Test of the Moderating Role of Psychological Inflexibility on the Relationship Between Climate Concerns and Pro-Climate Behaviors

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INTRO

- There have been mixed findings in regard to the relationship between climate anxiety and climate behaviors (e.g., Clayton & Karazsia, 2020; Whitmarsh, 2022).
  - This may be partially due to the way climate anxiety has been conceptualized as clinically elevated distress about climate change (e.g., Clayton & Karazsia, 2020).
- Climate concerns may be more reliably related to pro-climate behavior. One study found that it was not, but the measure of climate concerns that was used lacked face validity (Yilmaz & Can, 2019).
- Previous research showed that psychological inflexibility moderated the relationship between climate concerns and climate anxiety. We are interested in learning whether psychological inflexibility moderates the relationship between climate concerns and pro-climate behavior.

METHODS

Participants

n = 238, undergrad students at PWI in the South | age (*M, SD*) = 20.34, 4.89 | 72.4% female, 25.9% male, 1.3% Transgender/non binary | 22.6% Black/Afro. American, 66.5% White non-Hispanic, .4% Native American, 4.2% Asian-American, 5% mixed race/other| 36.4% Republican, 24.3% Democrat, 21.8% Prefer not to answer|64.9% fresh., 23.1% soph., 7.5% junior, 3.8% senior

Measures

Dependent variable

Climate behavioral engagement. 14 items were borrowed and adapted from two studies to measure engagement in pro-climate behavior (Clayton & Karazsia, 2020; Whitmarsh et al., 2022).

Independent and Moderating variables

Climate concerns. 4 items adapted from previous research (McCright, 2010; Feather & Williams, 2022; and Whitmarsh et al., 2022).

Psychological Inflexibility. We used the 12-item psychological inflexibility factor from the Multidimensional Psychological Flexibility Inventory (MPFI; Rolffs et al., 2018).

Study Design

This is a cross-sectional, survey study using a convenience sample of undergraduate students in a southern university of the United States.

RESULTS

Hypothesis 1:

IBM SPSS Statistics (Version 29) was used to run a linear regression to test hypothesis 1.

Table 1: *Linear Regression Predicting Pro-Climate Behaviors*

Predictor	*B*	*SE*	*t*	*p*
(intercept)	2.05	0.11	18.53	<.001
Climate Concerns	0.31	0.03	9.74	<.001

Hypothesis 2:

PROCESS v4.2 (Hayes, 2022) Model 1 was used to test psychological inflexibility as a moderator of the relationship between climate concerns and climate behavior engagement.
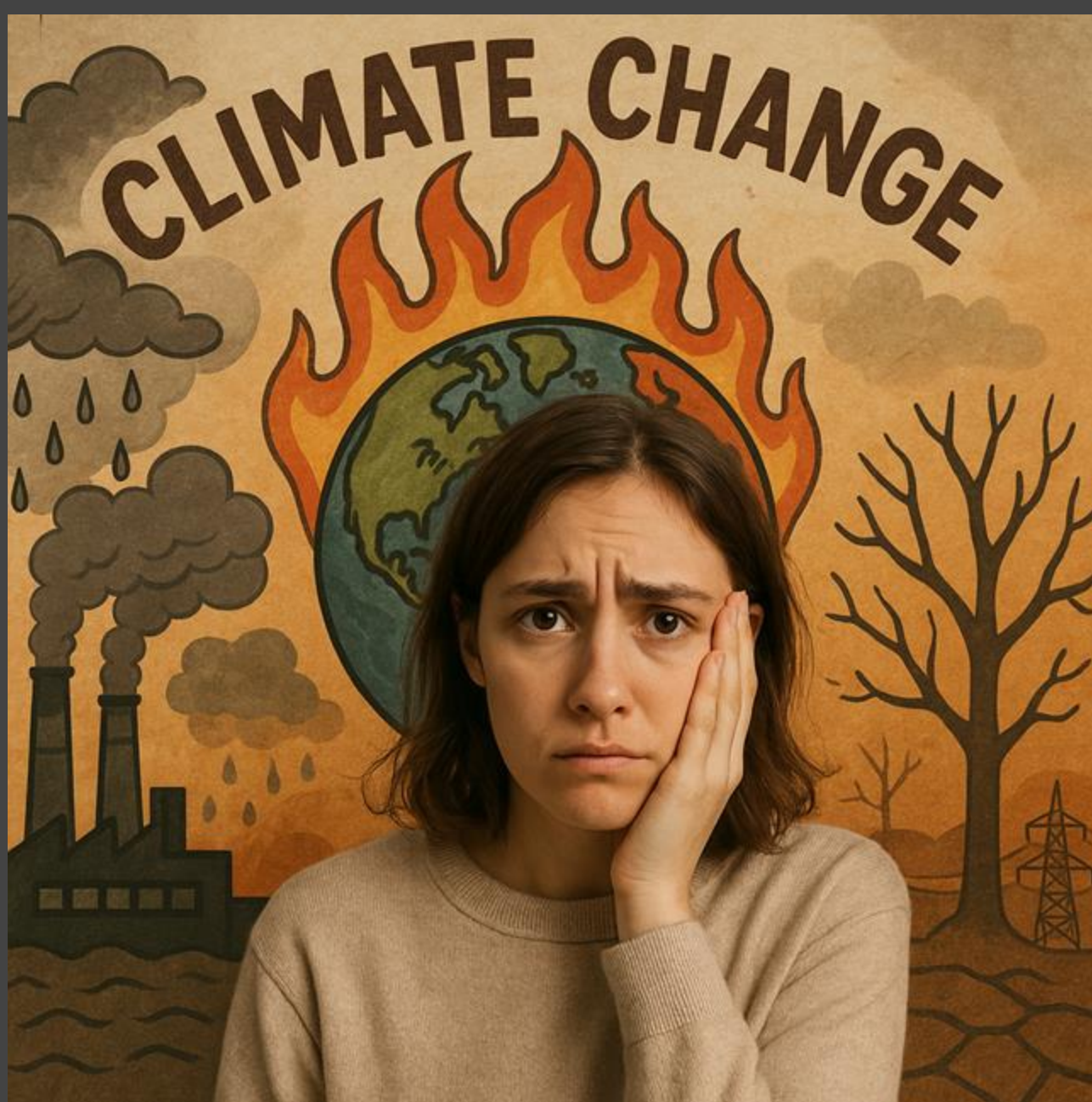
Table 2: *Moderation Model Predicting Pro-Climate Behaviors*

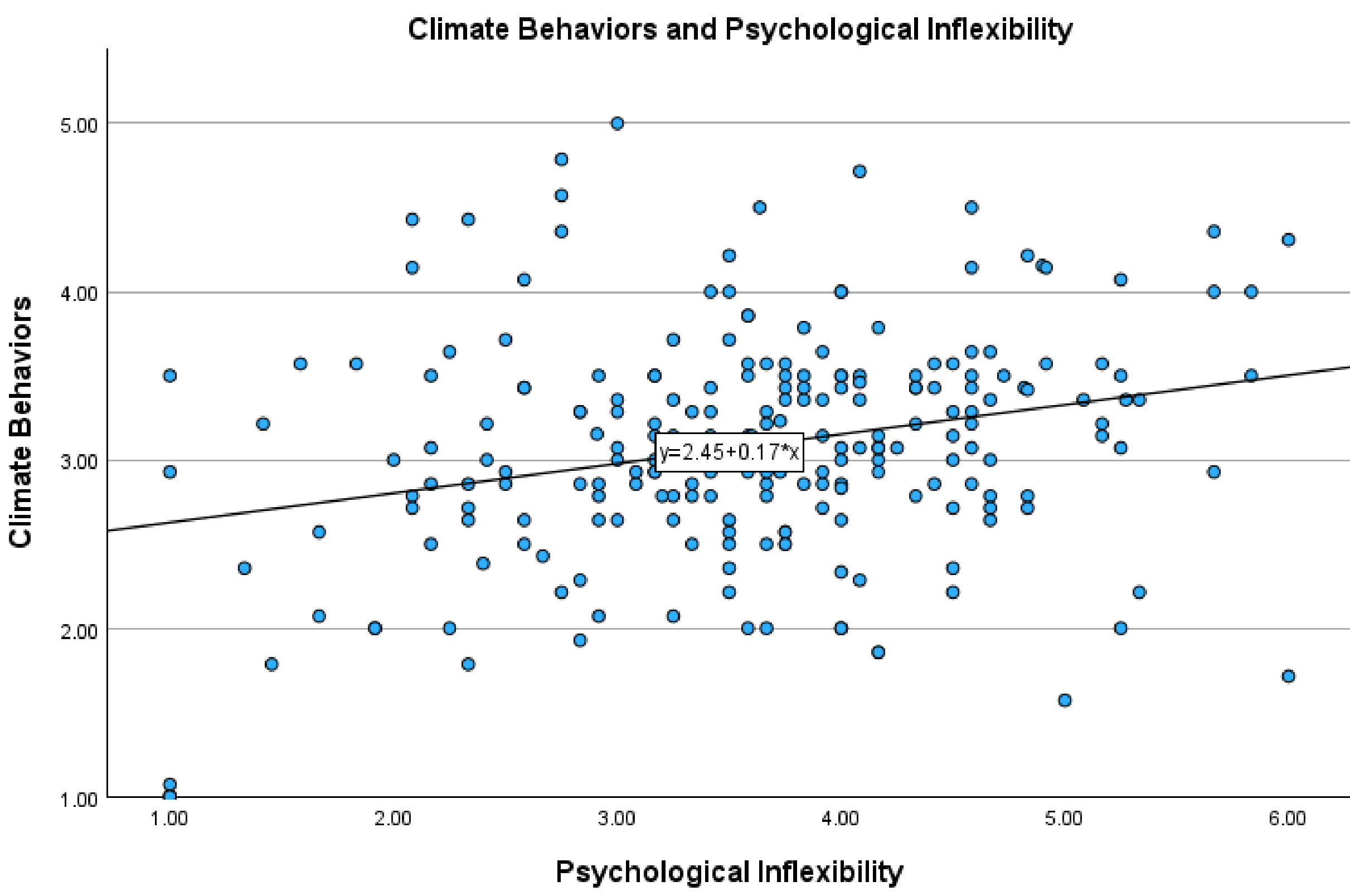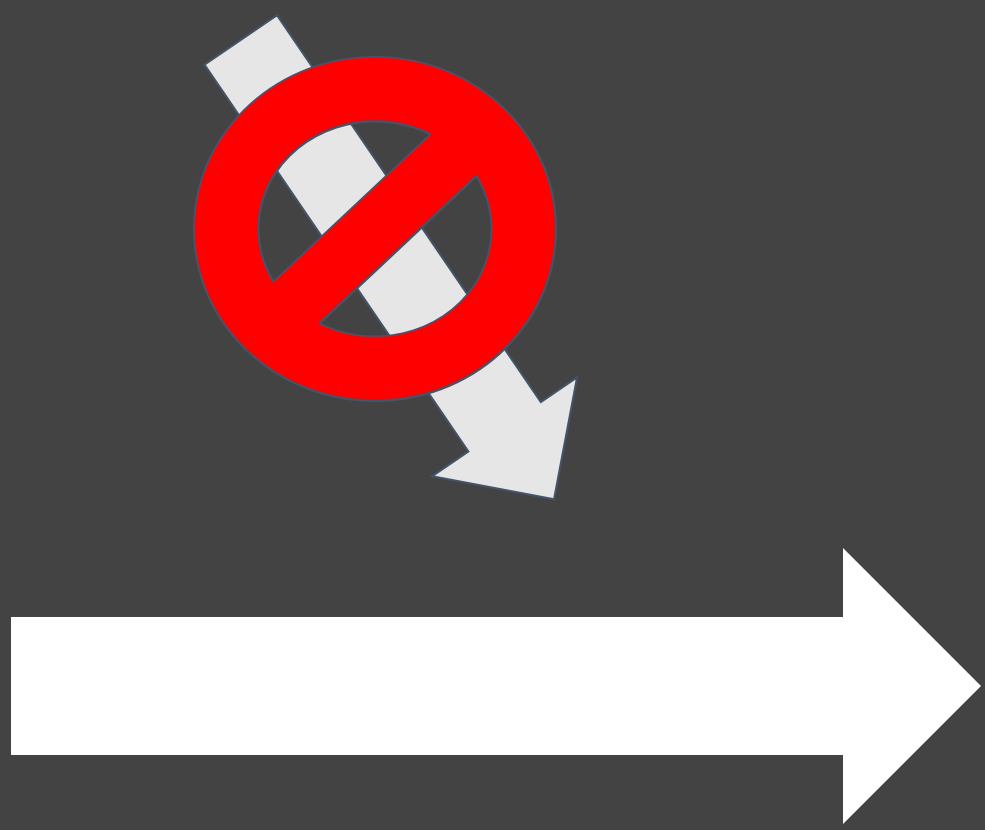| Predictor	*B*	*SE*	95% CI LL	95% CI UL	*p*
(intercept)	1.17	0.33	0.52	1.81	<.001
Climate Concerns	0.44	0.09	0.25	0.63	<.001
Psych. Inflexibility	0.27	0.09	0.09	0.44	.003
Interaction Term	-0.04	0.03	-0.09	0.007	.09

DISCUSSION

- We found that climate concerns positively predicted pro-climate behaviors as hypothesized.
- The results did not support our second hypothesis that psychological inflexibility would moderate the relationship between climate concerns and pro-climate behaviors. The interaction term was approaching significance ($p<.1$), therefore it is possible that there is a small effect and our sample size was not sufficient to detect it. A post-hoc power analysis with a power of .80 and an alpha of .05 suggests that a sample size of 772 is needed to detect a small effect for an interaction term.

Climate concerns were a significant predictor of pro-climate behavior regardless of levels of psychological inflexibility.

Psychological Inflexibility

Climate Behaviors and Psychological Inflexibility

R^2 Linear = 0.071

y=2.45+0.17*x

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