Complex Choice

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How do adaptive agents, i.e. people, accomplish complex choices?
Rugged Landscapes Metaphor

• Introduced [in biology] by Wright in 1932
  • Used to visualize the fitness value of interacting genetic traits
  • Fitness = height on a landscape
  • Evolution moves toward higher ground

• Ruggedness of landscape is key: More rugged implies more complexity

• Search is on a foggy landscape: No overall map, only local information

• General result: More complex landscapes are more difficult to search
The Experiment
Interface

• Two tunable dials
  • A-X settings on each
• Can query the system for each setting's payoff
  • Must query at least once
  • No limit on number of queries
• Full search history is always available
• Final query is submitted as landscape choice
Experimental Results
Participants Anchor on Their First Submitted Value
Landscape and Exploration Predict Participants’ Anchors
Thanks!

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