## It Hurts to be Alone: Social Exclusion Moderates the Relationship **Between Impulsivity and Social Pain** David Guirgus and William C. Pedersen PhD

# BUILD CSULB

#### INTRODUCTION

#### **Social Exclusion**

- Defined as being ostracized or rejected by others (Wesselmann & Williams, 2017)
- Excluded individuals "reflect on the meaning...of the ostracism experience" which can result in sadness, anger, and aggression (Williams, 2011, p. 71)
- It has also been shown to increase social distress (Zadro et al., 2004) and social pain (Yanagisawa et al., 2011).

#### <u>Impulsivity</u>

- Defined as a predisposition toward unplanned reactions to internal and external stimuli without regards to the negative consequences to others (Steinberg, Sharp, Stanford, & Tharp, 2013)
- Impulsiveness is linked to many self-destructive behaviors such as substance abuse, depression and suicidal behaviors. (Carballo, 2006)

#### <u>Hypothesis</u>

• Social condition was expected to moderate the effect of impulsivity on social pain. Specifically, impulsivity was expected to be positively associated with social pain but only for excluded individuals.

#### **METHODS**

#### **Participants**

• Undergraduate students (n = 144) enrolled in an Introductory Psychology course (79.9% female; M age = 18.66 years)

#### **Manipulation of Social Exclusion:**

• Participants played a ball tossing game (viz. Cyberball) with two other fictitious participants in which the real participant received an equal number of tosses (inclusion) or two tosses in the beginning and then none for the remainder of the game (exclusion) (Williams et al., 2000).

#### **Measures:**

<u>Impulsivity (Steinberg, Sharp, Stanford, & Tharp, 2013)</u>

- 8-item scale collected at the beginning of the study measuring how impulsive participants are ( $\alpha$  = .755).
- e.g. "I am more interested in the present than the future."

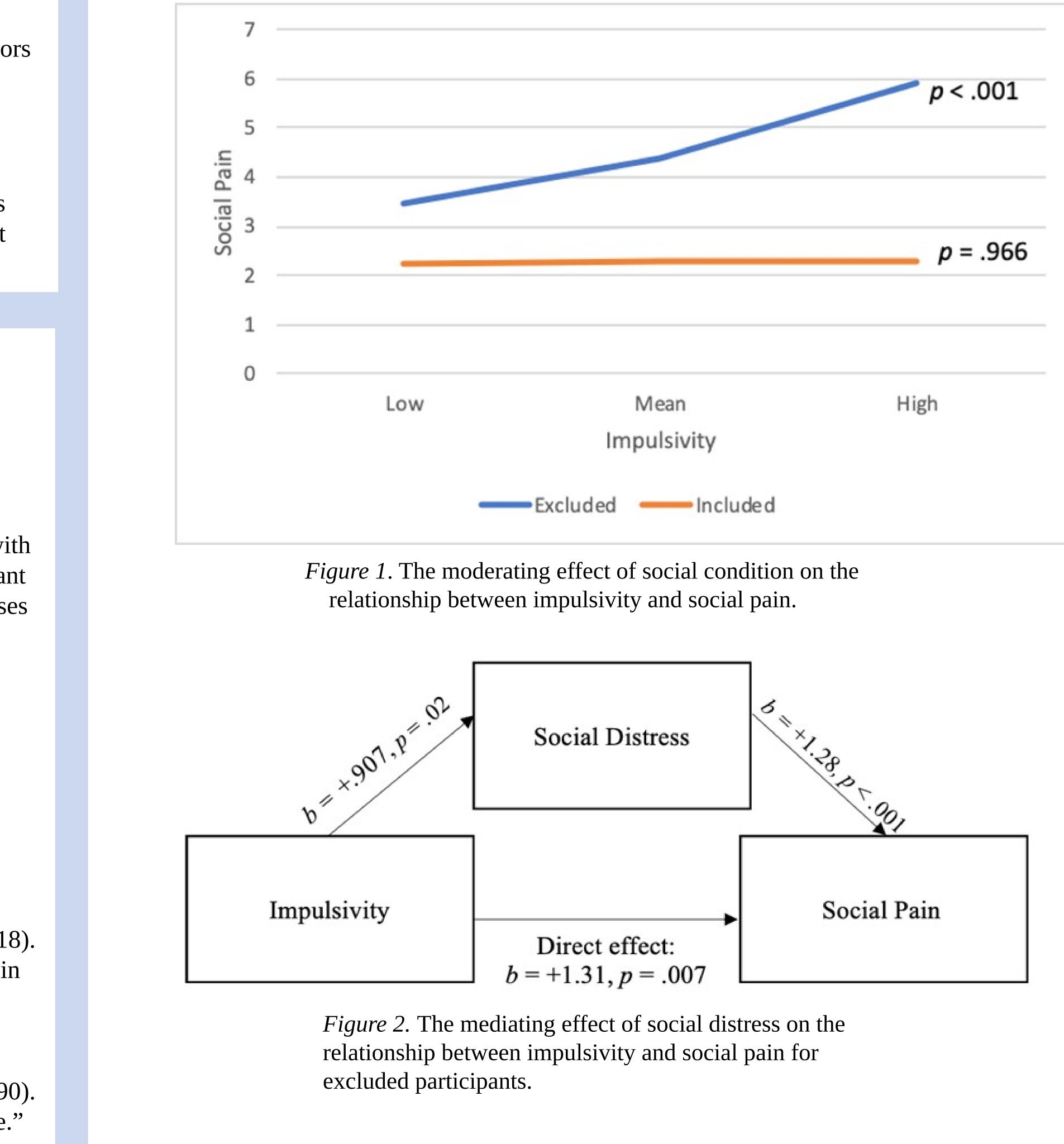
<u>Social Pain (Fung & Alden, 2017)</u>

- 3-item scale measuring how much social pain participants experienced following Cyberball ( $\alpha$  = .918).
- e.g. "My feelings were hurt from not being involved in the game."
- <u>Social Distress (Zadro et al., 2004).</u>
- 12-item scale measuring how much social distress participants experienced following Cyberball ( $\alpha$  = .890).
- e.g. "I felt like an outsider during the Cyberball game."

Department of Psychology

### RESULTS

- Social condition moderated the relationship between impulsivity and social pain,  $\Delta R^2 = .044$ , F(1,140) = 8.74, p = .004.
- Simple slopes analyses revealed that higher levels of impulsivity are associated with more social pain for those in the excluded condition, b = +2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, but not for included participants, b = -2.49, p < .001, b = -2.49, +0.025, p = .966 (see Figure 1).
- A follow-up mediation analysis indicated that social distress mediated the relationship between impulsivity and social pain for excluded participants, b = +1.16, 95% CI: [+0.227, +2.12]. Specifically, higher levels of impulsivity predicted more social distress, b = +0.907, p = .02, which was associated with higher levels of social pain, b = +1.28, p < .001 (see Figure 2).



#### CALIFORNIA STATE UNIVERSITY LONG BEACH

- 57(2), 510–524.

- 387.

This research was supported by the National Institute of General Medical Sciences of the National Institutes of Health under Award Numbers; UL1GM118979; TL4GM118980; RL5GM118978. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

#### 

#### **CONCLUSION / FUTURE WORK**

• As predicted, impulsivity positively predicts social pain for only excluded participants.

• These findings help us better understand the internal mental states of those who are ostracized or excluded. • Future research could further examine the effects of social exclusion on behavioral consequences such as aggression and violence, expand to a community sample in order to enhance generalizability, as well as explore therapeutic techniques to reduce feelings of social exclusion such as mindfulness (Brody et al., 2018) or martial arts training (Fung & Lee, 2018).

#### REFERENCES

• Brody, J. L., Scherer, D. G., Turner, C. W., Annett, R. D., & Dalen, J. (2018). A conceptual model and clinical framework for integrating mindfulness into family therapy with adolescents. Family Process,

• Carballo, J. J., Oquendo, M. A., Giner, L., Zalsman, G., Roche, A. M., & Sher, L. (2006). Impulsive-aggressive traits and suicidal behavior in adolescents and young adults with alcoholism. International Journal of Adolescent Medicine and Health, 18(1), 17–19.

• Fung, K., & Alden, L. E. (2017). Once hurt, twice shy: Social pain contributes to social anxiety. Emotion, 17(2), 231–239.

• Fung, A. L. C., & Lee, T. K. H. (2018). Effectiveness of Chinese martial arts and philosophy to reduce reactive and proactive aggression in schoolchildren. Journal of Developmental and Behavioral Pediatrics, 39(5), 404–414.

• Steinberg, L., Sharp, C., Stanford, M. S., & Tharp, A. T. (2013). New tricks for an old measure: The development of the Barratt Impulsiveness Scale–Brief (BIS-Brief). Psychological Assessment, 25(1), 216–226.

• Wesselmann, Eric D, & Williams, Kipling D. (2017). Social life and social death: Inclusion, ostracism, and rejection in groups. Group Processes & Intergroup Relations, 20(5), 693-706.

• 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.

• Yanagisawa, K., Masui, K., Furutani, K., Nomura, M., Yoshida, H., & Ura, M. (2011). Temporal distance insulates against immediate social pain: An NIRS study of social exclusion. *Social Neuroscience*, 6(4), 377–

• 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.

#### ACKNOWLEDGEMENTS