

Color-Validity Associations Put to the Test

A Preregistered Study

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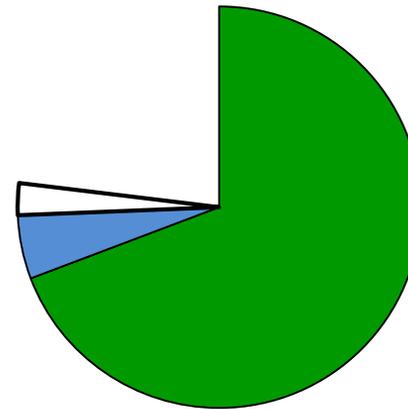
Open Science Day
Universität Mannheim
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Research Question

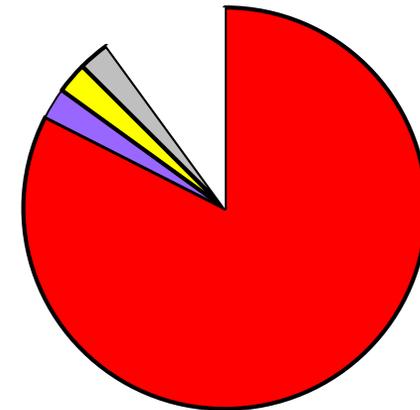
- Do people associate truth and falsity with specific colors?
- Is there also evidence on the behavioral level?

Color associations
for “truth”



Green: 69.2%

Color associations
for “falsity”



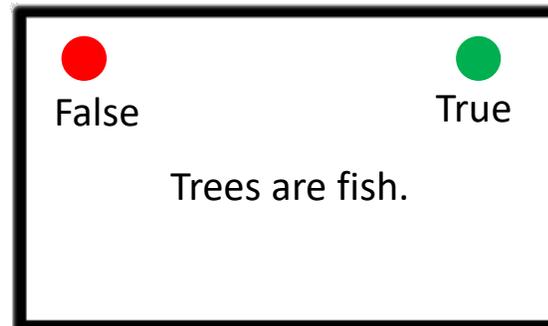
Red: 82.5%

Implicit Association Test (IAT)

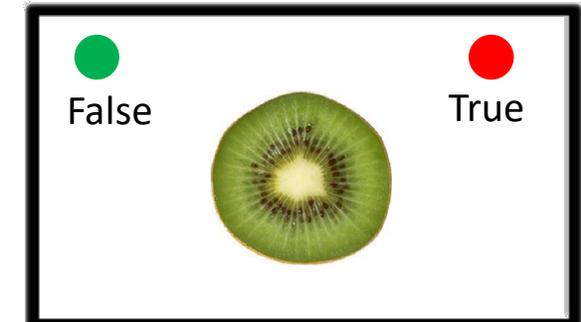
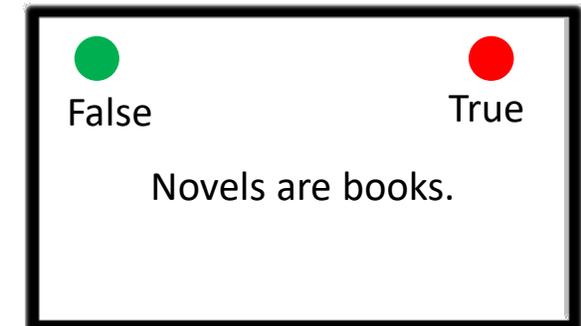
(Greenwald et al., 1996)

- **Task:** Speeded double discrimination task.
- **Measure:** Difference in response times between blocks.

Compatible block

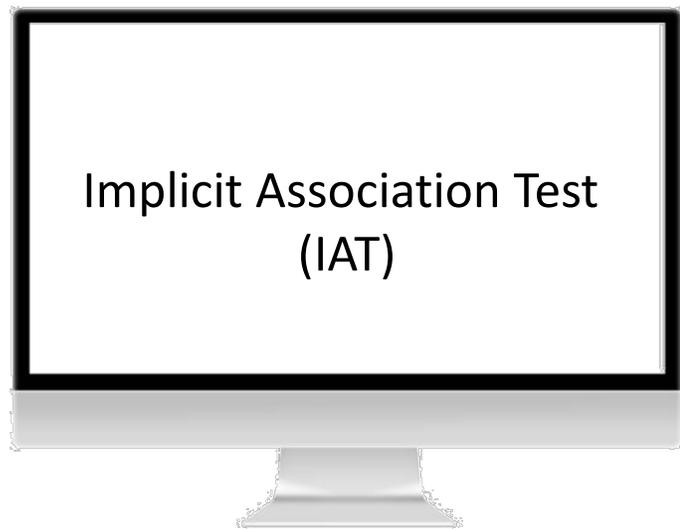


Incompatible block



Color-Validity Associations

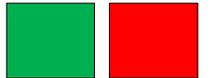
Series of four Experiments



Results

- **Red-Green-IAT**

- Robust green-true/red-false IAT effect.

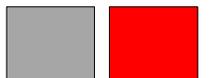


- **IATs with Yellow and Gray**

- **Yellow** as a control color eliminated or even reversed the green-true effect.



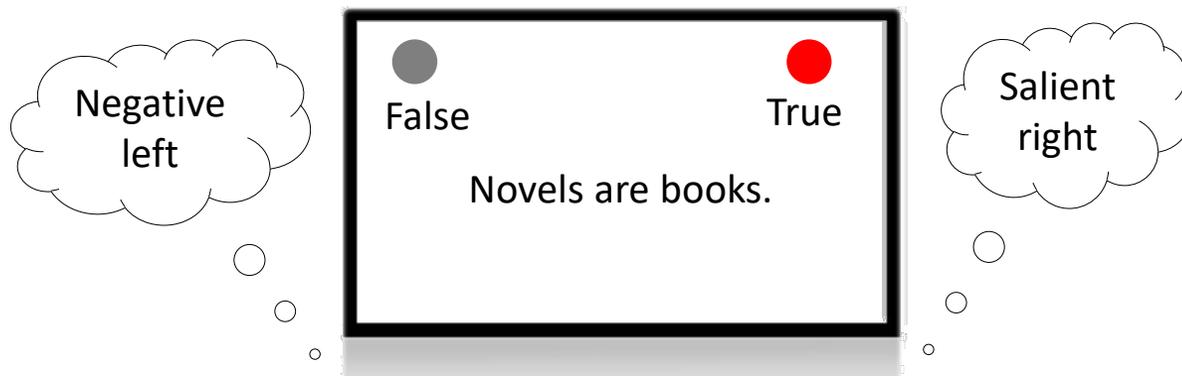
- **Gray** as a control color eliminated or even reversed the red-false effect.



Possible Explanation

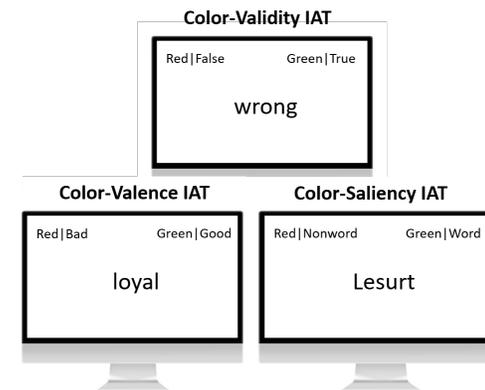
- **Hypothesis**

The unexpected color-validity effects are due to recoding-processes. (e.g., Rothermund & Wentura, 2004).

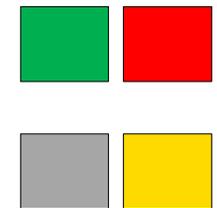


- **Experimental Design**

3 IAT-types



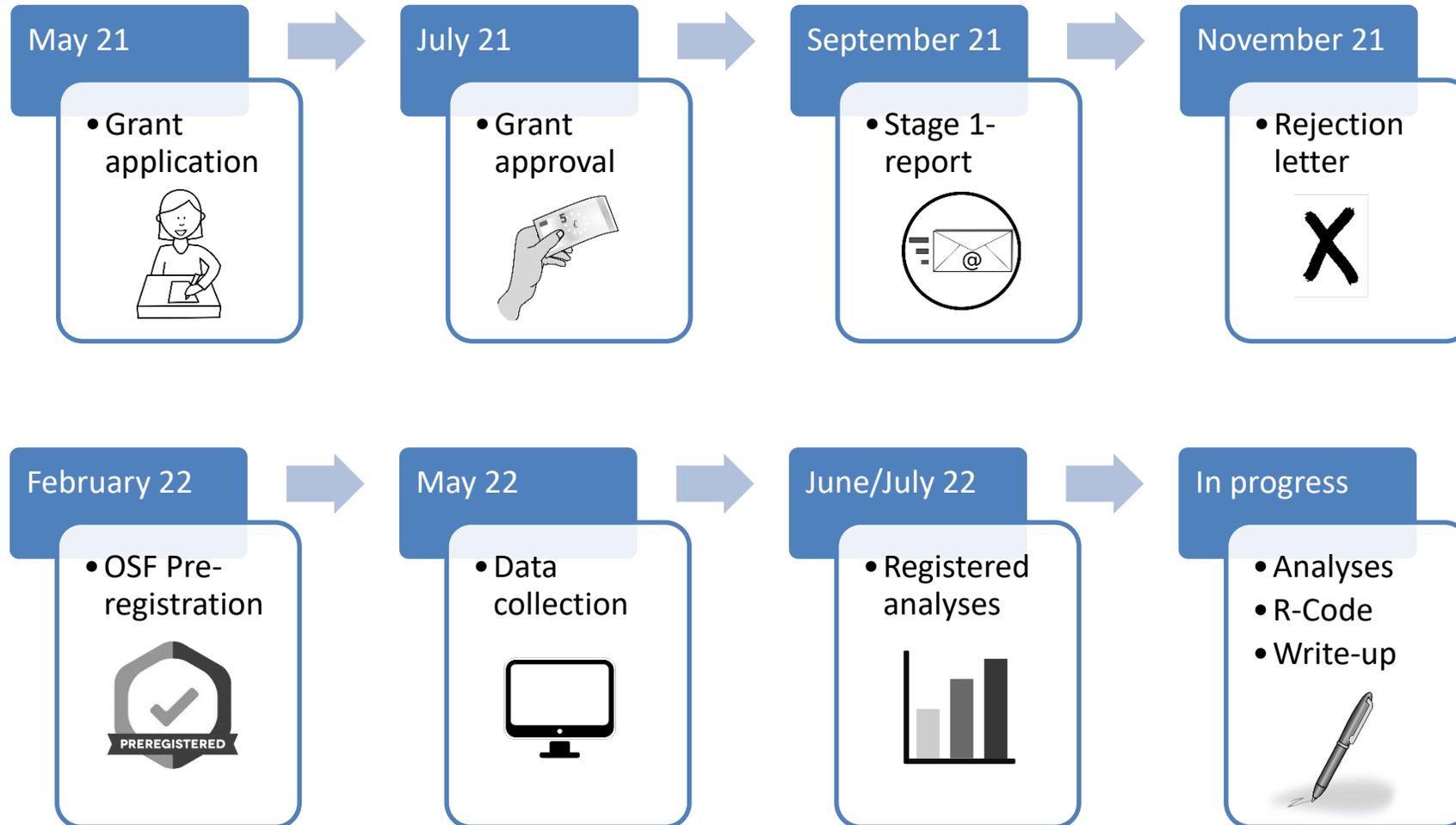
2 Color pairs



- **Required Sample Size**

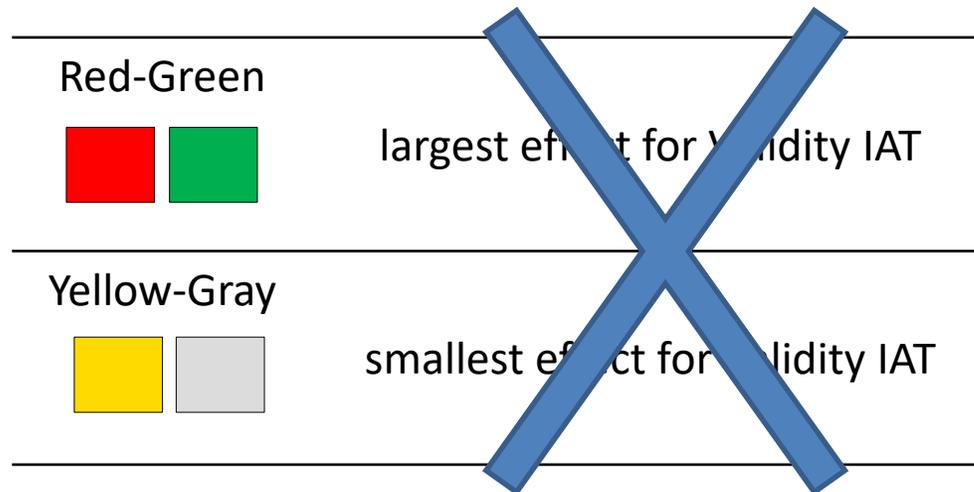
– $N \geq 566$

Preregistered Experiment



Conclusion

Prediction and Results



Take-Home Messages

1. No clear evidence for automatic color-validity associations that go beyond valence associations.
2. One advantage of preregistered reports → Reviewer feedback before data collection.

Thank you for your attention



Thanks to **Alina Kias**



Thanks to the **funding organizations**



Project on OSF



Preregistration

