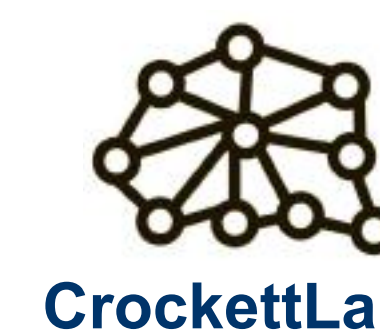


Bridging self-report and choice modelling to investigate the accuracy of self-inferred preferences

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Introduction

Self-inferences shape how people see themselves, and how they interact with others. Yet little work has examined the inferences people draw about their own preferences. Here, we investigate these self-inferences.

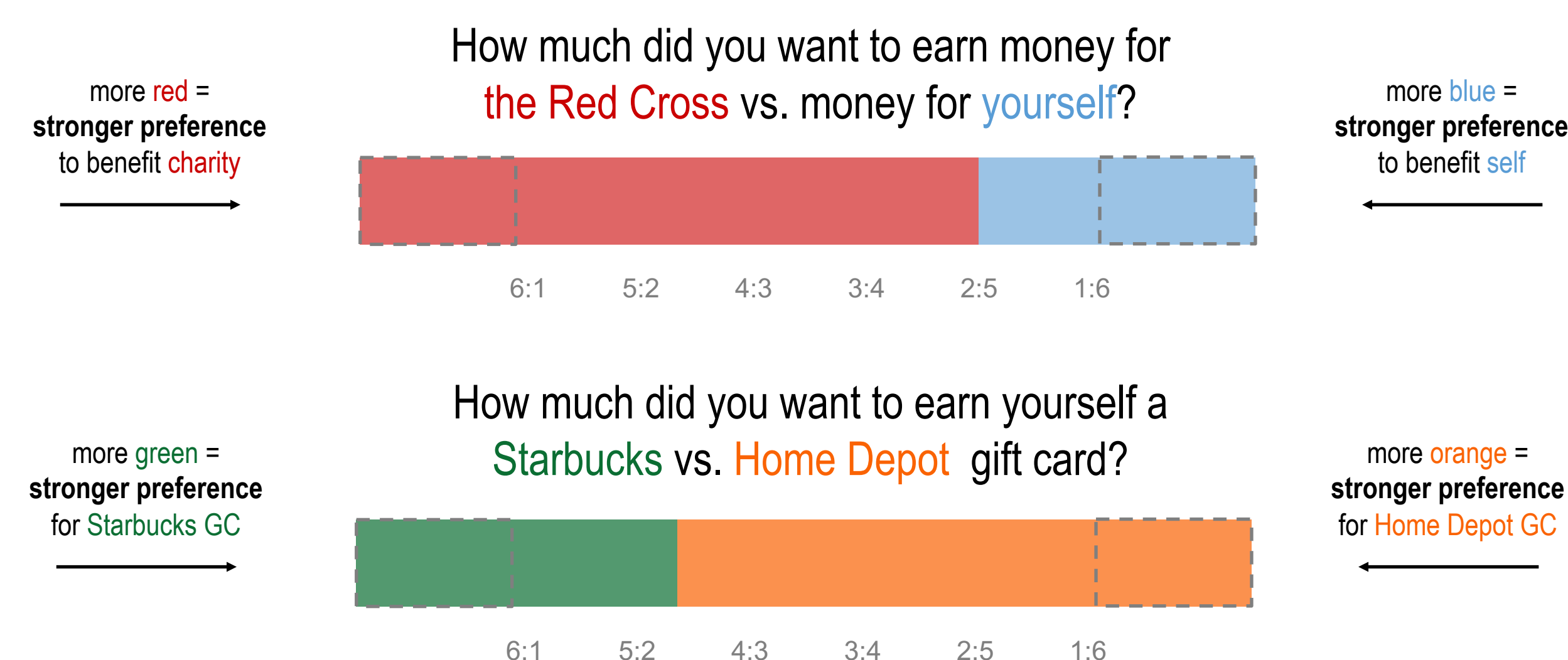
Prior accounts of self-inference often reflect one of two views—the first holds that self-inferences are coarse and inaccurate¹⁻⁴, whereas the second holds that, in some cases, self-inferences can be fine-grained and precise⁵⁻⁶.

To weigh in on these competing takes, here we asked: how well do self-inferred preferences align with peoples' actual choices?

Method: Inferences

Self-inferences: Ps made inferences *retrospectively* (after their choices). Half of Ps also made inferences *prospectively* (before making any choices). Lastly, Ps reported their *confidence* in these inferences.

Ps reported preferences for one reward over the other by shifting the proportion of two colored bars:



Model estimates: We compared self-inferences to model estimates of preferences based on Ps' actual choices:

$$\Delta V = s - \alpha(c)$$

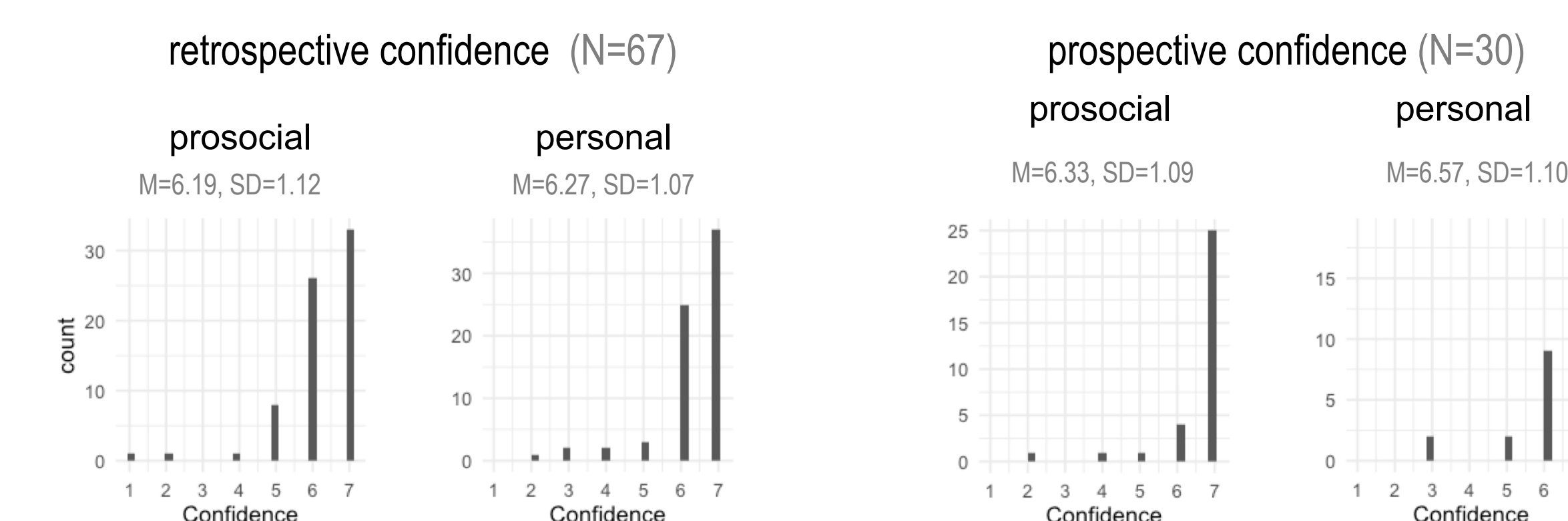
ΔV is the difference in subjective value between each option
 s and c are the objective amounts of money for self and charity
 α weights the value of gains for charity, and thus captures the relative preference strength for each reward

When α equals 1, deciders value each reward type equally, and will choose based on which reward they can earn more of. As α approaches 0, deciders will choose to benefit themselves over charity, irrespective of the amount of money that could be earned for charity.

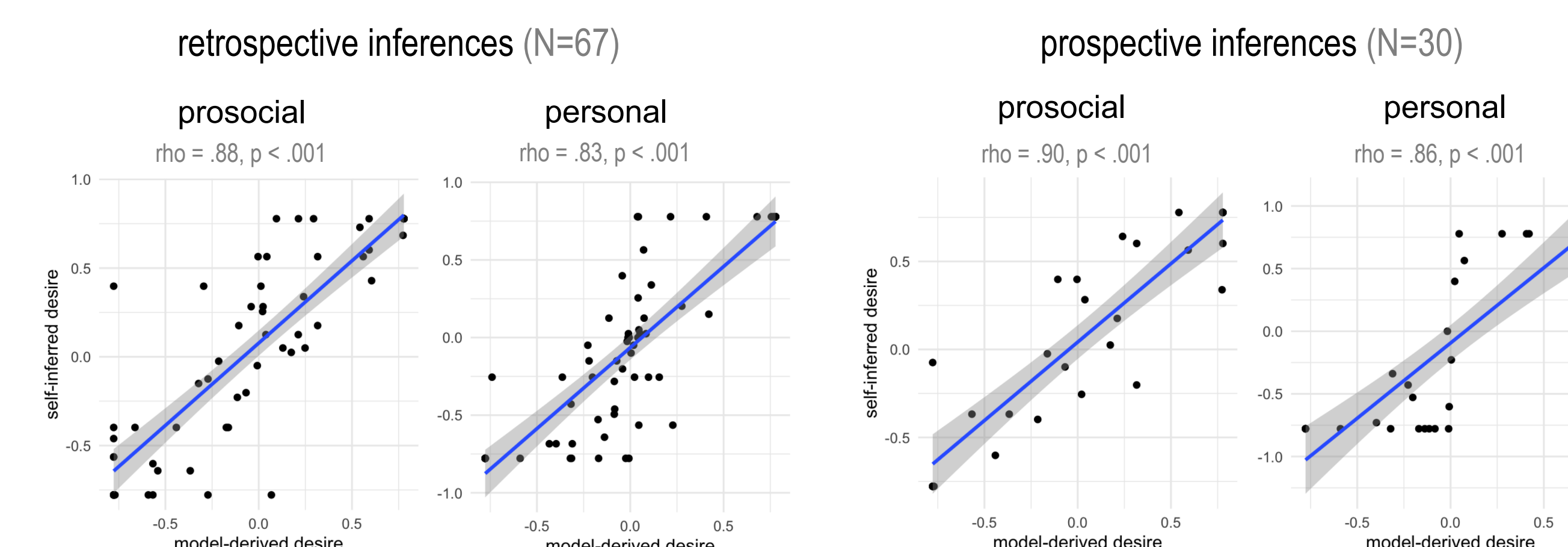
We used Ps' 52 choices to estimate their most likely α , within the parameter space of the choice trials, via maximum likelihood estimation.

Results

Ps were highly confident in their inferred preferences, before and after making choices, and across both domains:

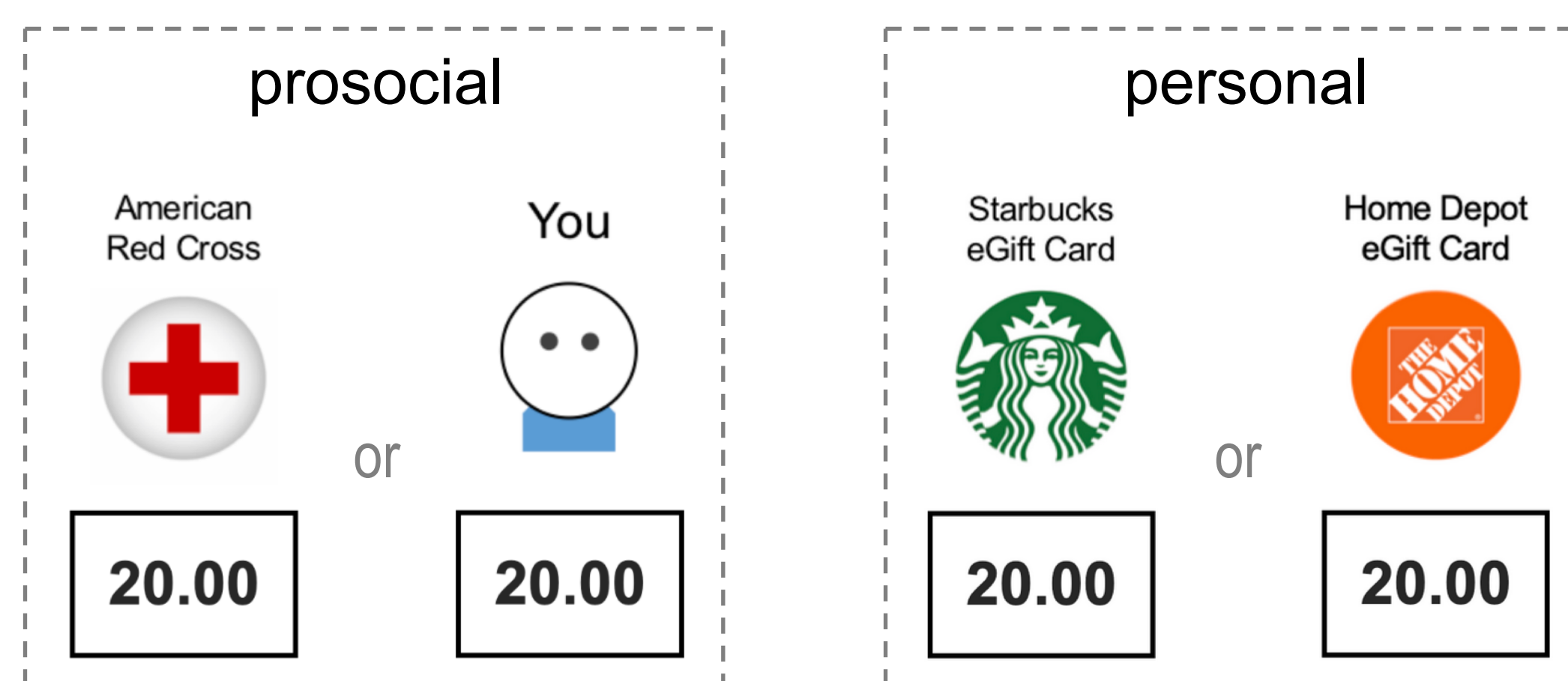


Moreover, Ps self-inferences were highly correlated with choice-based model estimates of their preferences in each domain. This was true for both retrospective and prospective inferences:



Method: Choices

Participants (Ps) made 52 choices to either financially benefit themselves or a charity (**prosocial** condition), and 52 choices to earn one of two types of gift cards for themselves (**personal** condition).



Choice amounts ranged from 6 times more money associated with one option relative to the other.

Conclusion

People were highly confident in their self-inferred preferences, and these inferences accurately reflected their choice preferences for personal and prosocial choices as well. These findings hold even when such inferences were made prospectively—suggesting that, contrary to skeptical accounts¹⁻⁴, people may draw on rich, internal representations of their preferences to make self-inferences.

One exciting future direction will be to directly compare self- and social inferences of preferences. Indeed, discerning differences between these processes could deepen our understanding of self-knowledge.

References: ¹⁻⁴(Bem, 1967; Carruthers, 2011; Gopnik, 1993; Wilson, 2002);
⁵⁻⁶(Ericsson & Simon, 1980; Swann, 1992)

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