Predicting and choosing for others

Bridging the gap with mouse-tracking

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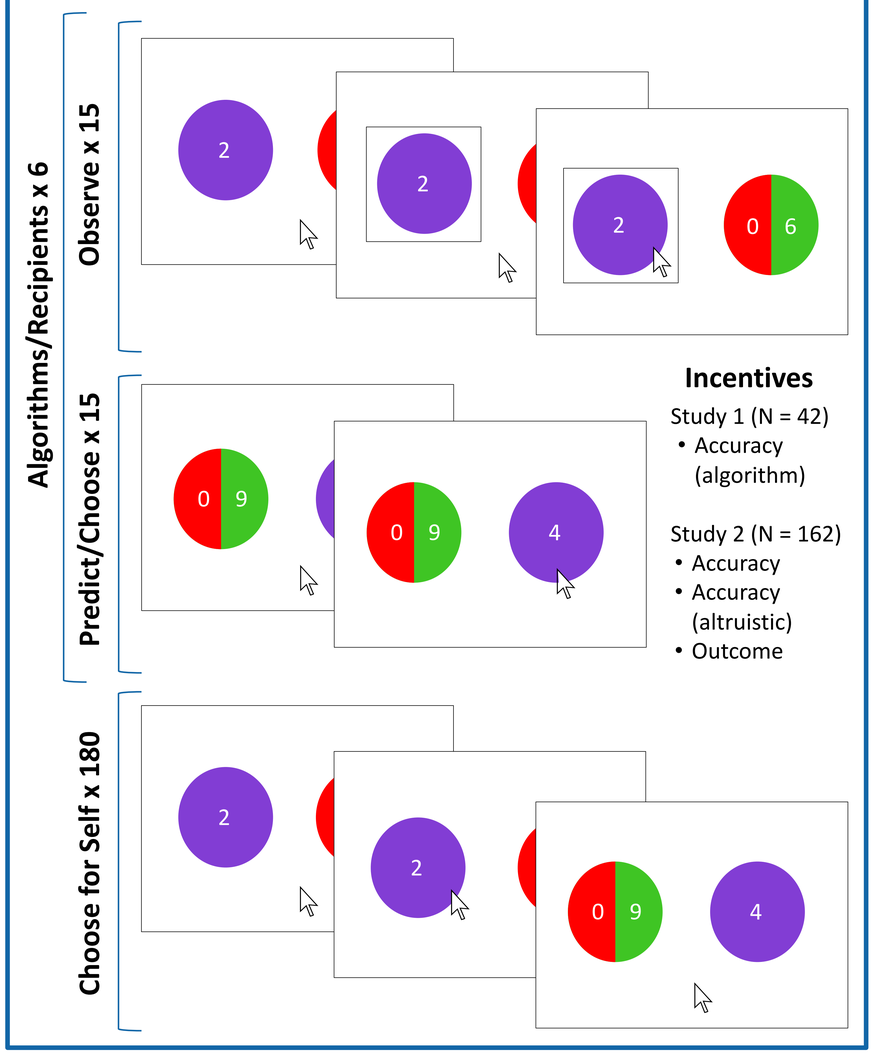
Introduction

- We often have to predict what others will choose
- We also often have to choose for others
- We're not very good at this [1-8]
- Past research is discordant about *how* we're bad at choosing for others
- Potential issues in the literature:
  - Previous surrogate experience
  - Surrogate/recipient similarity
  - Instructions: would vs. should

Once we address these issues, what can we conclude about the process of predicting and choosing for others?

Methods



Incentives

Study 1 (N = 42)
- Accuracy (algorithm)

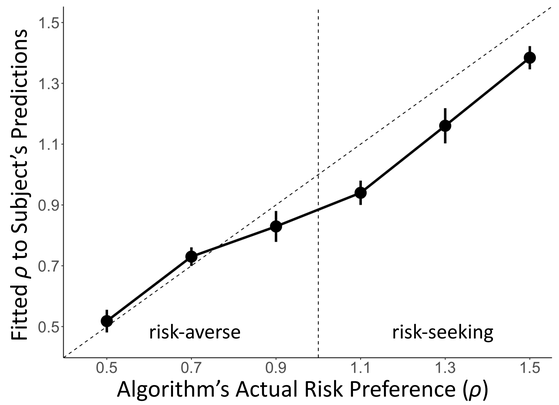
Study 2 (N = 162)
- Accuracy
- Accuracy (altruistic)
- Outcome

Results

Study 1

Regression
β = 0.82, $p < 0.00001$

Prediction Accuracy
M = 82% (SD = 12%)

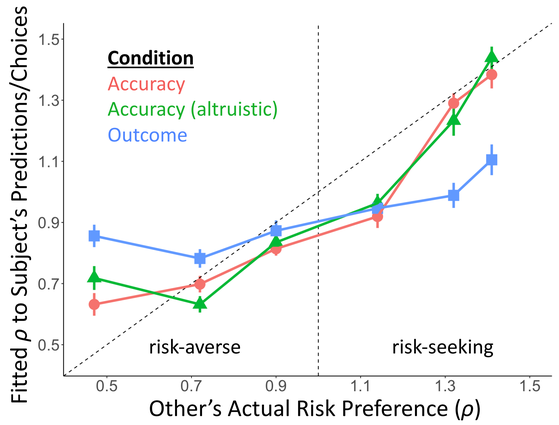


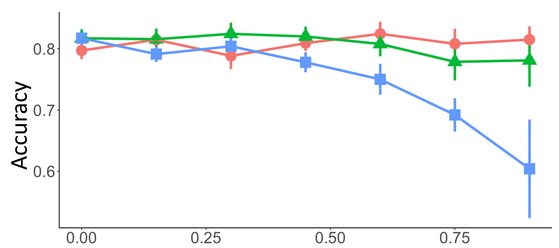
Study 2

Regression
β = 0.81, $p < 0.00001$
β = 0.78, $p < 0.00001$
β = 0.27, $p < 0.00001$

Prediction Accuracy
M = 80% (SD = 6.9%)
M = 81% (SD = 7.3%)
M = 76% (SD = 5.4%)

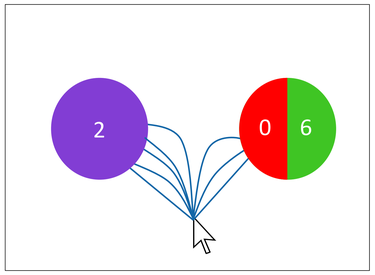
Regression
β = 0.03, $p = 0.82$
β = –0.27, $p = 0.18$
β = –1.24, $p = 0.03$





Mouse tracking

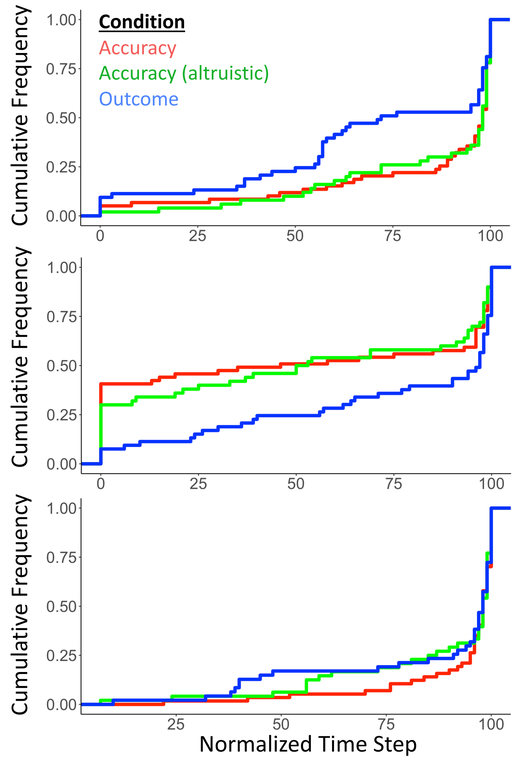
When do these variables become significant predictors of mouse trajectory?



Self Preferences

Other's Preferences

Expected Value



Conclusions

- People can learn the preferences of others – both algorithms and people!
- People choose more accurately for more similar others
- When predicting (vs. choosing), others' preferences predict mouse movements earlier
- When choosing (vs. predicting), own preferences and expected value predict mouse movements earlier

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