



THE ROLE OF SOCIAL NORMS IN WATER CONSERVATION BEHAVIOR INTERVENTIONS

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Background

- The U.S is facing a future of water shortages and heightened water vulnerability.
- Residential water use is one sector that holds potential for consumption reductions, however facilitating behavior change is complicated
- Behavioral economics offers behavior change principles that can guide consumption interventions.
- Behavioral economics identifies a large social component to behavior patterns; behavior interventions must address this
- The purpose of this project was to investigate the social component of water conservation behavior.

Research Question

To what extent do social norms drive individual water conservation behavior?

Internship and Methods

- I interned with the **Alliance for Water Efficiency** (AWE), a stakeholder-based nonprofit organization that focuses on water conservation research and advocacy. It collaborates with utility companies, businesses, government organizations, advocacy groups, and other partners to further water-saving initiatives.
- Conducted a literature review that covered behavioral economics, water conservation, and past utility-based nudging efforts.
- Developed a list of recommendations for best practices for a water utility company trying to implement behavioral interventions.
- I also gathered survey data on beliefs and norm perceptions surrounding water conservation.
- The survey contained nine questions pertaining to individual beliefs and norm perceptions, Participants responded to statements using a Likert scale. There were 33 respondents.

Results

Conservation Values of Environmentally-Minded Individuals

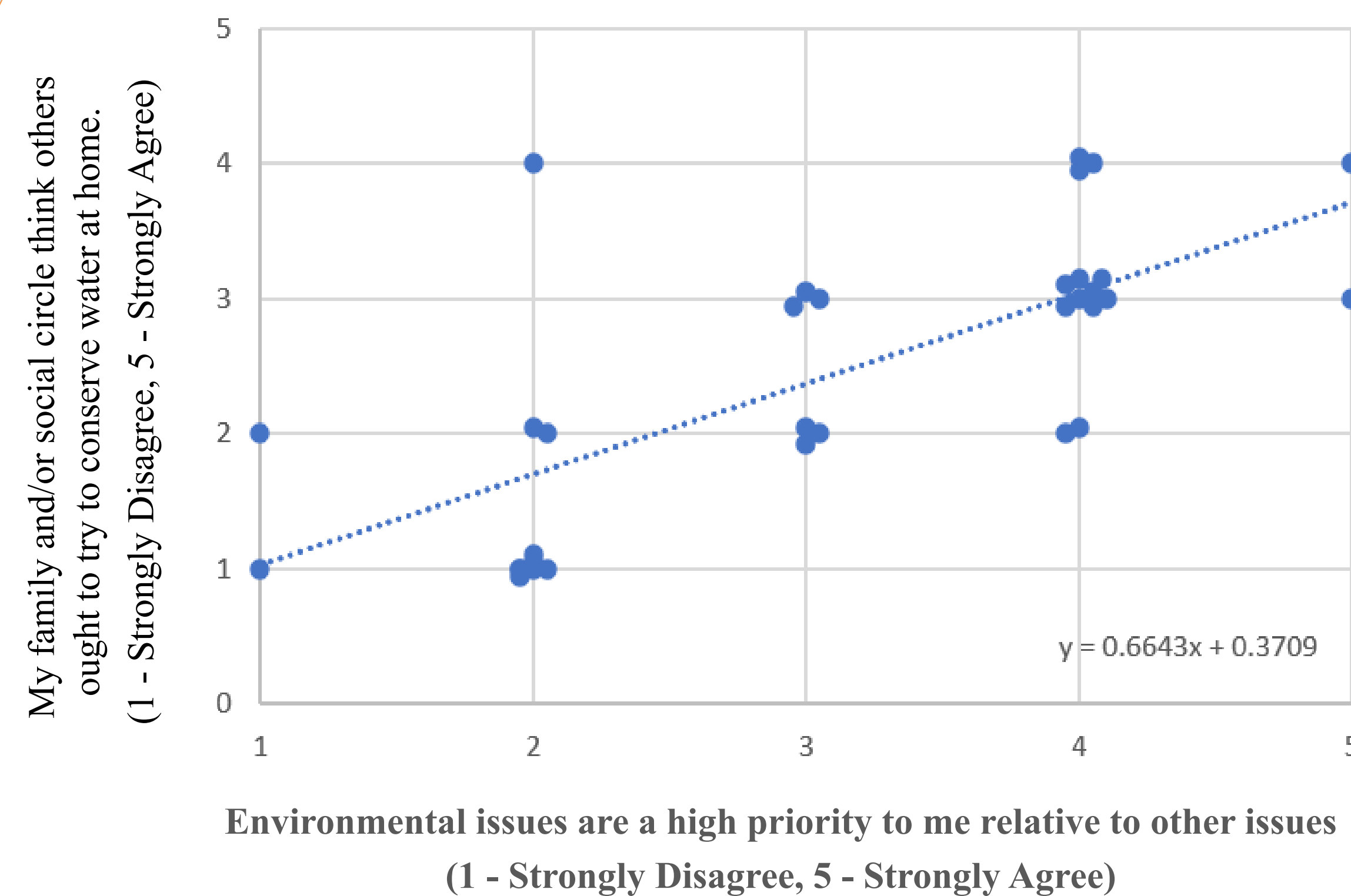
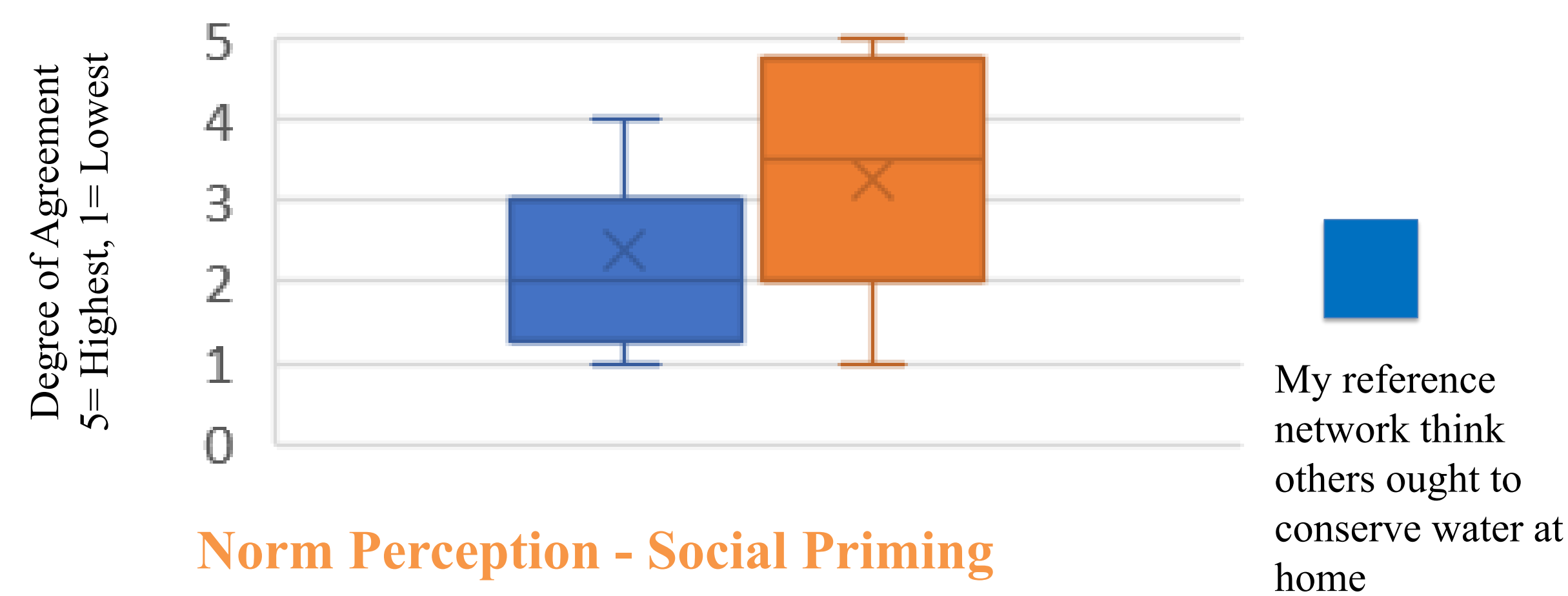


Fig 1. Positive correlation between individual's environmental-mindedness and identifying social group conservation norms. This was based on comparison of 33 responses to two survey questions.

Social Priming

Norm Perception - No Social Priming



Norm Perception - Social Priming

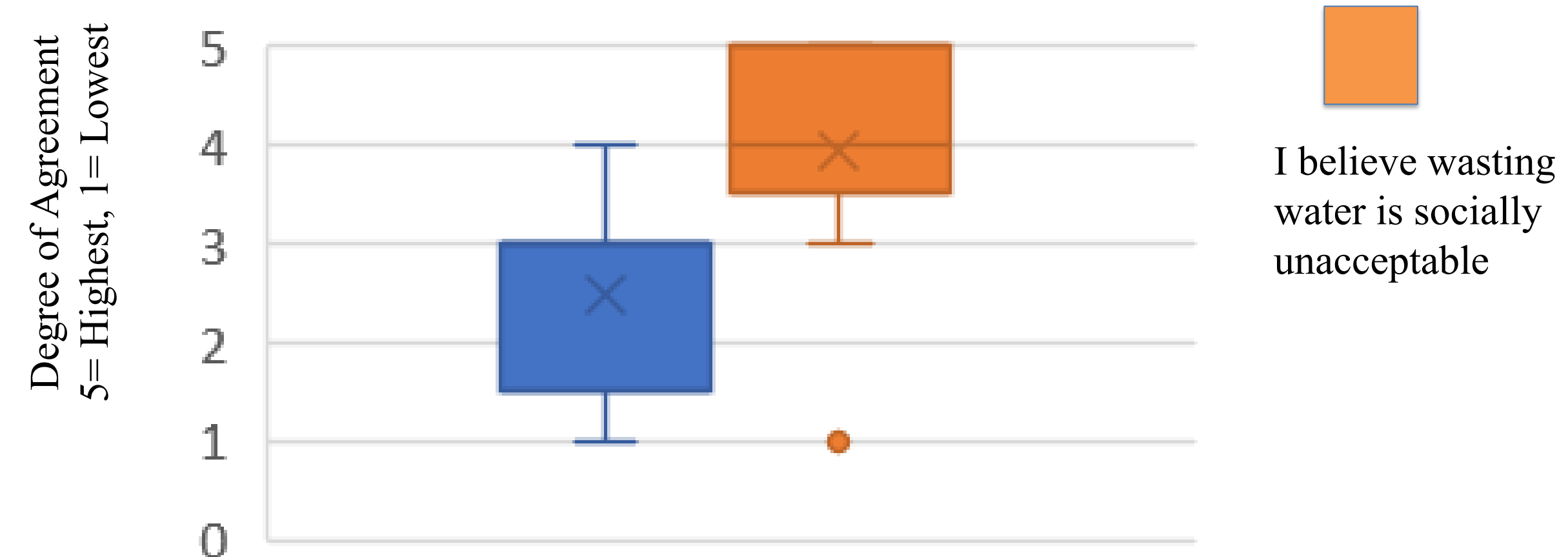


Fig 2. Social priming has an impact on norm perception. Social priming is the concept that exposure to a stimulus can impact an individual's response to subsequent stimuli. In this instance, individuals who were asked to reflect on their social circle's consumption values before their own were more likely to identify a conservation norm. This was based on 33 survey responses.

Takeaways

- Participants who rated environmental issues to be higher priority were more likely to report a social norm around water conservation in their social group (Fig. 1). The response data had an $R^2 = 0.5018$, suggesting that the correlation is at least moderate.
 - So, environmentally-minded individuals are more likely to respond to conservation norm leveraging
- 76% of participants who were asked to reflect on their social circle's consumption norms before their own (socially priming) reported agreement with the idea that wasting water is socially unacceptable, while only 50% of the non-primed participants reported agreement (Fig. 2).
 - Socially priming individuals could make them more responsive to social behavior interventions

Broader Significance

- Pro-environmental individuals are good candidates for environment-related behavior change as they are more likely to already be responsive to environmental social norms
- Paying more attention to group-specific norms may help increase the success of environmental behavior interventions.
- These findings are most likely to be relevant to social comparison and norm messaging interventions.
- Future research into social norm leveraging should explore social priming and in-group norms further, as well as how environmental context, like resource vulnerability, natural disaster experience, and so on (beyond environmental mindedness) might impact norm sensitivity.

Acknowledgements

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