Does a History of Child Physical Abuse Interact with Negative Emotion to Predict Intimate Partner Violence Perpetration?

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Introduction

Compared to non-victims, adults with a history of child physical abuse (CPA) are more likely to perpetrate violence against an intimate partner (Ehrensaft et al., 2003; Linder & Collins, 2005; Renner & Slack, 2006). Despite the consistent evidence for this association, not all CPA victims go on to become violent towards their partners. One theory that may help to explain the varying associations between CPA history and intimate partner violence (IPV) perpetration in adulthood is the background-situational model (Riggs & O'Leary, 1989, 1996). This theory states that background and situational factors interact to determine risk for future IPV perpetration. Background factors (e.g., prior exposure to violence) contribute to the development of overall violent tendencies by normalizing and increasing acceptance of the use of violence as a response to conflict. By contrast, situational factors (e.g., acute stress) occur in the moment and serve to intensify conflict within a particular relationship.

In the current study we employed an Actor Partner Interdependence Model (APIM) approach (Cook & Kenny, 2005; Kashy & Kenny, 2000) with a sample of dating couples to examine the independent and interactive effects of CPA history (i.e., a background factor) and negative affect during conflict (i.e., a situational factor) in predicting the occurrence of physical IPV perpetration. The APIM approach allowed us to take into account the CPA histories of both partners to examine how each of these factors impacted not only one's own IPV perpetration (actor effects) but also IPV perpetrated by their partner (partner effects). Based on the background-situational model as well as prior literature examining the roles of CPA history and negative affect during conflict in predicting IPV perpetration, we hypothesized that:
1. Greater severity of each partner's physical abuse in childhood would be associated with increased physical IPV perpetrated by both partners;
2. Greater negative affect on the part of both partners would be associated with increased physical IPV perpetrated by both partners;
3. Each partner's negative affect during conflict discussions would moderate relations between CPA history and IPV perpetration for both partners.

Method

Participants
- Participants were 53 heterosexual dating couples ($N = 106$, $M_{age} = 19.47$, $SD = 1.54$) recruited at a large Midwestern university. One or both partners was an undergraduate student at the time of recruitment.
- On average, couples had been in their relationships for 19.18 months ($SD = 15.98$, range: 4 to 72 months). The majority (84.0%) was dating but not living together, 9.4% were dating and living together, 5.7% were engaged to be married, and .9% were married.
- Participants identified as European American (98.1%), African American (.9%), Hispanic/Latino (5.7%), Asian American (4.7%), American Indian (.9%), and unknown (4.7%). Participants were permitted to identify more than one ethnicity; thus, the total percentage exceeds 100%.

Measures and Lab Tasks
- **Child physical abuse severity.** The 5-item physical abuse subscale of the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) was used to assess the severity of participants' physical abuse experiences in childhood. Participants indicated the degree to which various statements pertaining to CPA were true (e.g., "I was punished with a belt, a board, a cord, or some other hard object;" "People hit me so hard that it left me with bruises or marks"). Response options ranged from 1 (*Never true*) to 5 (*Very often true*). In the present study, internal consistency for the physical abuse subscale of the CTQ was .64.
- **Negative affect during conflict.** Negative affect during conflict was measured observationally using a lab-based conflict discussion task. Couples identified the primary source of conflict in their relationship and discussed this topic for 10 minutes. Two undergraduate research assistants then coded the videos of these discussions using the Brief Romantic Relationship Interaction Coding Scheme (BRRICS; Humbad, Donnellan, Klump, & Burt, 2011). Coders rated the degree to which negative affect was expressed by each partner during the discussion (e.g., criticism, nonverbal responses that communicate hostility, use of harsh tone). Negative affect codes had strong interrater reliability, with average intraclass correlations of .86 for female negative emotion and .77 for male negative emotion. One coder was randomly selected for each dyadic interaction for the purpose of data analysis.
- **Intimate partner violence perpetration.** Physical IPV perpetration was measured using the 12-item physical assault subscale of the Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Using a Likert scale, participants rated how often they both perpetrated and experienced a number of physically violent acts in the past six months. These acts ranged in severity (e.g., "I pushed or shoved my partner;" "My partner used a knife or gun on me"). To minimize underreporting, we used the higher frequency reported by either partner (i.e., participants' self-report of IPV perpetration or their partners' report of IPV victimization). Total scores were computed by summing the number of endorsed items, and these scores were log-transformed to reduce skewness.

Table 1. Descriptive Statistics and Correlations Among Study Variables

| Measure	Mean (SD)	Range	1	2	3	4	5
1. Women's CPA severity	5.62 (1.18)	5-10	--				
2. Women's negative affect	1.79 (0.79)	1-5	−.13	--			
3. Women's IPV perpetration	1.93# (2.18)	0-7	.19	.53**	--		
4. Men's CPA severity	6.93# (2.59)	5-16	.07	.01	.13	--	
5. Men's negative affect	1.60 (0.69)	1-4	−.17	.20	.20	.14	--
6. Men's IPV perpetration	1.07 (1.28)	0-4	.21	.26	.70**	.25	.13

Note. # Mean value is significantly higher than partner ($p < .05$). ** $p < .01$

Table 2. APIM Results

Variable	W→W (Actor_w) b	SE	M→W (Partner_w) b	SE	M→M (Actor_m) b	SE	W→M (Partner_m) b	SE
CPA severity	0.25*	0.12	0.14	0.10	0.31**	0.09	0.23*	0.11
Negative affect	0.34	5.62	1.48	1.60	4.58**	1.55	0.08	5.25
CPA severity x negative affect	−0.16	5.61	1.34	1.61	4.51**	1.55	−0.21	5.24

Note. We fit the distinguishable or fully saturated model (i.e., $df = 0$), which allowed actor and partner effects to vary across men's (m) and women's (w) IPV perpetration. ** $p < .01$, * $p < .05$.

Figure 1. APIM for Current Study
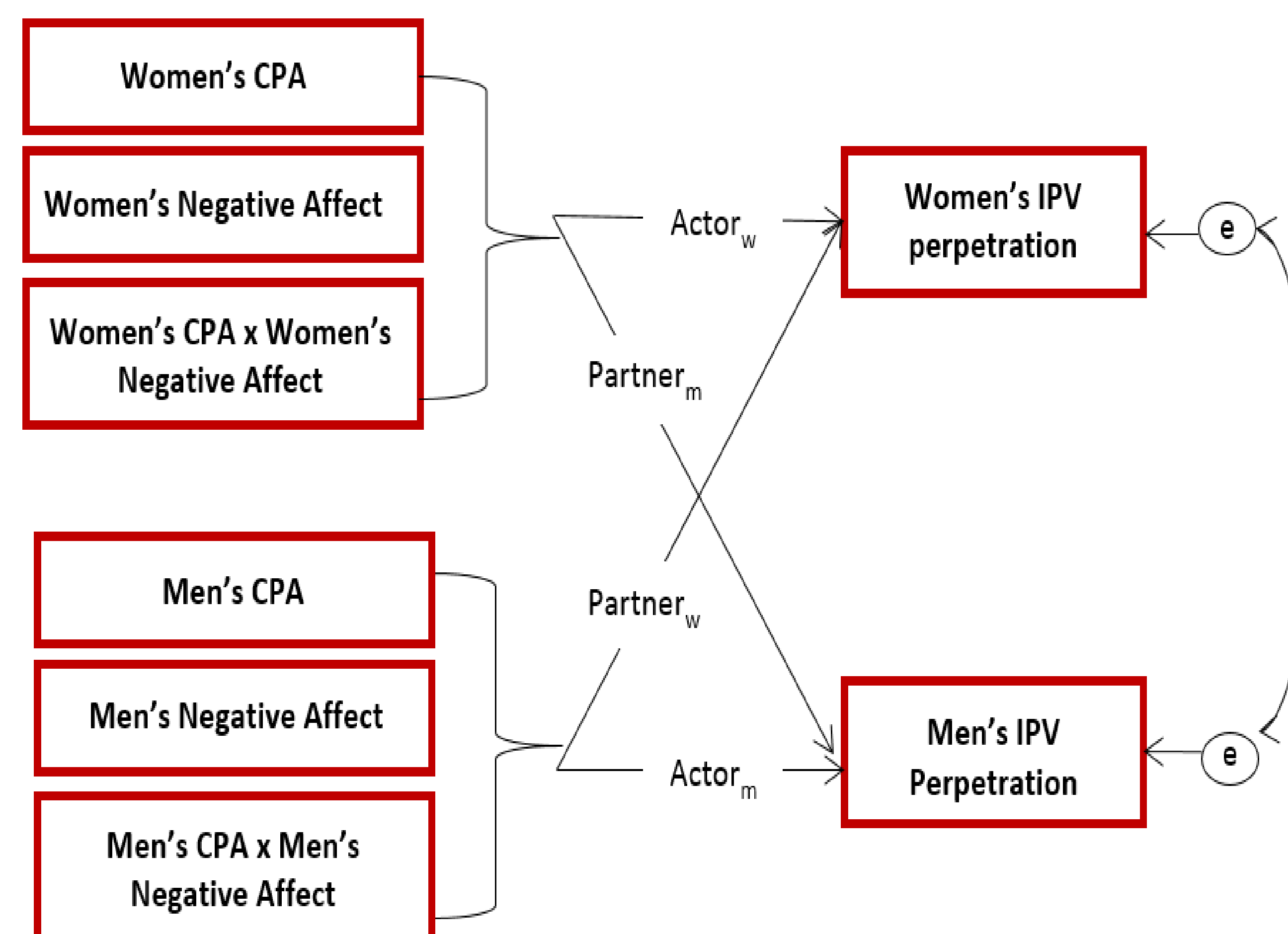
Analytic Approach

- An APIM was used to account for the dyadic interdependence of the data. As illustrated in Figure 1, this model simultaneously estimates the effects of individuals' predictors on their own violence (actor effects) and their partners' violence (partner effects).
- All analyses were conducted under maximum likelihood estimation with robust standard errors using Mplus v.7 software (Muthén & Muthén, 1998-2012).
- Both CPA severity and negative affect during conflict were mean-centered prior to creating interaction terms in order to maintain interpretability. Interaction effects were constructed by multiplying each individual's CPA severity by his or her negative affect.

Results

- **Actor effects of child physical abuse severity and negative affect.** Among both women and men who exhibited average levels of negative affect during conflict, CPA severity positively predicted IPV perpetration ($b = 0.15$, $p < .05$, $b = 0.07$, $p < .01$, respectively). Further, among men who reported average levels of CPA, men's negative affect during conflict positively predicted IPV perpetration ($b = 4.58$, $p < .01$). However, among women, who reported average levels of CPA, negative affect during conflict was not related to women's IPV perpetration.
- **Actor effects of child physical abuse severity and negative affect interaction.** The interactive effect of men's CPA severity and men's negative affect on IPV perpetration was significant ($b = .10$, $p < .01$). Analysis of the simple effects indicated that higher levels of men's CPA severity were associated with greater men's IPV perpetration among men who were one standard deviation above the mean on negative affect ($b = 0.14$, $p < .001$). Men's CPA severity was not significantly related to IPV perpetration for men who were one standard deviation above the mean on negative affect ($b = −0.01$, $p = .81$). The interaction between women's CPA severity and women's negative affect did not predict IPV perpetration.
- **Partner effects on IPV.** Only one partner effect was found to be significant in predicting IPV perpetration. Women who reported greater CPA severity had male partners who perpetrated greater IPV ($b = .23$, $p < .01$).

Discussion

- Findings suggest that, for both men and women, more severe CPA experiences increase risk for subsequent violence perpetration. The background-situational model (Riggs & O'Leary, 1989; 1996) asserts that early exposure to violence normalizes and increases acceptance of the use of violence, thus increasing one's reliance on physical violence during conflict. We expand on this notion by indicating that it is not only the *presence* of these background factors but the *severity* of such factors that increases risk for violence.
- Consistent with the broader literature showing a link between negative affect and interpersonal aggression (e.g., Eckhardt, Jamison, & Watts, 2002), our results indicate that negative affect during conflict is a key predictor of the degree to which men engage in physical IPV. However, similar associations were not found for women. Thus, while men might use physical aggression as a means to express negative affect, women's use of physical IPV may be motivated by different factors (e.g., self-defense, retaliation; Dobash & Dobash, 2004).
- We also found that the pre-existing risk for IPV perpetration associated with having a prior CPA history was exacerbated when conflict discussions elicited greater negative affect. Verbal conflict with an intimate partner often triggers an urge to aggress (Finkel, DeWall, Slotter, Oaten, & Foshee, 2009). Although a number of factors typically inhibit acting on these impulses, the present findings suggest that negative affect may override inhibiting factors and increase the likelihood that men will engage in aggression. Our findings further suggest that this process may be more probable among those who endured physical violence in childhood.
- Lastly, our finding that women who reported more severe CPA were more likely to have physically violent partners adds to a large literature documenting that victims of CPA are at increased risk for experiencing IPV victimization in adulthood (e.g., Renner & Slack, 2006).
- Several methodological limitations deserve mentioning. First, although our observational measure of negative affect offers advantages over self-report methods, participants' knowledge that they were being recorded may have tempered their expression of negative affect during the conflict discussions. Second, participants' affect was measured *in vivo*, while their reports of IPV perpetration were retrospective (past 6 months). Though this is a common approach in studies of IPV perpetration, future work using longitudinal designs is needed to examine CPA severity and negative affect as prospective predictors of IPV.
- The present study has a number of clinical implications. Because early CPA experiences may normalize the use of violence during conflict, clinicians should aid adult victims in expanding their repertoire of non-violent conflict resolution tactics. For example, couples may benefit from approaches that promote emotional acceptance and empathy as a means to diffuse negative affect (e.g., integrative behavioral couple therapy; Christensen, Jacobson, & Babcock, 1995). This emphasis on emotional regulation is evident in existing treatment approaches designed for adult victims of child abuse (Cloitre, Cohen, & Koenen, 2006).