COGS1010:
Delusions & Disorders of the Mind & Brain

Semester 1 2020

Topics

Dyslexia
Aphasia
Specific Language Impairment
Agnosia
Amnesia
Autism
Disorders of the Self
Delusions
Modelling Delusions with Hypnosis
Schizophrenia
Synaesthesia

Association - Two deficits X and Y are associated when they are both present

- Brain damaged patient doesn’t recognise faces or printed words

Dissociation - Two deficits X and Y are dissociated when one is present and the other absent

- Brain-damaged patient: faces not recognized, printed words recognized

Double dissociation - Two deficits X and Y are doubly dissociated when there is a case where X is present but Y is absent, and another case where X is absent but Y is present. Double dissociations provide the strongest form of evidence (Looking at several patients allows to compare systems and results)

- Brain-damaged patient: In one patient faces are recognized but printed words are not, and in another patient printed words are recognized but faces are not

Dyslexia

- No child will learn to read without appropriate conditions - but some children (10 - 15%) fail despite:
    - No obvious neurological or sensory impairment
    - Supportive environment
- “Instructional casualties” - identified through a response to intervention model:
    - Do they respond to intensive intervention?
    - Or are they still here…
- Myths:
    - All are male
    - All are of average or above-average intelligence
    - All come from middle-class families
    - All suffer from attention disorders
    - All get their letters back to front
    - All have the same type of dyslexia
- Logographic phase (4-5)
    - Recognises visually similar words
    - Small sight vocabulary of known words - “McDonalds”
    - Often identified by salient graphic features - “yellow” has two tall sticks
    - Can’t attempt unfamiliar words
- Alphabetic phase (5-7)
    - Acquire “phonic” knowledge - sound out
    - Attempt to pronounce words not seen before - though not necessarily correctly
- Orthographic phase (7-8)
    - Read words as whole units, without sounding out
    - Not visual or cue-based like logographic phase
    - Rapid recognition of familiar letter strings
- Key processes
    1. Sounding out or “nonlexical” skills - reads new words and nonsense words (e.g. gop) - mistakes with irregular words (e.g. yacht)
    2. Whole word or “lexical” skills - reads all familiar words, including irregular - can’t read new words or nonsense words
- Surface dyslexia
    - Nature of the problem: poor whole word or lexical reading i.e. small sight vocabulary.
    - Key symptom: inaccurate reading aloud of irregular words e.g. have, yacht
    - Basic flashcards, focussing on irregular words
- Phonological dyslexia
    - Nature of the problem: poor knowledge of letter-sound rules; poor nonlexical reading
    - Identification in assessment: inaccurate reading aloud of nonsense words such as ib, slint or stendle.
    - Wealth of phonics training programs