THE IMPACT OF THWARTED BELONGING ON TOLERANCE OF ABUSIVE BEHAVIORS IN A ROMANTIC RELATIONSHIP

ALEJANDRO TRUJILLO
Miami University

HEATHER M. CLAYPOOL
Miami University

Introduction: This work examined the role of thwarted belonging in directing reactions to intimate partner violence (IPV). We tested two competing hypotheses. First, we offered the Insensitivity Hypothesis, which argued that excluded (compared to control) participants would indicate they were comfortable and willing to remain in an abusive relationship longer, an effect likely mediated by reduced relational needs. Second, we offered the Hypersensitivity Hypothesis, which argued that excluded (compared to control) participants would indicate they were uncomfortable and willing to leave an abusive relationship earlier, an effect likely mediated by activation of hostile cognitions. Methods: To test these, female participants underwent an exclusion or non-exclusion experience, completed measures of the hypothesized mediators, and then read a vignette describing a heterosexual romantic relationship that slowly turned more abusive. Participants took the perspective of the female victim and indicated when they would feel uncomfortable in the relationship and leave the relationship. Results: Results partially supported the Insensitivity Hypothesis, as exclusion (relative to control) lowered relational needs, and lowered relational needs predicted later desires to exit the relationship (no significant effects emerged for discomfort onset). Discussion Implications of these findings for the belonging and IPV literatures are discussed.

Women face threats of intimate partner violence (IPV)—sexual assault, physical assault, stalking, or psychological abuse perpetrated by a current or past romantic partner (Breiding, Chen, & Black, 2014). In 2010, the lifetime risk of IPV for women age 15 and older in 81 countries was approximately 30% (Devries et al., 2013). For victims, IPV causes negative economic, psychological, physical problems, and even death (e.g., Campbell, 2002; Devries...
et al., 2013). This has prompted scientists to uncover risk factors for IPV perpetration, such as jealousy (e.g., Capaldi, Knoble, Shortt, & Kim, 2012), and IPV victimization, such as having experienced childhood abuse (e.g., Li, Zhao, & Yu, 2019).

The current work examined another factor yet to receive systematic attention: threats to social belonging. Baumeister and Leary (1995) argued that belonging—feeling socially connected to others in a meaningful way—is a “fundamental human motivation,” likening its importance to the need for food (p. 497). In evolutionary history, social belonging likely served survival functions, allowing for group sharing of resources, protection against predators, access to mates, help in raising children, and so on (Baumeister & Leary, 1995). Living alone in such circumstances would have meant certain death. Thus, scholars believe humans evolved a need to maintain relationships, a need that still serves us well in modern times.

Because of its critical role in maintaining well-being, experiences that threaten belonging, such as social rejection or exclusion, trigger a host of negative outcomes. Acute social exclusion triggers drops in belonging, self-esteem, meaningful existence, and control (Williams, 2009), and chronic exclusion predicts greater “feelings of alienation, helplessness, depression, and unworthiness” (Riva, Montali, Wirth, Curioni, & Williams, 2017, p. 558). Exclusion can elicit harmful physical consequences, too. The pain of exclusion is processed and experienced in similar ways to physical pain (Eisenberger, Lieberman, & Williams, 2003; MacDonald & Leary, 2005), and chronic loneliness predicts damaging health effects, such as elevated blood pressure, and even predicts greater all-cause mortality (Hawkley & Cacioppo, 2010).

Due to these harms, people are eager to maintain social connections and are highly motivated to re-connect when they experience social exclusion (Maner, DeWall, Baumeister, & Schaller, 2007). Yet, this desire for belonging might itself prompt negative outcomes if done to maintain or acquire harmful relationships, such as those involving IPV. Indeed, Baumeister and Leary (1995) speculated that individuals might remain in abusive relationships to regulate their belongingness. Ethically, there is no way to test this specific conjecture experimentally, but scientists
might gain insight into this issue by examining experimentally whether belonging threats change one’s IPV risk assessment.

IPV risk assessment is critical to understanding IPV prevention given the gradual development of abusive behaviors in a relationship. Though the literature on the early warning signs of IPV is scant (Bjørkly, 2003), available findings suggest that the development of an abusive relationship may follow a common trajectory. The early stage of a romantic relationship that eventually turns abusive often features a fast-moving “whirlwind” courtship and abundant charm from the eventual abuser (Short et al., 2000, p. 278). Also appearing early are socially controlling and jealous behaviors from an abusive partner (O’Leary & Slep, 2003)—however, IPV victims often report that they initially saw these early behaviors as indicative of the abuser’s love and commitment for them (Short et al., 2000). Similarly, some emotionally abusive behaviors, such as “personal putdowns”, are considered “warning signs,” but potential victims often do not recognize their dangerous nature (Murphy & Smith, 2010, p. 630), suggesting that the early “red flags” may be misinterpreted or ignored by eventual abuse victims. Thus, understanding factors that facilitate or impede IPV risk assessment may aid efforts to reduce IPV victimization rates.

This work examined belonging motivations as one possible factor in shaping IPV risk assessment. Given existing theory and findings, there are reasons to predict that thwarted belonging alters IPV risk evaluations, yet the nature of that impact is unclear. Some findings and theory support the conjecture that thwarted belonging will make people slower to respond to abusive warning signs. Others support the opposing outcome. We consider both possibilities next.

**EXCLUSION AS A DETERMINANT OF IPV RISK INSENSITIVITY**

Two sets of findings support the hypothesis that thwarted belonging may prompt people to overlook, or be tolerant of, signs of impending IPV. The first shows exclusion elicits greater social pain than costly or dangerous forms of inclusion. If dangerous forms of inclusion feel better than exclusion, then remaining in an abusive relationship might be preferable to being alone. As
one example, van Beest and Williams (2006) had participants play Cyberball (Williams, Cheung, & Choi, 2000), a ball-tossing game with two alleged players. The other players were computer-controlled avatars programmed to include the participant regularly or exclude them. The researchers added economic outcomes to determine whether “punitive attention” felt different than “no positive attention” (van Beest & Williams, 2006, p. 918). In the gain version, participants started with zero euros and received 50 euro cents for each toss caught. In the loss version, participants started with 6 euros and lost 50 euro cents for each toss caught. After the game, excluded participants reported lower belonging, self-esteem, control, and meaningful existence (a metric of social pain termed the fundamental needs), and this effect was unmoderated by payout type. Thus, economically costly inclusion (i.e., inclusion in the loss version) felt better than exclusion.

As another example, van Beest, Williams, and van Dijk (2011) subjected participants to inclusion or exclusion in the original Cyberball or in a game called Cyberbomb. In this latter version, participants tossed a bomb around between players, who believed that, if it detonated, the person holding it would perish. In this game, it is safer to be excluded (i.e., not tossed the bomb); yet, despite this, participants’ fundamental needs were lower if excluded (versus included) in such a game.

A second set of relevant findings examines willingness to engage in dangerous behaviors to maintain or re-secure belonging. If people are willing to attempt dangerous behaviors to secure belonging, then perhaps they would willingly overlook or endure dangerous signs of IPV. For example, Mead, Baumeister, Stillman, Rawn, and Vohs (2011) found that people reported greater willingness to try a dangerous and illegal drug post exclusion (relative to non-exclusion), but only when they believed it would increase their chances of securing a friendship.

As another example, DeWall and Pond (2011) demonstrated that both greater childhood feelings of rejection and current feelings of loneliness predict more smoking. Critically, these effects (for loneliness) were more pronounced in U.S. states where the overall smoking rate is higher (e.g., Ohio, Illinois, Indiana, Missouri) versus lower (e.g., California, Oregon, Utah, Washington). These regional differences suggest that exclusion’s impact on
smoking is largest where smoking is most prevalent and therefore offers the greatest affiliative value.

From the work described, it appears people sometimes prioritize belonging above safety and may therefore be more likely to overlook or endure signs of abuse in a romantic relationship so long as it provides belonging. In short, negative forms of inclusion may be preferred to exclusion. As applied to the current work, this leads to the Insensitivity Hypothesis: excluded people might ignore or be comfortable with warning signs of impending abuse and report a willingness to remain in an abusive relationship longer than those who are included.

If true, Williams’s (2007, 2009) Need-Threat Model suggests relational needs (the average of belonging and self-esteem) may mediate this effect. This model argues that when people are most motivated to restore their efficacy needs (the average of control and meaningful existence) they will behave aggressively. But, when people are most motivated to restore their relational needs, they will engage in re-affiliative cognitions and behavioral responses. Being socially sensitive, thinking of others positively, and behaving in a friendly manner post exclusion may result in fulfilling social relationships or interactions, which should be effective in replenishing relational needs. Applied to the current work, excluded people may want to replenish their belonging/self-esteem and do so by seeing others favorably, overlooking their increasingly alarming behaviors, and reporting a willingness to stay with them longer. Thus, exclusion may lower relational needs, which may trigger later (more delayed) discomfort in and desires to exit an abusive relationship.

EXCLUSION AS A DETERMINANT OF IPV RISK
HYPERSENSITIVITY

Though exclusion might prompt insensitivity to IPV risks (per the previous review), there are reasons to suspect the opposite, that exclusion may prompt hypersensitivity to IPV risks. Partial support comes from the Social Monitoring System (SMS) framework (Pickett & Gardner, 2005). The SMS argues that belonging threats prompt an attentional shift toward socially- and affiliation-relevant information. This is functional, as rapid encoding
of social cues can potentially direct one’s behaviors in ways to foster positive social interactions. These interactions, in turn, may help restore one’s lost belonging. To date, multiple findings support the contention that belonging threats direct attention to social cues (e.g., Bernstein, Young, Brown, Sacco, & Claypool, 2008).

The application to IPV risk assessment is obvious. As a romantic partner’s behaviors transition from seemingly innocuous to blatantly violent, excluded people might notice this escalation earlier due to their greater attention to socially relevant information. Indeed, for belonging needs to be regulated most effectively, people need to identify signs that potential interaction partners are good prospects for affiliation (to facilitate approaching them) and signs that potential interaction partners are threatening or otherwise undesirable for affiliation (to facilitate avoiding them). Critically, some evidence does show that excluded people are sensitive to both positive and negative social cues (e.g., Gardner, Pickett, & Brewer, 2000).

Yet, other work casts some doubt on this conclusion. Namely, DeWall, Maner, and Rouby (2009) had participants locate a target face among neutral-expression distractors. The expression of the target face varied by trial: smiling, angry, or sad. Excluded (versus control) participants were faster to locate smiling faces, but there was no impact for sad or angry faces. Thus, though the SMS suggests exclusion may facilitate the detection of negative social cues, the data are mixed, and greater post exclusion attentional deployment may occur only for positive social cues.

A separate line of work more definitively suggests that social exclusion may prompt IPV risk hypersensitivity; namely, the work on exclusion and “hostile cognitive bias” (DeWall, Twenge, Gitter, & Baumeister, 2009, p. 45). A hostile cognitive bias manifests in interpreting ambiguous information as hostile and/or expecting interactions to involve hostility or aggression. According to this work, exclusion may prompt such a bias because exclusion itself may be seen as an “antagonistic” action by others (DeWall, Twenge et al., 2009, p. 46). Thus, exclusion may activate aggressive/hostile mental representations, which can then bias subsequent processing of incoming information. In multiple studies, DeWall, Twenge, and colleagues (2009) demonstrated
that, compared to non-excluded participants, excluded individuals evinced a hostile cognitive bias. For example, excluded (compared to control) people were more apt to perceive aggressive words and ambiguous words similarly (Exp 1a) and to use aggressive words to complete a word stem (Exp 1b).

Additionally, DeWall and colleagues demonstrated that this exclusion-induced hostile cognitive bias influenced social information processing and elicited an anti-social response. In three studies (Exps 2–4), participants evaluated an essay allegedly authored by another participant. The essay presented several of the author’s behaviors in an ambiguous way. Excluded (more so than non-excluded) participants judged the author as hostile. Moreover, they rated the author of the essay as less deserving of a competitive job (an anti-social response, Exps 2–3), an effect mediated by greater hostile cognitive bias.

If exclusion activates hostile cognition, which biases social information processing and triggers an aggressive response, excluded participants should more quickly interpret the behaviors of a romantic partner as hostile and want to respond in an anti-social manner (exiting the relationship). This supports the Hypersensitivity Hypothesis that excluded (relative to non-excluded) people may feel uncomfortable about the red flags of impending abuse earlier and report an earlier willingness to leave the relationship. More concretely, exclusion (relative to non-exclusion) should prompt earlier feelings of discomfort and earlier desires to exit an abusive relationship, which should be mediated by activation of hostile thoughts.

OVERVIEW AND HYPOTHESES

Little is known about whether belonging threats shape IPV risk assessment, yet existing evidence suggests that they may. To examine this possibility, participants underwent an exclusion or a non-exclusion experience. Following this, they reported their current fundamental needs and completed a measure of hostile cognition activation. They then read a vignette describing a heterosexual romantic relationship that slowly turned abusive. Participants took the perspective of the female victim and indicated when they would (a) feel uncomfortable in the relationship and
(b) end (exit) the relationship. We examined two competing hypotheses.¹

- **Insensitivity Hypothesis**: Excluded, compared to control, participants will show a greater latency in responding to IPV risk, indicating that they are comfortable and willing to remain in the relationship longer. If observed, this effect will be mediated by reduced relational needs.

- **Hypersensitivity Hypothesis**: Excluded, compared to control, participants will show a quicker response to IPV risk, indicating that they are uncomfortable and willing to leave the relationship earlier. If observed, this effect will be mediated by activation of hostile cognitions.

### METHODS

#### PARTICIPANTS

We conducted an a priori power analysis to determine the necessary sample size. No previous work has examined the specific hypothesis that exclusion might impact one’s comfort with remaining in an abusive relationship. However, conceptually similar work comes from DeWall, Twenge, et al. (2009), who examined exclusion’s impact on hostile cognitive bias. The effect size for the impact of exclusion (versus control) on hostile cognition activation (in Exp 1a) was $d = .88$. Because their effect is not identical to the one examined here, we used theirs as an anchor and adjusted downward conservatively to an assumed effect of $d = .5$, a medium effect size per Cohen’s (1992) guidelines. To unearth an effect of this magnitude with 80% power required a minimum of 128 participants (64 per cell; sample-size calculations aided by

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¹ This work was in partial fulfillment of Mr. Trujillo’s master’s degree. In his original master’s thesis proposal, he articulated the Insensitivity and Hypersensitivity Hypotheses and the methods he planned to examine them. At the thesis proposal meeting, thesis committee members suggested he add and examine four possible moderators of these hypotheses. Accordingly, participants completed four measures after the demographics. These were: (1) fear of negative evaluation, (2) social support, (3) past IPV victimization, and (4) perspective-taking ability. Examination of these factors was purely exploratory, and analyses revealed that none of the four constructs interacted with the social experience manipulation. That is, none moderated the findings. Thus, we do not report these analyses, but results are available upon request.
G*Power 3.0.10; Faul, Erdfelder, Lang, & Buchner, 2007). Thus, 135 female students from an introductory psychology class participated in exchange for course credit in a study ostensibly concerning impressions of romantic relationships. On an a priori basis, we decided to analyze only those participants who reported being sexually attracted to men because, in the IPV vignette, the female participants take the perspective of a woman in a relationship with a man. We removed three participants from the analyses for this reason. Furthermore, we removed two additional participants (again, on an a priori basis) for having correctly identified the hypothesis of the study, resulting in an analyzable sample of 130 participants ($M_{age} = 19.08$ $SD_{age} = .95$). Participants were mostly White (80.0%) or Asian (13.8%) and just over half (55.4%) were single.

PROCEDURE

After granting informed consent, participants sat in an individual cubicle and completed the write-about-a-time task (which served as the social experience manipulation). Participants (via random assignment) wrote about a time from their own life when they felt socially excluded (exclusion condition) or experienced academic failure (academic failure condition). This paradigm is commonly used to threaten feelings of belonging in a laboratory setting (e.g., Pickett, Gardner, & Knowles, 2004). Moreover, academic failure as a control (comparison) condition is useful because it makes salient a psychological condition that is negative (like exclusion) yet does not involve thwarted belonging.

Following the writing task, participants completed an abbreviated and slightly modified version of the fundamental needs questionnaire (Williams, 2009). This measure included eight total items, with two each assessing one’s levels of belonging (I felt like an outsider), self-esteem (I felt good about myself), control (I felt I had control), and meaningful existence (I felt invisible) at the time of the incident described in the writing task. For each item, participants rated on a scale from 1 (Not at all) to 5 (Extremely), how much the event they wrote about made them feel. After appropriate reverse scoring, responses were averaged to create a fundamental needs index, with higher numbers indicating greater
need satisfaction ($\alpha = .75$). This index served as a manipulation check on the effectiveness of the writing task, as those who write about exclusion usually report lower satisfaction of these needs than do those in control conditions (e.g., Claypool & Bernstein, 2014). Additionally, the self-esteem and belonging items were averaged to create a relational needs index ($\alpha = .60$), which could serve as a possible mediator of the exclusion-insensitivity relation (if found).

Next, participants completed the hostile cognitive bias measure. This task (its materials and instructions) was adapted from DeWall, Twenge, and colleagues (2009). During it, participants were presented with a total of twelve words: six from an obviously aggressive category (e.g., hurt, kill) and six from an ambiguously aggressive category (e.g., animal, rock). Participants saw every possible pairing of the twelve words for a total of 66 trials. On each, they rated the degree to which the presented pairing of words were “similar, associated, or related” using a scale from 1 (Extremely unrelated) to 7 (Extremely related) (p. 48). In line with past work, we created the hostile cognitive bias index by averaging the similarity ratings across the trials that featured one aggressive word and one ambiguous word ($\alpha = .95$). Thus, larger values indicated a larger hostile cognitive bias, and this index could serve as a possible mediator of the exclusion-hypersensitivity relation (if found).

Following the hostile cognitive bias measure, participants completed a measure of IPV risk assessment, the primary dependent variable, composed by the first author and modeled on past work (Messman-Moore & Brown, 2006; see Gidycz, McNamara, & Edwards, 2006 for a review). To introduce this task, participants learned they would be reading about and forming an impression of a romantic relationship between two similar-aged people. They were encouraged to give their honest opinions of the vignette/story and were reminded that there are no right responses.

Participants then read a vignette that described a series of events in a heterosexual romantic relationship that began innocuously and slowly led to physical abuse (see the Appendix for the

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2. DeWall and colleagues (2009) included ten ambiguous and ten aggressive words for a total of 190 trials. We shortened this to six words in each category to reduce the time between the manipulation and primary dependent variable.
full story). The vignette incorporated warning signs of an abusive relationship detailed in the literature—such as the perpetrator’s jealousy, isolation of the victim from others, efforts to get the victim fully committed to the relationship early, and the perpetrator blaming other people for his mistakes (Short et al., 2000).

The vignette was divided into 12 short segments, each of which gradually escalated the signs of impending abuse and the severity of the abuse once it began. Participants were directed to take the perspective of the female (victim) and read the successive segments. Following each, participants were asked four yes or no questions. The first two questions asked participants if they would feel valued and (separately) flattered if they were the female at that point in the vignette/relationship. These two questions served to support the cover story and reduce possible demand characteristics. Participants next indicated if they would feel uncomfortable in the relationship at that point and finally if they would leave the relationship at that point. Once participants indicated that they would leave the relationship, the task ended, and they moved to the next part of the study without further exposure to more of the vignette.

Next, participants completed a demographics survey, which assessed their self-identified racial and gender category membership, their sexual orientation, relationship status, and age, and a set of purely exploratory measures (see footnote 1). Finally, participants completed an open-ended question to determine if they knew what the study was about and then were thoroughly debriefed, thanked for their participation, and dismissed.

RESULTS

MANIPULATION CHECK

To establish that the social experience manipulation thwarted belonging as intended, we conducted an independent samples *t*-test comparing those in the exclusion and academic failure conditions on their reported fundamental needs. As expected, and consistent with prior work, those in the exclusion condition reported lower needs ($M = 1.97$, $SD = .66$) than those in the
academic failure condition, \(M = 2.31, SD = .63; t(128) = 3.01, p = .003\).

TESTS OF THE INSENSITIVITY AND HYPERSENSITIVITY HYPOTHESES: DIRECT AND INDIRECT EFFECTS

Our primary aim was to determine if feelings of social exclusion (relative to control) prompted either shorter or longer latency in responding to signs of IPV. To do this, we examined how late (versus early) participants reported their discomfort with the relationship and their desire to exit the relationship. As a reminder, the IPV vignette was presented in twelve escalating segments. Therefore, we assigned each participant two values (both from 1–12) to indicate: (1) when (i.e., for which segment) she first indicated her discomfort in the relationship and (2) when she said she would leave (exit) the relationship. Thus, larger values indicated later discomfort onset and later desires to exit the relationship. Work by Messman-Moore and Brown (2006) supports analyzing discomfort and exit scores separately, arguing that feelings of discomfort capture detection of threat, whereas desires to exit capture one’s anticipated behavioral intentions. Because threat detection and behavioral intentions can operate independently, we assumed they could be differently impacted by exclusion.

To test the primary hypothesis, we subjected both the discomfort and exit scores to an independent-samples t-test, comparing those in the exclusion and academic failure conditions. Neither analysis was significant. That is, those in the exclusion condition were not earlier or later to express discomfort \((M = 3.39, SD = 1.57)\) or exit the relationship \((M = 6.62, SD = 2.24)\) than those in the academic failure condition \((M_{\text{Discomfort}} = 3.50, SD = 1.51; M_{\text{Exit}} = 6.55, SD = 2.20; t_{\text{Discomfort}}(124) = .40, p = .69; t_{\text{Exit}}(128) = -.19, p = .85)\).

3. Participants did not continue in the task after indicating they would leave the relationship. Four participants indicated they would leave the relationship prior to feeling uncomfortable and thus do not have a discomfort score, accounting for the different degrees of freedom between the two t-tests.

4. We tested for a possible effect of social experience on the average of discomfort and exit scores. Similar to the initial findings, those in the exclusion condition \((M = 5.07, SD = 1.57)\) did not significantly differ from those in the academic failure condition on this average \((M = 5.10, SD = 1.51; t(124) = .13, p = .90)\).
Thus, in these analyses, there was no support for either the Insensitivity or Hypersensitivity Hypotheses.\textsuperscript{4,5}

Although the social experience manipulation did not have a direct effect on reactions to signs of IPV, this does not rule out the possibility of indirect effects through hypothesized mediators. That is, even in the absence of a significant effect of a factor on the outcome variable, one can still observe an indirect effect of a factor on an outcome variable via a mediating variable (Hayes, 2013).

To examine possible indirect effects, we first examined the potential impact of social experience on relational needs (the average of belonging and self-esteem), which we posited might mediate a potential relation between exclusion and IPV insensitivity, and on hostile cognitive bias, which we posited might mediate a potential relation between exclusion and IPV hypersensitivity. Independent-samples $t$-tests showed that those in the exclusion condition ($M = 1.90$, $SD = .76$) had significantly lower relational needs than those in the academic failure condition, ($M_{\text{Exclusion}} = 2.46$, $SD = .70$; $t(128) = 4.34$ $p < .005$), but there was no difference between conditions on the hostile cognitive bias index ($M_{\text{Exclusion}} = 3.56$, $SD = 1.07$; $M_{\text{Failure}} = 3.58$, $SD = .83$; $t(128) = .10$, $p = .92$). Given these outcomes, there is cause to examine a possible indirect effect of social experience on IPV reactions via relational needs.

To do this analysis, we used Hayes’s (2013) PROCESS macro (model 4) to examine two mediated models with social experience (academic failure, exclusion) as the independent variable, relational needs as the mediator, and either discomfort or exit scores as the dependent variable. These analyses revealed no significant indirect effect of social experience on discomfort scores through relational needs, indirect effect = .08, $SE = .10$, $CI = [-.13$,

\textsuperscript{5}Although social experience did not directly impact discomfort or exit scores, discomfort scores were descriptively smaller and exit scores were descriptively larger in the exclusion (versus control) condition. Put simply, the gap between when participants reported feeling uncomfortable and when they left the relationship was descriptively larger in the exclusion condition than in the academic failure condition. Given this, we created a difference score by subtracting the discomfort value from the exit value. This score measures the amount of time a participant spent uncomfortable in the relationship. We ran an independent-samples $t$-test to examine the impact of social experience on this outcome. Again, however, we found no significant difference between the exclusion ($M = 3.36$, $SD = 2.03$) and the academic failure conditions ($M = 3.21$, $SD = 1.91$; $t(124) = -.43$, $p = .67$).
However, they did reveal a significant indirect effect of social experience on exit scores via relational needs, indirect effect = .28, SE = .17, CI = [.01, .68]. As shown in Figure 1, exclusion (relative to academic failure) lowered relational needs, and lowered relational needs predicted later desires to exit. Moreover, relational needs significantly correlated with exit scores in the exclusion condition, $r(64) = -.28, p = .025$), but not in the academic failure condition, $r(62) = -.04, p = .76$. Thus, these findings are consistent with the insensitivity hypothesis.

Recall that the Need-Threat Model (Williams, 2007) suggests that relational, but not efficacy, needs should act as the mediator of any observed insensitivity effect. As just noted, there was such an indirect effect of social experience on delayed exit scores. To further test the Need-Threat Model, we conducted two additional mediated models, using social experience as the independent variable, efficacy needs (average of control, meaningful existence) as the mediator, and either discomfort or exit scores as the dependent variable. Efficacy needs did not mediate the relation between social experience and either dependent variable, as the CIs for both indirect effects included zero. Thus, only relational needs mediated the impact of exclusion on the insensitivity effect (the desire to exit an abusive romantic relationship later), consistent with Williams’s (2007) model.6

6. We tested a mediation model using social experience (academic failure, exclusion) as the independent variable, relational (or efficacy) needs as the mediator, and the difference score (discussed in footnote #5) as the dependent variable. These analyses revealed no significant indirect effects of social experience on difference scores via relational needs or via efficacy needs, as the confidence intervals for these possible indirect effects did include zero.
DISCUSSION

This study examined the influence of social exclusion on perceptions of when one would feel uncomfortable and leave an abusive relationship. We offered two competing hypotheses. First, exclusion might delay responses to abuse, and this effect (if observed) might be mediated by decrements in relational needs (the Insensitivity Hypothesis). Second, exclusion might speed responses to abuse, and this effect (if observed) might be mediated by a hostile cognitive bias (the Hypersensitivity Hypothesis). Neither hypothesis was supported directly: excluded participants did not report feeling discomfort or an intention to leave an abusive relationship at a significantly different time point than non-excluded participants. More fruitfully, though, analyses did reveal a significant indirect effect of exclusion on intentions to leave an abusive relationship later via lowered relational needs. Thus, there was support for the Insensitivity Hypothesis on one of the two dependent measures.

Viewed through the lens of the Need-Threat Model (Williams, 2007; 2009), the impact of exclusion on later desires to leave the relationship via relational needs is an affiliative- or belonging-maintenance effect. That is, participants with more severe drops in relational needs following exclusion were more motivated to maintain a social connection with their hypothetical partner and were therefore slower to end the relationship than non-excluded participants. Interestingly, this effect emerged in the absence of a similar effect on perceived discomfort. This suggests that excluded individuals are not simply worse at detecting signs of abuse. Instead, they seemed equally capable of detecting a threat in the relationship, but knowingly endured early signs of abuse longer in service of regulating social affiliation.

The Need-Threat Model (Williams, 2007; 2009) also argues that affiliative responses should be uniquely mediated by threats to relational needs. Consistent with this rationale, the desire of excluded participants to remain longer in the abusive relationship was mediated by relational, but not efficacy, needs. Therefore, this work not only reveals something new about the role of thwarted belonging in driving reactions to IPV, but it also adds
further support for a basic tenant of the Need-Threat Model itself.

The partial support for the Insensitivity Hypothesis occurred alongside one null and unexpected finding. Namely, social experience did not impact hostile cognitive bias scores (which were assessed as a potential mediator if the hypersensitivity pattern emerged). This finding contradicts those of DeWall, Twenge, and colleagues (2009; Exp 1a), who found a large impact of exclusion on the same word-pairing task. Two differences between the current study and DeWall and colleagues’ may account for these conflicting results. First, the current study used a shortened version of the word-pairing task; participants completed 66 trials instead of the full 190 used by DeWall, and colleagues. Second, we used a different exclusion paradigm than DeWall, and colleagues. In the study that used the word-pairing task, they used a video-exchange paradigm, giving participants false feedback that their video partner either was unwilling (exclusion) or unable (control) to meet them face-to-face later (DeWall, Twenge, et al., 2009; Exp 1a). Thus, it is possible these methodological differences explain why we did not observe a hostile cognitive bias in the wake of exclusion, whereas DeWall and colleagues (2009) did.

As noted, this work supports the Need-Threat Model (Williams, 2007; 2009) and, to our knowledge, is the first to experimentally link thwarted belonging to IPV risk assessment. More broadly, it also complements findings regarding social support. Baumeister and Leary (1995) argued that, because social support is built upon positive social connections, its benefits may be partly attributed to belonging. One such benefit comes in the realm of IPV. Namely, in correlational studies, having a stronger social support network is protective of IPV victimization (e.g., Capaldi et al., 2012). Having such networks could allow IPV victims to perceive they can fulfill belonging in relationships beyond their abuser, making it easier for them to leave an abusive situation. However, exclusion may elicit a temporary feeling that one has no or little social support and thus should prompt staying longer in an IPV situation. That exclusion did indirectly result in later desires to exit an abusive relationship is thus consistent with this reasoning and the social support literature.
We believe this work offers interesting preliminary evidence linking belonging threats to IPV risk assessment. However, like all studies, it had various limitations that should be addressed in future work. First, we observed no direct effects of social exclusion on either IPV risk assessment outcome, and only one indirect effect on desires to exit later. No single study can definitely establish the presence or absence of an effect. Thus, our failure to show a direct impact of exclusion on either IPV risk assessment outcome could mean that no such effects exist (i.e., that the impact is only indirect) or could instead suggest that different methods are needed to elucidate them. Therefore, additional evidence should be gathered to further clarify how precisely exclusion impacts desires to leave an abusive relationship.

Moreover, these relatively weak and indirect effects might be partly explained by the mild exclusionary paradigm used. Writing about past exclusion impacts social-information processing, such as smile detection and individuation (Bernstein et al., 2008; Claypool & Bernstein, 2014). However, these effects are often short-lived. Perhaps people’s responses to signs of partner abuse change primarily or most strongly in response to more severe or chronic forms of social exclusion, such as those elicited in the future-life paradigm (Twenge, Baumeister, Tice, & Stucke, 2001). In the exclusion condition of this paradigm, participants receive false feedback that they will “end up alone later in life” (Twenge et al., 2001, p. 1060) and therefore believe they will suffer from unmet belonging in a much more stable, long-lasting, and universal sense. Speculatively, people might be most prone to enter or remain in an abusive relationship if they feel hopeless about the possibility of making social bonds throughout their life rather than following a single mild belonging threat. Thus, future work might fruitfully examine the current hypotheses with a more severe belonging threat manipulation.

Second, the work used a written vignette task. This methodology enabled us to examine the hypotheses in an ethical manner. However, one must be cautious in assuming that participants’ reported responses in this context would translate to their responses in an actual romantic relationship. The decision to leave a non-hypothetical abusive relationship is complex and multifaceted (e.g., Anderson & Saunders, 2003; Kim & Gray, 2008). It is
unquestionably easier to state that one would leave a hypothetical (vignette-described) abusive relationship than it is to do this when experiencing such a relationship. This weakness is notable because it works against the Insensitivity Hypothesis—participants likely saw leaving an abusive relationship early as the ideal, desirable choice in an experimental/controlled context. Yet, we nevertheless found partial support for the Insensitivity Hypothesis despite this limitation—exclusion lowered relational needs, and lowered relational needs predicted later desires to exit. This could suggest that belonging threats in actual IPV situations produce even stronger insensitivity effects than we observed here. Nevertheless, future work should examine this issue with real IPV victims. For ethical reasons, such work would almost certainly be correlational in nature, but it would complement the current experimental findings.

Third, and related to the limitation just raised, in actual abusive relationships, the IPV victim has existing feelings for the perpetrator and may see the perpetrator as a (highly imperfect) source of belonging. Moreover, IPV perpetrators also often try to isolate their victims from other sources of social connection. Thus, feelings of exclusion among actual IPV victims might prompt a willingness to remain in the relationship because that relationship may be perceived as their only source of belonging, no matter how flawed and violent it is. In the current study, participants took the perspective of the victim and thus did not have actual pre-existing feelings for the perpetrator and presumably had other real sources of belonging in their lives. Because of this, they may not have seen the vignette perpetrator as a legitimate source of belonging. This should have made an early exit response easier to render in the experiment—again, working against the Insensitivity Hypothesis, for which we nevertheless found partial support. This is yet another reason why scholars should complement this experimental work with correlational approaches using actual IPV victims in real relationships.

Fourth, this study suffers from the same generalizability issues that all studies using college-student convenience samples do. Using a college sample is, in ways, a strength, as this allowed us to examine responses to IPV among an at-risk population (e.g., Forke, Myers, Catallozzi, & Schwarz, 2008). However, the college
population at Miami University, where the study occurred, has an under-representation of Black and Latinx students. Because belonging is a fundamental need, the distress that follows social exclusion is not likely moderated by race or ethnicity. However, racial/ethnic group membership might predict the likelihood that an individual views an abusive relationship as an acceptable form of affiliation after exclusion. In support of this conjecture, culturally-rooted differences in beliefs about gender roles, marriage, and respect for authority all predict a victim’s decision to excuse or disclose acts of abuse (Ahrens, Rios-Mandel, Isas, & del Carmen Lopez, 2010). Thus, future work should examine our hypotheses in more racially- and ethnically-diverse samples to determine how generalizable they are and if important demographic variables alter our observed outcomes.

CONCLUSION

The current findings provided partial support for the Insensitivity Hypothesis; exclusion lowered relational needs that, in turn, predicted a longer latency to leave a potentially abusive relationship. Theoretically, this work underscores the importance of belonging and suggests that belonging desires can overwhelm the dangers of abusive relationships. From a clinical perspective, this work suggests that establishing belonging outside of the abusive relationship may provide a pathway out of it. Thus, this work furthers the social psychological literature on belonging and may facilitate clinical treatments to aid IPV victims.

REFERENCES


**APPENDIX: IPV VIGNETTE STORY**

1. After a few weeks working at a new summer internship, you are delighted when Matthew, an attractive and popular co-worker, stops you after work one day and asks you on a date. You agree to go out with him.

2. That Friday night, Matthew picks you up for your first date. He takes you to a restaurant not far from where your office is. You find it bold and assertive, but also charming, that Matthew sees your favorite meal on the menu and orders it for you. Throughout dinner, Matthew continues portraying himself as a confident but charming person.

3. At the end of the first date, Matthew drives you home. You thank him for the nice dinner and he offers to walk you to your door. After saying goodbye, Matthew suddenly leans in to kiss you. You are surprised, as you had planned to not kiss him on the first date, but find yourself enjoying the kiss and his company more than had been expected.

4. Five days after your original date, you go out with Matthew for an early dinner, after which you plan to see a movie. Towards the end of the meal, you both start to worry that you won’t make the theater in time because of the slow service at the restaurant. When the waitress comes by to pick up the check from Matthew, he quickly snaps at her for taking too long. Afterwards, he goes back to behaving like normal and later apologizes that you saw his stress get the best of him briefly. “I just really wanted the date to go well,” he explains “I really like you, and I was worried our date would be ruined.”

5. Two weeks into your relationship, you and Matthew are at his apartment on a Friday evening, unsure of how to spend the rest of your night. You receive a text from a close friend telling you that she is having a party at her apartment not too far from you, and that they would love for you to come and bring Matthew to meet everyone. Excitedly, you tell Matthew about the party, but he says he would rather just spend time alone with you, and that it hurts his feelings that you aren’t satisfied just being with him. You assure him that you didn’t mean to imply that you weren’t happy just seeing him, and you two spend a nice evening alone in his apartment.

6. About 6 weeks into your relationship, Matthew expresses annoyance at you because he thinks it took you too long to return his last text message. He says, “when you don’t respond I feel like you’re ignoring me on purpose to upset me.” You explain that this is not your intention, but apologize for the misunderstanding and promise to make a better effort to communicate with him.
7. Two months into the relationship, you invite Matthew over for dinner one night. You’re excited to spend a romantic night in with him, but when he arrives he’s furious about a conversation he had with his parents on the phone that morning. You listen sympathetically, but he’s just getting more upset. You lean in to give him a hug, but are surprised when he shoves you back and storms out of the apartment saying that you don’t understand the situation.

8. A few weeks later, you and Matthew are looking online together to buy tickets for a concert you both want to attend, and finally settle for two really good seats that cost $135 each. Hours later, you realize you’ve bought tickets for the same date your parents were coming into town to visit, and you can’t possibly cancel on them. After you and Matthew discover that you cannot get a refund on the tickets, he gets frustrated and starts arguing with you. You try to reason with him that he can go with a friend, but he gets madder and tells you that you’re not as invested in the relationship as him. While arguing, he grabs your bicep and begins to squeeze it, leaving a bruise. You tell him to stop, and after a brief moment he does and storms upstairs. The next morning, things are tense between you and Matthew, but by lunch things are back to normal and you’re both laughing and joking with each other.

9. Roughly four months into your relationship, Matthew is helping you cook dinner. He turns around abruptly in the kitchen and accidentally knocks over a casserole dish, both shattering the dish and ruining the dinner you had both prepared. You are initially annoyed, and ask him to be more careful, to which he responds that it was your fault for setting the dish at the end of the table in the first place. You both quickly become very irritated at each other, and the small incident turns into an argument. As Matthew attempts to storm out, you step in front of him to stop him. He grabs both your arms and aggressively shoves you into a wall. Matthew leaves, and you begin cleaning the mess while trying to understand what just happened. The next day, Matthew arrives at your apartment with a new casserole dish, flowers, and apologized profusely for the fight. He offers to take you out to dinner that night to forget the ugly fight.

10. Five months into your relationship, you and Matthew are out with a mutual group of friends at a party, and are talking as a group about embarrassing things that others in the group have done. After a few embarrassing stories about your friends, you share to the group that Matthew once offered to take you out to dinner, but then forgot to bring his wallet, forcing you to pay for the meal. The group laughs and briefly teases Matthew before moving on to the next conversation, and Matthew smiles and laughs along in the moment. Once you leave the party, however, Matthew gets angry with you. At first, he begins yelling at you for making him seem like “less of a man” in front of all of his friends, and then accuses you of always thinking he isn’t enough of a man for you. In his anger, Matthew punches your shoulder and chest.
You drive yourself home, and neither you nor Matthew try to commu-
nicate with each other for the next few days.

11. A few days after your fight with Matthew, you agree to meet him
in a coffee shop. There, he apologizes profusely for how he treated you
and hurt you, and explains that it had been a long week for him, and he
unfairly took it out on you. You agree to take him back tentatively, just
to see if he really will change as much as he promises. The next time
Matthew is over, you come out of the bathroom to find him angrily
holding your cell-phone with the text conversation open, wherein you
had been telling one of your friends you were unsure if your decision
to stay with Matthew had been the right one. He begins screaming at
you for saying awful things behind his back and making him look like
the bad guy. He soon starts punching you again, mostly to the stomach
and the face, as well as kicking you after you fell to the ground. After
about 5 minutes of this, he stops and leaves the room. You lay on the
floor crying.

12. The next morning, you tell him that you think you should spend
some time apart. Matthew flies into a rage and begins strangling you.
You eventually get away from him and are able to call 911 and tell the
police that your boyfriend is trying to kill you.