

# Case Study and Discussion: Hemi-spatial Neglect

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# Learning Objectives

- Discuss evidenced based options for treating hemi-spatial neglect deficits.
- Identify examples of behaviors that lead to hemi-spatial neglect intervention decisions.
- Provide examples of hemi-spatial facilitating the adaptation in case studies.

# Demographics

- 52 y/o Male, right-handed
- Married, no children
- High school graduate
- Self-employed in home construction (dry-walling, plastering), leisure pursuits include water-colour painting, reading, watching TV
- Sustained stroke 2 weeks ago

Thanks to Gail Simpson & D. Hebert for assistance with case.

# Medical History

- 1st stroke
- History of hypertension, atrial fibrillation and valvular disease
- CT scan shows ischaemic infarct in right temporal-parietal area

# Initial Assessment & Observations

- Oriented x 3
- Reduced attention to objects on left side of environment
- Difficulty finding way within rehabilitation center
- Wears glasses for reading

## Functional Complaints

- Has bath stool and long-handled sponge
- Bathes with supervision
- Needs cueing to bathe both sides of body
- Has difficulty orienting clothes when dressing
- Reports not being able to read the newspaper

# Testing

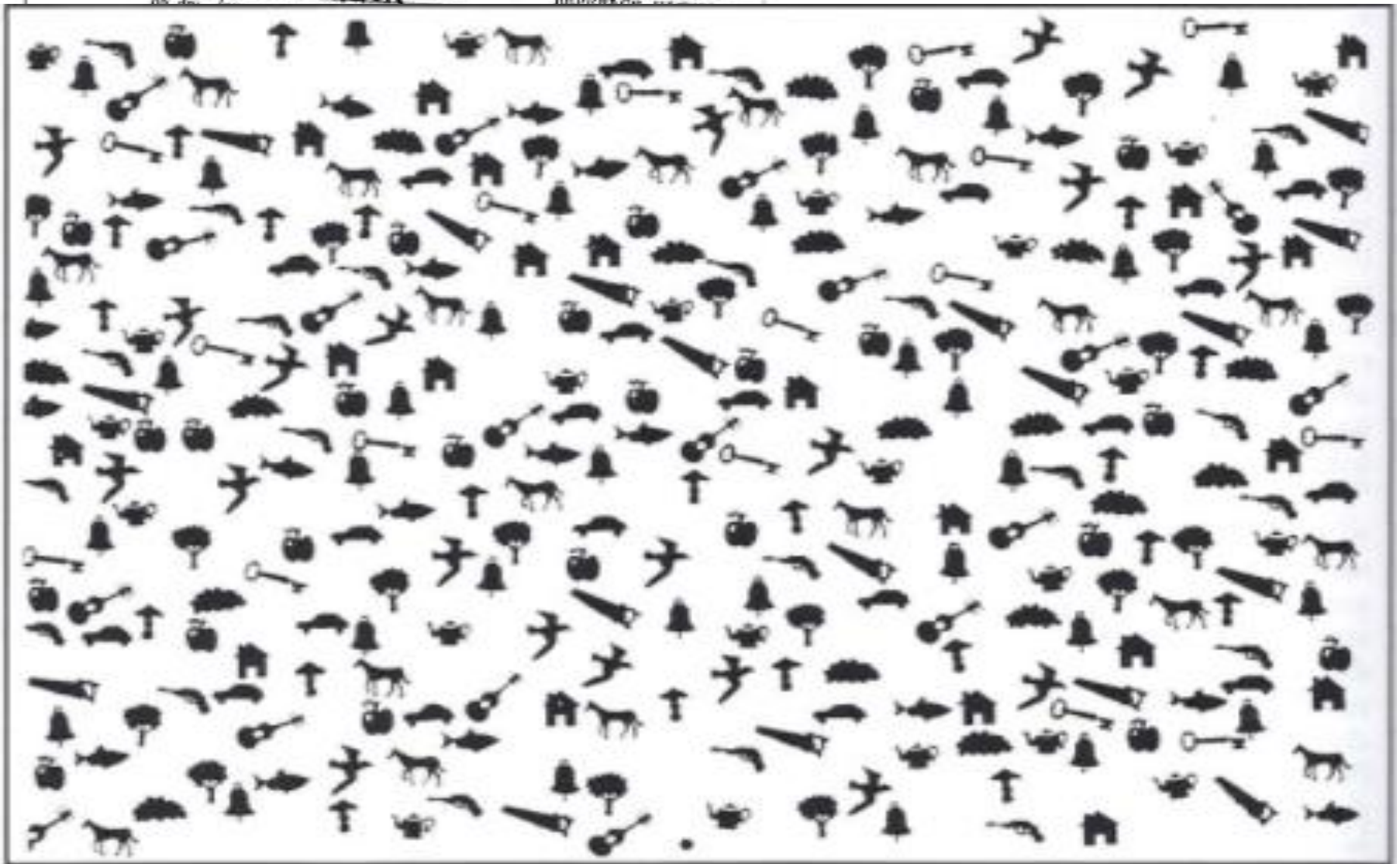
## Motor

- U/E Stage III arm & Hand
- Decreased sensation
- Ambulates with 4-point cane

## Visual

- Unable to maintain gaze in midline
- Unable to complete confrontational testing, smooth pursuit testing and saccades testing
- Convergence appeared WNL

# Visual Scanning Assessment Results



# Visual Scanning Assessment Results

Feb-24-03 04:41pm From: PUCASING  
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112 time 3min 12:

4/4/97/2808 12:40 FAX 4187822802 Research\_Journal\_Institut 0004



**Table 2. Cue Sequence for the Object Search Task for the Dynamic Group**

Cue or Strategy	Sample Script
Verbal feedback	There are still some more on the left side. Remember to look to the left.
Tactile, visual imagery strategy	Close your eyes. Feel and imagine the size of the space as I move your arm across the page. Think of your eyes sweeping across the space like a beam of light. Imagine the size of the space in your mind as I move your arm. Now let's feel the edges around the table/page. Think about where the left edge of the page is and open your eyes to check. Imagining the size of the space and feeling the left edges of things can help you see things on the left. Let's try it again. Remember to always try to feel and imagine the size of space and the left edge before you do any activity.
Visual anchor strategy	Let's place your left hand/finger here [show left side]. If you see your hand, you know you are all the way at the left side. Always remember to put something on the left to help you know when you have reached the left side. What would you like to place on the left side to help you see everything? Let's think of where it would be best to place it [tactile, visual imagery repeated if needed].
Stimuli reduction	When you cover what you are seeing on the page, it may make it easier for you check to see if there is anything else. Let's try it. I will leave this paper here for you. You can use it any time you would like. You can also use your hand to cover part of the page. Remember that covering what you are looking at may help you see other things. It is a good method of checking yourself.

# Catherine Bergego Scale & the KN-NAP

## II. INSTRUCTIONS

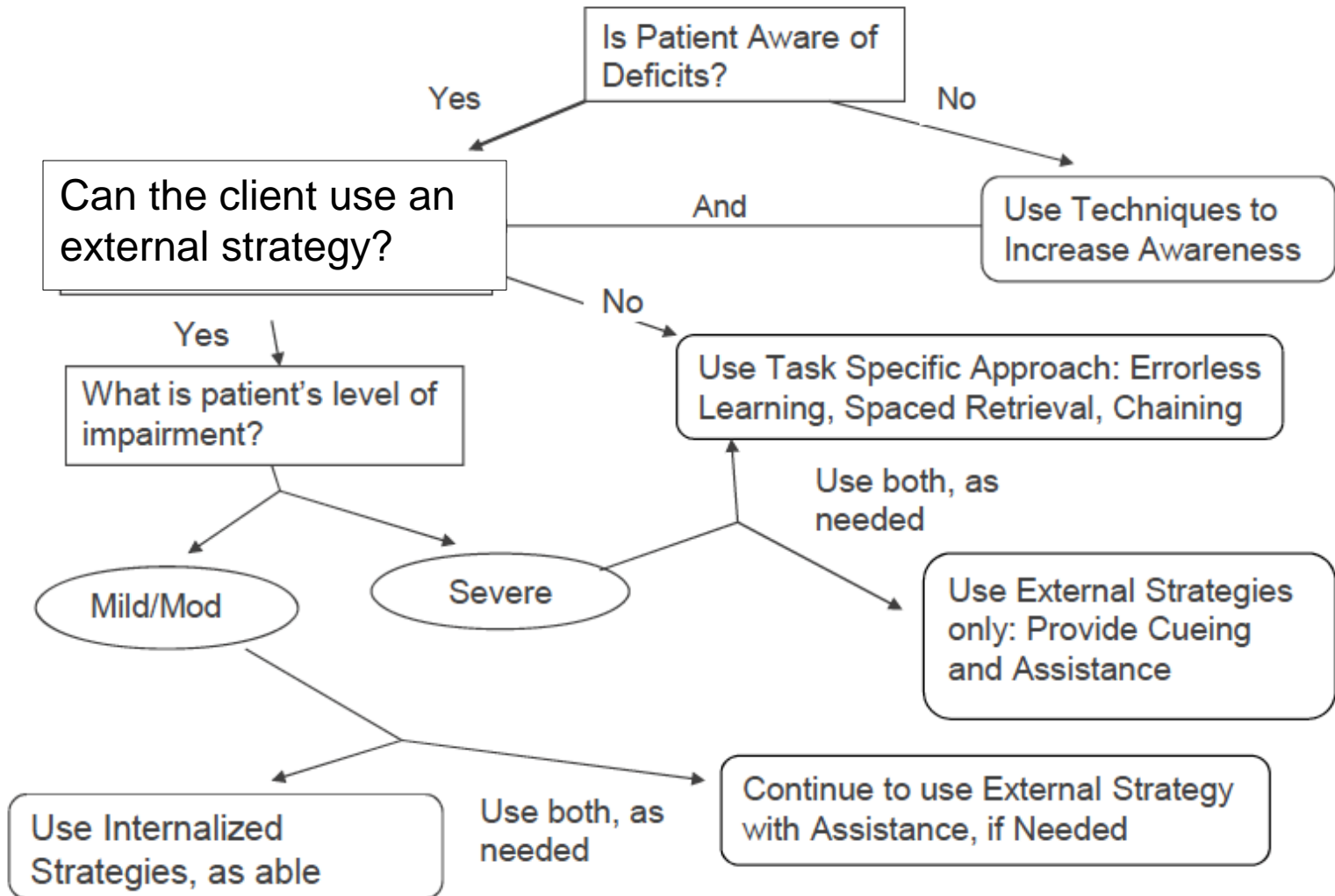
- |                          |                |
|--------------------------|----------------|
| 1. Gaze Orientation      | Personal       |
| 2. Limb Awareness        |                |
| 3. Auditory Attention    |                |
| 4. Personal Belongings   | Peri-personal  |
| 5. Dressing              |                |
| 6. Grooming              |                |
| 7. Navigation            | Extra-personal |
| 8. Collisions            |                |
| 9. Meals                 |                |
| 10. Cleaning after Meals |                |

# KF-NAP Scoring - Navigation

## Score Assignment

- Score = 3** The patient only tries to do right turns to get to the final destination. The patient usually is unable to reach the final destination.
- Score = 2** The patient makes more right turns than necessary and only turns left when there is no other option. At a left turn, he/she may hesitate for several seconds or more, and may take a longer route than necessary because of a preference to turn right. In the end, the patient may not be able to reach the final destination.
- Score = 1** The patient makes more right turns than necessary and some left turns to get to the final destination. He/she hesitates at left turns and may take a longer route than necessary because of a preference to turn right. In the end, the patient may be able to reach the final destination..
- Score = 0** The patient employs approximately an equal number of left and right turns to get to the final location. He/she is able to reach the final destination correctly.

Figure 1.1, p. 12



# Client's Goals

1. “I want to improve my physical and mental abilities”
2. “ I want to have more control over my left arm”
3. “I want to return to my job”

# Goal Setting

- **CLIENT Mr. BN: Goals for Training in the use of the ‘Scan to the hand’**

## ***Long-Term Goals:***

- BN will use the strategy to compensate for left hemispatial neglect during training tasks.
- Mr. BN will use the strategy to compensate for left hemispatial neglect during functional daily tasks.

Occupational goal set by Mr. BN

”To return to work”

# Goal Setting

## *Short-Term Treatment*

### **Goals:**

- STGa: Mr. BN will demonstrate effective use of the strategy during training tasks with maximum cues.
- STGb: Mr. BN will perform large shape cancellation tasks (using a left side boundary marker) with 75% accuracy and maximum verbal cues to use the strategy.
- STGc: MR. BN will scan for and locate keys on a computer keyboard with 90% accuracy and minimum verbal cues to use the strategy.

### **Sub-goals to achieve occupational goal**

- 1. Mr. BN will dress independently within xx minutes.**
- 2. Plans: Mr. BN will 'scan to the hand/arm/foot/leg' during dressing routine.**

# WWYD?

- Goal Development
- Awareness training with videotaping
- Visual-scanning training combined with limb activation training
- Functional skills training using job-related tasks (e.g., dressing) and materials (e.g., invoices)
- Systematic use of cuing with cues faded as was possible

Acquisition

Application

Adaptation



# Outcome

- Discharged from inpatient rehabilitation with improved FIM score, intellectual awareness of 'L' neglect and emergent awareness during dressing.
- Able to read short paragraphs of newspaper with visual and verbal cues with reduced stimuli.
- Still wants to return to work and to driving.

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