

How do humans learn concepts and strategies?

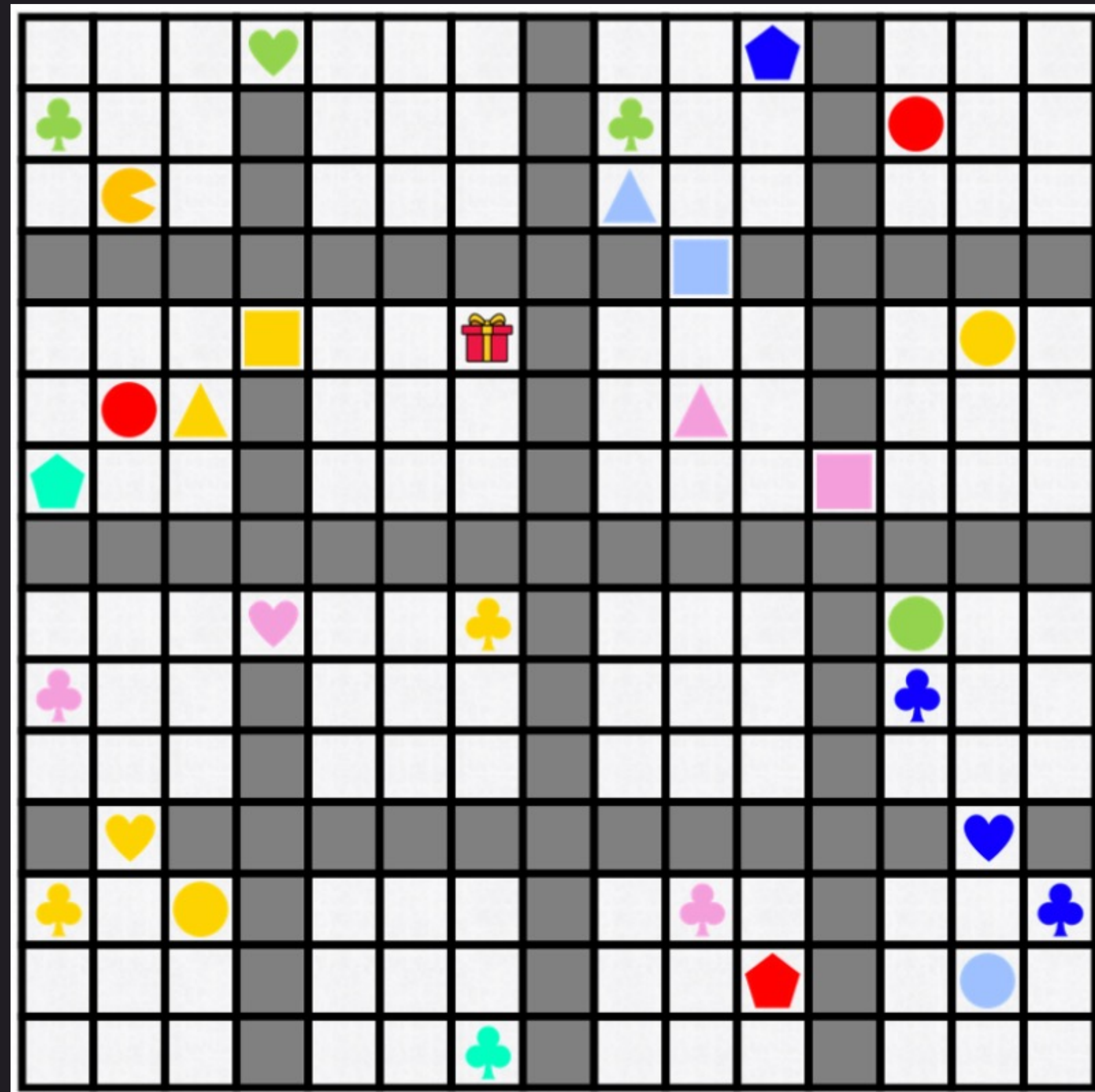
Tsvetomira Dumbalska¹, Areej Bhatti², Ibi Ali³, Christopher Summerfield¹

¹Department of Experimental Psychology, University of Oxford ²Department of Psychology, Queen Mary University ³Department of Psychology, University of Edinburgh

Escape room maze: navigate avatar  to reach goal 

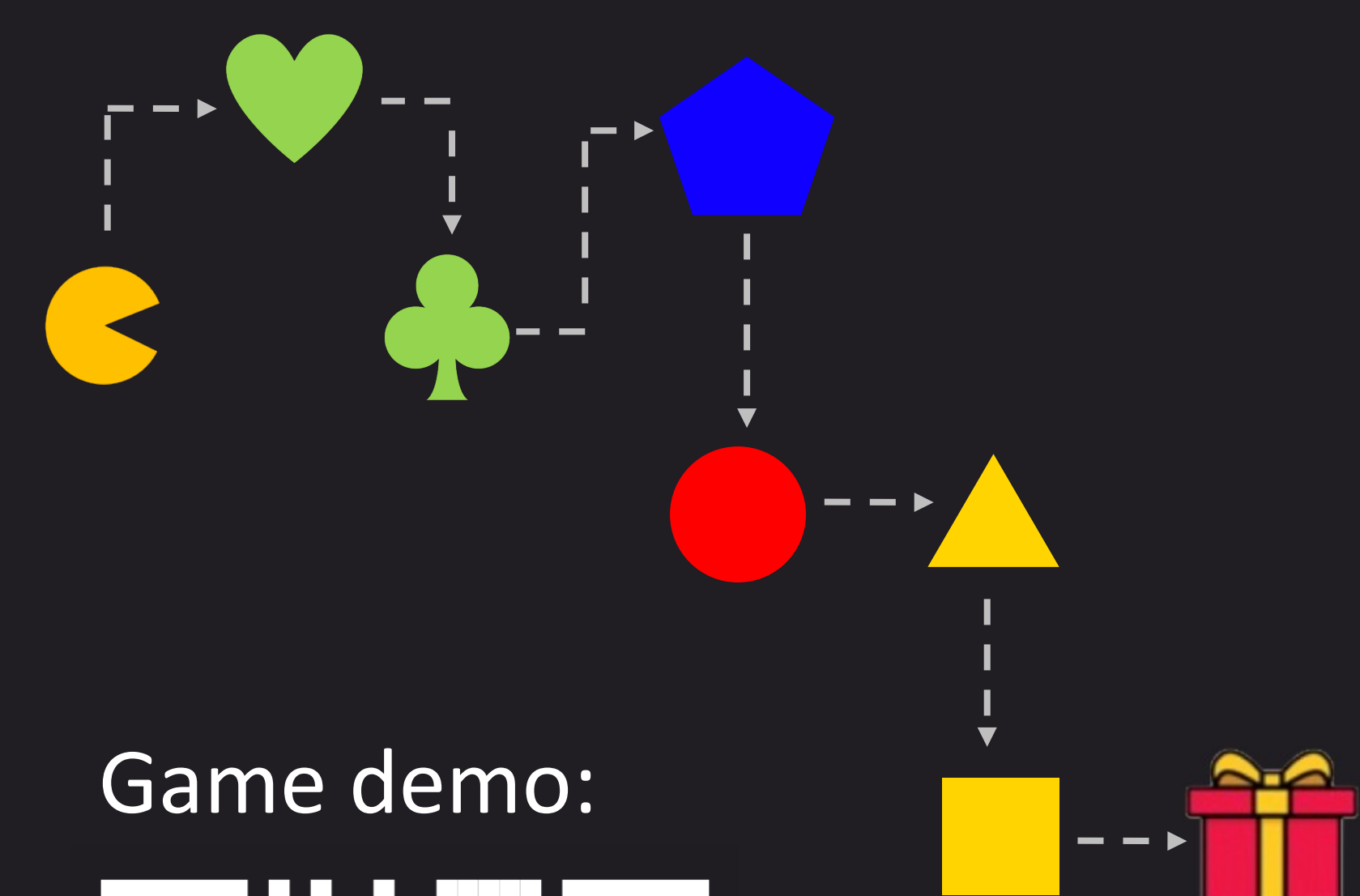
Concepts:

tools that transition player between rooms



Strategies:

plans chaining concepts to reach goal

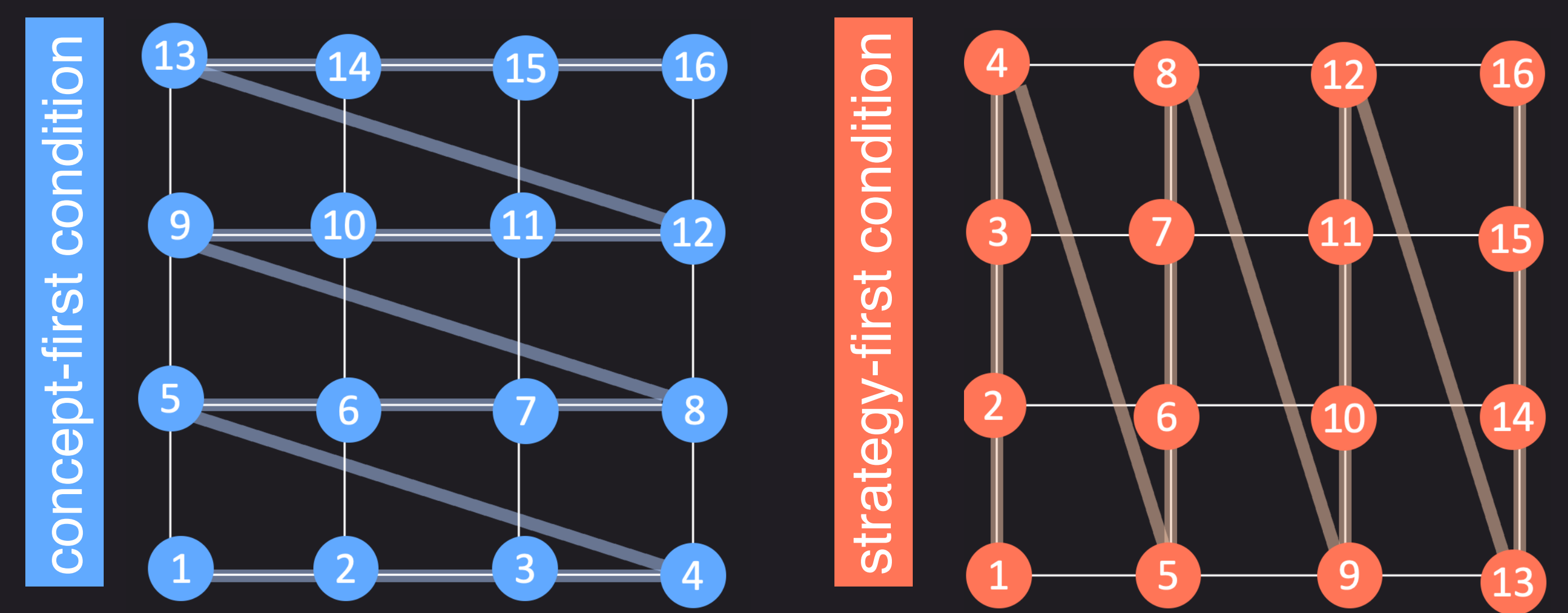
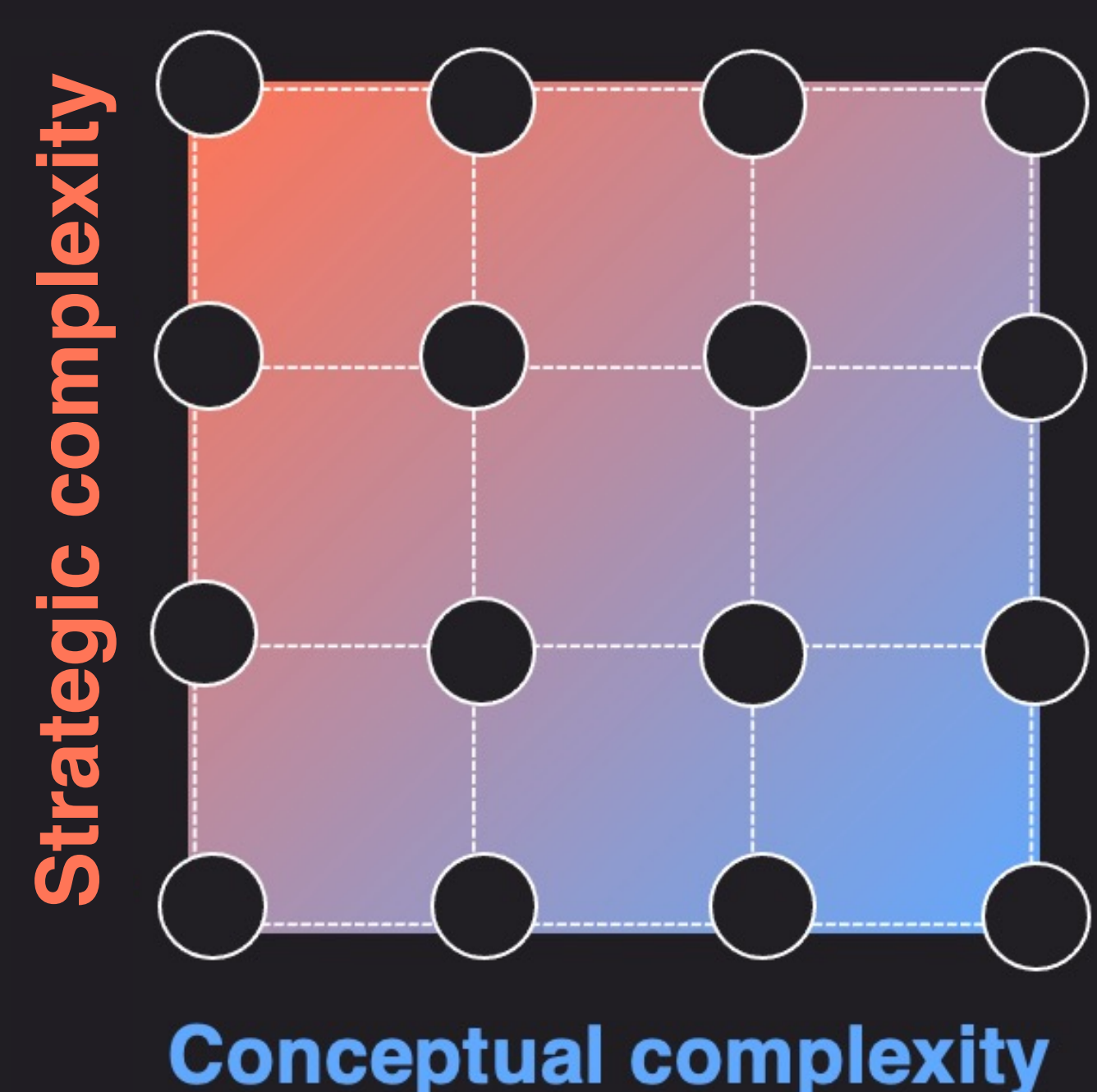


Game demo:



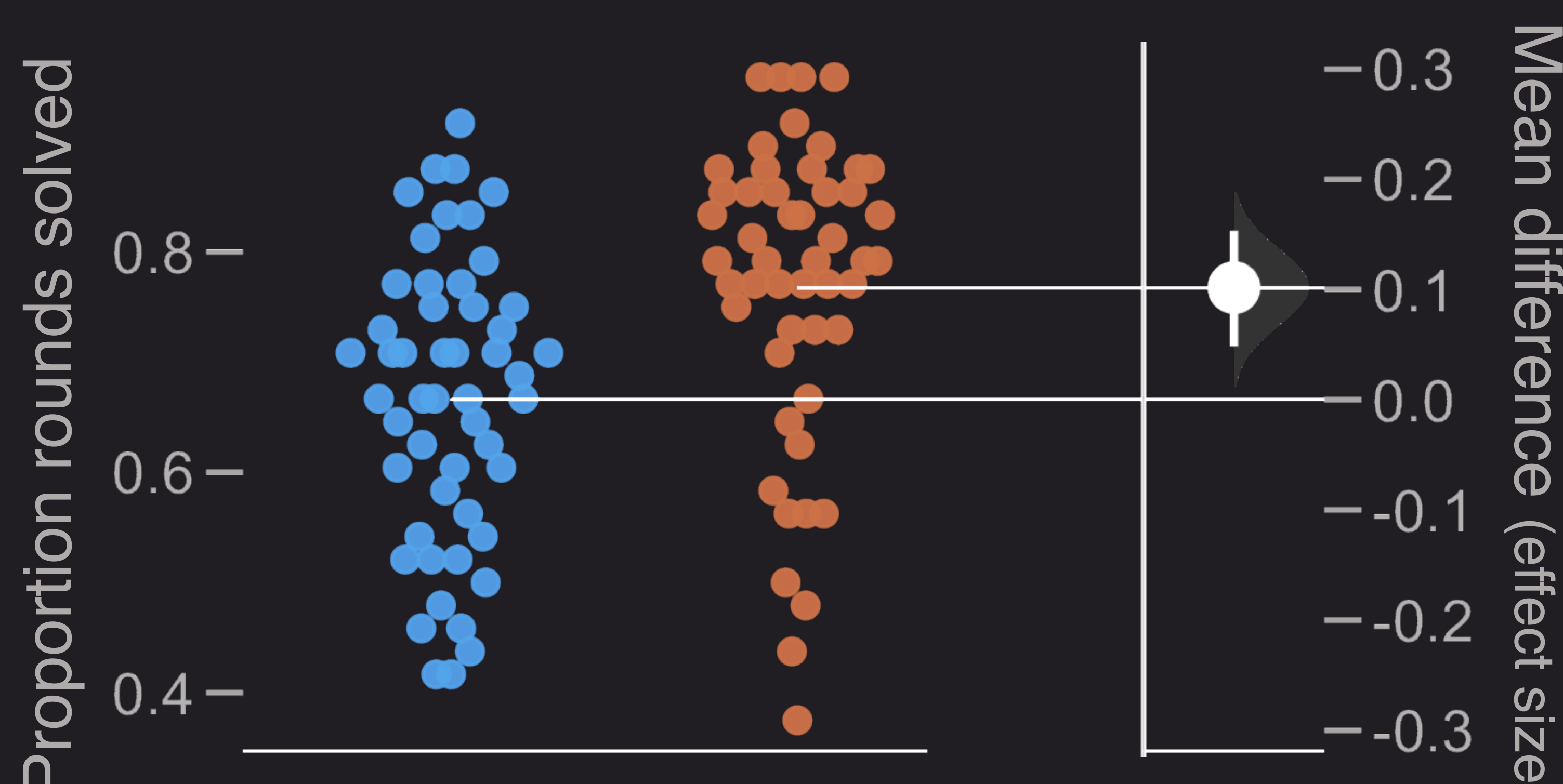
Game rounds as trials; condition manipulates curriculum (game order).

Games procedurally generated at 4 levels of conceptual & strategic complexity:

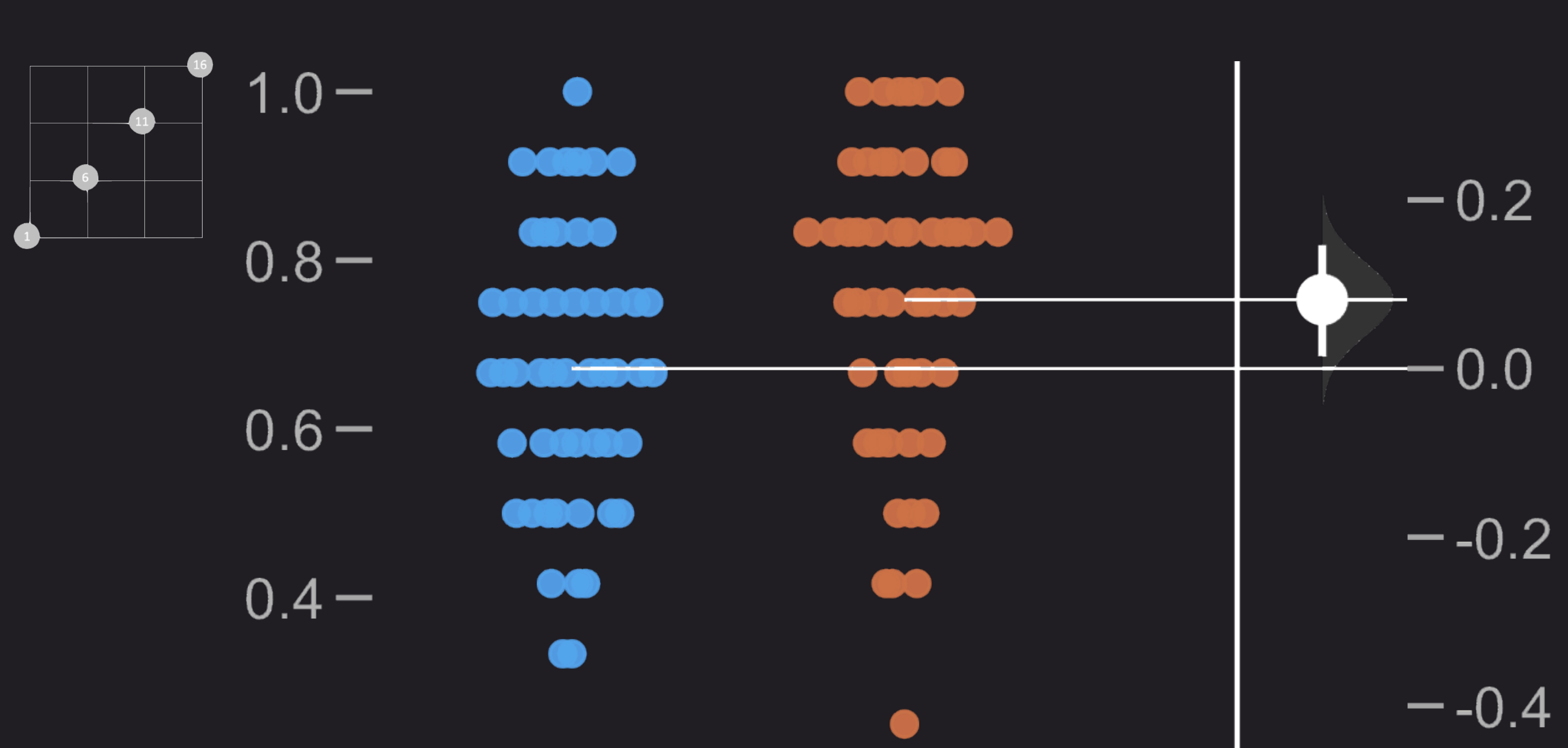


same games, different order

All training rounds:



Probe rounds only:



Applying new concepts in strategies promotes learning.