## Do Prospective Memory and Working Memory Share



## a Common Processes? Evidence From a Color Matching Task

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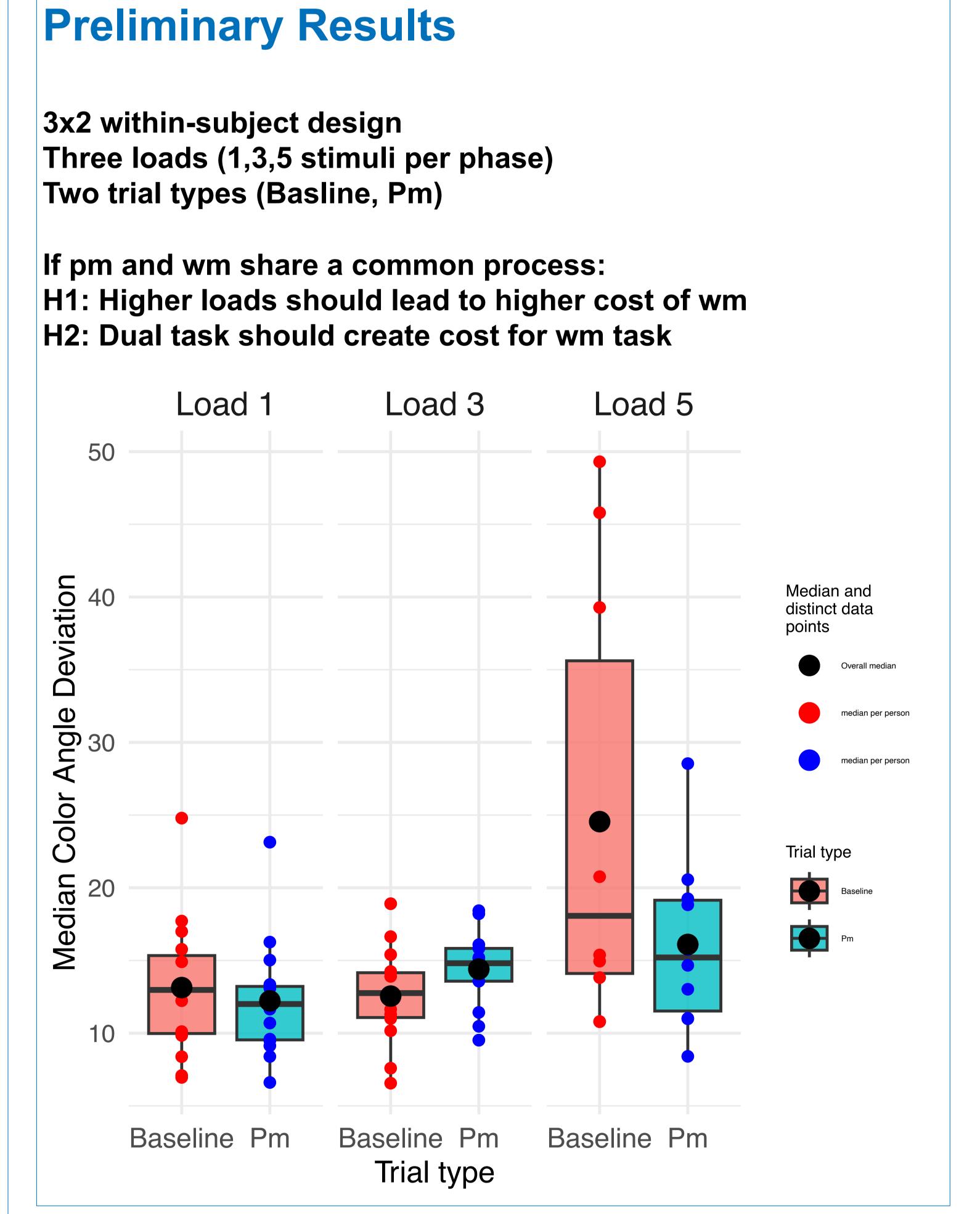
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#### Theoretical backround

Prospective memory (pm) defines the ability to remember and carry out intended actions in the future. Working memory (wm) is used to temporarily hold and manipulate information. Previous studies suggest a shared process between the two (Marsh & Hicks, 1998). Most studies however only give indirect evidence for this claim (compare Anderson et al., 2019). In this study a delayed estimation task is paired with a prospective memory task to provide more direct evidence for the hypothesis in three loads. A direct negative connection between wm load and the pm task could imply a shared process.

### Method Delayed estimation task General procedure session **Practice** Baseline Delay Pm Trial Baseline Pm 1 (60) 2 (60) Task **120** explain **Example trial load 3** 1000 ms Pm cue = **Musical instruments** 1000 ms **Pm Color** (Hit) 1000 ms

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#### Conclusion

Pilot data could not show a difference in loads and trial type. Data does not hint at a shared process.

**Pilot is underpowered = Data not representative** 

#### Literature

Anderson, F. T., Strube, M. J., & McDaniel, M. A. (2019). Toward a better understanding of costs in prospective memory: A meta-analytic review. *Psychological Bulletin*, 145(11), 1053–1081. https://doi.org/10.1037/bul0000208

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