

## The Impact of Betrayal Trauma on the Tendency to Trust

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Early experiences of violation perpetrated by close others, or betrayal traumas, may interfere with developing social capacities, including the ability to make healthy decisions about whom to trust. Betrayal trauma theory posits that survivors of trauma are at increased risk of making inaccurate trust decisions in interpersonal contexts, thus interfering with intimacy and elevating risk for revictimization. The current study examined the impact of betrayal trauma exposure on trust tendencies using both self-report and behavioral measures in a college sample. Self-report measures were used to explore general and relational (partner-specific) trust. The Trust Game, an experimental economics task, was used to investigate differences in trust tendencies between participants with and without histories of high betrayal trauma. As predicted, and in line with previous findings, high betrayal trauma exposure was associated with lower levels of self-reported general and relational trust. Self-reported general trust correlated positively with behavior during the Trust Game. Contrary to our hypothesis, participants with high betrayal trauma histories were not significantly more or less willing to trust during the Trust Game. Future directions and clinical implications are discussed.

*Keywords:* trauma, betrayal, trust, childhood abuse

Betrayal trauma, or trauma perpetrated by a close other, is a disturbingly common occurrence that is associated with a myriad of long-term consequences (DePrince et al., 2012). One type of betrayal trauma is childhood sexual abuse. The Children's Bureau estimates one in four girls and one in six boys will experience some form of sexual abuse before reaching the age of 18 (U.S. Department of Health and Human Services, 2010). Perhaps even more alarming than the prevalence of child maltreatment is that someone the child knows commonly perpetrates this horrific crime. A recent study found that 96% of abused children under the age of 12 knew their abuser (U.S. Department of Health and Human Services, 2010).

Betrayal trauma theory (Freyd, 1996) suggests that individuals cope with traumatic betrayals, such as childhood sexual abuse, by blocking awareness for the betrayal. This betrayal blindness allows the dependent individual to persist in critical attachment bonds. Although betrayal blindness can be adaptive in abusive contexts, its overutilization can increase vulnerability for victimization in later relationships, perhaps by interfering with the ability to make wise decisions about trust.

When a child is repeatedly betrayed, the development of healthy trust decisions is likely to be disrupted. The child's ability to detect the trustworthiness of others may be impaired due to betrayal blindness, thus increasing risk of revictimization (Gobin & Freyd, 2009). In addition to disrupting the ability to make wise decisions about the trustworthiness of others, betrayed children may end up with a general bias such that they are either overly trusting adults or, alternatively, they are unwilling to trust others, even those they should.

Although many have theorized, from a developmental perspective, about the impact of trauma on the capacity for trust (e.g., Finkelhor & Browne, 1985; Cole & Putnam, 1992; van der Kolk, 1996), there has been little empirical attention paid to trust tendencies among adults with histories of high betrayal trauma (HBT; e.g., Lau & Kristensen, 2010; Jurgens, 2005; DiLillo & Long, 1999). The few investigations that exist in this area have shown that early betrayal trauma results in high levels of distrust. Given these findings, it is curious that such a high revictimization rate exists among adult survivors of betrayal trauma. It would seem that being overly trusting would put people at greater risk of victimization, whereas being distrustful would be protective against exploitation. However, a closer analysis suggests that the greatest risk arises from inaccuracy in trust decisions rather than an overall bias. Zurbriggen and Freyd (2004) have suggested that traumatic betrayals damage cognitive mechanisms that allow individuals to accurately judge the trustworthiness of another and that this deficit could result in trusting untrustworthy persons, thus increasing risk for further violation. In support of Zurbriggen and Freyd's (2004) theory, Gobin and Freyd (2009) found that survivors of HBT were more likely to stay in a romantic partnership after the occurrence of a betrayal of trust.

Prior investigations exploring trust in participants with histories of abuse have relied solely on self-report methods, which may or

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may not accurately reflect behavioral trust tendencies in real life. Using self-report and behavioral methods, the present study examined general trust tendencies as well as trust in romantic partners in order to gain a clearer understanding of the impact of HBT on trust. According to Zurbriggen and Freyd (2004), early traumatic experience high in betrayal may result in the suppression of their innate adeptness at identifying dishonesty and unfairness (termed *cheater detector* by Cosmides & Tooby, 1992). Suppressing the inborn cheater detector (through the use of dissociation) for prolonged periods can interfere with the ability to accurately perceive the extent to which others are worthy of trust. Based on this framework, the present study explored the role of betrayal trauma in the tendency to trust.

The present study explored differences in tendencies to trust among participants with and without HBT. Because researchers have proposed a distinction between general trust and relational trust (e.g., Johnson-George & Swap, 1982), the present study was concerned with understanding the impact of interpersonal trauma on both general and relational trust tendencies. Understanding the impact of betrayal trauma on the ability to make wise decisions about the trustworthiness of others will inform intervention strategies addressing interpersonal functioning and revictimization risk. The current study extends previous research by using the Trust Game (Berg, Dickhaut, & McCabe, 1995), an economics experimental paradigm involving money transfers, to investigate the unique impact of trauma high in betrayal on trust.

The current investigation was concerned with the ways that betrayal traumas may cause disturbances in trust judgments. It was predicted that behavior during the Trust Game would provide a glimpse into the trust decisions participants make in real-life relationships that may involve risk for revictimization. The following hypotheses were tested in the current study:

1. Survivors of HBT were expected to exhibit extreme interpersonal trust tendencies (i.e., transfer very low or very high amounts) during the Trust Game compared to participants who did not report the experience of HBT.
2. HBT survivors were expected to self-report lower interpersonal trust tendencies (i.e., general and relational trust) than participants without a history of HBT.
3. A positive correlation was expected between self-report and behavioral measures of general trust for the entire sample.

## Method

### Participants

Participants were 216 undergraduate women ( $n = 144$ ), men ( $n = 70$ ), "others" ( $n = 2$ ) currently attending a university in the Pacific northwest. Approximately 79% of the sample identified as White, while 90% indicated a heterosexual orientation. Participant age ranged from 17 to 50 or older ( $M = 20.06$  years,  $SD = 2.99$ ). The majority of participants indicated they were either single (53%) or dating (42%). Participants were recruited online through the Department of Psychology's human subjects pool. The human subjects pool is primarily comprised of undergraduates enrolled in

introductory psychology courses. All participants received academic credit in partial fulfillment of a research participation requirement. Additionally, participants were offered a \$10 award for their participation. Participants elected to participate in the current study based on schedule availability. Individuals did not self-select into the study based on content knowledge. Prior to participant recruitment, human subjects approval was granted by the university Office for the Protection of Human Subjects.

### Study Measures

**Demographics questionnaire.** Participants answered questions about ethnic identification, age, sex, sexual orientation, current relationship status, and length of current or most recent romantic partnership.

**The Trust Game.** Originally developed by experimental economists Berg et al. (1995), the Trust Game was designed to evaluate trust and reciprocity within an investment framework. The Trust Game used in the current study was modified from the computerized version by Baumgartner, Heinrichs, Vonlanthen, Fischbacher, and Fehr (2008). Prior to playing the game, participants were informed that they would be given \$10 for participating in the study and given instructions for the Trust Game (described to participants as the "Investment Game"). To create a sense of social interaction that facilitates trusting behavior, it was important for participants to believe they were playing with a human partner. Thus, participants were told they would be interacting anonymously with an online partner for the duration of the Trust Game. However, in reality, computer-generated responses were used during the Trust Game. The computer system was programmed to return \$1 to each participant, regardless of the amount the participant transferred. This betrayal was perpetrated in the context of the study to explore participants' reactions to betrayal as well as their ability to label betrayal accurately.

Participants interacted with their partner through keyboard clicks. The first screen of the Trust Game invited the participant to transfer any integer of his or her research participation award to the online partner. During the Trust Game, participants transferred money with the knowledge that the transferred amount would be tripled in the online partner's account, and the partner would be given the opportunity to transfer a portion of the earnings back to the participant. Once participants transferred a portion of their research participation reward, a brief delay occurred while the computer informed participants their partner was deciding how much money to return to the participant. Subsequently, participants were informed their online partner decided to return \$1. Thereafter, participants were notified about the partner's desire to play another round of the Trust Game. After agreeing or disagreeing to play a second round, the participant was informed that his or her partner had logged out.

**Game Reactions Questionnaire.** The Game Reactions Questionnaire is a 3-item measure that was designed by the authors to assess the extent to which participants believed they were playing with a human partner. Given three response choices (*yes*, *no*, and *uncertain*), participants were asked to judge the online partner's authenticity, level of affiliation with the research team, and humanness. A sample item includes, "While playing the game, I felt I was playing with an authentic person; playing for real."

**Brief Betrayal Trauma Survey.** The Brief Betrayal Trauma Survey (BBTS; Goldberg & Freyd, 2006) is a 12-item self-report measure that assesses the experience of life-threatening trauma at three time-points. For each item, participants are asked if they experienced the event before age 12, between ages 12–17, and at age 18 and older. Items include exposure to noninterpersonal trauma, direct exposure to interpersonal violence, and witnessing interpersonal violence. Items are categorized into three levels of betrayal: HBT (e.g., traumas perpetrated by someone with whom the respondent was very close), medium betrayal trauma (MBT; e.g., traumas perpetrated by someone with whom the respondent was not very close), and low betrayal trauma (LBT; e.g., natural disasters) (Goldberg & Freyd, 2006). The BBTS has shown good convergent validity (Goldberg & Freyd, 2006). The reported 3-year test–retest reliability of the BBTS is 83% for events that occurred during childhood and 75% for events that occurred in adulthood (Goldberg & Freyd, 2006). In the current sample, 54% of participants reported experiencing some type of trauma. These rates of trauma are similar to those reported by other researchers using the BBTS with college samples (e.g., Kaehler & Freyd, 2009).

**General Trust Scale.** The General Trust Scale (GTS; Siegrist, Keller, Barle, & Gutscher, 2005) is a 10-item self-report instrument that measures general trust defined as “the conviction that most people can be trusted most of the time.” Presented with statements expressing beliefs about the trustworthiness of “most people,” participants indicated their level of agreement using response categories that ranged from *agree entirely* to *disagree entirely*. The internal consistency of the GTS is strong ( $\alpha = .87$ ). The GTS has strong convergent validity, and has shown strong correlations (e.g.,  $r = .76$ ) with other measures of general trust (Siegrist, Keller, Barle, & Gutscher, 2005).

**Dyadic Trust Scale.** The Dyadic Trust Scale (DTS; Larzelere & Huston, 1980) is an 8-item inventory that measures interpersonal trust in a romantic partner. Participants were provided with a series of trust statements and asked to indicate the degree to which they agreed with each statement on a 5-point Likert scale, ranging from *strongly disagree* to *strongly agree*. The DTS is highly reliable, with an internal consistency alpha of .93 and item-total correlations ranging from .72–.89 (Larzelere & Huston, 1980).

## Procedure

Data were collected using web-based survey software. After providing informed consent, participants were asked to confirm that they understood they would receive a \$10 research participation reward on completion of all measures. Subsequently, participants read Trust Game instructions and were invited to play the Trust Game. After playing the Trust Game, participants completed a series of self-report measures to assess their reactions to the Trust Game, history of betrayal trauma, and levels of general and relational trust. All participants were presented with a computerized debriefing form on completion of the self-report instruments.

## Results

### Rates of Victimization

Participants' responses on the BBTS were coded for the experiences of LBT, MBT, and HBT. Each participant was

given a score on each of the categories by summing the number of items endorsed within each category, regardless of the developmental level (e.g., childhood [ages 0–11], adolescence [ages 12–17], adulthood [age 18 or older]) at which the trauma occurred. Recall that the mean age of participants in the sample was 20.06 years ( $SD = 2.99$ ). A majority of the sample (54%) reported the experience of one or more betrayal traumas while 46% of the sample did not endorse a betrayal trauma. A total of 76 participants endorsed HBT. Although six individuals only experienced HBT in adulthood, 70 experienced HBT early in life (i.e., during childhood and/or adolescent years). Of those participants, 29 (41%) were revictimized. An individual was considered revictimized if HBT was endorsed at two or more developmental levels (i.e., during childhood and adolescence, childhood and adulthood, adolescence and adulthood, or childhood, adolescence, and adulthood).

### Hypothesis 1: HBT History and Trust Game Transfer Amount

To test the hypothesis that HBT survivors would exhibit extreme trust tendencies during the Trust Game, a quartile split was performed and individuals were grouped into three categories: participants with transfer amounts in the 25th percentile, participants with transfer amounts in the 50th percentile, and participants with transfer amounts in the 75th percentile. A  $2 \times 3$  chi-square test of independence was then performed to examine the relationship between HBT history (HBT or NHBT [no high betrayal trauma]) and transfer amount (categorized into quartiles). The test revealed that the two variables were independent of one another,  $\chi^2(2) = 0.98$ ,  $p = .61$ ,  $\phi = 0.07$ . That is, HBT survivors are no more likely than NHBT survivors to appear in the highest and lowest quartiles of the transfer amount variable.

A one-way analysis of variance (ANOVA) was used to test mean differences in transfer amount among participants who experienced no betrayal trauma (NBT), LBT, MBT, and HBT. Only individuals who experienced LBT were included in the LBT group. Individuals who reported MBT, but no HBT were included in the MBT group, even if they reported experiences of LBT. Similarly, individuals who reported HBT were included in the HBT group, regardless of their experience of MBT and LBT. A significant omnibus effect was not observed,  $F(3, 212) = 0.23$ ,  $p = .88$ ,  $\eta^2 = 0.00$ . Both the LBT and MBT groups transferred the largest amount of money during the Trust Game ( $M = \$5.88$ ,  $SD = 3.33$  and  $SD = 2.36$ , respectively). On average, individuals who experienced no betrayal trauma transferred \$5.78 ( $SD = 2.84$ ) while individuals who endorsed HBT transferred the least amount of money ( $M = \$5.47$ ,  $SD = 2.88$ ). Overall, there was a 31-cent difference among those who experienced HBT and those who did not endorse any history of betrayal trauma.

### Hypothesis 2: Differences in Self-Reported General and Relational Trust

A one-way ANOVA was used to explore differences among the NBT, LBT, MBT, and HBT groups. Polynomial linear contrasts were planned to explore mean differences among the groups. Results showed a marginally significant omnibus effect,  $F(3, 212) = 2.27$ ,  $p = .08$ ,  $\eta^2 = 0.03$ . Although the omnibus effect

was not statistically significant, we focus here on the contrast of interest as is appropriate according to Rosenthal, Rosnow, and Rubin (2000). The linear contrast was significant,  $F(1, 212) = 4.15, p = .04, \eta^2 = 0.02$ . The highest rates of general trust were observed in the NBT group ( $M = 28.86, SD = 4.51$ ), followed by the LBT group ( $M = 28.33, SD = 4.45$ ), a further decline in the MBT group ( $M = 28.50, SD = 4.07$ ), with the lowest level of self-reported general trust in the HBT group ( $M = 26.94, SD = 5.59$ ). Post hoc contrasts using Tukey's honestly significant difference tests showed that the difference between the NBT and HBT groups was marginally significant ( $p = .05$ ).

A one-way ANOVA with a Brown-Forsythe correction for homogeneity of variances revealed a statistically significant omnibus effect for self-reported relational trust among the NBT, LBT, MBT, and HBT groups,  $F(3, 99.199) = 3.87, p = .01, \eta^2 = 0.05$ . Examination of the pattern of means revealed that the HBT group had the lowest levels of relational trust ( $M = 27.53, SD = 7.23$ ), followed by the MBT group ( $M = 29.19, SD = 6.08$ ) and the NBT group ( $M = 29.42, SD = 6.02$ ), while the LBT group had the highest rates of relational trust ( $M = 32.04, SD = 4.27$ ). Post hoc comparisons using Games-Howell tests for unequal variances revealed a significant difference between the LBT and HBT groups ( $p = .002$ ). The difference between the NBT and LBT groups approached statistical significance ( $p = .077$ ).

### Hypothesis 3: Relationship Between Self-Report and Behavioral Measures of Trust

A significant positive correlation was observed between transfer amount and scores on the GTS,  $r(216) = 0.14, p = .04$ . Scores on the GTS had a low positive correlation with scores on the DTS,  $r(216) = 0.08, p = .25$ . Scores on the DTS and Trust Game transfer amount were not significantly correlated,  $r(216) = 0.06, p = .41$ .

### Manipulation Check for the Trust Game

On completion of the Trust Game and self-report measures, participants were asked to reflect on their interactions with their partner and to answer questions about their partner's authenticity, affiliation with the research team, and humanness (i.e., the extent to which they believed they were playing with a human partner).

**Beliefs about partner authenticity and HBT.** Examination of descriptive statistics revealed a greater part of the sample (69%,  $n = 151$ ) believed their partner was not authentic, while 16% ( $n = 35$ ) believed they were playing with an authentic partner and 14% ( $n = 30$ ) reported uncertainty about their partners' authenticity. A  $2 \times 3$  chi-square test of independence revealed a link between HBT history and beliefs about partner authenticity,  $\chi^2(2) = 6.97, p = .03$ , Cramér's  $V = 0.18$ . The linear-by-linear association between the two variables was significant ( $p = .01$ ). Compared to about 8% of participants who reported HBT, about 21% of participants without a HBT history reported the belief that their partner was authentic. This finding suggests participants who reported histories of HBT were less likely to believe they were playing with an authentic partner.

**Beliefs about partner affiliation with the research team and HBT.** A greater portion (60%,  $n = 130$ ) of participants reported the belief that they were not playing the Trust Game with a

member of the research team, while 22% ( $n = 47$ ) of the sample believed they were playing the Trust Game with a member of the research team and 18% ( $n = 39$ ) were uncertain about their partner's affiliation with the research team. There was no relationship between HBT history and beliefs about the partner's affiliation with the research team,  $\chi^2(2) = 0.23, p = .89$ , Cramér's  $V = 0.33$ .

**Beliefs about partner humanness and HBT.** A majority of the sample (72%,  $n = 156$ ) reported the belief that their partner was not human, while 16% ( $n = 34$ ) of participants believed they were playing the Trust Game with a human partner and 12% ( $n = 26$ ) were uncertain whether they were playing with a human partner. A statistically significant relationship was observed between HBT history and beliefs about partner humanness such that a higher percentage (21%,  $n = 29$ ) of participants without HBT histories believed that their partner was human, compared to 7% ( $n = 5$ ) of participants who endorsed HBT,  $\chi^2(2) = 7.42, p = .02$ , Cramér's  $V = 0.18$ . Although the majority of both the HBT ( $n = 61$ ) and NHBT ( $n = 95$ ) groups reported the belief that their partner was *not human*, the belief was more pronounced in the HBT group (80% vs. 68%). A similar percentage of the HBT (13%) and NHBT (11%) groups reported uncertainty about partner humanness.

### Discussion

The purpose of this study was to examine the interpersonal consequences of trauma perpetrated by close others. Consistent with previous research, results from self-report data showed that survivors of HBT are less trusting of people in general and also less trusting of romantic partners. In contrast, survivors of HBT did not display more or less trusting behaviors than those without a history of HBT during the Trust Game. A positive correlation was observed between behavior during the Trust Game and self-reported general trust. Taken together, the findings of the current study showed HBT survivors self-report difficulty trusting others, but displayed moderate levels of trust during an economics task involving investing money with no physical interaction with a human relational partner. Findings suggest HBT experiences may result in low propensities to trust, but trust difficulties may be mitigated by situations where trust is impersonal.

Based on the predictions made by betrayal trauma theory, HBT survivors were hypothesized to exhibit extreme interpersonal trust tendencies during the Trust Game. Extreme trust tendencies were operationalized as transferring very high or very low amounts during the Trust Game. Contrary to this hypothesis, HBT survivors were not more likely to transfer extreme amounts during the Trust Game. This finding may be attributable to the context of trust decisions during the Trust Game. The relational dynamics during the Trust Game might have been too dissimilar from the contexts in which participants make trust decisions. In the present study, participants display trust by transferring a portion of their \$10 research participation reward to an anonymous online partner for the purpose of earning money. Trust decisions in other relational contexts are typically made with different motives and varying amounts of prior information about the trustworthiness of the relational partner.

The lack of information provided to participants about the identity of their partner may have also contributed to our findings.

Although other researchers have used variations of the Trust Game involving anonymous interactions among partners, these investigations differed from the current study in that participants were told whether they were playing with a computer or a human partner (e.g., Zak, 2008; Baumgartner et al., 2008). Previous research has shown that individuals are less likely to trust when the outcome depends on another person, and are more likely to trust when the outcome is due to chance or nature (Bohnet & Zeckhauser, 2004). This phenomenon has been termed *betrayal aversion*. According to economic theorists, individuals are more likely to take a risk when the outcome is controlled by nature because (a) they care about outcomes benefiting someone else and (b) individuals prefer to avoid betrayal costs or psychological losses associated with betrayal (Bohnet, Greig, Herrmann, & Zeckhauser, 2008). Given that the majority of the sample (79%) did not believe they were playing with a human partner, it is probable that differences in behavioral trust existed between the HBT and NHBT groups in the present study, but were undermined by a lack of betrayal aversion among participants. Future research should explore this hypothesis.

A marginally significant difference was found between self-reported general trust tendencies for participants with an HBT history, compared to participants without a history of HBT. HBT survivors reported lower levels of general trust. This finding is consistent with previous research that has shown higher levels of general mistrust among participants with experiences of early betrayal trauma (Lau & Kristensen, 2010; Gobin & Freyd, 2009; Jurgens, 2005). A recent study revealed that lower levels of oxytocin in adult women who reported experiences of childhood maltreatment (Heim et al., 2009). Thus, one explanation for the finding of lower trust tendencies among participants with HBT is that early childhood maltreatment decreases levels of the hormones that play seminal roles in mediating trust, resulting in decreased trust among participants with histories of HBT.

A significant difference in relational trust (i.e., trust in a romantic partner) was observed between the LBT and HBT groups. HBT survivors reported the lowest levels of relational trust. Taken together, the findings regarding self-reported trust and HBT provide support for predictions made by betrayal trauma theory. Specifically, the theory posits that trauma perpetrated by close others may result in difficulties deciphering trustworthiness. In the present study, of all the trauma groups, HBT survivors reported the highest levels of distrust in both romantic partners and other people in general. It is possible that survivors of early interpersonal trauma never fully develop the capacity to make accurate trust judgments or they lose faith in the reliability of their trust judgments, and, as a result, are unwilling to trust anyone. Future study is required to explore these ideas. Specifically, it will be important for future research to explore differences between willingness to trust and the ability to make accurate trust judgments. It is probable that both play a key role in later interpersonal functioning and revictimization risk among survivors of early betrayal trauma.

As predicted, a significant positive relationship was observed between self-reported trust on the General Trust Scale and transfer amount during the Trust Game. This indicates that the Trust Game may be measuring general trust. Moreover, this result indicates that individuals who tend to believe in the benevolence of others also transfer more money during the Trust Game. Nonetheless, the relationship between self-reported general trust and transfer

amount during the Trust Game should be interpreted with caution because the results indicate that an overwhelming majority of the sample did not believe they were playing with a human partner. The nonsignificant relationship observed between self-reported general trust and relational trust is consistent with Larzelere and Huston's (1980) finding that trust in a specific other is quantitatively distinct from general beliefs about the trustworthiness of others.

### Study Limitations and Future Directions

The findings of the current study provide valuable information about the role of HBT on trust—a socioemotional factor that can impair optimal interpersonal functioning. Despite the foundation this work has set for future investigations, it is important to note general limitations of this study to enhance the impact of future research. First, the sample was composed of young adults currently enrolled in college. This high-functioning sample may limit the generalizability of findings to community and clinical samples. The limitations of the sample with regard to demographic variables, such as age and socioeconomic status, make it difficult to explore how the relationship between HBT and trust may vary as a function of such person-level characteristics.

The current investigation relied on retrospective self-reports of betrayal trauma history. The validity of the current findings could be threatened by false-negative reports (Fergusson, Horwood, & Woodward, 2000). It may be important to corroborate participants' self-reports or to use prospective research designs in future investigations.

Although the self-report and behavioral measures of general trust related in predicted ways, the failure of the Trust Game to distinguish between HBT survivors (who self-reported tendencies toward mistrust) and those who did not report a history of HBT (who self-reported higher trust propensities) raises questions about its validity. Based on the lack of significant group differences with regard to behavioral trust, the current study does not explain much about the impact of betrayal trauma on behavioral trust. It is possible that the modified procedures for the Trust Game used in the present study detracted from the ability of the method to detect differences between the groups. A greater part of the sample did not believe they were playing with a human partner. Thus, it will be important for future investigations to provide details about the partner's identity (i.e., human or computer) in an effort to examine the roles of betrayal aversion and partner intimacy on actions during the Trust Game. Future studies might also benefit from the use of other behavioral measures of trust. The Trust Game, which is essentially an investment game, might depart too much from the type of trust decisions survivors of HBT make that include vulnerability for revictimization. The use of behavioral measures of trust, which include contextual factors that resemble dating environments (e.g., requiring participants to accept or refuse a date from a potential romantic partner as opposed to trading money), may be more fitting for explorations of behavioral trust among survivors of HBT.

Data for the current study was collected online. Although participation in natural contexts may lessen response bias, the lack of structured participation may have rendered results obtained (especially Trust Game results) unreliable. In previous studies, Trust Game interactions were made through a computer interface, as in

the current investigation; however, participants first report to a laboratory where the game instructions are explained in detail (e.g., Zak, Kurzban, & Matzner, 2004). In-person participation, as opposed to the web-based method, might have enhanced the effectiveness of the intended deception (i.e., more participants may have believed they were actually playing with a human partner). To provide a more complete assessment of the effectiveness of the Trust Game in distinguishing trust tendencies between participants with and without histories of HBT, future investigations should require in-person participation when participants play the Trust Game with an anonymous human partner. Finally, previous research has suggested that the ability to detect risk is influenced by level of intimacy with the potential perpetrator (VanZile-Tamsen, Testa, & Livingston, 2005). Thus, it will be beneficial for future research to examine this relationship manipulating the type of relational partner.

The relationships observed in the present study as well as the conclusions that can be drawn from these observations are speculative because we used a cross-sectional design. Deficits in trust judgments may be both a consequence of early childhood trauma perpetrated by close others and a correlate of sexual victimization. Temporal information gleaned from longitudinal studies might help explicate the trajectory of trust and betrayal awareness among survivors of early abuse. For example, it might be possible to identify particular periods when developing beliefs about trust are most vulnerable to damage by HBT. Previous research (e.g., Gobin & Freyd, 2009) has suggested that individuals who experience HBT during adolescence have the highest risk for future victimization, thus, adolescence may be an optimal period of development during which to intervene on impaired trust and betrayal awareness. Such methods may also enhance our understanding of how deficits in trust create risk for revictimization, in addition to informing intervention methods.

Not all survivors of early interpersonal trauma manifest psychological, emotional, and interpersonal consequences. Findings contrary to hypothesized relationships in the present study (e.g., no differences in behavioral trust between participants with and without HBT histories) may be evidence of notably resilient survivors of interpersonal trauma. As suggested by Macy (2008), it will be important for future research to explore both intrapersonal and contextual factors that create risk and promote resiliency.

The findings of this study may be useful in the development of intervention methods with survivors of HBT. Results from the self-report data suggest a history of HBT affects the ability to make wise trust decisions in ways that may increase risk for revictimization. Aversion to trusting others "in general" might prevent survivors from seeking social support or community and mental health services. Unwillingness to trust can negatively impact romantic relationships by preventing emotional closeness and vulnerability. It is important for survivors of betrayal trauma not only to be willing to trust, but to have the skills to decipher which individuals are deserving of trust. The frequency with which survivors of betrayal trauma report trust difficulties and the potential negative consequences suggest interventions that aim to repair survivors' ability to make accurate trust decisions are warranted.

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