

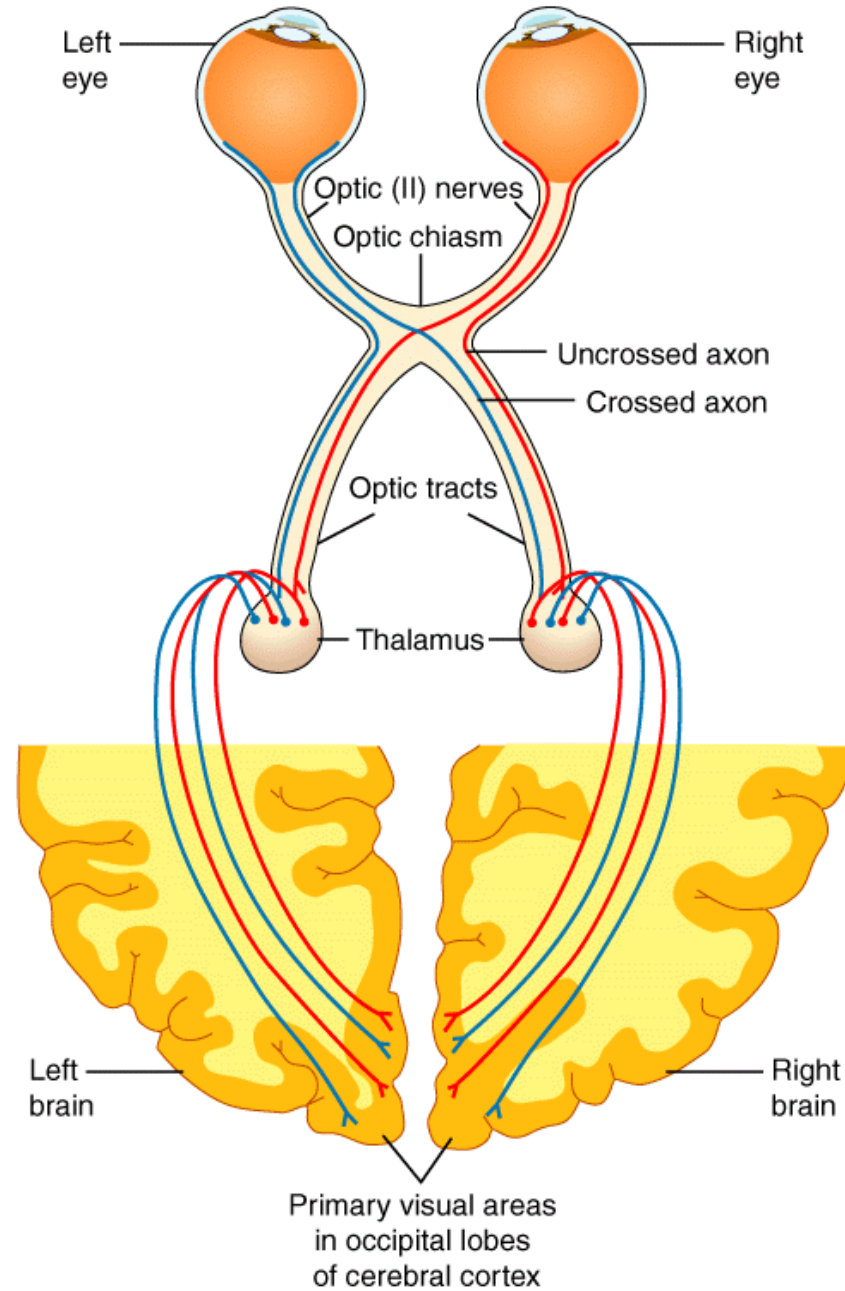
Dyslexia

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Microsoft Advanced Reading Technologies

Reading = Decoding × Comprehension

Samuel
Orton,
1925



+

b

+

p

+

d

+

p

+

b

+

d

- Name the letters b, d, p, q
- Write the letters b, d, p, q

Vellutino, 1978

3 skills for decoding

1. Fast letter identification
2. Phonemic awareness
3. Letter to sound correspondence

Phonemic Awareness

- Rhyming
- Initial & final phoneme
- Blending
- Segmentation

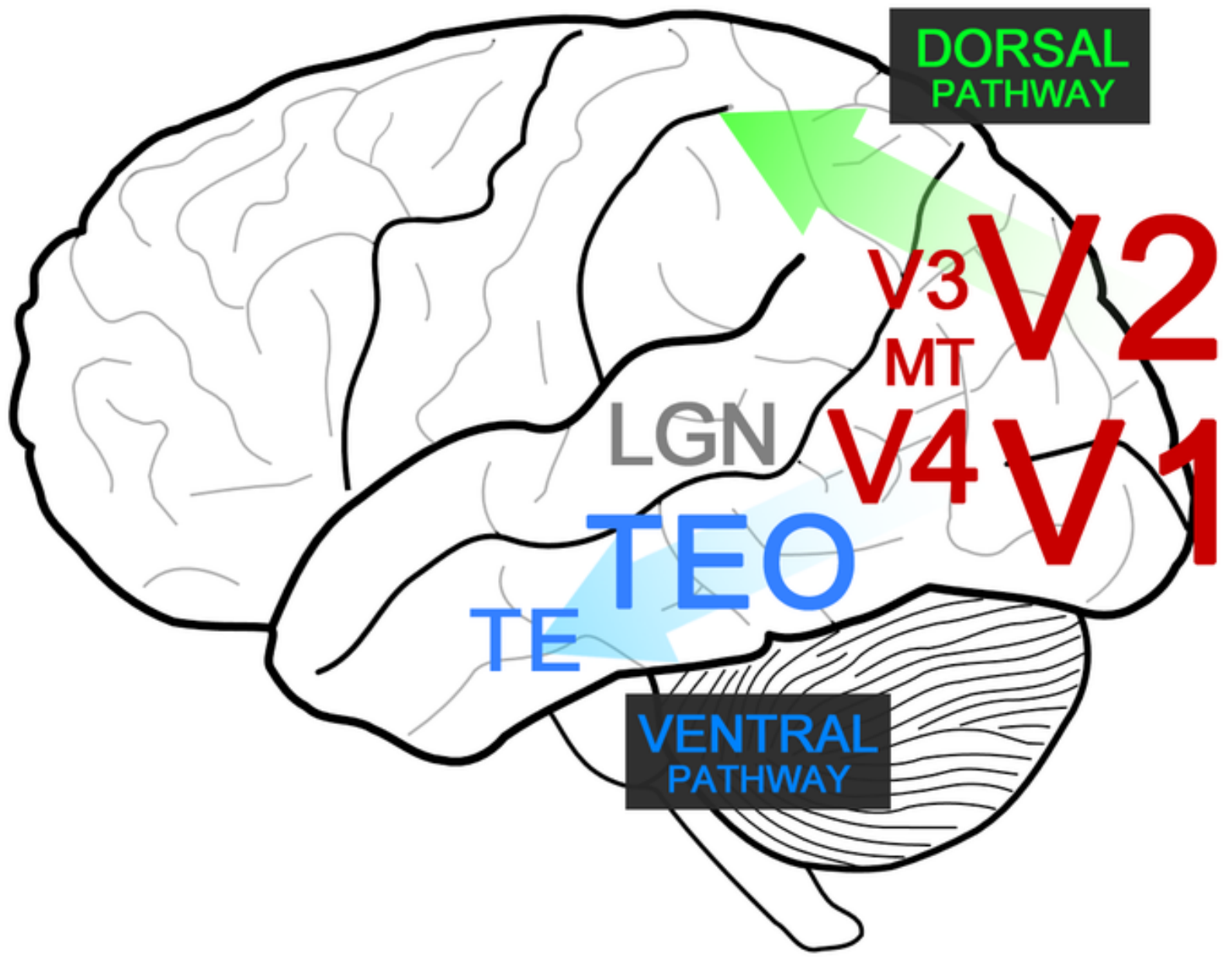
Treating Dyslexia

- Many, many studies have shown that direct instruction in phonemic awareness and letter-to-sound correspondence is the most effective reading program for typical children
- Blachman (1987) showed a 21% improvement in reading scores after teaching phonemic awareness to dyslexic children

Dyslexia is a problem in learning to recognize printed words at a level appropriate for a child's age

Snowling and Hulme, 2009

- Phonology & rapid naming: Wolf
- Phonology & orthography: Coltheart
- Phonology & (rapid naming and/or lexical deficit): Stanovich
- Magnocellular deficit



**DORSAL
PATHWAY**

V3
V2
MT

V4
V1

LGN

TE
TEO

**VENTRAL
PATHWAY**



arm



r









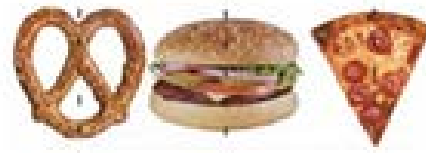
-

±

arm

-

±



A mother and her son are leaving home in the morning. She is taking him to visit his father's workplace. The father is a laboratory technician at Victoria Memorial Hospital. While crossing the road, the boy is caught in a terrible accident, which critically injures him.

Conclusions

- Dyslexia is not letter mirroring. The font Dyslexie will not help.
- There is very strong evidence that phonological training helps.
- We're still looking for a deeper understanding of how dyslexia differs from other reading problems.