The FORAGEKID Game: Using Hybrid Foraging to Study Executive Functions and Search Strategies During Development

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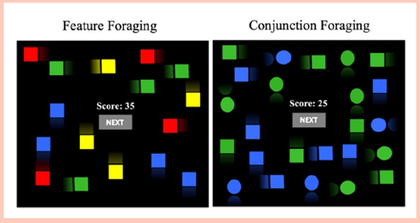
Hybrid Foraging

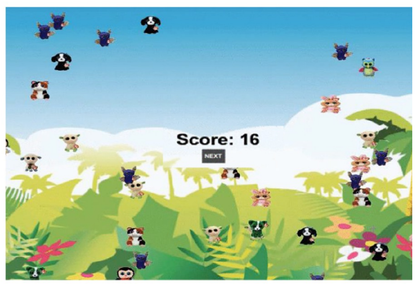


Searching for multiple instances of multiple targets (e.g., looking for blue squares and green circles in conjunction foraging)

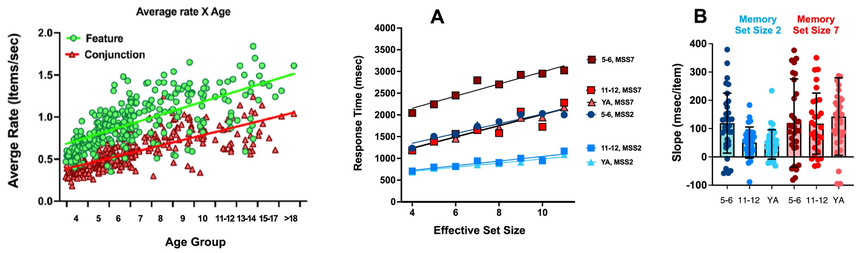
Allows us to study different aspects of Cognitive Development within a Single task...

THE FORAGEKID GAME

…and look for them as they move around

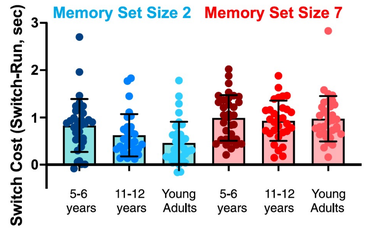


Studying Selective Attention



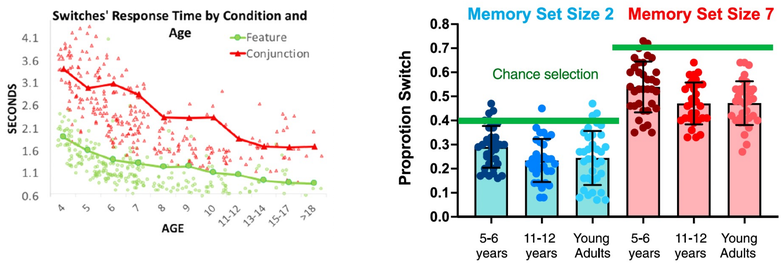
Faster foraging in feature conditions. Larger RTs for children but similar slopes of Search functions.

Studying Memory modulations



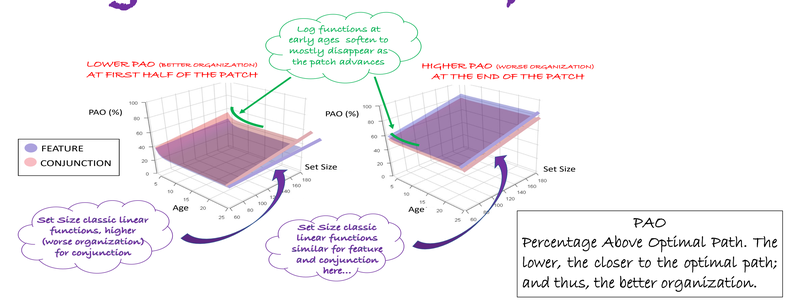
Costs of memory load elevated for children in low memory load conditions; not at high memory load ones.

Studying Search Strategies



Shorter RTs as age increases. Higher target switching costs for children in both memory load conditions.

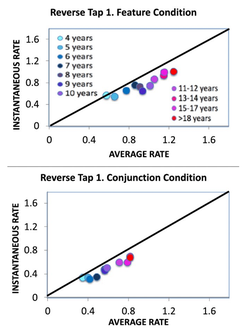
Studying Spatial Organization of search

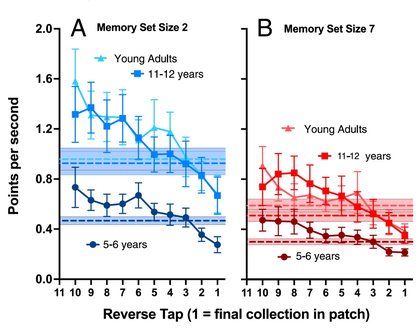


PAO
Percentage Above Optimal Path. The lower, the closer to the optimal path; and thus, the better organization.

The FORAGEKID is sensitive to spatial organization

Studying Optimal Decision-Making in Search Quitting Times





Our foraging game show similar patterns of "patch leaving" decision-making in search quitting rules among age groups.

CONCLUSION

The data indicate that our FORAGEKID GAME is an enjoyable tool for effectively assessing a range of attentional and executive functions over the lifespan.

Download our papers here!

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