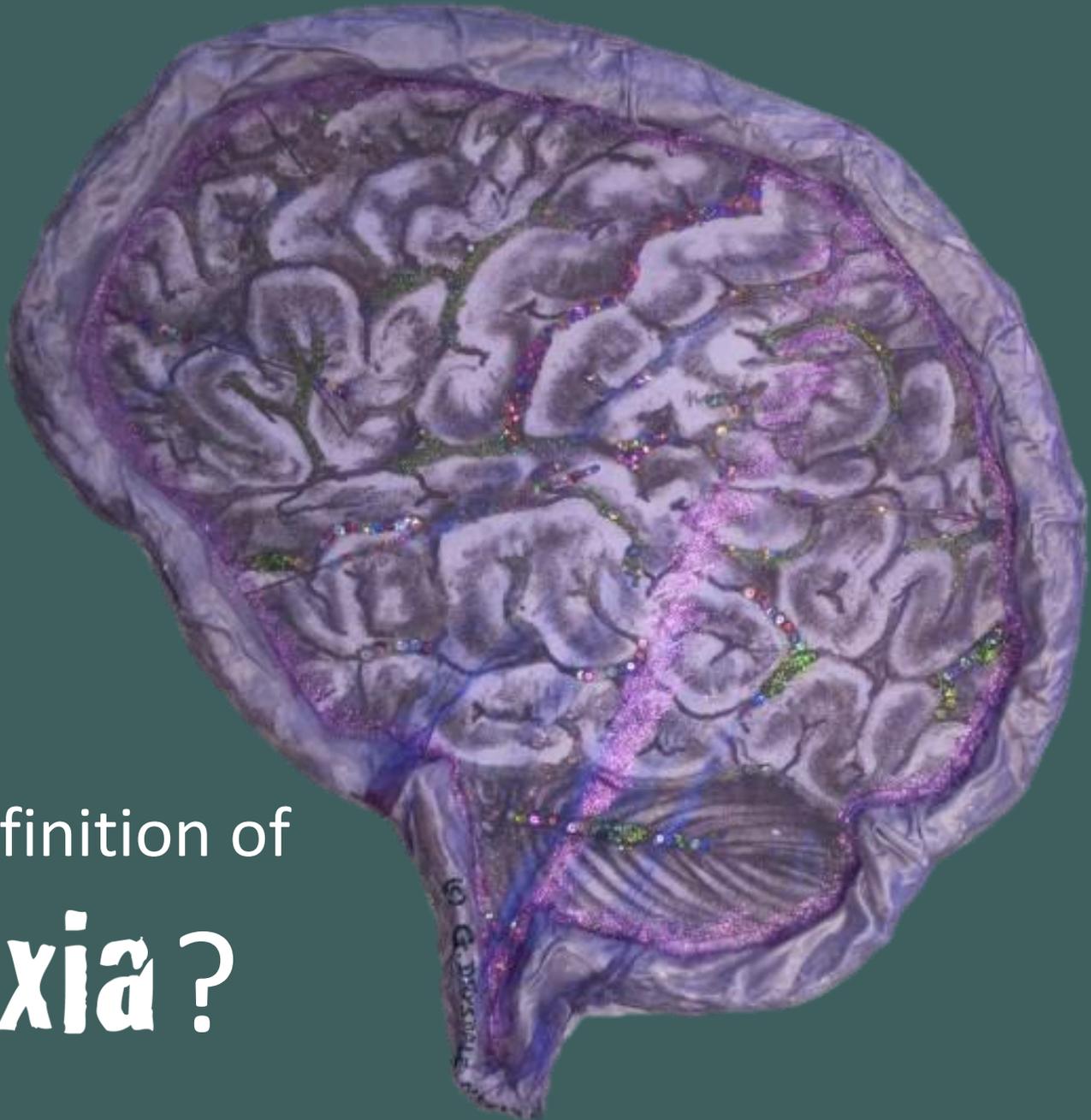
The dyslexia debate

IACESA 2015

A universal scenario



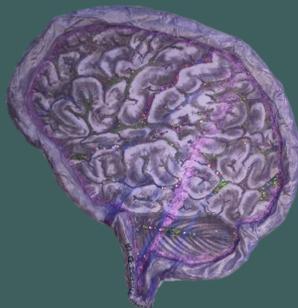
Does
dyslexia
exist?



A simple definition of
dyslexia?

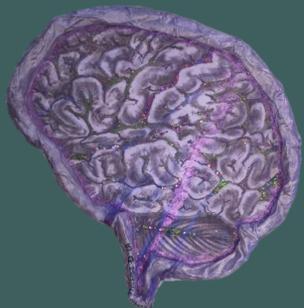
“Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling”

(Rose Report, 2009, p. 30).

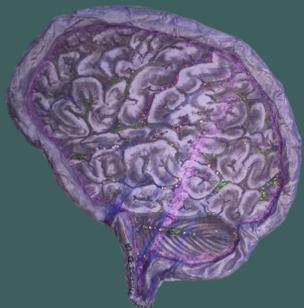


dyslexia = reading disability

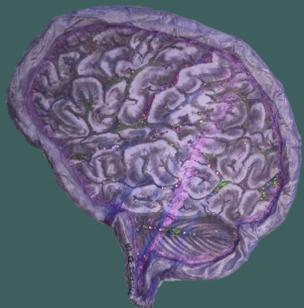
Too inclusive for some; too
exclusive for others



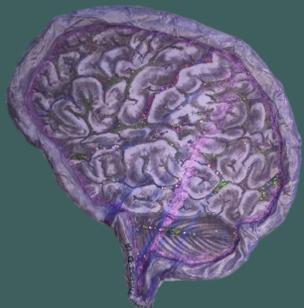
anyone who struggles with
accurate and/or fluent
decoding



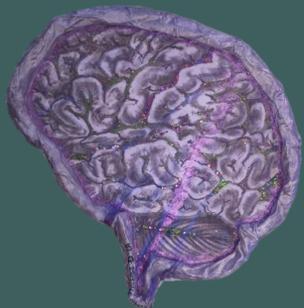
those who score at the lower
end of the normal distribution
on an appropriate test of
reading accuracy or fluency



those for whom decoding is merely one element of a more pervasive **dyslexic** condition marked by a range of comorbid features



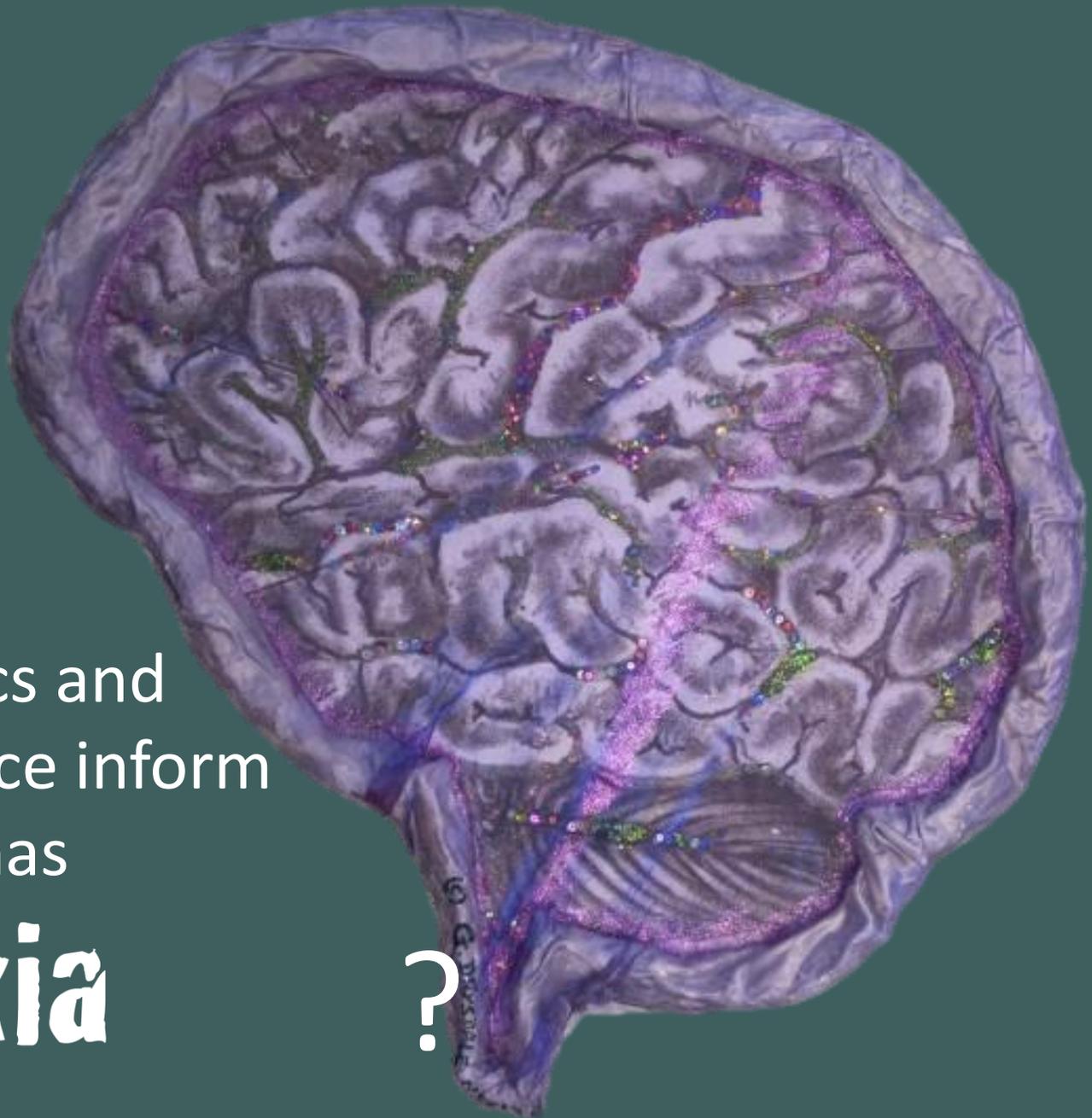
those whose decoding
problems are biologically
determined



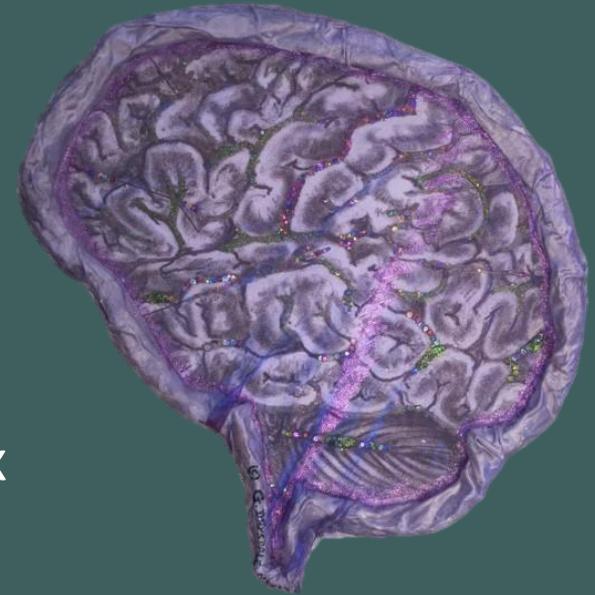
Can genetics and
neuroscience inform
us.... who has

dyslexia

?



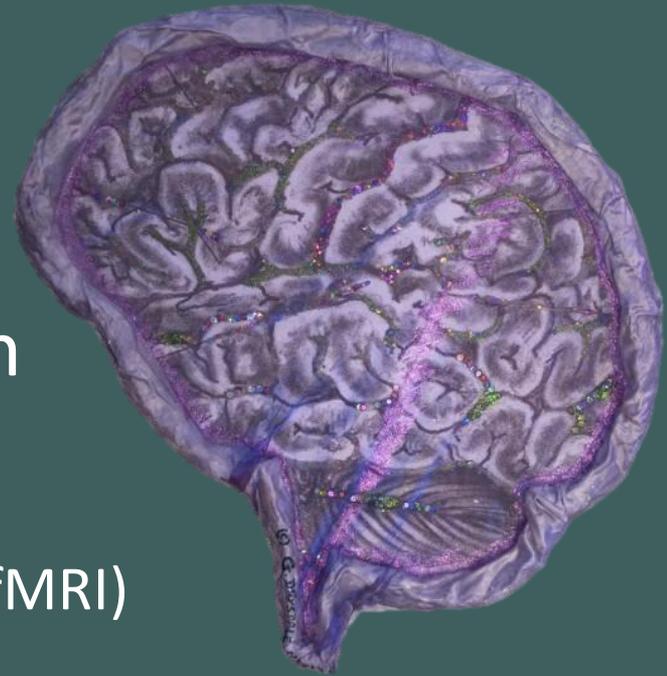
The brain does not have “the part(s)” for reading



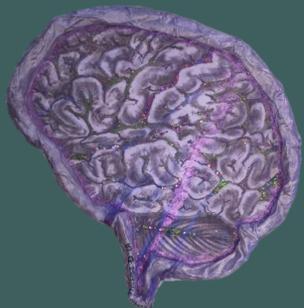
- Reading in the brain unfolds via a complex chain of activation of various structures, which is distributed in space and in time
 - There is no brain “locus” for reading, but there is a “reading brain”
 - The “reading brain” is a developmental stage of the brain
 - We are born with an “illiterate brain” that has the capacity to become a “reading/literate brain”
- This chain is malleable
 - Developmentally
 - As a result of interventions

Approaches to studying the brain

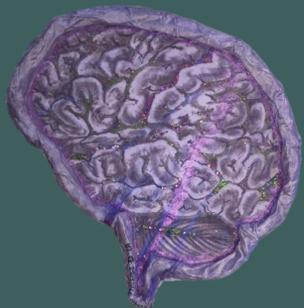
- magnetic resonance imaging (MRI)
- functional magnetic resonance imaging (fMRI)
- voxel-based morphometry (VBM)
- diffusion tensor imaging (DTI)
- magnetic resonance spectroscopy (MRS)
- positron emission tomography (PET)
- magnetoencephalography (MEG)
- electroencephalography (EEG)



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/behavioral difficulty

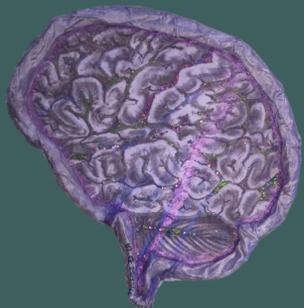


those for whom there is a
significant discrepancy
between decoding
performance and IQ

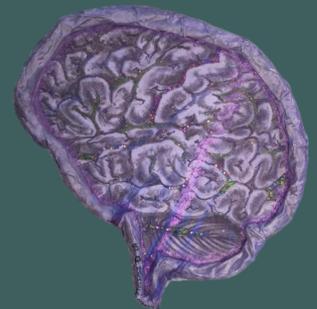


those poor decoders who also
present with a range of
symptoms commonly found in
those with **dyslexia**

e.g. poor motor, arithmetical, or
language skills, visual difficulties,
and low self-esteem



those whose decoding
problems are marked by
certain associated cognitive
difficulties

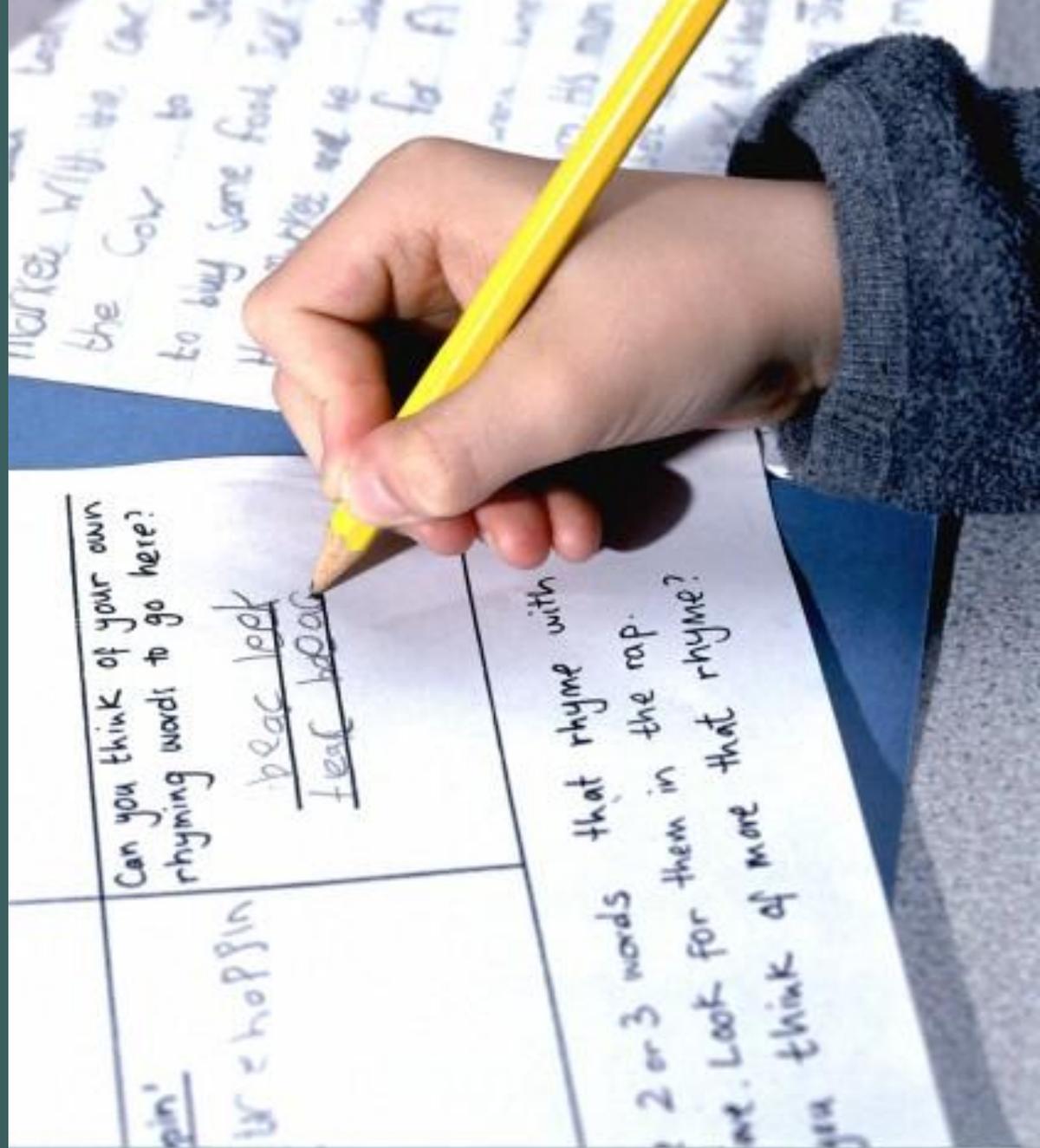




Cognitive level explanations

- a) Phonological deficit hypothesis
- b) Rapid naming and the DD
- c) STM/WM deficits
- d) Auditory/speech processing
- e) Visual processing/attention
- f) Magnocellular problems
- g) Scotopic sensitivity
- h) Sluggish attentional shifting
- i) Visual attention span deficit
- j) Abnormal crowding
- k) Anchoring deficits
- l) Psychomotor processing

To what extent does a diagnosis of **dyslexia** guide the educator in devising appropriate forms of treatment?



Forms of training

- Cognitive
- Auditory
- Visual
- Motor



The American Academy of Pediatrics' joint technical report (Handler, et al., 2011).

"Scientific evidence does not support the claims that visual training, muscle exercises, ocular pursuit-and tracking exercises, behavioral/perceptual vision therapy, training glasses, prisms, and colored lenses and filters are effective direct or indirect treatments for learning disabilities. There is no evidence that children who participate in vision therapy are more responsive to educational instruction than those who do not participate. The reported benefits of vision therapy, including nonspecific gains in reading ability, can often be explained by the placebo effect, increased time and attention given to students who are poor readers, maturation changes, or the traditional remedial techniques with which they are usually combined" (p. e847).

The Royal College of Ophthalmologists argues that “...manipulation of the visual system using colour to facilitate reading lacks scientific support”.

In consequence, a recent editorial in the *BMJ* (Aug, 2014) has called upon dyslexia charities to desist in providing an inaccurate view of the evidence

Forms of training

- Motor



Practitioners should:

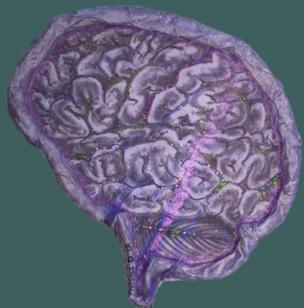
“...shift the focus of their clinical activities away from emphasis on psychometric assessment to detect cognitive and biological causes of a child’s reading difficulties for purposes of categorical labelling

.... in favour of assessment that would eventuate educational and remedial activities tailored to the child’s individual needs”

Vellutino *et al.* (2004)



RTI and the question of the equitable use of resources

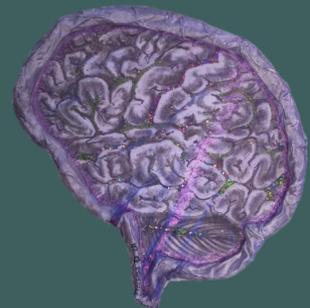


THIS IS WHAT
DYSLEXIA
LOOKS LIKE

| 
Science



The stupid and the lazy



Dyslexia 'is just a middle-class way to hide stupidity'

Dyslexia is a social fig leaf used by middle-class parents who fear their children will be labelled as low achievers, a professor has claimed.

Julian Elliott, a leading educational psychologist at Durham University, says he has found no evidence to identify dyslexia as a medical condition after more than 30 years of research.

"There is a huge stigma attached to low intelligence," he said.

"After years of working with parents, I have seen how they don't want their child to be considered lazy, thick or stupid.

"If they get called this medically diagnosed term, dyslexic, then it is a signal to all that it's not to do with intelligence."

He added: "There are all sorts of reasons why people don't read well but we can't determine why that is. Dyslexia, as a term, is becoming meaningless."

One in ten people in the UK - including 375,000 schoolchildren - has been diagnosed with dyslexia.

The condition is said to impair short-term memory and the ability to read, write, spell and do maths.

Supporters of the condition argue that dyslexics are intelligent people who have difficulties processing information and need extra help and time than others who are poor readers.

But Professor Elliott has claimed that the symptoms of dyslexia - such as clumsiness and letter reversal - are similar to those seen in those who simply cannot read.

He argues that the condition should be rediagnosed as a reading difficulty.

The dyslexia meme

The power of the dyslexia label is rooted in

- a) our natural desire to have a diagnostic term for our difficulties
- b) its ability to foster a more positive conception of self
- c) its leverage with teachers and the gatekeepers to educational resources
- d) its ability to gain public attention and concern for the need to address a range of very real and often severely distressing difficulties



Words of counsel...

“Maybe you are still too young, or unworldly to understand some things in life.

In my experience, many things are better kept quiet, or left unsaid.”



