Assessing Visual Perception
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Assessing Visual Perception: Towards a Systematic Approach

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15 PUBLICATIONS  14 CITATIONS

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62 PUBLICATIONS  741 CITATIONS

Some of the authors of this publication are also working on these related projects:

The Back of the Brain (BoB) project View project

Developmental prosopagnosia View project
Background
Visual perceptual deficits are common in neurological disorders:
• seen in around 30% of patients with acquired brain injury.
• also common in neurodegenerative disorders.
Can have significant negative effects on:
• activities of daily living, mental health and quality of life.
• general rehabilitation.
• performance on all neuropsychological tests using visual stimuli.
Visual perception should be assessed following brain injury.
The literature does not provide a simple overview of tests available.

Aim
Create a framework that facilitates structured and systematic assessment of visual perceptual functions.

Method
• Visual perceptual tests and test batteries are identified in the literature.
• Tests and batteries are categorised according to their visual sub-processes.
• A simple visual framework is developed.

Conclusion
Assessment should also be carried out in the absence of visual perceptual complaints (insight often limited).
Existing test batteries suffer from limitations:
• lack of norms
• too time-consuming
• only selected aspects of visual perception assessed
• include tests of functions that are theoretically relevant but
• that have limited clinical value
By combining individual sub-tests from different batteries, in-depth assessment is possible, but:
There is a need for a test battery enabling structured assessment of clinically relevant aspects of visual perception.

Visual Perceptual Tests

WORDS
• Paiva 29: Reading words
• Paiva 35: Reading regular vs irregular words
• EC301-R: Reading digits
• Reading test

OBJECTS
• Picture naming tasks (WAB 4.A., Boston Naming)
• Naming famous faces

FACES
• Naming familiar faces

Visual Acuity & Contrast Test (FrACT)

Visual Field
• Confrontation: Donders’ test
• Computer-based perimetry (e.g.: Humphrey or Goldmann)
• Screening for visual field defects

Colour Perception
• Colour discrimination: CORVIST 5
• Farnsworth-Munsell D-15 100 test: physical or online version
• Colour matching: homemade cards
• Pointing (Token test 1, WAB auditory word recall)
• Naming (colours of objects in the room)

Size Discrimination
• Cornsweet Test
• CORVIST 6

Shape Integration
Distinguish overlapping figures: Poppleton
Integrating fragmented stimuli:
• Fragmented digits/letters: VOSP 1, CORVIST 7
• Shape detection: VOSP 2, CORVIST 4

TEST BATTERIES

- Colour discrimination: CORVIST 5
- Integration: CORVIST 6
- Size discrimination: CORVIST 7
- Shape perception: CORVIST 8

- Visual memory: barber's shop
- Visual memory: restaurant
- Visual memory: theatre
- Visual memory: train station
- Visual memory: shop

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