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Inter- and Intra-Individual Variability in Non-Linguistic Attention in Aphasia

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**Inter- and Intra-Individual Variability in Non-Linguistic Attention in Aphasia**

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**RESULTS**

**RESEARCH QUESTION 3: Effect of task difficulty/complexity on between-session intra-individual variability in response time**

A 2 x 5 (Group x Condition) ANOVA revealed a significant main effect of Group (F(1, 105) = 5.084, p < .05), such that PWA COVs control CPA.

**Post hoc analyses for the control group consistently revealed:**
- a complexity effect: Condition 3 > Conditions 2, 5 (p < .05).

**RESEARCH QUESTION 2: Effect of task difficulty/complexity on between-session intra-individual variability in response time**

A 2 x 5 (Group x Condition) ANOVA revealed a significant main effect of Group (F(1, 105) = 5.084, p < .05), such that PWA COVs control CPA.

**Post hoc analyses for the control group consistently revealed:**
- a complexity effect: Condition 3 > Conditions 2, 5 (p < .05).

**RESEARCH QUESTION 1: Effect of task difficulty/complexity on response time**

1 x 5 ANOVA for each session determining the effect of Condition on RT:

**Post hoc analyses for the PWA group consistently revealed:**
- a complexity effect: Condition 3 > Condition 1, Condition 4 > Condition 2 (p < .05).
- a modality effect: Condition 4 > Condition 3; Condition 2 > Condition 1 (p < .01).
- Condition 5 vs. Condition 4: no significant difference.

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**CONCLUSIONS**

- On a non-linguistic attention task, increased task complexity elicits slower response times for both PWA and age-matched control.
- Increased task complexity also elicits a higher degree of between-session intra-individual variability for PWA (but not for controls).
- This suggests that PWA may have difficulty maintaining consistent attention levels from day to day, particularly in situations that require more complex types of attention (e.g., when asked to attend to auditory information while visual information is also present), which could have implications for prognosis in therapy.
- Additionally, PWA were found to exhibit a higher degree of between-session intra-individual variability than controls overall.
- Within the PWA group, several different patterns of intra-individual variability were found: one group was characterized by high variability on both selective auditory and auditory/visual/integrational attention, another sub-group was characterized by high variability on selective visual attention, and a third sub-group exhibited generally lower variability.
- This is the first demonstration of between-session intra-individual variability in a purely non-linguistic task.
- Future studies should directly investigate the link between intra-individual variability in non-linguistic attention and treatment outcomes.

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**SELECTED REFERENCES**