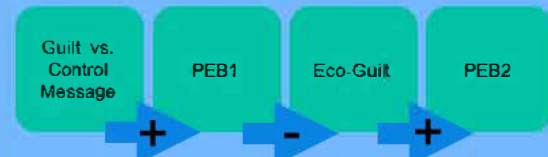


Introduction

- Focusing on reducing single-use plastic straws has been argued as being ineffective at eliminating plastic pollution and may distract from more important issues
- Environmental spillover
- Performing an initial pro-environmental behavior (PEB) may lead to:
 - Increased performance of additional PEBs (positive spillover) or,
 - Decreased performance of additional PEBs (negative spillover)
- Guilt and PEB spillover



- This study aims to investigate guilt-centered spillover effects to additional PEBs by conducting the first longitudinal study focusing on the reduction of plastic straw use
- H1:** Participants in the guilt condition will display higher levels of straw use change compared to the control condition
- H2:** Changes in straw use will positively spill over to changes in policy support and PEB performance
- H3:** Participants in the guilt condition will have lower levels of policy support change and PEB performance change (compared to control) because of negative spillover
- H4:** Spillover effects will be mediated by identity (positively, H4a), concern (positively, H4b), and guilt (negatively, H4b)

Method

of participants from MTurk

T1-T2: 234 participants

T2-T3: 184 participants

Male = 62%
Female = 34%
Democrat = 50%
Republican = 24%

Time 1

Video Condition



Control Condition



Guilt, identity, and concern measures

Reduce and track your single-use plastic straw use for one week

Track your single use plastic straw use for one week

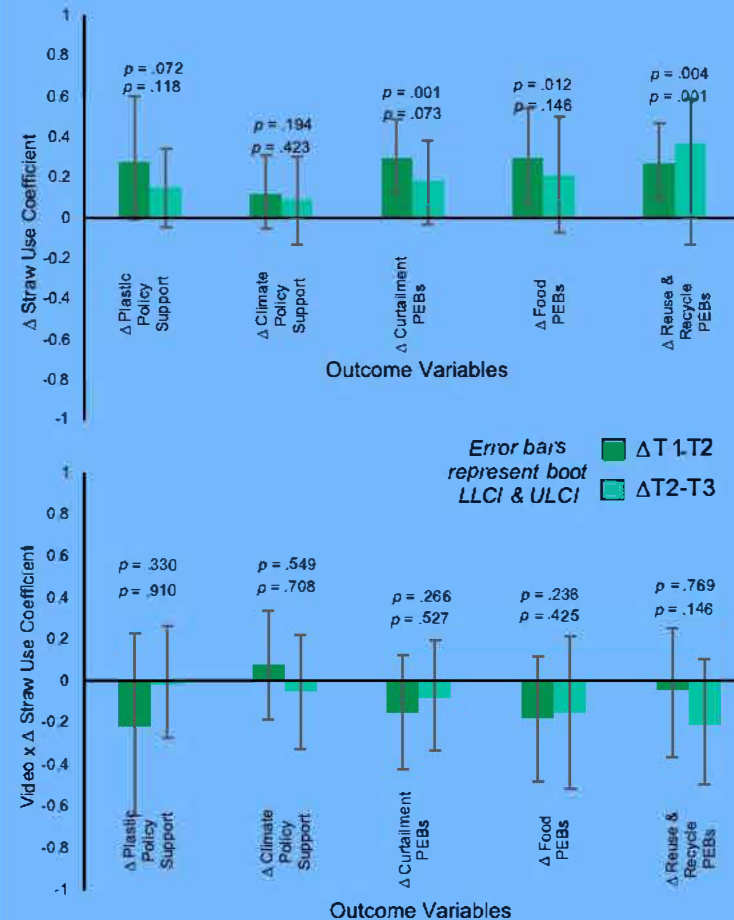
Time 2 (one week later)

Recorded single use plastic straw use from the past week and answered same measures as Time 1

Time 3 (3 months later when no behavior change request was in place)

Responded to same measures in Time 2

Results



H1
Not Supported

Video condition positively affected change in straw use, but it was minimal and nonsignificant
 $b = .324 [-.151, .803], p = .192$

H2
Partially Supported

A significant positive relationship between straw use change and PEB change was found for all PEBs except plastic policy support and climate policy support

H3
Not Supported

No significant interaction effects between video condition and straw use change on other PEB change

H4
Partially Supported

Significant indirect positive effects for climate policy support ($b = .019$), reuse and recycle PEBs ($b = .019$), and food PEBs ($b = .026$) all mediated by environmental identity

Discussion

- Additional research on guilt interventions in PEB change is needed
- By Time 3, several spillover effects had diminished or been eliminated
- Environmental identity plays a more important role than guilt in PEB spillover
- No evidence that relatively ineffective PEBs undermine broader, more important PEBs

For more information, see Truelove, H. B. & Nugent, M. R. Straw wars: Pro-environmental behavior following a guilt appeal. *Journal of Environmental Psychology*, 72, 1-10. <https://doi.org/10.1016/j.jenvp.2020.101521>

