

Pathogen avoidance and warm temperatures

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INTRODUCTION

Background

- Contagious pathogens represent a recurring threat throughout evolutionary history [1]
 - Consequently, humans possess multiple disease-avoidant mechanisms to mitigate the threat of disease
 - For example: disgust motivates avoidance of potential pathogen threats, like people with signs of illness
- Pathogen avoidance motivations may also explain some social prejudice
 - Prejudice toward people who are foreign has been linked to pathogen threat
 - Avoidance of others reduces the likelihood of contagion [2]
- Warm temperatures are also linked to social cognition, but have not been studied in the context of disease threats
 - Warm can sometimes signal social proximity [3]
 - When people are concerned about the threat of disease, perceived closeness may exacerbate pathogen-avoidance effects

Purpose

- We tested whether ambient temperature would interact with signals of disease threat to predict prejudice

Predictions

- Based on previous work, we expected prejudice to be highest after exposure to a disease threat.
- We also expected temperature to moderate this effect, such that prejudice would be highest when exposed to disease threat in an especially warm room

METHOD

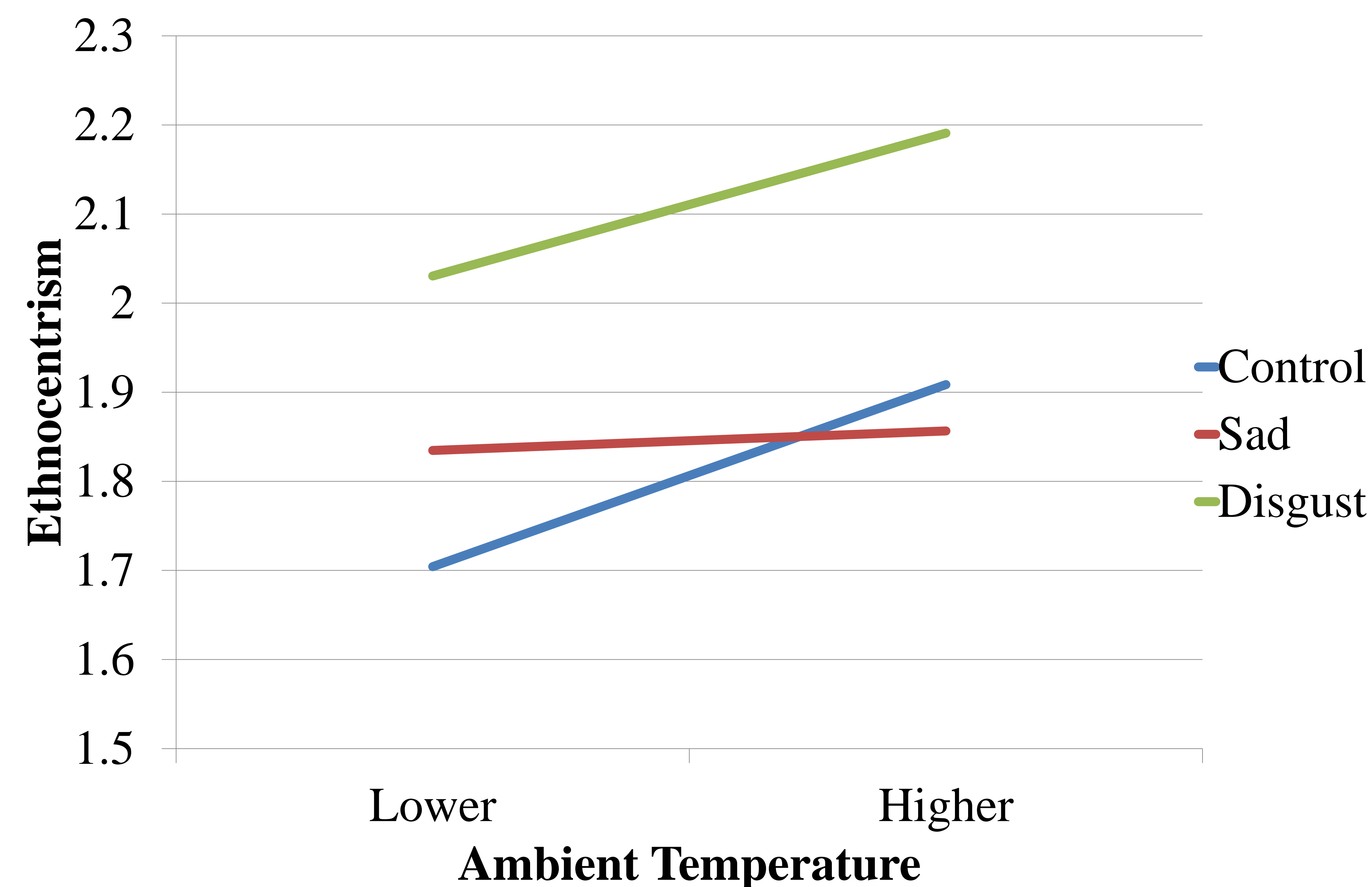
Subjects.

- 68 psychology students (44 female), ages 18-35 ($M=20.49$ years), participated in exchange for extra credit

Method

- Participants were randomly assigned to view one of three emotion induction video clips:
 - 1. Control Condition – Nature Documentary
 - 2. Sad Condition – *The Champ*
 - 3. Disgust Condition – *Trainspotting*
- We measured ambient room temperature with a digital thermometer
- Participants completed a 15-item Ethnocentrism scale [4]
 - Example item: “Most other cultures are backward compared to my culture.”

RESULTS (Preliminary Data)



- Disgust (compared to control) increased ethnocentrism ($b = .30$, $t(61) = 2.41$, $p = .02$)
- Ambient temperature did not affect ethnocentrism ($b = .08$, $t(61) = 1.11$, $p = .27$), and did not interact with prime condition.

CONCLUSIONS

- This study replicates previous work demonstrating that disgust can increase ethnocentrism compared to control emotional states.
- Contrary to predictions, temperature did not significantly affect this relationship.
 - One limitation is the restricted range of observed ambient temperature.
- Future work will directly manipulate the experience of warm vs cold temperatures to test the influence of temperature on pathogen-avoidance.

REFERENCES

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