



Perceptual Processes and Assessments

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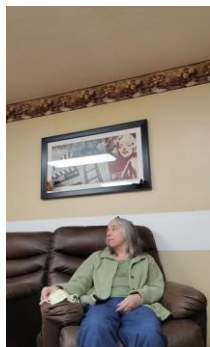
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What is unilateral spatial neglect (USN)?

- “failure to report, respond, or orient to sensory stimuli presented to the side contralateral to the stroke lesion site” (Heilman et al., 1985)
- “inability to integrate and use perceptual information from one side of the body or one side of the environment.” (Guttman, 2009; p.73)
- ...also called “unilateral neglect,” “hemi-inattention,” “visual neglect,” and “hemi-spatial neglect”

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Neglect Video Example



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Ideational Apraxia

- Breakdown of *what* is to be done
- Loss of mental representation about the concepts and resulting actions needed for performance
- Lack of knowledge of how to utilize items/may not know what to do with common items
 - Dissociation between "naming" and the praxis system "doing"
- When multiple objects are used together and/or tasks are multicomponent, there may be greater difficulty

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Ideational Apraxia Video Example



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Ideational Apraxia Video Example



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Ideational Apraxia Video Example



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Ideomotor Apraxia

- Breakdown of knowledge of how task is to be performed
- May appear as movements that are:
 - Clumsy/unusual biomechanics
 - Poor foot placement
 - Difficulty using correct grip to optimally conform to objects
 - Difficulty planning movements to cross midline
 - Poor gesturing of movements on demand

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Ideomotor Apraxia Video Example:

Apraxia *can* be identified in the context of other tests...
but it doesn't give you a score or prognosis



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Ideomotor Apraxia Video Example



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Apraxia Versus Ataxia

Cerebellum and brainstem connections

Typically balance and gait

- unable to maintain a standing and/or a sitting posture
- oscillations of the trunk, laterally, or anteriorly and posteriorly
- difficulties in coordinating a correct stepping sequence
- one foot hitting the ground either early or late w inaccurate force and placement
- stepping gait in which the legs seem to advance chaotically forward while patient's trunk may be leaning in the wrong direction

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Ataxia



<https://i.pinimg.com/originals/bc/f6/28/bcf6285573ed447c36db1cc8c9b932d6.jpg>

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Apraxia Screen of Tulia (AST)

- Apraxia is often accompanied by aphasia
 - Objects or gestures rather than language as the trigger for actions.
 - Are deficits after verbal instructions d/t apraxia, or not fully understanding instructions?
- >20 tests;
 - A "good" clinical measure should have objects and gestures; quick and easy for clinical implementation; cutoff scores; well vetted
- Apraxia Screen of Tulia (AST; Vanbellingen et al; 2011): "high diagnostic reliability with high specificity, sensitivity and positive predictive value, for the presence and severity of apraxia"

Novern et al., *Neurology*, 2012

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AST (in your lesson)

	right	left
1. Bring thumb extended on forehead, other fingers point upwards		
2. Wipe dust from shoulder		
Additional instruction: "For the next five gestures, imagine holding a tool or an object in hand, don't use your fingers as a tool"		
3. Drink from a glass		
4. Smoke a cigarette		
5. Use a hammer		
6. Use scissors		
7. Use a stamp to postmark		
Pantomime		
General instruction: "Now gestures are asked. Listen very carefully and perform them as precisely as possible"		
8. "Show as if someone is crazy" **		
9. "Make a threatening sign" **		
Additional instruction: "Again, imagine holding a tool or an object in hand, don't use the fingers"		
10. "Brush your teeth"		
11. "Comb your hair"		
12. "Use a screwdriver"		
Total Score		

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Test for Upper Limb Apraxia (TULIA) (in your lesson)

- Some gestures may not transfer to other cultures (e.g., making a Catholic sign of the cross)
- Some may not be known by some groups (e.g., hitching a ride)
- Some may be subjective/have many variations (e.g., smoke a cigarette)

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