Understanding Attitudes about Climate Change Threat and Dread through Perspective Taking and Acceptance

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Background

- Climate change is poised to cause increasingly catastrophic damage to global ecosystems as well as human societies (Intergovernmental Panel on Climate Change, 2019)
- Psychological processes are influential and potentially manipulable variables, and may have effects on climate-related actions (Gifford, Kormos, & McIntyre, 2011)
- Mindfulness has been shown to facilitate a sense of connectedness with the natural world (Wang et al., 2019), and perspective taking/empathic concern towards animals negatively impacted by climate change can contribute to pro-environmental attitudes (Swim & Bloodhard, 2015)
- However, there is a lack of clarity on the relationship between environmental attitudes and processes targeted in psychotherapy, such as in Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 2009)
- We examined relationships between processes relevant to psychological flexibility, perspective taking, and climate change attitudes

Methods

- We collected data as part of a larger study on psychological processes and social attitudes
- We administered an online survey to a sample of 384 undergraduates at a large public university in the Western United States
- The sample was largely young (*M* = 20.32, *SD* = 4.39), female (66.67%), White (92.19%), and non-Hispanic (96.61%)
- We analyzed the following survey measures for this study:
  - **Philadelphia Mindfulness Scale–Acceptance** (PHLMS; Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008): A 10-item measure of psychological acceptance
  - **Interpersonal Reactivity Index–Perspective Taking** (IRI; Davis, 1980): Scales containing 7 items each assessing one's tendency to inhabit the perspective of others
  - **Acceptance and Action Questionnaire–Stigma** (AAQ-S; Levin et al., 2016): A 21-item measure assessing psychological flexibility towards stigma-related thoughts and feelings
  - **Judgments on Climate Change–Dread** (JCC; Bostrom et al., 2012): A 4-item measure assessing perceived level of threat (e.g. "How serious a threat is climate change to humankind?") and dread (e.g. "How much does the idea of climate change fill you with dread?) related to global climate change
  - **Patient Health Questionnaire–2** (PHQ-2; Kroenke, Spitzer, & Williams, 2003): We measured distress/depression as a potential covariate using this 2-item measure of depressive symptomatology (low mood and anhedonia)
  - **Demographics**: We collected information on participant age, gender identity, race, ethnicity, income, religion, and political affiliation

Figure 1: Perspective Taking vs. Climate Dread According to Political Identity

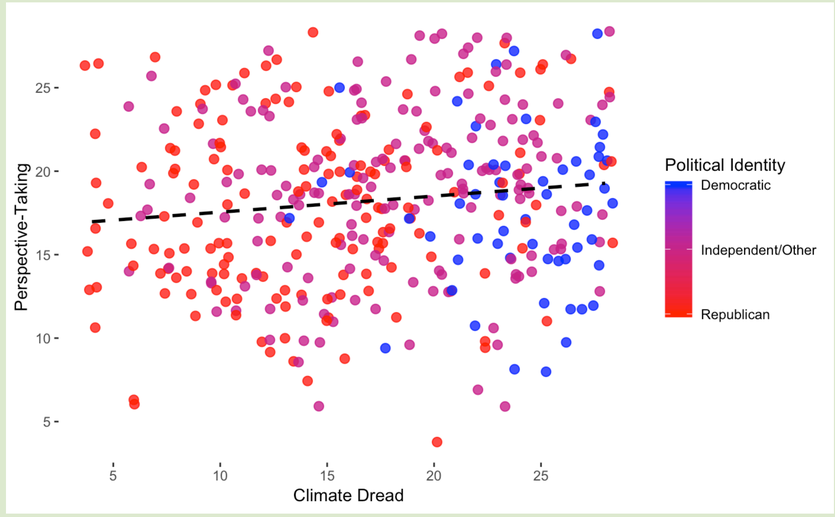


Figure 2: Perspective Taking vs. Climate Dread According to Level of Distress

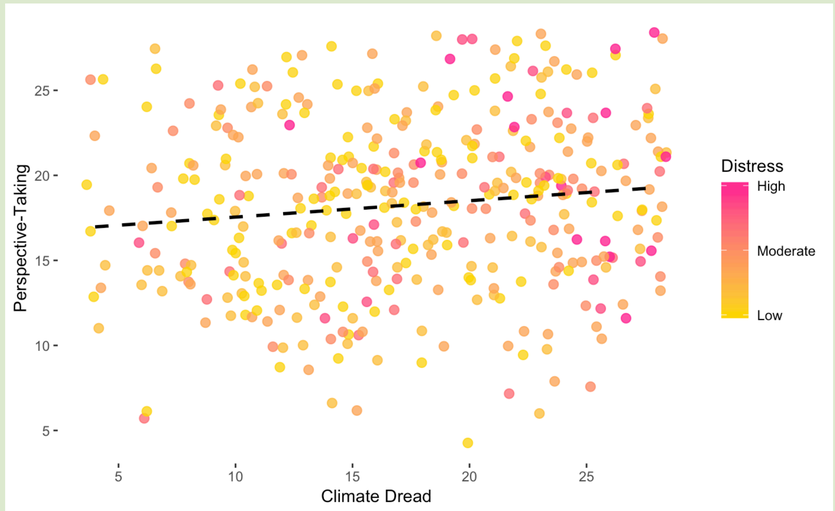
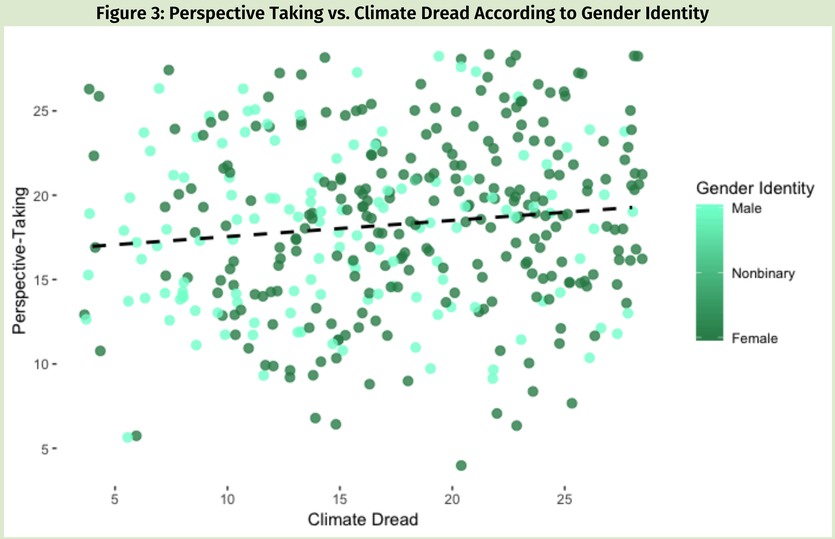


Figure 3: Perspective Taking vs. Climate Dread According to Gender Identity



Results

- A series of linear regressions tested whether psychological flexibility predicted levels of climate threat/dread cross-sectionally
- Greater perspective taking significantly predicted higher climate dread (B = 0.16, SE = 0.06, *p* = .016)
- This relationship remained significant when controlling for demographics (*p* = .025)
- Greater psychological acceptance significantly predicted lower climate dread (B = -0.14, SE = 0.05, *p* = .005)
- Stigma-related psychological flexibility did not predict climate dread (*p* > .10)
- Controlling for psychological measures and other demographics, political liberalism and female gender identity significantly predicted climate dread (*ps* < .001)
- There was a nonsignificant trend for higher distress predicting greater climate dread when controlling for psychological measures and other demographics (B = 0.36, SE = 0.20, *p* = .067)

Discussion

- Perspective taking, which is targeted in ACT and other interventions, appears to foster concern regarding threats posed by climate change
- Building broad perspective taking ability, even if not specifically related to environmental issues, may be one method of increasing awareness of climate change consequences
- Interestingly, psychological acceptance was shown to have a negative relationship with attitudes regarding climate threat/dread
- Further study is needed to elucidate how greater acceptance of one's own experience may be associated with "acceptance" and non-action regarding environmental issues, and potential mediators or covariates should be examined
- Clear demographic differences were observed, with political affiliation and gender identity predicting significant variations in climate threat/dread
- These demographic findings are consistent with other surveys of climate change attitudes (McCright, 2010; Wolsko et al., 2016), but understanding these differences through perspective taking ability may provide further insights for environmental education
- Additionally, the association between higher distress/depression and climate threat/dread should be explored further, such as by understanding the effect of feelings of dread related to climate change on broad psychological health
- A significant limitation of this study was in our use of a brief measure of climate change attitudes that has not been widely validated
- A lack of consistent and validated climate change attitude measures is a notable issue (Cruz & Manata, 2020), and the development of more precise assessments will allow more confident conclusions to be drawn

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