A tale of two processes

Categorization accuracy and attentional learning dissociate with imperfect feedback

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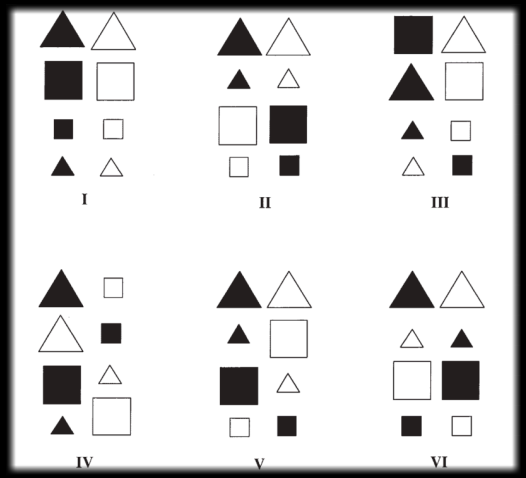
Aaron Ancell
Mark Blair

SFU

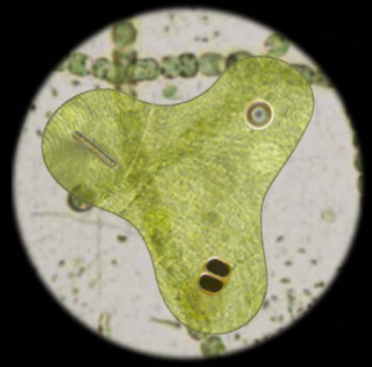


R. Shepard, C. Hovland, & H. Jenkins (1961)
via J. Smith, D. Washburn & J. Minda (2004)

Fixate more information early

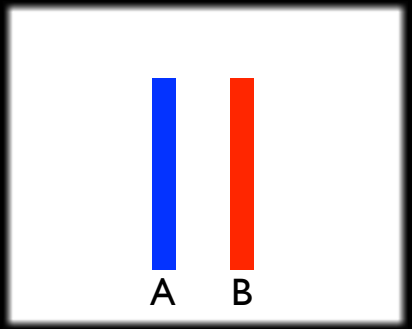
Optimize attention
... *after* accuracy levels out

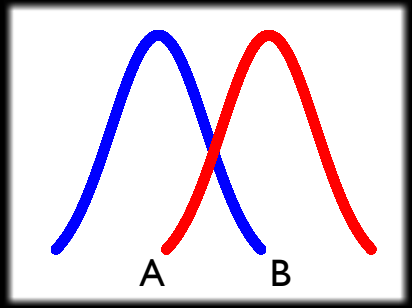
B. Rehder & A. Hoffman. (2005).

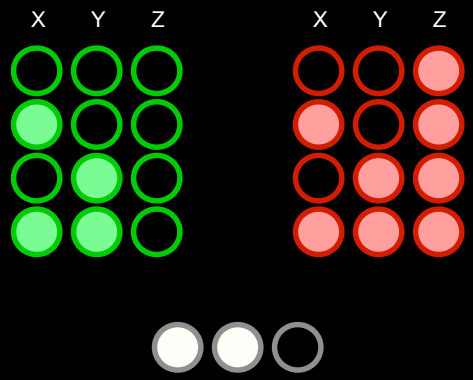


Optimize attention
... *independent* of error or feedback

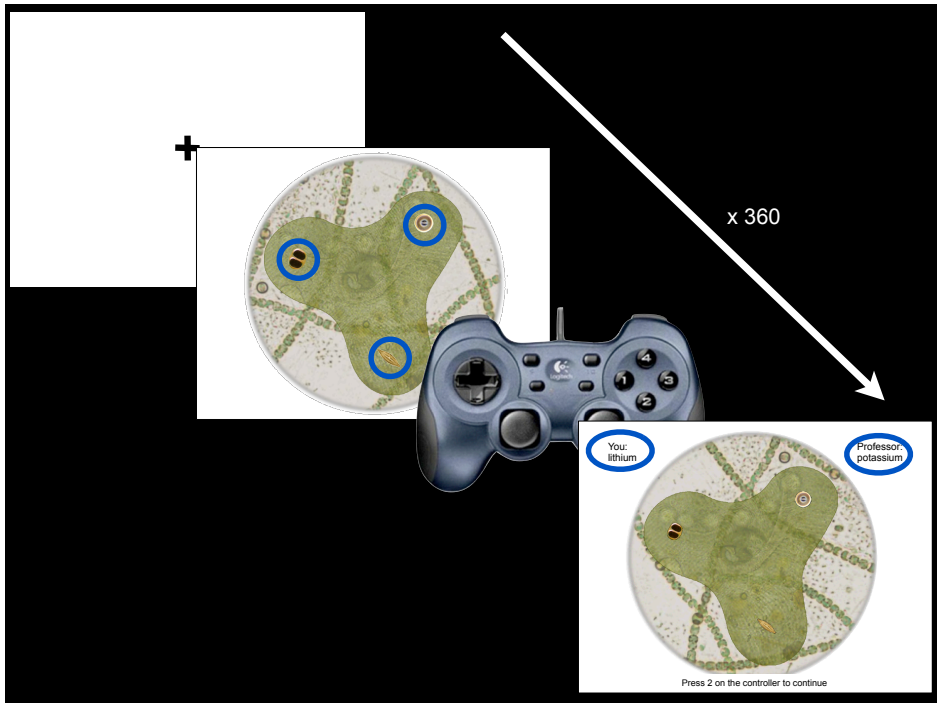
M. Blair, M. Watson & K. Meier (2009).



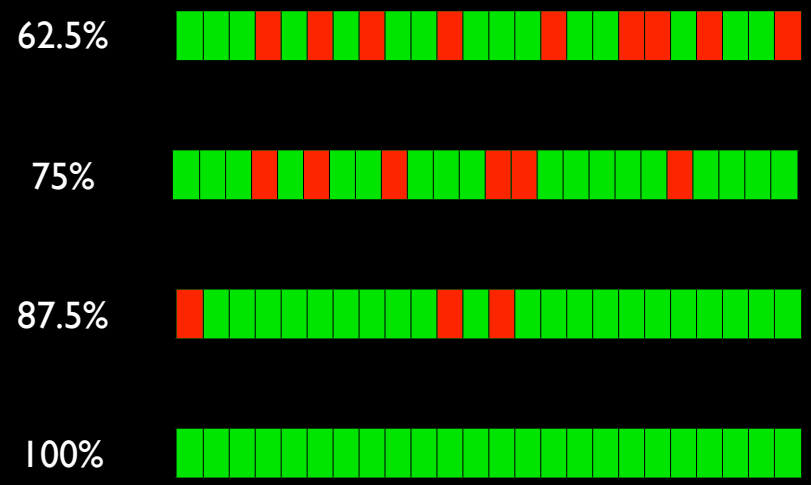




D. Little & S. Lewandowsky (2009).



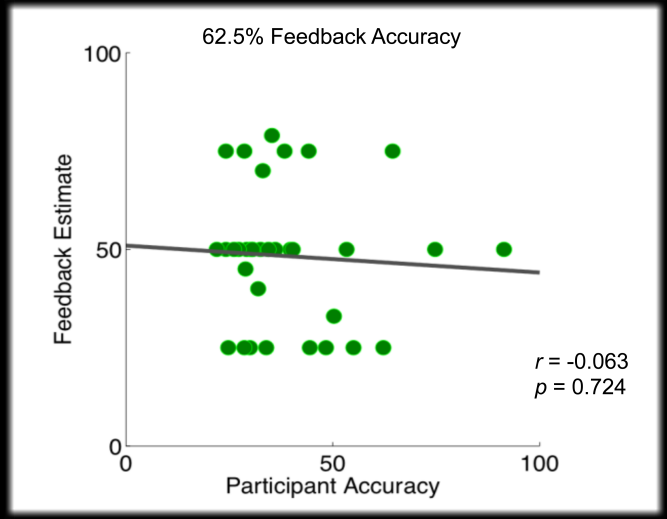
Feature 1	Feature 2	Feature 3	Category
1	1	1	Lithium
		0	
1	0	1	Calcium
		0	
0	1	1	Sodium
		0	
0	0	1	Potassium
		0	

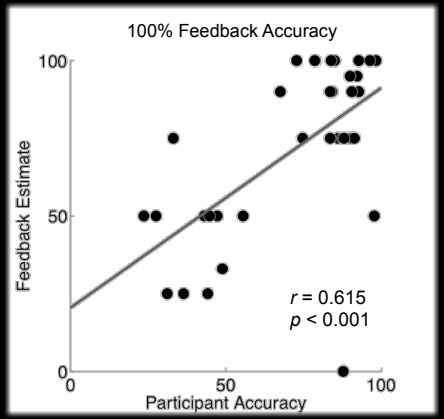


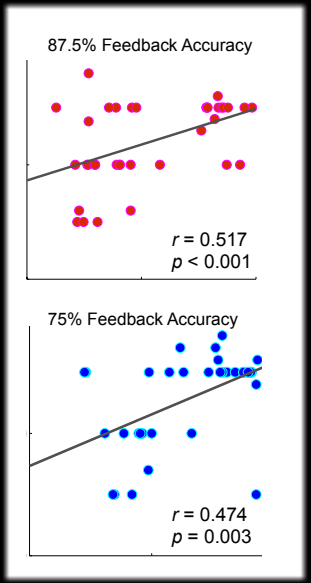
Assessment of Information Validity

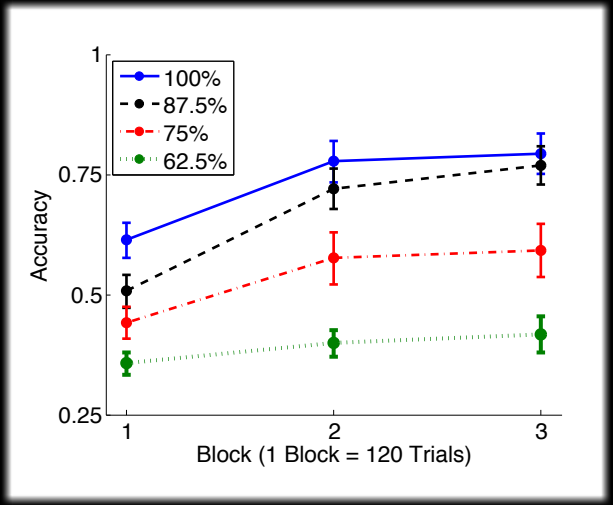
Accuracy

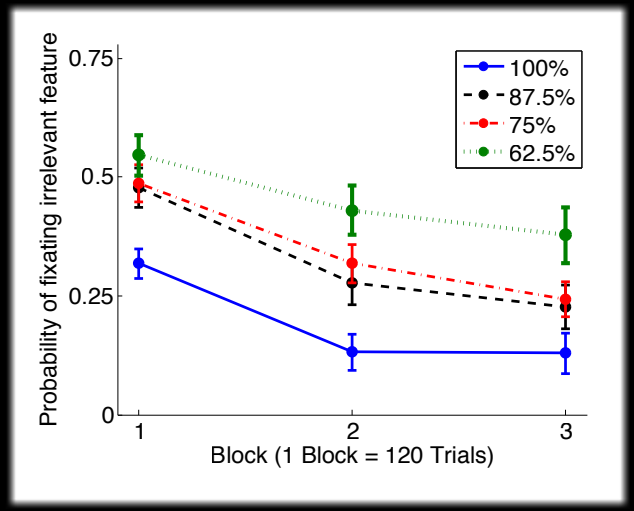
Attention to Irrelevant Information



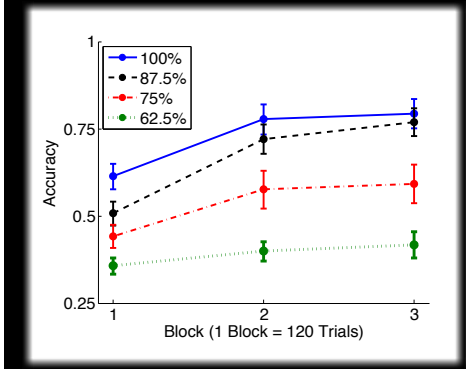


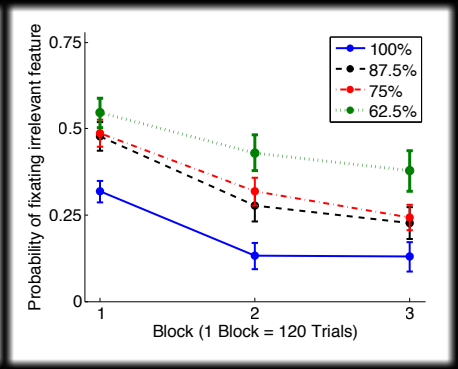






Accuracy is dissociable from attentional learning

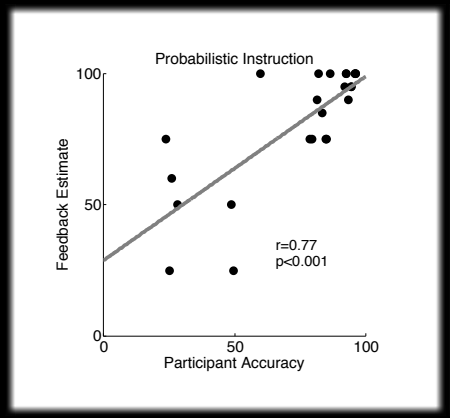


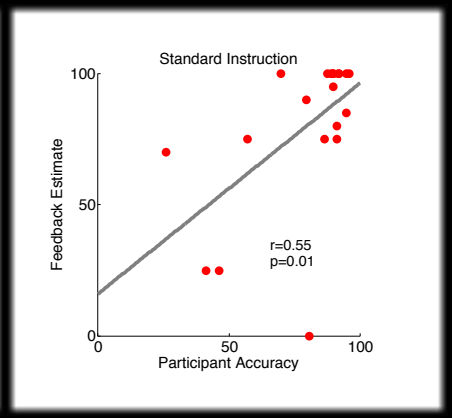


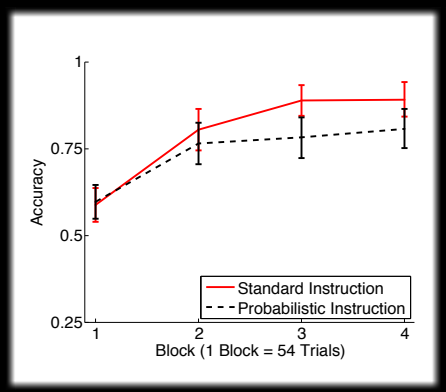
1. Underestimate feedback validity
2. Correlations between estimates of feedback validity and participant accuracy
3. Dissociation between accuracy and attentional learning

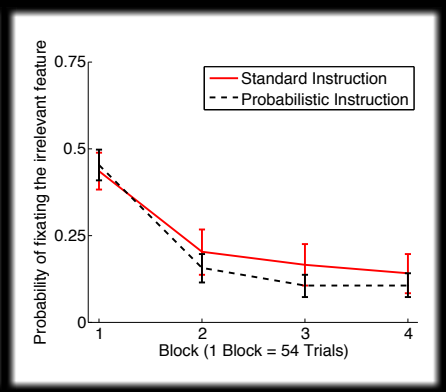
Influence of uncertainty

100%



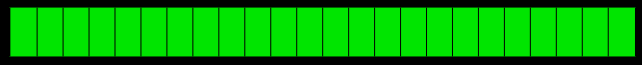


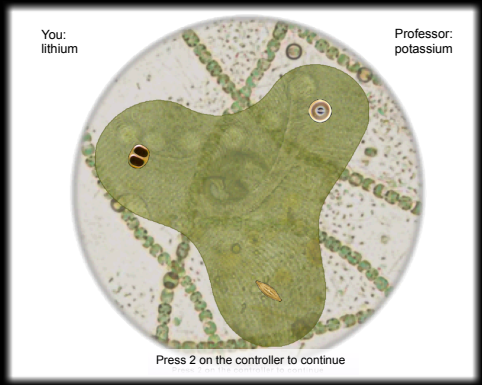




No effect of uncertainty

100%





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