Upright and left out: Posture moderates the effects of social exclusion on mood and threats to basic needs

David Oberleitner[1], Keith Welker[2], Samantha Cain[3], and Justin Carré[4]

[1] Department of Psychology, University of Bridgeport, Bridgeport, CT
[2] Department of Psychology, Wayne State University, Detroit, MI
[3] Department of Psychology, University of Toledo, Toledo, OH
[4] Department of Psychology, Nipissing University, North Bay, ON

Study Overview

The present study sought to examine the relationship between the experience of social-exclusion (ostracism), the posture that one maintains while being socially included or excluded, and how these factors impact basic needs (e.g., feelings of belonging) and mood.

Overview - Social Exclusion

Previous research (Williams, 2007, for a review) has found that being socially excluded can increase negative moods, and impact relational/basic needs.

Relational/basic needs include feelings regarding one's sense of belonging, how much control one has in life, one's self-esteem, and the degree that life has a meaning and purpose. Exclusion has been found to "threaten" these feelings, or in other words, experiencing exclusion has been found to lower feelings of belonging, control, meaningfulness of life, and lessen one's self-esteem.

Williams, Cheung, & Choi (2000), found that social-exclusion via a computer game created similar ramifications to mood and basic needs, as did face-to-face exclusion.

They called the game they created "Cyberball" and it consisted of tossing a ball to other players in the game. Participants believed they were playing against other real participants, but the game was fully computer controlled and participants would be randomly selected to either experience inclusion (receive 10 out of 30 throws from the computer players) or exclusion (receive 3 out of 30 throws from other players).

Overview – Posture Effects

Carney, Cuddy, & Yap (2010) have shown that adopting a dominant, powerful upright posture can make individuals feel more confident, boost self-esteem, and heighten feelings of social-status, compared to those who slouch.

Other research has found that high-status individuals (higher confidence and self-esteem) can act more aggressive when socially threatened, and are also more vigilant to possible social-threats (Mazur & Booth, 1998, for a review).

Powerful/Upright Posture   Submissive/Slouching Posture

Research Question

Given the research findings in the areas of social exclusion as well as posture, the present study explored if adopting a powerful posture would buffer against the negative ramifications of social exclusion (by boosting things such as self-esteem) or, if a powerful posture would heighten the experience of social exclusion by increasing awareness and vigilance to social-threats.

Experiment 1

- 91 participants – Cyberball game used to manipulate inclusion
- 2 (include vs. exclude) X 2 (forced to hold dominant vs. submissive posture for duration of the game) study design
- Mood: Assessed via items based used in Zadro, Williams & Richardson (2004); bad-good, sad-happy, tense-relaxed, included-rejected [reversed], angry-calm, unconfident-confident, Cronbach's α = .73). Higher score = more positive mood
- Relational needs: 12 Likert-style items from Zadro et al (2004), with average score across items used.

Interaction:
$F_{(1,87)} = 5.49, p = .021$

Interaction:
$F_{(1,87)} = 1.26, p = .265$
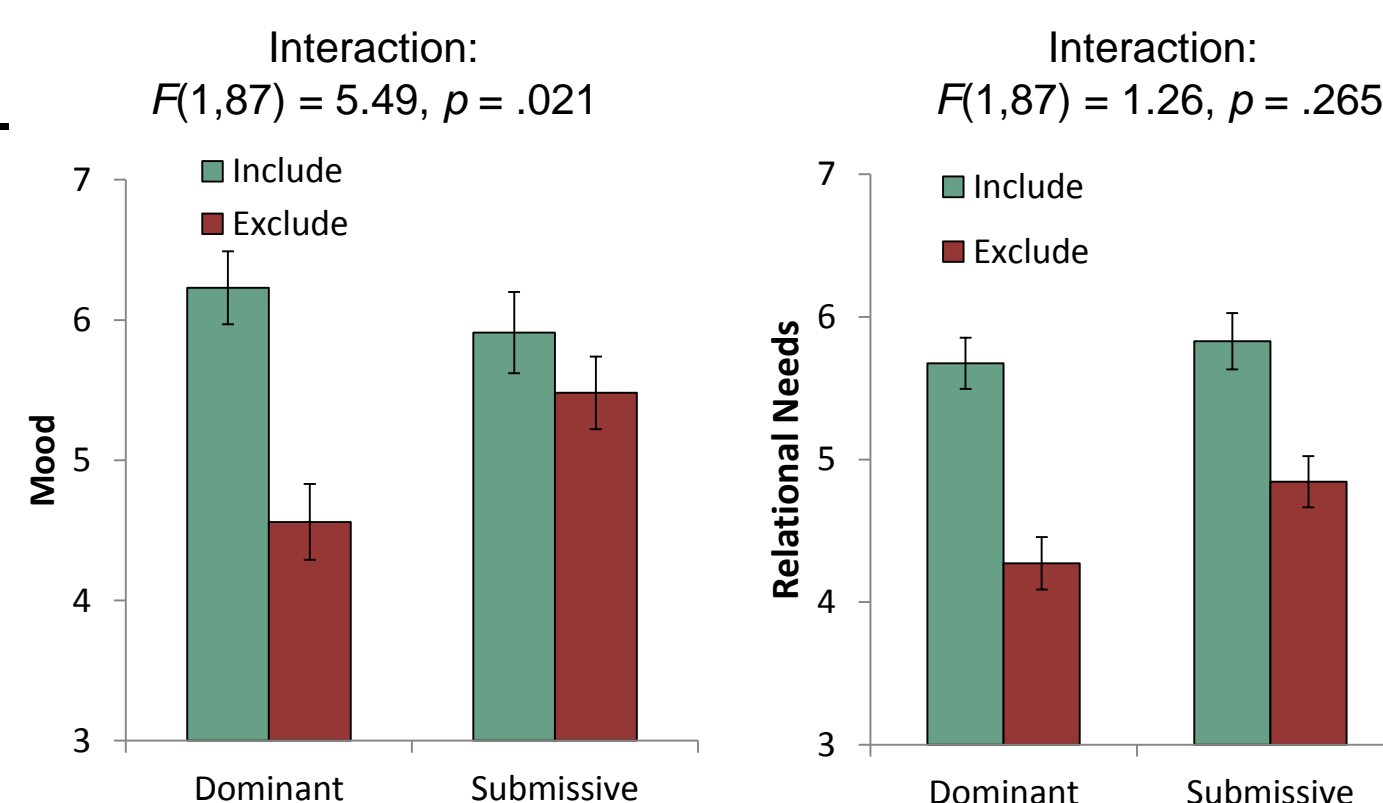
Main effect of exclusion was significant for needs, with included participants reporting higher needs scores ($M= 5.75$, $SE= 0.13$) than excluded participants ($M= 4.56$, $SE= 0.13$). A similar pattern was found for mood ($M= 6.08$ $SE= 0.19$ for included participants vs. $M= 5.02$, $SE= 0.19$ for excluded participants)

Experiment 2

- 84 participants – Cyberball was again used
- 2 (include vs. exclude) X 2 (forced to hold dominant vs. submissive posture for duration of the game) study design
- Mood: Assessed via items based used in Zadro, Williams & Richardson (2004); bad-good, sad-happy, tense-relaxed, included-rejected [reversed], angry-calm, unconfident-confident, Cronbach's α = .85). Higher score = more positive mood
- Relational needs: 12 Likert-style items from Zadro et al (2004), with average score across items used.
- In an attempt to increase personal relevance, and to reduce suspicion, avatars were created and placed in the game that were said to be visual representations of each participant. These avatars were the same across all conditions. Participants were told one was created and entered for them, but they would be unable to see it .
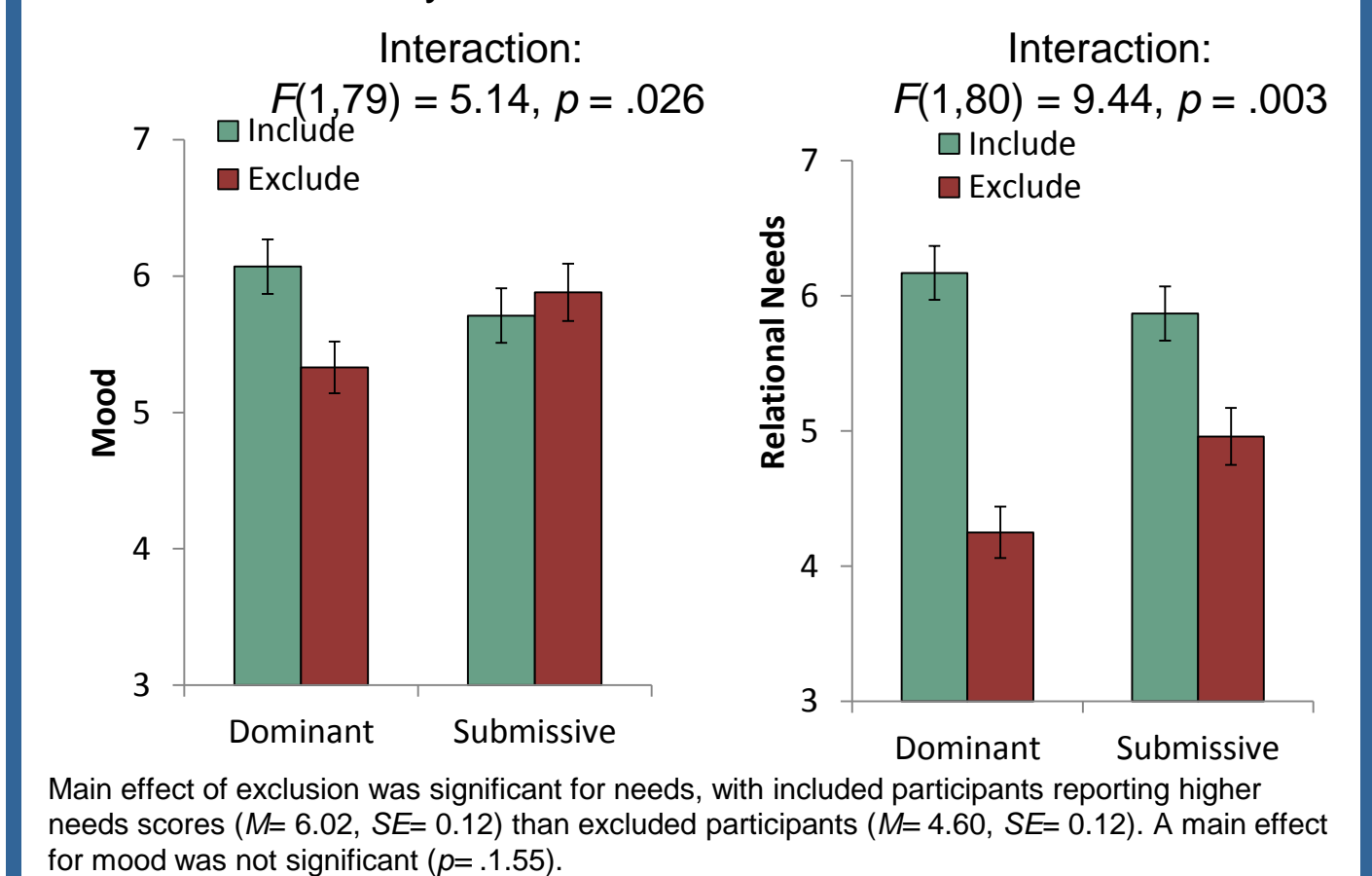
Interaction:
$F_{(1,79)} = 5.14, p = .026$

Interaction:
$F_{(1,80)} = 9.44, p = .003$

Main effect of exclusion was significant for needs, with included participants reporting higher needs scores ($M= 6.02$, $SE= 0.12$) than excluded participants ($M= 4.60$, $SE= 0.12$). A main effect for mood was not significant ($p= .155$).

Results and Conclusions

- Experiment 1: Posture and exclusion status did impact mood and relational/basic needs.
  - Participants who were excluded had significantly more negative mood, and had lower relational need scores (e.g., felt less feelings of belonging and control) compared to those who were included.
  - Posture also moderated this for mood, with those participants holding a "dominant" posture feeling significantly lower mood, compared to excluded participants who were holding the "submissive" posture. This interaction was not found for mood.
- Experiment 2: It was found again that posture and exclusion status did impact mood and relational needs.
  - Unlike Experiment 1, only needs were impacted by being included vs. excluded, without taking posture into account.
  - When looking at the interaction between posture and exclusion status, both mood and needs were significantly impacted, with lowered moods being felt when holding a "dominant" posture and being excluded vs. "submissive" posture and being excluded. The same interaction was found for mood.
- Future research is needed to further explore how and why posture has this negative effect on those who are socially excluded, and if other factors that boost self-esteem and confidence may buffer the negative effects of exclusion, or hurt the individual, much like was seen for posture.

As a paper…

References:
- Carney, D. R., Cuddy, A. J. C., & Yap, A. J. (2010). Power posing: Brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychological Science, 21*(10), 1363-1368
- Mazur, A., & Booth, A. (1998). Testosterone and dominance in men. *Behavioral and Brain Sciences., 21*, 353-397.
- Williams, K. D. (2007). Ostracism. *Annual Review of Psychology, 58*, 425-452.
- Williams, K. D., Cheung, C. K. T., & Choi, W. (2000). Cyberostracism: Effects of being ignored over the Internet. *Journal of Personality and Social Psychology, 79*(5), 748-762.
- Zadro, L., Williams, K. D., & Richardson, R. (2004). How low can you go? Ostracism by a computer is sufficient to lower self-reported levels of belonging, control, self-esteem, and meaningful existence. *Journal of Experimental Social Psychology, 40*(4), 560-567