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Dyadic Empathy Following Childhood Trauma: The Role of Hostile Attribution Bias in Young Adult Couples

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Objective: Cumulative childhood interpersonal trauma (CCIT) is associated with important outcomes within romantic relationships, including lower dyadic empathy. Dyadic empathy is comprised of perspective-taking, that is, putting oneself in the partner's place, and empathic concern, that is, emotions felt toward the partner's emotional experience. As empathic difficulties may affect the quality of romantic relationships, it is important to better understand the mechanisms underlying the links between CCIT and empathy toward a partner. Hostile attribution bias (i.e., the tendency to perceive others' intentions as negative), being positively linked to CCIT and negatively associated with empathy, appears to be a relevant, yet unexplored, mechanism in the link between CCIT and dyadic empathy. The present study examined the role of hostile attribution bias in the dyadic associations linking one's CCIT to their own as well as their partner's perspective-taking and empathic concern. **Method:** A sample of 190 couples aged 18 to 29 completed online questionnaires. **Results:** One's CCIT was positively related to their own hostile attribution bias, which was negatively associated with both their own perspective-taking and their partner's empathic concern. **Conclusion:** Targeting hostile attributions among individuals with CCIT might constitute an interesting pathway to enhance their own and their partner's empathy within the relationship and, therefore, foster positive couple dynamics during young adulthood.

Clinical Impact Statement


The results of this research show that, within young adult couples, one's higher cumulative childhood interpersonal trauma is associated with their higher hostile attribution bias (i.e., attributing negative intentions to others), which is in turn linked with their lower ability to put themselves in their romantic partner's place (i.e., perspective-taking) and their partner's lower ability to feel emotions toward them (i.e., empathic concern). Considering that cognitive biases can be modified, hostile attribution bias might represent a promising therapeutic target to enhance both perspective-taking and empathic concern in individuals who experienced cumulative childhood interpersonal trauma and their partners, thus fostering positive romantic trajectories.

Keywords: childhood trauma, hostile attribution bias, dyadic empathy, couples, young adults

Cumulative childhood interpersonal trauma (CCIT) refers to the accumulation of different forms of traumatic experiences, such as neglect or abuse, that occurred within interpersonal relationships before the age of 18. In the general population, 60.1% of individuals

report having experienced at least one form of childhood interpersonal trauma, and more than a third report having been exposed to two types or more (Dugal et al., 2016; Finkelhor et al., 2009). In comparison to the exposure to a single form of trauma, the chronic

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accumulation of multiple forms is the most damaging, as it is related to greater vulnerability to future abuse and relational difficulties later in life, including at the emergence of adulthood (Arata et al., 2005).

Young adults aged 18 to 29 face new experiences regarding their romantic relationships, which may be particularly challenging for individuals who encountered CCIT and who might be less equipped to adjust to these new obstacles (e.g., first couple conflicts; Arnett, 2000). In particular, young adults who experienced CCIT tend to struggle to feel and express empathy toward their partner, a relational process referred to as dyadic empathy (Cao et al., 2020; Fitzgerald et al., 2020; Maneta et al., 2015; Marshall & Kuijer, 2017; Péloquin & Lafontaine, 2010). As the negative relational outcomes associated with an individual's CCIT often extend to their romantic partners (Vaillancourt-Morel et al., 2024), research examining the association between a person's CCIT and their partner's dyadic empathy is needed.

Considering that CCIT may hinder the development of satisfying romantic trajectories (Fitzgerald et al., 2020) and that dyadic empathy contributes to healthy relationships (Péloquin & Lafontaine, 2010), better understanding the mechanisms through which CCIT is linked to dyadic empathy could help develop interventions to enhance this ability. In line with social cognitive theories (Cossette-Côté et al., 2023; Nader, 2006), CCIT may be related to dyadic empathy via the tendency to perceive others' intentions as negative (i.e., hostile attribution bias; Zhu et al., 2020). The goal of the present study was to examine the dyadic associations between CCIT and dyadic empathy, as well as the explanatory role of hostile attribution bias in these links.

CCIT and Dyadic Empathy

According to Davis (1983), empathy is a multidimensional construct encompassing both cognitive and emotional aspects. The cognitive aspect includes perspective-taking (i.e., the ability to understand the point of view of another) and fantasy (i.e., the tendency to transpose oneself imaginatively into the emotions of fictitious characters), while the emotional aspect refers to empathic concern (i.e., the emotional reaction to others' experience) and personal distress (i.e., the tendency to feel others' pain; Davis, 1983). Social cognitive theories suggest that individuals with CCIT tend to perceive the world and others as threatening, which may limit empathic abilities (Cossette-Côté et al., 2023; Nader, 2006). A recent meta-analysis found a significant mean effect size of $-.15$ for the association between childhood interpersonal trauma and empathy in general social contexts (Zhang et al., 2024).

Although the relationship between CCIT and general empathy has received attention over the years, less research has been conducted on the ways CCIT could be related to empathy specifically within romantic relationships. Yet, given CCIT occurs in close personal relationships, the context of romantic relationships can be particularly triggering (Dugal et al., 2016), posing a specific challenge in terms of empathy toward one's partner for individuals with CCIT. In contrast with general empathy, which can be assessed in a broad social context, dyadic empathy is expressed specifically toward one's romantic partner (Péloquin & Lafontaine, 2010). Dyadic empathy only integrates other-oriented responses (i.e., perspective-taking and empathic concern) and thus does not include the components of personal distress and fantasy (Péloquin & Lafontaine, 2010). Within romantic relationships, perspective-taking refers to the cognitive ability to put oneself in the partner's place and to understand their point of view, while empathic concern refers to all the emotions felt toward

the partner's emotional experience (Péloquin & Lafontaine, 2010). Research suggests that a lack of dyadic empathy can prompt feelings of inadequacy and misunderstanding in romantic partners, which may generate conflict escalation and lower relationship satisfaction and, over time, lead to relationship dissolution (Brassard et al., 2022; Péloquin et al., 2011). Understanding the correlates of dyadic empathy is therefore important to promote satisfying romantic relationships.

Empirical studies show that different types of interpersonal traumas (e.g., emotional abuse, sexual abuse) are linked with a lower ability to feel for the partner's emotional experience (Brassard et al., 2022) as well as a limited ability to understand the partner's point of view (Wolfe et al., 2004). Similar associations have also been observed with other empathy-related constructs, such as the ability to accurately perceive others' emotions (Maneta et al., 2015) and to provide empathic support toward a romantic partner (Fitzgerald et al., 2020). Moreover, the Couple Adaptation to Traumatic Stress Model suggests that trauma leads to consequences not only in the individual who experienced it but also in their romantic partner and the relational dynamic they share (e.g., higher negative communication, lower relationship satisfaction; Busby et al., 2011; Nelson & Wampler, 2000; Vaillancourt-Morel et al., 2024). In the only dyadic study examining links between CCIT and empathy toward a romantic partner, Maneta et al. (2015) demonstrated, among a sample of heterosexual couples, that women's childhood emotional abuse was related to their male partner's lower ability to accurately identify their partner's emotions. Given CCIT is linked with both intraindividual and interpersonal outcomes, dyadic designs (i.e., including data from both partners; Kenny et al., 2006) appear necessary to fully comprehend dyadic empathy in young adult couples who experienced CCIT (Vaillancourt-Morel et al., 2024).

While the empirical literature shows that CCIT is related to lower empathy toward the romantic partner, much less is known about the mechanisms underlying these associations (Brassard et al., 2022; Maneta et al., 2015; Wolfe et al., 2004). Drawing from social cognitive theories (Cossette-Côté et al., 2023; Nader, 2006), cognitive biases may explain the lower dyadic empathy presented by trauma survivors and their partners.

CCIT, Hostile Attribution Bias, and Dyadic Empathy

Hostile attribution bias is the tendency to perceive the intentions and behaviors of others as more threatening and negative than they are in situations where social cues are ambiguous (Zhu et al., 2020). According to social cognitive theories, children who experienced early relational trauma tend to develop deeply embedded negative beliefs toward the world and others and negative attributional styles as a defense mechanism to protect themselves from further abuse (Cossette-Côté et al., 2023; Nader, 2006). The accumulation of early traumatic experiences can lead to negative representations of others that correspond to the dysfunctional relationships experienced in childhood (Cao et al., 2020). In fact, compared with children who never experienced interpersonal trauma, those with traumatic experiences present higher levels of hostile attribution bias (Price & Glad, 2003). Although these beliefs are constantly updated throughout development, they tend to be strongly embedded when entering early adulthood (Busby et al., 2011; Epps & Kendall, 1995; Nader, 2006). Among young adults, CCIT has been positively correlated with hostile attribution bias (Li et al., 2022).

In turn, as empathic abilities depend upon one's capacity to accurately process social information (Melloni et al., 2014), hostile

attribution bias may be negatively linked with dyadic empathy, although no study has specifically examined this link. Hostile attribution bias, however, appears to be related negatively with empathy in general social contexts (Qiu et al., 2024). According to social information-processing theories, the interpretation of social cues will guide responses to social situations (Crick & Dodge, 1994). As such, for individuals with CCIT who tend to perceive threat and hostility in others, feeling and expressing empathy toward others may be challenging, especially in intimate contexts (Dugal et al., 2016; Zhang et al., 2024). Within couples, dysfunctional attributions are related to misperceptions of the romantic partner's emotions (Maneta et al., 2015) and relational conflicts (Ramezani et al., 2020), which may limit empathy toward the partner. Examining dyadic associations with hostile attribution bias appears especially relevant, as dysfunctional attributional styles may both impact how one interacts in the social world and generate negative reactions from others (Nader, 2006).

The Present Study

This study aimed to examine how CCIT relates to dyadic empathy in young adult couples. Building upon social cognitive theories (Crick & Dodge, 1994; Li et al., 2022; Price & Glad, 2003), we suggest that trauma survivors may develop a tendency to interpret others' behaviors as hostile (i.e., hostile attribution bias), which in turn may limit their own, and their partner's, empathic abilities within the relationship (i.e., empathic concern and perspective-taking). The present study expands on past research in several ways. First, we examined the accumulation of different forms of interpersonal trauma, since it is known to generate greater and different relational consequences than exposure to a single form of trauma (Arata et al., 2005). Second, unlike previous research focusing on individuals, we study how both partners' trauma histories contribute to their shared dynamic. Third, this study examined, for the first time, a potential pathway from CCIT to both partners' dyadic empathy through hostile attribution bias. Our findings could help therapists identify specific barriers to empathy in couples affected by childhood trauma.

The following hypotheses were examined: One's higher levels of CCIT will be related to their own lower levels of dyadic empathic concern and perspective-taking (Hypothesis 1); one's higher levels of CCIT will be associated with their own higher levels of hostile attribution bias (Hypothesis 2), which will be associated with their own lower levels of dyadic empathic concern and perspective-taking (Hypothesis 3); one's higher levels of CCIT will be indirectly related to their own lower levels of dyadic empathic concern and perspective-taking through their own higher levels of hostile attribution bias (Hypothesis 4). All partner associations were examined in an exploratory manner as empirical support is limited regarding these links. Cohabitation status and relationship length were considered as possible covariates in the main analyses, given their documented associations with various relational outcomes (Totenhagen et al., 2016; Willoughby & Belt, 2016).

Method

Procedure and Participants

The present study is part of a larger research project examining young adult couples' communication and was approved by the

institutional review board of the Université de Montréal. Couples were recruited through online advertisements posted on Facebook. To be eligible, both partners had to (a) be aged between 18 and 29 inclusively, (b) be in a relationship for at least 2 months, (c) understand written and spoken French, (d) have access to a smart cell phone, tablet, or computer to complete online surveys, (e) have access to a computer with a webcam, and (f) have access to a confidential common area with internet. Once eligibility was validated by a phone call from the research team, each participant received by email a personalized link to individually complete self-reports on the online platform Qualtrics, for which each partner was compensated CAN\$10.

A final sample of 190 young adult couples from the general population was thus included in this study. Personal sociodemographic characteristics of the sample can be found in Table 1. Most participants identified as women (53.3%), cisgender (97.1%), heterosexual (67.6%), and White (81.7%) and were currently students (63.7%). Regarding relationship characteristics, most couples (80.7%) were composed of a man and a woman, were living together (49.5%), and had an exclusive relational agreement (88.2%). For more detailed sociodemographic information, see Ramos et al. (2024).

Table 1
Descriptive Statistics of the Sample

Variable	<i>M</i>	<i>SD</i>
Age	23.5	2.8
Variable	<i>n</i>	%
Gender		
Female	201	53.3
Male	161	42.7
Nonbinary, queer, or gender-fluid	12	3.2
Two-spirit	1	0.3
Agender	1	0.3
Chose not to answer	1	0.3
Sexual orientation		
Heterosexual	255	67.6
Gay or lesbian	32	8.5
Bisexual	32	8.5
Pansexual	23	6.1
Heteroflexible	15	4.0
Queer	8	2.1
Other orientations (e.g., demisexual)	8	2.1
Questioning their identities	4	1.1
Occupation		
Students (part- or full-time)	240	63.7
Working (part- or full-time)	116	30.8
Other occupations	21	5.5
Annual income		
Under \$15,000	161	42.7
Between \$15,000 and \$45,000	145	38.4
Over \$45,000	71	18.9
Highest degree completed		
High school diploma	24	6.5
College or professional degree	154	41.5
University degree	193	52.0
Cultural identity		
White	308	81.1
East Asian	12	3.2
Latin American	10	2.7
Other	21	5.5
More than one cultural identity	26	6.9

Measures

CCIT

The short French version of the Childhood Trauma Questionnaire was used to retrospectively measure the frequency of exposure to different forms of trauma experienced as a child or adolescent: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect (Bernstein et al., 2003; Paquette et al., 2004). Three items from Godbout et al. (2017) were added to measure bullying and witnessing physical and psychological intimate partner violence, as they are particularly prevalent in the general population (Dugal et al., 2020). Participants rated each of the 28 items on a 5-point scale ranging from 1 (*never true*) to 5 (*very often true*), with all items being summed to obtain a global score ($\alpha = .92$ in the present study).

Hostile Attribution Bias

The French version of the Social Information Processing Attribution and Emotional Response Questionnaire was used to measure hostile attribution bias (Coccaro et al., 2009; Gagnon et al., 2015). This 32-item questionnaire assesses participants' attributional responses to socially ambiguous actions from individuals in eight vignettes. For each vignette, participants assessed the probability, on a 4-point Likert scale ranging from 0 (*not at all likely*) to 3 (*very likely*), of different types of attribution in order to explain the individual's actions, such as direct hostile attribution (e.g., "My co-worker wanted to burn me with the hot coffee") and indirect hostile attribution (e.g., "My co-worker wanted to make me look 'bad' to the customer"). Since the original validation article demonstrated a high multicollinearity between the direct and indirect subscales, a composite score was obtained by averaging the two dimensions to measure total hostile attribution bias (Coccaro et al., 2009; $\alpha = .86$ in the present study).

Dyadic Empathy

The French version of the Interpersonal Reactivity Index for Couples was used to measure dyadic empathy (Péloquin & Lafontaine, 2010). This 13-item questionnaire measures two components of dyadic empathy: empathic concern (six items; e.g., "I am often quite touched by things I see happen in my relationship") and perspective-taking (seven items; e.g., "When I'm angry at my partner, I usually try to 'put myself in their shoes' for a while"). Participants assessed how well each item described them on a 5-point Likert scale ranging from 0 (*does not describe me very well*) to 4 (*describes me very well*). Global scores for perspective-taking ($\alpha = .81$ in the present study) and empathic concern ($\alpha = .52$ in the present study) were obtained by summing their respective items. The low internal reliability for empathic concern is similar to what was found in the original study, which reported alphas ranging from .55 to .79, depending on the sample. Moreover, the exclusion of problematic items did not increase the α value of more than .04; thus, all items were conserved.

Control Variables

Potential control variables were measured via a sociodemographic questionnaire: relationship length (i.e., in months) and cohabitation status (i.e., 0 = not cohabiting, 1 = cohabiting and/or married).

Data Analyses

Descriptive and correlational analyses were performed using SPSS 26. Main statistical analyses were then performed using Mplus 8 (Muthén & Muthén, 2017). To test our main hypotheses, we relied on the Actor–Partner Interdependence Mediation Model, which allows testing for actor effects while controlling for partner effects, and vice versa (Kenny et al., 2006; Ledermann et al., 2011). Dyads were considered indistinguishable since our sample included both same- and mixed-gender couples, meaning each partner had to be randomly assigned to "Partner 1" or "Partner 2." All parameters were constrained to equality between partners. The significance of indirect effects was verified using confidence intervals (95% CI) with 1,000 bootstrap samples. Given that the CCIT variable was slightly non-normally distributed, which is expected in a sample from the general population, the maximum likelihood robust estimator was used (Muthén & Muthén, 2017). The variables of perspective-taking and empathic concern had 3.16% missing data, while the CCIT and hostile attribution bias variables had 2.89%, which were handled using the full information maximum likelihood estimate (Muthén & Muthén, 2017). For their data to be valid, participants needed to adequately answer at least two of the three attention-testing items (Thomas & Clifford, 2017). In our sample, eight participants (0.02%) did not meet this criterion, and their data were thus considered missing. However, the couples were still included as their partner provided valid data. The following criteria were used to assess the goodness-of-fit of the model: comparative fit index and Tucker–Lewis index values higher than .90, root-mean-square error of approximation value below .05, standardized root-mean-square residual value below .10, and a nonstatistically significant chi-square test (Kline, 2023).

Results

Descriptive Analyses

Descriptive and correlational analyses are presented in Table 2. Within-partner correlations showed that CCIT was positively associated with hostile attribution bias, but not with perspective-taking and empathic concern. Hostile attribution bias was negatively associated with perspective-taking, but not with empathic concern. Finally, perspective-taking was significantly and positively associated with empathic concern. Regarding between-partner correlations, only one significant association was observed between one's perspective-taking and their partner's empathic concern. Cohabitation status and relationship length were significantly and negatively correlated with perspective-taking, but not with empathic concern.

Main Statistical Analyses

We first examined the direct associations between both partners' CCIT and dyadic empathy before the inclusion of hostile attribution bias. This model showed adequate fit indices (comparative fit index = 1.00; Tucker–Lewis index = 1.00; root-mean-square error of approximation = .00; standardized root-mean-square residual = .06), $\chi^2(12) = 11.34, p = .500$. One's CCIT was not significantly linked to their perspective-taking ($\beta = -.09, p = .078$) or their empathic concern ($\beta = .04, p = .460$), nor to their partner's perspective-taking ($\beta = .07, p = .172$) or empathic concern ($\beta = -.03, p = .545$). The final model examining the indirect effects of partners' CCIT and dyadic empathy through hostile attribution bias also showed adequate fit

Table 2
Descriptive and Correlational Analyses

Variable	1	2	3	4	5	6
1. Childhood trauma	.14**	.05	.05	-.01	.05	.01
2. Hostile attribution bias	.23***	.21***	-.07	-.04	-.02	-.04
3. Perspective-taking	-.09	-.23***	.12*	.13*	-.14*	-.13*
4. Empathic concern	.04	-.06	.30***	.09	.02	-.01
5. Cohabitation status	.05	-.02	-.14*	.02	1.00	.44**
6. Relationship length	.01	-.04	-.13*	-.01	.44**	1
<i>M</i>	42.18	12.75	16.83	23.02		34.36
<i>SD</i>	13.22	6.45	4.36	3.40		27.22
Range	28–95	0–33	0–24	12–28		2–147

Note. Actor (within-person) correlations are below the diagonal. Partner correlations (between-partner) are above the diagonal. Correlations on the diagonal are cross-partner associations for the same variable. Cohabitation status was dichotomized (0 = no cohabitation; 1 = cohabitation). Relationship length is in months.

* $p < .05$. ** $p < .01$. *** $p < .001$.

indices (comparative fit index = .94; Tucker–Lewis index = .93; root-mean-square error of approximation = .03; standardized root-mean-square residual = .07), $\chi^2(27) = 32.08$, $p = .229$. Results are presented in Figure 1. One's CCIT was positively and significantly associated with their hostile attribution bias. One's hostile attribution bias was negatively and significantly linked to their own perspective-taking and with their partner's empathic concern. Since they both correlated with perspective-taking in the descriptive analyses, cohabitation status and relationship length were both included at first. However, in this initial model, only cohabitation status was significantly associated with perspective-taking, and fit indices were unsatisfying. To keep the model parsimonious, only cohabitation status was kept as a covariate in the final model. No other significant associations were found.

Results for the indirect associations linking CCIT to perspective-taking and empathic concern via hostile attribution bias are presented in Table 3. One's CCIT was indirectly linked to their perspective-taking through their hostile attribution bias and indirectly associated with their partner's empathic concern via their hostile attribution bias. The other indirect effects examined were not significant. The model explained 1.1% of the variance of empathic concern, 6.9% of the variance of perspective-taking, and 5.2% of the variance of hostile attribution bias.

Discussion

The present study aimed to better understand the pathways through which CCIT may lead to lower empathy toward a romantic partner in order to, ultimately, develop accurate prevention and intervention targets destined to favor positive intimate relationships for individuals with CCIT. Specifically, this study examined, within a dyadic design, the explanatory role of hostile attribution bias in the associations between CCIT and dyadic empathy (i.e., perspective-taking and empathic concern). Findings suggest that one's higher CCIT is related to (a) their lower perspective-taking through their higher hostile attribution bias and (b) their partner's lower empathic concern toward them through the individual's higher hostile attribution bias. Such results clarify the conclusions of previous studies regarding the link between childhood trauma and empathy in romantic relationships. These two constructs do

not seem to be directly related but rather seem to be indirectly linked through hostile attribution bias.

Childhood Trauma and Dyadic Empathy

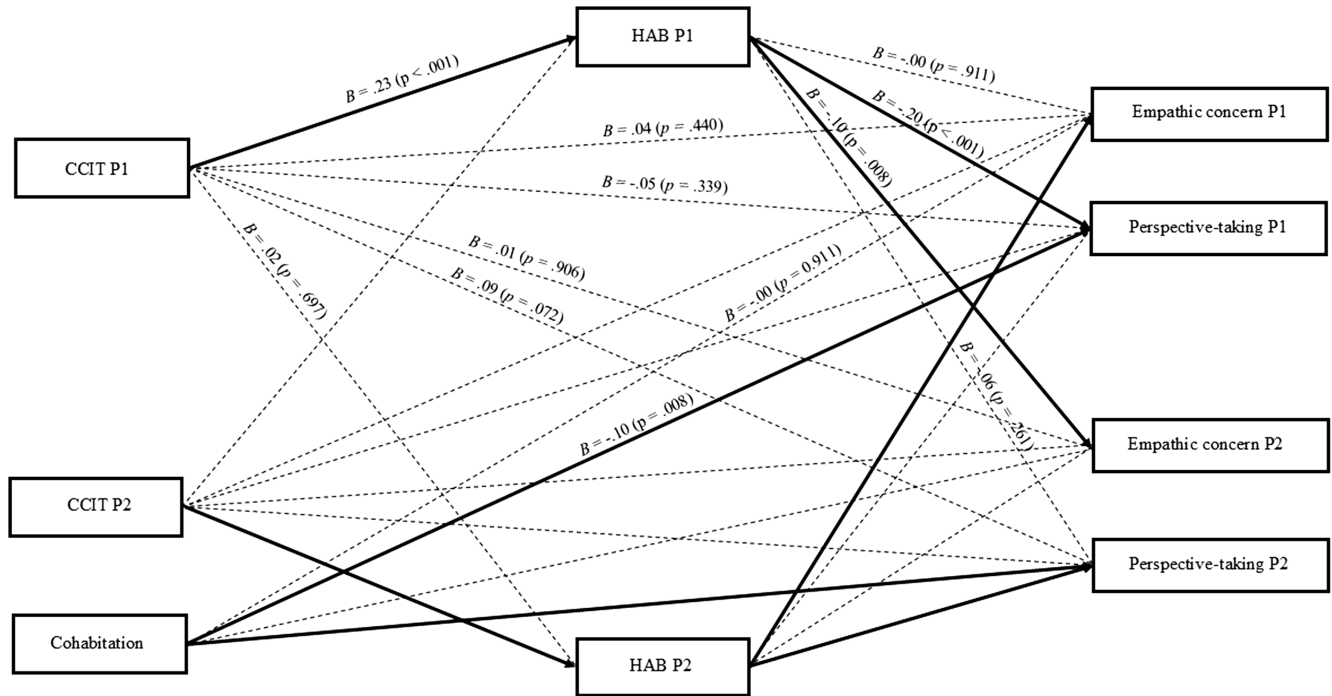
We expected that one's CCIT would be negatively related to their perspective-taking and empathic concern. Contrary to this initial assumption, no direct associations between CCIT and perspective-taking or empathic concern were observed. Partner associations were analyzed in an exploratory manner. No direct associations between one's CCIT and their partner's perspective-taking or empathic concern were observed. These results contradict previous studies that found significant negative associations between different forms of trauma and various types of empathy within couples (Brassard et al., 2022; Maneta et al., 2015; Wolfe et al., 2004). These inconsistencies may suggest that CCIT relates to dyadic empathy in a complex fashion. For instance, past studies found positive links between childhood trauma and general empathy, which might be explained through the higher resilience, coping skills, and hypermentalization that can be observed following a trauma history (Greenberg et al., 2018; Lim & DeSteno, 2016; Vollhardt & Staub, 2011). The existence of various and potentially contrasting pathways from CCIT to dyadic empathy might explain the mixed findings found in past studies and the absence of a significant direct association between these constructs in the present study (Mathieu & Taylor, 2006). Future studies are needed to understand the various explanatory mechanisms that might be at play in the dyadic empathy of individuals with childhood trauma and their partners.

Childhood Trauma, Hostile Attribution Bias, and Dyadic Empathy in Individuals

We expected that one's CCIT would be significantly and positively related to their hostile attribution bias, which would be significantly and negatively linked to their empathic concern and perspective-taking abilities. These assumptions were partially supported. In fact, higher levels of CCIT were linked to higher hostile attribution bias, which in turn was associated with lower perspective-taking, but unrelated to empathic concern. This is in line with past research and congruent with social cognitive theories, which suggest that childhood trauma may be related to a tendency to attribute hostile intentions

Figure 1

Associations Between Cumulative Childhood Interpersonal Trauma, Hostile Attribution Bias, Perspective-Taking, and Empathic Concern



Note. Coefficients are standardized. Covariances were not included to simplify the figure. Dotted lines represent nonsignificant links. Since dyads are indistinguishable, only actor's and partner's coefficients from Partner 1 are presented. CCIT = cumulative childhood interpersonal trauma; HAB = hostile attribution bias; P1 = Partner 1; P2 = Partner 2.

(Price & Glad, 2003; Zhu et al., 2020), which in turn may be linked to empathic difficulties (Maneta et al., 2015). For individuals who tend to attribute hostility to others, it can become threatening to reflect on their romantic partner's point of view (Wolfe et al., 2004), especially within a relational setting in which individuals may feel more emotionally and personally involved (Gehlbach et al., 2012; Wolfe et al., 2004). Conversely, we did not find a significant link between one's hostile attribution bias and empathic concern, suggesting that the latter might not be linked to one's own social cognition processes, as it is part of the affective component of empathy. Indeed, past studies demonstrated

significant associations between attributional biases and cognitive empathy, but not affective empathy (Slavny & Moore, 2018). However, considering the low internal consistency of the empathic concern subscale in this study, these findings should be considered with caution.

Childhood Trauma, Hostile Attribution Bias, and Dyadic Empathy Between Partners

Associations between partners were analyzed in an exploratory manner. We did not observe a significant association between one's CCIT and their partner's hostile attribution bias, as the latter might be more determined by one's own past relational experiences. Results also suggested that one's higher levels of CCIT were linked to their own higher hostile attribution bias, which in turn was associated with their partner's lower empathic concern. Individuals who tend to attribute malicious intent to others may demonstrate more hostile and aggressive behaviors within their relationship (e.g., criticism, contempt), as well as more vivid emotional reactions, which may lead to conflictual interactions (Busby et al., 2011; Coccaro et al., 2009; Ulloa et al., 2017; Wolfe et al., 2004). The partner may, in turn, exhibit negative responses (e.g., counterattacks, defensiveness, emotional distancing), thus limiting the emotional flexibility and openness that are necessary for empathic concern. Since empathic concern is based, in part, on a motivation to care for one's partner (Winczewski et al., 2016), such motivation might be lower for individuals facing hostile attributions, and potentially more negative behaviors, from their

Table 3

Indirect Effects From Cumulative Childhood Interpersonal Trauma to Dyadic Empathy Through Hostile Attributional Bias

Effect	<i>b</i>	95% CI
CCIT P1 → HAB P1 → PT P1	-.01	[-.03, -.01]
CCIT P1 → HAB P1 → EC P1	<.001	[-.00, .00]
CCIT P1 → HAB P1 → PT P2	-.00	[-.01, .00]
CCIT P1 → HAB P1 → EC P2	-.01	[-.01, -.00]
CCIT P1 → HAB P2 → PT P1	<.001	[-.00, .00]
CCIT P1 → HAB P2 → EC P1	<.001	[-.00, .00]
CCIT P1 → HAB P2 → PT P2	-.00	[-.01, .01]
CCIT P1 → HAB P2 → EC P2	<.001	[-.00, .00]

Note. Significant indirect effects are presented in bold. *b* = unstandardized coefficient; CI = confidence interval; CCIT = cumulative childhood interpersonal trauma; P1 = Partner 1; HAB = hostile attribution bias; PT = perspective-taking; EC = empathic concern; P2 = Partner 2.

partner. This is in line with social cognitive theories suggesting that childhood trauma may lead to dysfunctional beliefs that can influence how one interacts in the social world and that can elicit negative reactions from others (Nader, 2006). One's hostile attribution bias was significantly related to their own, but not with their partner's, perspective-taking. In other terms, one's ability to put themselves in their partner's place may be related to their personal cognitive ability to accurately process social information, but not with their partner's.

Overall, our findings suggest the importance of examining empathic concern and perspective-taking separately, since these abilities appear to be related to different processes. Perspective-taking seems to be related to the individual's hostile attribution bias, highlighting an intraindividual process, while empathic concern seems rather associated with the partner's hostile attribution bias, highlighting a relational process. However, this assumption needs to be further explored in future studies, as the reliability of the empathic concern subscale in this study was low. The distinction observed between the two subscales in this study might thus be due to measurement error. The results also emphasize the importance of examining relational phenomena both within individuals and between partners. The dyadic design of the present study sheds light on important associations between CCIT, hostile attribution bias, and dyadic empathy that were overlooked in previous studies that focused on individuals rather than couples.

Limitations and Future Studies

The present study has several limitations, which could be addressed in future studies. First, all variables were measured via self-reported questionnaires, which may introduce social desirability bias, self-evaluation bias, and shared-method variance (Malhotra et al., 2006). Self-evaluation of empathy requires some level of metacognition, which varies across individuals (Murphy & Lilienfeld, 2019), and people tend to rate themselves higher on positive attributes (Alicke, 1985). More robust empathy measures (e.g., behavioral observation, partner report) could be used in future studies to mitigate self-assessment bias. Second, given the internal consistency of empathic concern was low, findings should be replicated with stronger measures to increase confidence in the results. Third, this study used a cross-sectional correlational design, which does not allow causal relationships to be established. The direction of the associations observed should be confirmed in longitudinal studies. Such a design would also limit the impact of recall bias on the measure of CCIT. Fourth, the percentage of the variance explained by the model was low. Although small effect sizes can be expected when studying the repercussions of CCIT in adulthood (less than 5%–6%; Vaillancourt-Morel et al., 2024), it suggests the importance of examining other explanatory mechanisms, such as other cognitive biases or attachment, for instance. Fifth, it is important to note that the sample may not represent the experiences of all young adult couples, as it was mainly composed of White, heterosexual, cisgender students. As associations between CCIT, cognition, and relational processes may vary as a function of developmental stage, cultural background, and relational context, future research that replicates the present study should recruit a more diverse and larger sample to increase the generalizability of the results. Other methods of recruitment could be used (e.g., randomized methods), as recruiting a convenience sample online also limits generalizability (e.g., by recruiting more satisfied couples).

Conclusion

The present study extends previous research by adopting a dyadic design and by using a diverse sample of young adult couples to explore how CCIT relates to dyadic empathy. Our findings suggest that an individual's trauma history is associated with their tendency to attribute hostile intentions, which limits their ability to reflect on their partner's point of view and their partner's ability to feel compassion for them. For those who present difficulties related to dyadic empathy, hostile attributions, which can be modified through clinical interventions (Zeng et al., 2024), might be an interesting therapeutic target to improve not only their empathic abilities but also those of the romantic partner. The knowledge generated by this study may guide the development of, and refine existing, intervention approaches aimed at promoting the maintenance of positive romantic relationships in young adults.

References

- Alicke, M. D. (1985). Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology*, 49(6), 1621–1630. <https://doi.org/10.1037/0022-3514.49.6.1621>
- Arata, C. M., Langhinrichsen-Rohling, J., Bowers, D., & O'Farrell-Swails, L. (2005). Single versus multi-type maltreatment. *Journal of Aggression, Maltreatment & Trauma*, 11(4), 29–52. https://doi.org/10.1300/J146v11n04_02
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., Stokes, J., Handelsman, L., Medrano, M., Desmond, D., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect*, 27(2), 169–190. [https://doi.org/10.1016/S0145-2134\(02\)00541-0](https://doi.org/10.1016/S0145-2134(02)00541-0)
- Brassard, A., Charbachi, N., Claing, A., Godbout, N., Savard, C., Lafontaine, M.-F., & Pélouin, K. (2022). Childhood sexual abuse, dyadic empathy, and intimate partner violence among men seeking psychological help. *Journal of Interpersonal Violence*, 37(23–24), NP22114–NP22134. <https://doi.org/10.1177/08862605211069690>
- Busby, D. M., Walker, E. C., & Holman, T. B. (2011). The association of childhood trauma with perceptions of self and the partner in adult romantic relationships. *Personal Relationships*, 18(4), 547–561. <https://doi.org/10.1111/j.1475-6811.2010.01316.x>
- Cao, H., Zhou, N., & Leerkes, E. M. (2020). Childhood emotional maltreatment and couple functioning among women across transition to parenthood: A process model. *Journal of Family Psychology*, 34(8), 991–1003. <https://doi.org/10.1037/fam0000662>
- Coccaro, E. F., Noblett, K. L., & McCloskey, M. S. (2009). Attributional and emotional responses to socially ambiguous cues: Validation of a new assessment of social/emotional information processing in healthy adults and impulsive aggressive patients. *Journal of Psychiatric Research*, 43(10), 915–925. <https://doi.org/10.1016/j.jpsychires.2009.01.012>
- Cossette-Côté, F., Daigneault, I., Lecomte, T., Francoeur, A., & Brassard, A. (2023). Explaining the association between childhood maltreatment and psychological adjustment in youth in a romantic relationship. *Journal of Child & Adolescent Trauma*, 16(4), 1119–1132. <https://doi.org/10.1007/s40653-023-00562-w>
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115(1), 74–101. <https://doi.org/10.1037/0033-2909.115.1.74>

- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. <https://doi.org/10.1037/0022-3514.44.1.113>
- Dugal, C., Bélanger, C., Brassard, A., & Godbout, N. (2020). A dyadic analysis of the associations between cumulative childhood trauma and psychological intimate partner violence: The mediating roles of negative urgency and communication patterns. *Journal of Marital and Family Therapy*, 46(2), 337–351. <https://doi.org/10.1111/jmft.12414>
- Dugal, C., Bigras, N., Godbout, N., & Bélanger, C. (2016). Childhood interpersonal trauma and its repercussions in adulthood: An analysis of psychological and interpersonal sequelae. In G. El-Baalbaki & C. Fortin (Eds.), *A multidimensional approach to post-traumatic stress disorder—From theory to practice* (pp. 71–109). IntechOpen. <https://doi.org/10.5772/64476>
- Epps, J., & Kendall, P. C. (1995). Hostile attributional bias in adults. *Cognitive Therapy and Research*, 19(2), 159–178. <https://doi.org/10.1007/BF02229692>
- Finkelhor, D., Turner, H., Ormrod, R., & Hamby, S. L. (2009). Violence, abuse, and crime exposure in a national sample of children and youth. *Pediatrics*, 124(5), 1411–1423. <https://doi.org/10.1542/peds.2009-0467>
- Fitzgerald, M., Hamstra, C., & Ledermann, T. (2020). Childhood maltreatment and adult's provisions of emotional support given to family, friends, and romantic partners: An examination of gender differences. *Child Abuse & Neglect*, 106, Article 104520. <https://doi.org/10.1016/j.chiabu.2020.104520>
- Gagnon, J., McDuff, P., Daelman, S., & Fournier, S. (2015). Is hostile attributional bias associated with negative urgency and impulsive behaviors? A social-cognitive conceptualization of impulsivity. *Personality and Individual Differences*, 72, 18–23. <https://doi.org/10.1016/j.paid.2014.08.011>
- Gehlbach, H., Brinkworth, M. E., & Wang, M.-T. (2012). The social perspective taking process: What motivates individuals to take another's perspective? *Teachers College Record*, 114(1), 1–29. <https://doi.org/10.1177/016146811211400108>
- Godbout, N., Bigras, N., & Sabourin, S. (2017). *Childhood Cumulative Trauma Questionnaire* [Unpublished manuscript]. Université du Québec à Montréal.
- Greenberg, D. M., Baron-Cohen, S., Rosenberg, N., Fonagy, P., & Rentfrow, P. J. (2018). Elevated empathy in adults following childhood trauma. *PLOS ONE*, 13(10), Article e0203886. <https://doi.org/10.1371/journal.pone.0203886>
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. Guilford Press.
- Kline, R. B. (2023). *Principles and practice of structural equation modeling* (5th ed.). Guilford Press.
- Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. *Structural Equation Modeling*, 18(4), 595–612. <https://doi.org/10.1080/10705511.2011.607099>
- Li, M., He, Q., Zhao, J., Xu, Z., & Yang, H. (2022). The effects of childhood maltreatment on cyberbullying in college students: The roles of cognitive processes. *Acta Psychologica*, 226, Article 103588. <https://doi.org/10.1016/j.actpsy.2022.103588>
- Lim, D., & DeSteno, D. (2016). Suffering and compassion: The links among adverse life experiences, empathy, compassion, and prosocial behavior. *Emotion*, 16(2), 175–182. <https://doi.org/10.1037/emo0000144>
- Malhotra, N. K., Kim, S. S., & Patil, A. (2006). Common method variance in research: A comparison of alternative approaches and a reanalysis of past research. *Management Science*, 52(12), 1865–1883. <https://doi.org/10.1287/mnsc.1060.0597>
- Maneta, E. K., Cohen, S., Schulz, M. S., & Waldinger, R. J. (2015). Linkages between childhood emotional abuse and marital satisfaction: The mediating role of empathic accuracy for hostile emotions. *Child Abuse & Neglect*, 44, 8–17. <https://doi.org/10.1016/j.chiabu.2014.07.017>
- Marshall, E. M., & Kuijer, R. G. (2017). Weathering the storm? The impact of trauma on romantic relationships. *Current Opinion in Psychology*, 13, 54–59. <https://doi.org/10.1016/j.copsyc.2016.04.013>
- Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in organizational behavior. *Journal of Organizational Behavior*, 27(8), 1031–1056. <https://doi.org/10.1002/job.406>
- Melloni, M., Lopez, V., & Ibanez, A. (2014). Empathy and contextual social cognition. *Cognitive, Affective & Behavioral Neuroscience*, 14(1), 407–425. <https://doi.org/10.3758/s13415-013-0205-3>
- Murphy, B. A., & Lilienfeld, S. O. (2019). Are self-report cognitive empathy ratings valid proxies for cognitive empathy ability? Negligible meta-analytic relations with behavioral task performance. *Psychological Assessment*, 31(8), 1062–1072. <https://doi.org/10.1037/pas0000732>
- Muthén, L. K., & Muthén, B. O. (2017). *Mplus user's guide* (8th ed.).
- Nader, K. O. (2006). Childhood trauma: The deeper wound. In J. P. Wilson (Ed.), *The posttraumatic self* (1st ed., pp. 117–156). Routledge.
- Nelson, B. S., & Wampler, K. S. (2000). Systemic effects of trauma in clinic couples: An exploratory study of secondary trauma resulting from childhood abuse. *Journal of Marital and Family Therapy*, 26(2), 171–184. <https://doi.org/10.1111/j.1752-0606.2000.tb00287.x>
- Paquette, D., Laporte, L., Bigras, M., & Zoccolillo, M. (2004). Validation de la version française du CTQ et prévalence de l'histoire de maltraitance [Validation of the French version of the CTQ and prevalence of the history of maltreatment]. *Santé Mentale au Québec*, 29(1), 201–220. <https://doi.org/10.7202/008831ar>
- Péloquin, K., & Lafontaine, M.-F. (2010). Measuring empathy in couples: Validity and reliability of the Interpersonal Reactivity Index for couples. *Journal of Personality Assessment*, 92(2), 146–157. <https://doi.org/10.1080/00223890903510399>
- Péloquin, K., Lafontaine, M.-F., & Brassard, A. (2011). A dyadic approach to the study of romantic attachment, dyadic empathy, and psychological partner aggression. *Journal of Social and Personal Relationships*, 28(7), 915–942. <https://doi.org/10.1177/0265407510397988>
- Price, J. M., & Glad, K. (2003). Hostile attributional tendencies in maltreated children. *Journal of Abnormal Child Psychology*, 31(3), 329–343. <https://doi.org/10.1023/A:1023237731683>
- Qiu, Y., Sun, Q., Wu, B., & Li, F. (2024). Is high exposure to antisocial media content associated with increased participation in malicious online trolling? exploring the moderated mediation model of hostile attribution bias and empathy. *BMC Psychology*, 12(1), Article 401. <https://doi.org/10.1186/s40359-024-01898-0>
- Ramezani, A., Ghamari, M., Jafari, A., & Aghdam, G. F. (2020). The effectiveness of a ToM training program in promoting empathy between married couples. *Journal of Couple & Relationship Therapy*, 19(1), 1–25. <https://doi.org/10.1080/15332691.2019.1620145>
- Ramos, B., Emond, M., Pudelko, A. H., Vaillancourt-Morel, M.-P., & Daspe, M.-E. (2024). “That’s just how I am”: How partners’ personality relates to intimate partner violence, and the moderating role of cumulative childhood trauma. *Journal of Family Violence*. Advance online publication. <https://doi.org/10.1007/s10896-024-00788-8>
- Slavny, R. J. M., & Moore, J. W. (2018). Individual differences in the intentionality bias and its association with cognitive empathy. *Personality and Individual Differences*, 122, 104–108. <https://doi.org/10.1016/j.paid.2017.10.010>
- Thomas, K. A., & Clifford, S. (2017). Validity and Mechanical Turk: An assessment of exclusion methods and interactive experiments. *Computers in Human Behavior*, 77, 184–197. <https://doi.org/10.1016/j.chb.2017.08.038>
- Totenhagen, C. J., Butler, E. A., Curran, M. A., & Serido, J. (2016). The calm after the storm. *Journal of Social and Personal Relationships*, 33(6), 768–791. <https://doi.org/10.1177/0265407515597562>
- Ulloa, E. C., Hammett, J. F., Meda, N. A., & Rubalcava, S. J. (2017). Empathy and romantic relationship quality among cohabitating couples. *The Family Journal*, 25(3), 208–214. <https://doi.org/10.1177/1066480717710644>
- Vaillancourt-Morel, M.-P., Bussières, É.-L., Nolin, M.-C., & Daspe, M.-È. (2024). Partner effects of childhood maltreatment: A systematic review and meta-analysis. *Trauma, Violence & Abuse*, 25(2), 1150–1167. <https://doi.org/10.1177/15248380231173427>

- Vollhardt, J. R., & Staub, E. (2011). Inclusive altruism born of suffering: The relationship between adversity and prosocial attitudes and behavior toward disadvantaged outgroups. *American Journal of Orthopsychiatry*, 81(3), 307–315. <https://doi.org/10.1111/j.1939-0025.2011.01099.x>
- Willoughby, B. J., & Belt, D. (2016). Marital orientation and relationship well-being among cohabiting couples. *Journal of Family Psychology*, 30(2), 181–192. <https://doi.org/10.1037/fam0000150>
- Winczewski, L. A., Bowen, J. D., & Collins, N. L. (2016). Is empathic accuracy enough to facilitate responsive behavior in dyadic interaction? Distinguishing ability from motivation. *Psychological Science*, 27(3), 394–404. <https://doi.org/10.1177/0956797615624491>
- Wolfe, D. A., Wekerle, C., Scott, K., Straatman, A.-L., & Grasley, C. (2004). Predicting abuse in adolescent dating relationships over 1 year: The role of child maltreatment and trauma. *Journal of Abnormal Psychology*, 113(3), 406–415. <https://doi.org/10.1037/0021-843X.113.3.406>
- Zeng, K., Cao, F., Wu, Y., Zhang, M., & Ding, X. (2024). Effects of interpretation bias modification on hostile attribution bias and reactive cyber-aggression in Chinese adolescents: A randomized controlled trial. *Current Psychology*, 43(3), 2373–2386. <https://doi.org/10.1007/s12144-023-04433-3>
- Zhang, H., Gao, X., Liang, Y., Yao, Q., & Wei, Q. (2024). Does child maltreatment reduce or increase empathy? A systematic review and meta-analysis. *Trauma, Violence & Abuse*, 25(1), 166–182. <https://doi.org/10.1177/15248380221145734>
- Zhu, W., Chen, Y., & Xia, L.-X. (2020). Childhood maltreatment and aggression: The mediating roles of hostile attribution bias and anger rumination. *Personality and Individual Differences*, 162, Article 110007. <https://doi.org/10.1016/j.paid.2020.110007>

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