

WEEK 2; DYSLEXIA

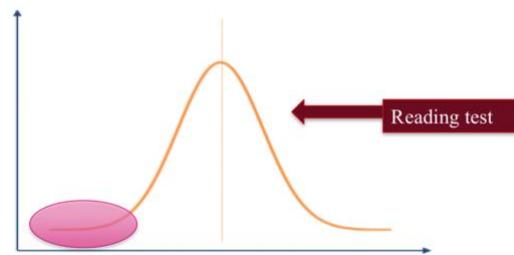
INTRODUCTION TO DYSLEXIA

Acquired vs developmental dyslexia

- Acquired dyslexia:
 - Reading impairment in someone who learned to read normally but then lost that ability after brain damage
- Developmental dyslexia:
 - Reading impairment in someone (often a child) who never learned to read normally in the first place
 - Problem with learning
- No child will learn to read without appropriate conditions → has to be taught (school)
- But some children (10-15%) fail despite:
 - No obvious neurological or sensory impairment
 - Supportive environment
- Dyslexia or “specific learning disability”

How do we detect this?

- Reading occurs on a continuum
- Identifying children who fall at the bottom end of continuum
- Not a specific set of children who have a completely separate set of skills for reading
- Children who form below the “cut-off” are identified as having dyslexia
- Some may be instructional casualties (haven’t had opportunity to read)
 - We can identify these through a Response to Intervention Model:
 - Do they respond to intensive intervention?
 - Or are they still here...
 - If child is still falling at bottom → classified as ‘dyslexia’



Common myths about dyslexia

- All are male → NO; slightly higher proportion of male
- All are above or above-average intelligence → NO; fact is, dyslexia doesn’t discriminate for intelligence (very little correlation)
- All come from middle-class families → NO; doesn’t discriminate
- All suffer from attention disorders → NO; high overlap (30-40%), co-morbidity
- All get their letters back to front → NO; some children do have this symptom but lots don’t, many different types
- All have the same types of dyslexia → NO; many different types

HOW READING WORKS AND HOW IT DEVELOPS

Reading is not a single skill

- Consists of many separate skills, even at the level of reading single words
- Difficult to separate in fluent reading but apparent when reading fails

Stages of reading development

- Children go through different broad “phases” of reading acquisition as they learn different skills
- Not set in stone

Logographic phase (4-5 years)	<ul style="list-style-type: none"> • Before formal reading instruction • Start to notice & read things around them • Not necessarily reading, more recognize familiarity / symbol / picture • Not decoding text • Small sight vocabulary of known words: <ul style="list-style-type: none"> ○ e.g., “MacDonalds” • Often identified by salient graphic features: <ul style="list-style-type: none"> ○ e.g., “Yellow” has 2 tall sticks • Can’t attempt unfamiliar words • As number of words increase, problems occur: <ul style="list-style-type: none"> ○ e.g., “follow” and “yellow”
Alphabetic phase (5-7 years)	<ul style="list-style-type: none"> • Acquire ‘phonic’ knowledge – ‘sound out’ (especially unfamiliar words) • Start to build relationships between letters + sounds • May not read it aloud correctly • Read words for themselves + connect with knowledge already evolve • From links / connections • Attempt to pronounce words not seen before <ul style="list-style-type: none"> ○ E.g., “yatched” for “yacht” → not necessarily correct • Reading may feed back to spoken vocab <ul style="list-style-type: none"> ○ E.g., “I’m thoroughly enjoying myself” → not thoroughly
Orthographic phase (7- 8 years +)	<ul style="list-style-type: none"> • Written words • Recognizing it as an abstract form (e.g., CAT, cat, CaT, <i>cat</i>, Cat, CAT) • Read words as whole units, without sounding out • Not visual or cue-based like logographic phase • Rapid recognition of familiar letter strings

Two key processes

1. Sounding out (“non-lexical” route)
 - Read new words + nonsense words (e.g., gop)
 - Mistakes with irregular words (e.g., yacht)
 - Rule-based
 2. Whole words (“lexical” route)
 - Reads all familiar words (memory representation), including irregular
 - Can’t read new words or nonsense words
 - Memory based
- Basis of ‘dual route model’ of skilled reading (Professor Max Coltheart)