

Pantomime strategies: What happens in aphasia?

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Introduction

- Gestures may be used as compensation by people with aphasia (PWA)
- Research mostly focused on co-speech gestures;
 - PWA use conceptually simple gestures; shape^{1,2}
 - Influence of Aphasia, Apraxia and/or a Semantic impairment³
- Little is known on 'explicit compensation': **pantomime**
- Pantomime and co-speech gestures are (partly) different processes^{4,5}
- Non brain damaged people (NBDP) are consistent in their use of pantomime⁶

Do people with aphasia use the same strategies in pantomiming objects as non brain damaged people?

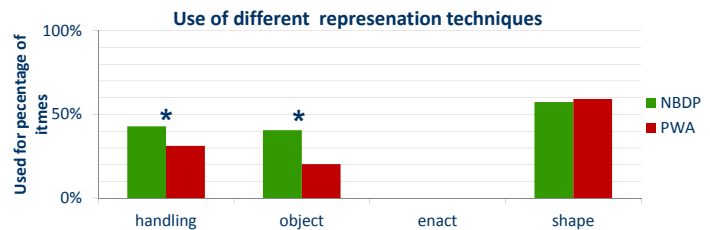
Method

- We compared PWA (N=39) to NBDP (N=20).
- They named 30 pictures of objects from the Boston Naming Test⁷ by using pantomimes only.
- We analysed the different representations techniques used.
- We looked into correlations for: Apraxia, Semantic Impairment, Aphasia severity and Verbal naming ability.

Results

- NBDP use the same technique across participants for 25 out of 30 items
- PWA show huge individual differences
- PWA (M=19) made less use of default strategies than NBDP (M=27.5; S.D.=2.5), $p < .00$.
 - 6 PWA (out of 39) 'scored' within the range of 1 S.D. and used between 25 and 30 strategies
 - 25 PWA (out of 39) scored 2 S.D. below the range of NBDP
- Use of strategies is correlated with:
 - Apraxia ($R = .70; p < .00$)
 - Aphasia severity ($R = -.68; p < .00$)
 - Semantic impairment (trend; $p = .09$)
- But not to:
 - Naming ability ($p > .05$)












- PWA do not use more shape gestures than NBDP, but less combinations.



Discussion & Conclusion

- PWA do not use the same strategies as NBDP; huge individual differences.
- Apraxia, Aphasia severity and a Semantic impairment are negatively correlated to pantomime ability.
- Verbal naming ability does not correlate with pantomime ability
- PWA do not use more shape pantomimes than NBDP; therefore this is not 'impaired behaviour'
- PWA make less combinations with conceptually more complex pantomimes.
- 'Difficulties with selection and translation of semantic features?
 - Because of.....
 - Apraxia⁸
 - Aphasia⁹
 - Semantic impairment



Default techniques for the objects:		Examples
Handling	Abacus, Bolt, Whistle, Comb, Scroll, Racket, Pencil, Dart, Pallet	 
Object	Sphinx, Octopus, Volcano, Pelican, Helicopter, Snail, Bed	 
Shape	Pyramid, Rhino, Camel, Pelican, Unicorn, Snail, Hangman's rope, Funnel, Abacus, Coat hanger	 
Handling or Object	Saw, Bolt	  or 
Shape + Enact	Igloo	 and 

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