

Relationship between metacognition of motor, visual and memory processes

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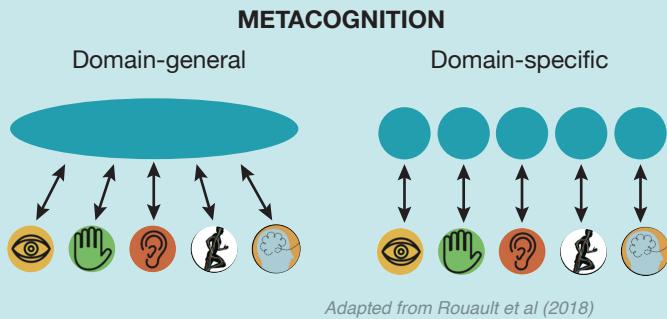
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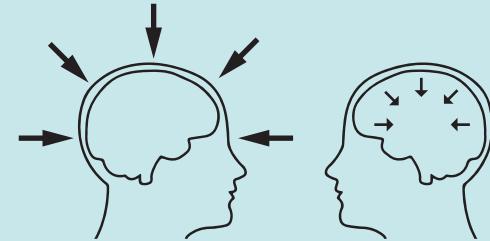
Introduction

Metacognition is an ability to reflect upon our cognitive processes.

Is there a single general metacognitive mechanism or is it a collection of multiple monitoring modules, separate for each cognitive domain?

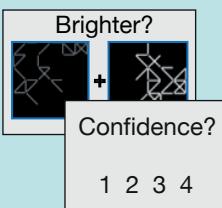


One potential divide could stem from two broad categories depending on the source of information: monitoring of externally-generated (i.e., visual metacognition) information and monitoring of internally-generated information (memory metacognition) (Fleming et al, 2014)

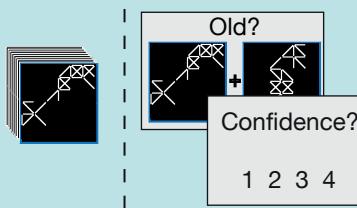


Methods

Visual task external



Memory task internal



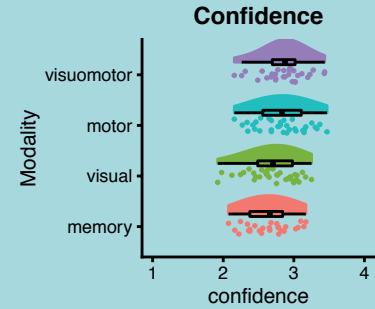
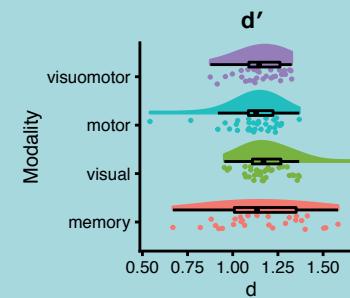
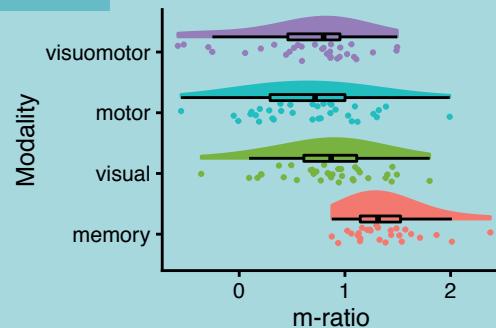
Adapted from Morales et al (2018)

40 participants

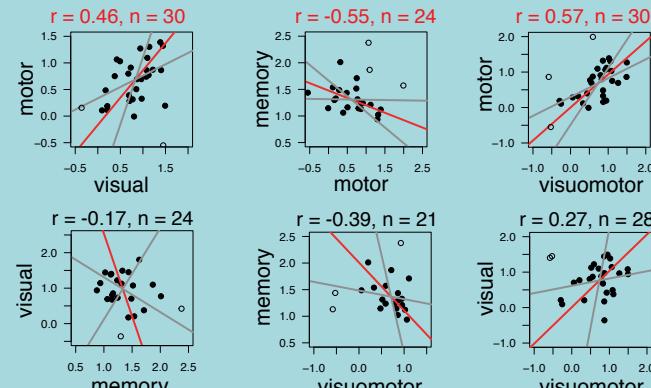
Meta-d'/d' (m-ratio) as a measure of metacognitive sensitivity normalized by first-order performance (Maniscalco & Lau, 2012)

Results

m-ratio



M-ratio robust correlations



Discussion

No support for internal/external grouping

- M-ratio correlations pattern not consistent with it

Other groupings might be more useful:
We suggest that motor domain can form as separate group



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