

Long-Term Effects of Value-Driven Attentional Capture on Memory: Reward Influences Criterion But Not Discriminability (1451)

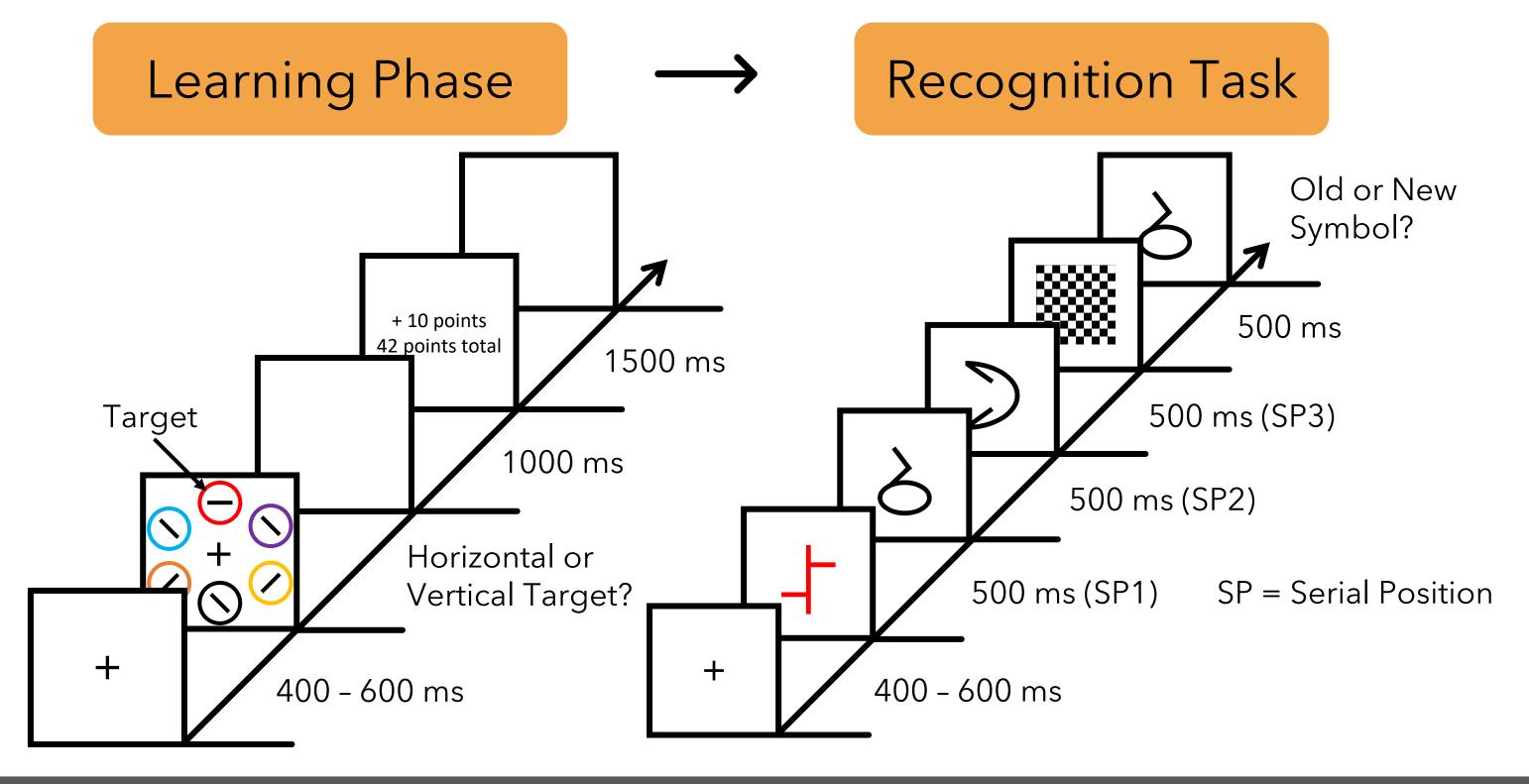


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Background

Stimulus features previously associated with reward can automatically capture attention in contexts where those reward associations no longer apply (Anderson et al., 2011; Le Pelley et al., 2015).

Do stimulus features associated with reward in an attention task influence memory discriminability and response bias in a later short-term memory task?

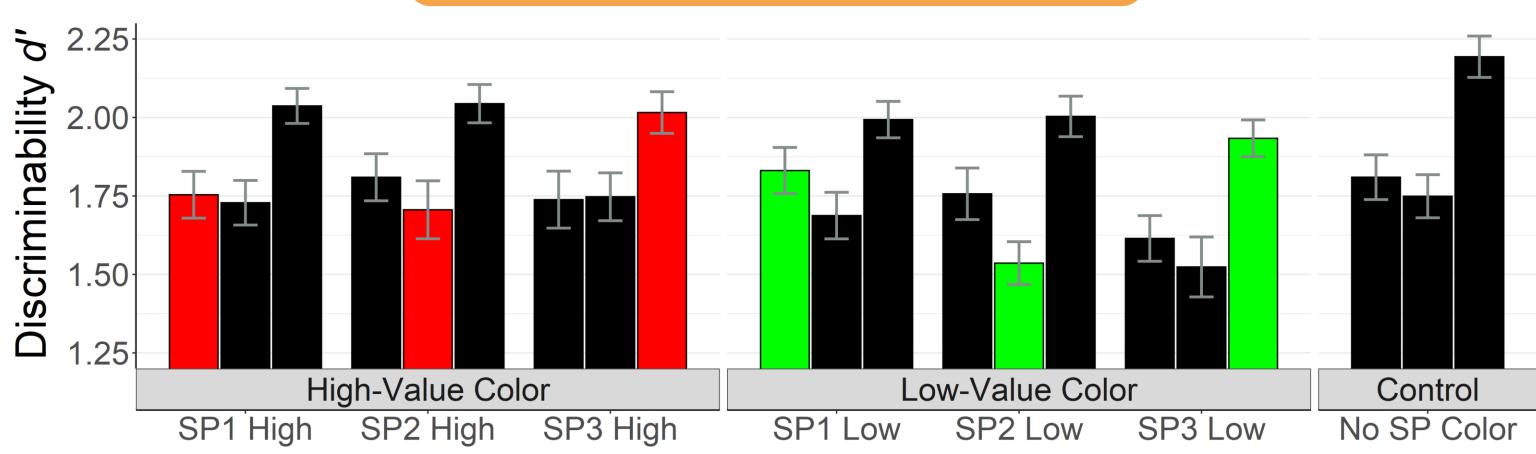


Methods

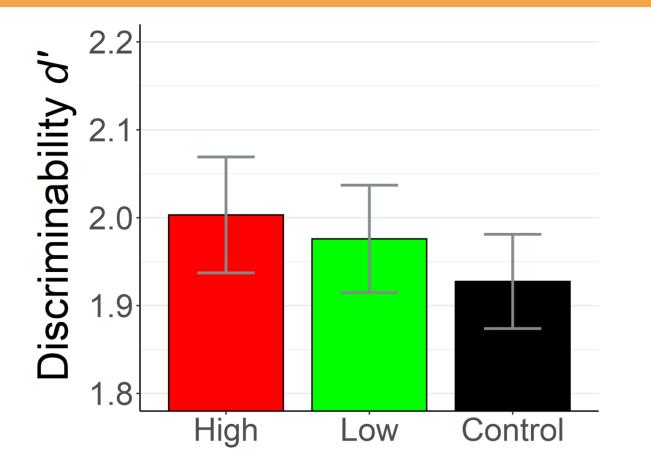
62 participants were trained to associate one of two target colors (red or green) with a higher chance of receiving the greater of two reward amounts (10 points or 2 points).

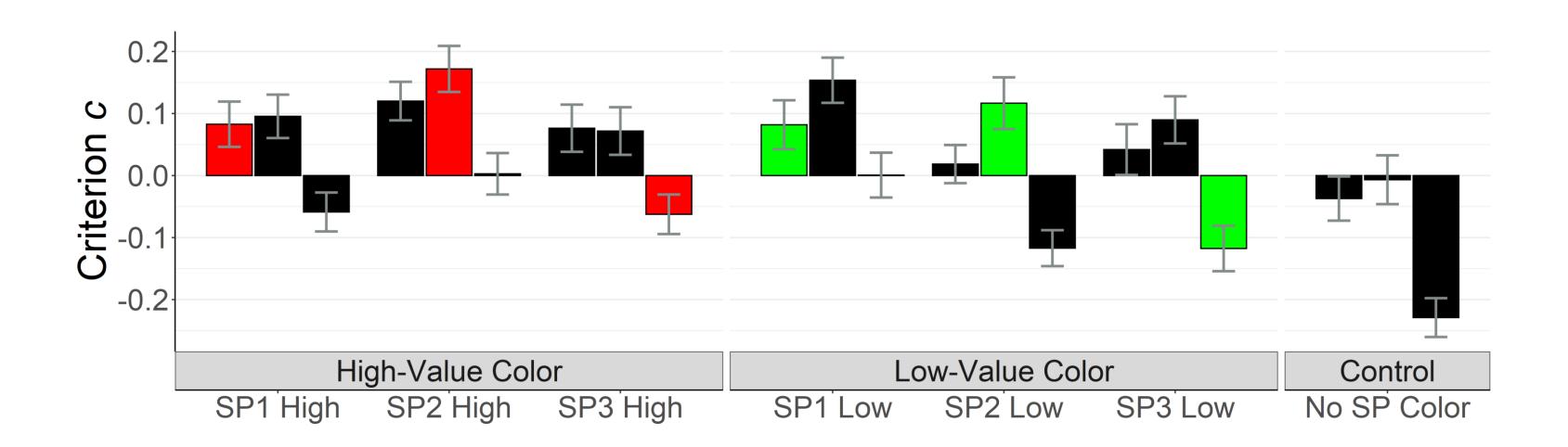
In a later recognition task, participants made old/new judgments on a sequence of three symbols, one of which was sometimes rendered in a previously rewarded color.

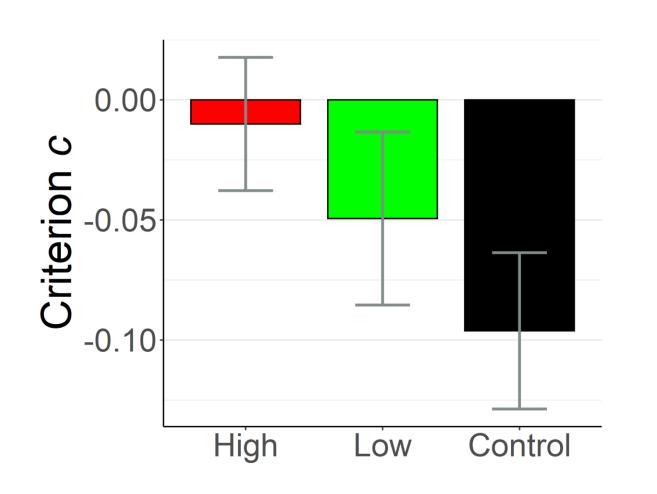
Recognition Task Results by Serial Position



Recognition Task Results Aggregated by Reward







Conclusions

Memory discriminability for colored items was no different than control items.

Response bias was more conservative for high-value items, with effects apparent at position 2 (BF = 3.11), and position 3 (BF = 26.5) compared to the control.

Prior reward appears to influence response bias but not discriminability in memory for sequences.

Try a demo of the study!
http://labs.psychology.illinois.edu/~jy57/demos/PsyNomDemo.html