

The Experimental Beverage Marketplace: A promising tool to study how individuals respond to sugar sweetened beverage taxes

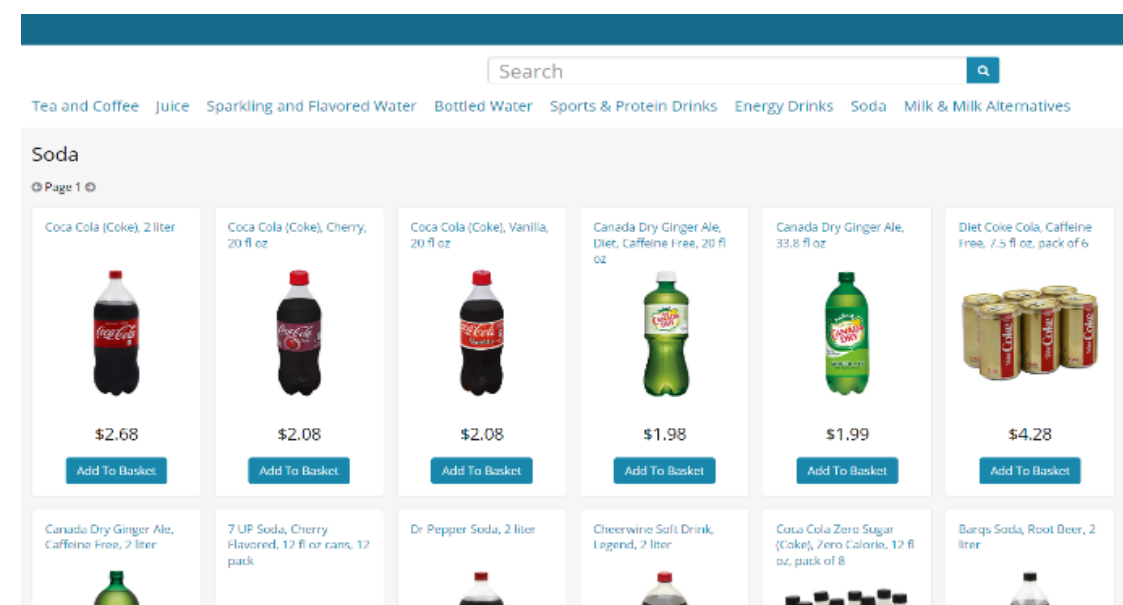
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Background

- Sugar sweetened beverages (SSB) are part of a harmful food environment. The WHO recommends taxing SSB [1].
- SSB taxes reduce purchasing of taxed beverages [2], but data is usually not granular enough to answer some questions.
- Here, we test a method that could be used to experimentally examine effects of SSB taxes in individuals.

Method

- Participants (n = 73) were frequent sugar sweetened beverage consumers recruited on Prolific.
- Design: Within-subjects



Participants completed two hypothetical purchasing sessions (random order) in the Experimental Beverage Marketplace, an online storefront with hundreds of beverages usually available at grocery stores. Participants shopped for a week's worth of beverages for their household.

Results

Question 1. Are people sensitive to SSB taxes in the Experimental Beverage Marketplace?

Answer 1. Yes. Most participants bought fewer ounces of SSB during the tax condition.

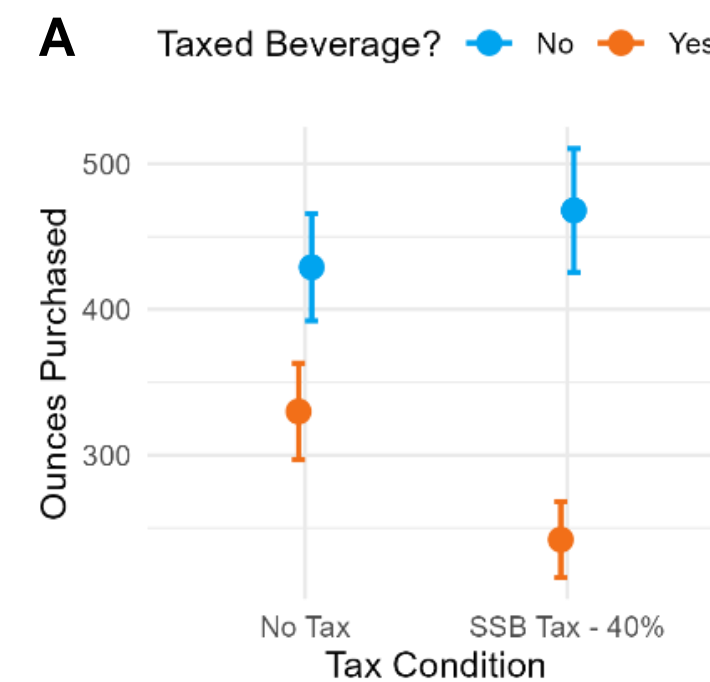
Question 2. How do participants perceive the Experimental Beverage Marketplace?

Answer 2. Participants indicated that the marketplace was easy to use. Some participants thought the marketplace needed more options.

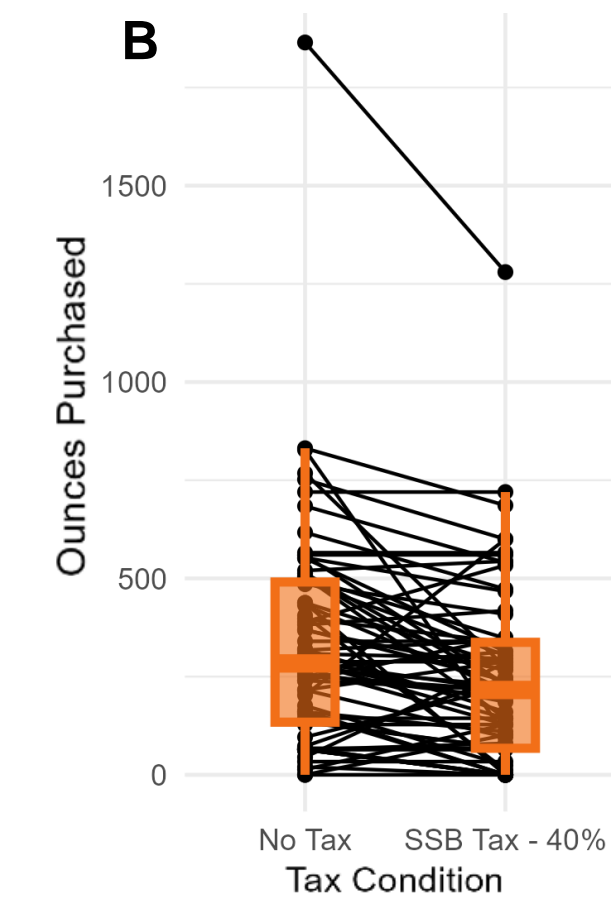
Data Visualization

Figures 1A & 1B. Ounces Purchased of Taxed and Untaxed Beverages

Overall, participants purchased significantly fewer ounces of SSB in the tax condition compared to the no tax condition (A).

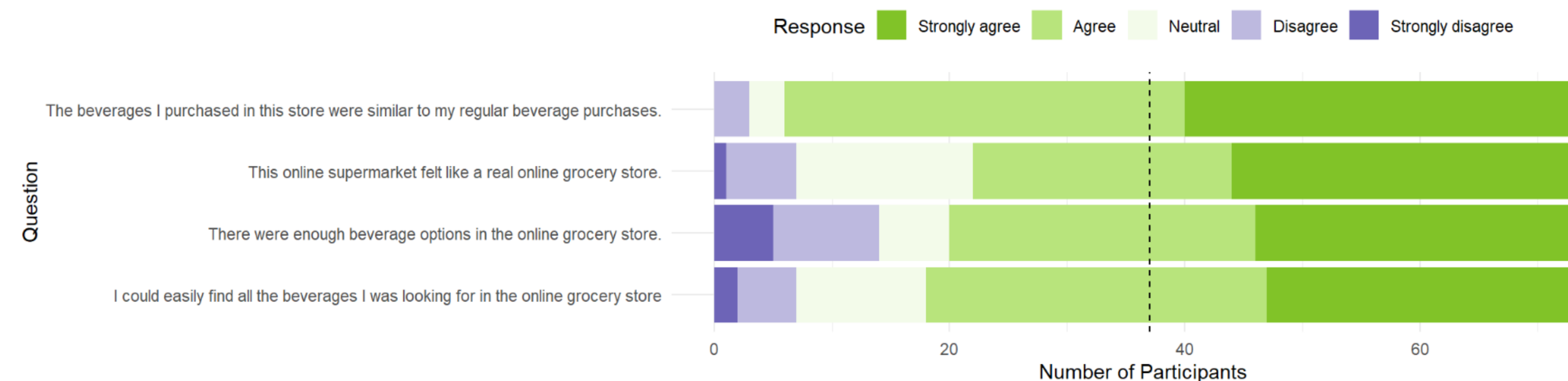


However, the effect of the SSB tax varied substantially at the individual level (B).



Points represent means. Error bars represent standard errors.

Figure 2. Participant Perspectives of the Experimental Beverage Marketplace. Dotted line represents half of participants.



Implications

The Experimental Beverage Marketplace holds promise for examining factors that influence beverage purchasing.

Understanding how individuals respond to SSB taxes can help make SSB taxes more effective and more equitable.

Limitations

- Sample may not be representative of frequent SSB consumers
- Sample consisted of frequent SSB consumers; effects may be different in different samples

Acknowledgements

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References

- World Health Organization, *WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets*. 2022: Geneva.
- Andreyeva, T., et al., *Outcomes following taxation of sugar-sweetened beverages: a systematic review and meta-analysis*. JAMA Network Open, 2022. 5(6): p. e2215276-e2215276.

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