



Exploring the Adaptiveness of Moderate Dissociation in Response to Betrayal Trauma

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Abstract

Freyd's (1996) betrayal trauma theory posits that evolutionarily important attachment bonds make dissociation in response to trauma more likely when a relationship exists between victim and perpetrator. This dissociation, despite its immediate benefits in regards to attachment, is commonly thought to have harmful consequences over time. However, although negative mental and physical sequelae may result from chronic dissociation, it may also continue to serve a protective function in regards to attachment. This online study explores the relationship between dissociation, resiliency, betrayal trauma, and attachment using self-report questionnaires with a college student sample (400 participants, 68.7% female). We hypothesized that participants with moderate dissociation would be more resilient to childhood abuse and utilize multiple attachment strategies. Results revealed that higher dissociation was associated with poorer resiliency scores, although in a curvilinear analysis very high dissociative scores correlated with higher resiliency. Dissociation did not seem to be related to attachment; however, participants with a history of betrayal trauma were associated with more variability in attachment styles. These findings are particularly relevant because it could inform attachment theory and the effects of trauma on attachment.

Introduction

It is difficult to imagine how a person could possibly forget a traumatic experience, yet trauma-related amnesia and dissociation are well-documented phenomena (Herman, 1992). In an attempt to explain why forgetting and dissociation occur, Freyd (1996) developed betrayal trauma theory. According to this theory, the act of betrayal is the key factor influencing whether a person is likely to forget or dissociate from an event. In other words, betrayal trauma theory posits that forgetting and dissociation are more likely when a close relationship exists between the victim and the perpetrator. The importance of this relationship can be explained by attachment theory.

Attachment theory states that a biologically based bond exists between a child and her/his caretaker that ensures the protection and safety of the child (Bradbury & Karney, 2010). A child may forget abuse by a caretaker because remembering would endanger the child's relationship to, and thus its ability to trust and depend on, that individual (Freyd, 1996). In this way, amnesia of traumatic events allows the child to maintain an attachment to her/his caregiver. For humans, this is a matter of evolutionary importance (Bradbury & Karney, 2010). Although

Freyd's betrayal trauma theory explains why it could be adaptive for a child to forget or dissociate from traumatic memories, research exploring whether dissociation is an overall adaptive response to trauma is limited.

One problem inherent in viewing dissociation as an adaptive function is the fact that dissociation has typically been considered a significant risk factor for developing Post Traumatic Stress Disorder (PTSD). Using a meta-analysis, Ozer, Best, Lipsey, and Weiss (2003) found that dissociation was the single most predictive variable for developing PTSD when compared to six other risk factors including: previous psychological adjustment, family history of psychopathology, perceived life threat during trauma, prior trauma history, level of social support following the trauma, and dissociation in relation to a person's emotional response. Dissociation, described at times as self-hypnosis, is protective in that it allows a person to mentally escape a trauma (Terr, 2003). However, when employed outside a traumatic context, as is common with people who dissociate, inaccurate analyses of events and the world often occur. Therefore, dissociation can be seen as adaptive specifically within the context of trauma but is maladaptive once the danger is past (Herman, 1992). While dissociation is considered a significant risk factor for PTSD it is still possible that it could help protect against other psychological effects of trauma.

Traumatic events are more than merely frightening or life-threatening—they are life-altering in that they have the power to destroy a person's basic concept of how the world is supposed to operate. One of the most lingering effects of trauma is rooted in the fact that trauma destroys "the victim's fundamental assumptions about the safety of the world, the positive value of the self, and the meaningful order of creation" (Herman, 1992). The trauma cannot be assimilated within the victim's inner schema, or template of the self and its relationship to the world (Herman, 1992). This leads to a loss of faith and connection to others and society. For example, one question brought about by a traumatic war experience—how could God allow young children to die (Herman, 1992)?—is a question that could not be logically answered within the framework of the victim's current belief system. In order to accept and accommodate such trauma, these views must be altered and may subsequently change a person for the rest of her/his life (Herman, 1992). Trauma, when it occurs in adulthood, affects a person's inner schema of how the world operates; however, as children have not yet formed these schemata, the consequences can be very different.

Young children are entirely dependent on their caretakers, which makes abuse by a caretaker or trusted other particularly detrimental because a child must continue to trust and maintain a relationship with that person. Therefore, when confronted with abuse of this type a child is forced to "find a way to preserve a sense of trust in people who are untrustworthy, safety in a situation that is unsafe [and] power in a situation of helplessness" (Herman, 1992). A child must live in a world that is, by the nature of her/his situation of dependency, completely contradictory. In order to do this, children resort to psychological defenses which preserve their primary attachments to their caretakers regardless of their abuse (Herman, 1992). For example, a child may blame him/herself for the abuse or see him/herself as a "bad child" in order to free the caretaker of responsibility. According to the child, the caretaker is not evil, and it is the child who deserves punishment (Herman, 1992). This and other cognitive strategies function to

minimize the trauma and preserve the attachment bond. It is this sort of cognitive monitoring or dissociation that can also lead a child to forget traumatic events. Although the immediate benefits from cognitive strategies of this type are readily acknowledged, it has yet to be determined whether these coping strategies remain beneficial throughout life, or even if children who dissociate from childhood abuse have a better attachment to their caretaker than those who do not.

To determine if dissociation protects attachment relationships, attachment theory must first be discussed. Attachment theory recognizes four different attachment styles: secure, preoccupied, dismissing, and disorganized (Purnell, 2010). These styles can be broken down in terms of beliefs about the value of the self and the other. This in turn determines levels of anxiety and avoidance concerning attachment relationships. Secure attachment is characterized by a positive value of the self and other, and is thus considered low in terms of avoidance and anxiety (Bradbury et al. 2010). A preoccupied attachment style, involving high anxiety but low avoidance, is rooted in a negative value of the self but positive value of the other. A person with this type of attachment style is often preoccupied that he/she is unworthy of the attachment figure's love. Individuals with a dismissing style believe in the positive value of the self but negative value of the other—leading these people to have low anxiety but high avoidance. Dismissing individuals tend not to regard relationships as beneficial. Finally, disorganized attachments are characterized by high anxiety and high avoidance and are formed by a negative value of the self and other.

Of all of these styles, a secure attachment with a caretaker is considered ideal. Secure attachment is associated with better outcomes and adjustment throughout the life of the child (Bradbury & Karney, 2010). Contrarily, a disorganized attachment is associated with children who have experienced trauma (Purnell, 2010). This style is tied to many negative outcomes and poor adjustment, as well as to dissociative tendencies (Purnell, 2010). Therefore, the argument that children who forget caretaker-induced trauma are able to maintain a secure attachment style is a difficult one to make. However, in regards to the context of childhood abuse, a disorganized attachment style may be associated with resiliency.

Although a disorganized attachment style has been associated with negative adjustment, it may be unfairly singled out, as dismissing and preoccupying styles are also associated with poor outcomes. Disorganized attachment is generally separated from the other three models because it is considered an 'unmindful' or irrational attachment strategy. This is because it combines aspects of both dismissing and preoccupying styles (Liotti, 2004). Therefore, disorganized attachment has been considered a collapse of the attachment system and is associated with extreme trauma and/or neglect (Purnell, 2010). However, this assertion has been questioned. In the dynamic maturation model of attachment, Crittenden (2000) theorized that attachment styles are always deliberate, and although disorganized styles may seem to mix contradictory strategies, with extremely unpredictable caregivers this may in fact be an appropriate response (Purnell, 2010).

The idea of disorganized attachment as an adaptive strategy is also supported by evidence involving studies of previously diagnosed disorganized infants in middle childhood. These

children, categorized as disorganized in infancy, received a diagnosis of disorganized controlling in middle childhood (Liotti, 2004). Appearing to be normal, competent individuals, these children differed only in that they were often inappropriately controlling of their caretaker or inappropriately caring. This can be viewed as a strategy to accommodate an incompetent caretaker by taking control of the situation (Liotti, 2004). These slightly older children seemed to employ a reasonable strategy for dealing with their situation. In fact, the disorganized aspect of their assessment did not manifest until they were confronted with a separation anxiety test (Liotti, 2004). Although typically associated with negative outcomes, in this situation, a disorganized attachment can be seen as a logical response to an incompetent caretaker in the moment. It remains to be seen if this response is beneficial over time.

The advantage to a disorganized attachment and the related dissociation may lie with the ability to compartmentalize trauma both in relation to knowledge of the abuse and how attachment relationships are affected. Freyd (1996) cited an account of a victim of incest who dissociated from her abuse by separating herself into a day child and a night child. The night child was aware of the abuse but the day child was oblivious beyond the fact that she knew she was afraid of the night. This separation or compartmentalization is argued to be a cognitive strategy that allows the child to function normally during the day. It is also a strategy that can be viewed in relation to a child's attachment. John Bowlby, a psychoanalyst who studied child development, developed an attachment theory which states that children form internal working models or schemas of their relationship to their primary caretaker and that these models form the lens through which all other deep attachments are perceived (Bradbury et al., 2010). Following this model, a child who dissociates from abuse perpetrated by a caretaker may have a disorganized attachment style. However, because dissociation may allow the child to compartmentalize the trauma, this disorganized attachment may be an internal working model through which the child interprets some relationships but not others. In other words, the actual disorganized nature of the attachment style, as in the earlier example, could allow the child to respond appropriately to the caregiver during the day versus during the night. This is supported by recent criticism of attachment theory that states attachment styles can change and that infants can have multiple attachment styles depending on a particular caretaker (Del Giudice, 2009). Dissociation, because it can allow a child to compartmentalize trauma, can be viewed as an adaptive strategy over time.

Compartmentalization of trauma could allow an individual to demonstrate resiliency in the face of trauma, but resiliency needs to be defined, as well as the distinction between recovery and resiliency. A study by Bonanno (2005) found that resiliency to trauma was not necessarily the same thing as recovery. Bonanno found that resiliency is associated with an individual's ability to operate at normal levels with low levels of psychological disturbance. Recovery was associated with higher immediate negative psychological symptoms that significantly interfered with an individual's functioning, before gradually declining to normal levels (Bonanno, 2005). Therefore, a child that dissociates from abuse, although not effectively dealing with it, may be cognitively compartmentalizing the trauma by pushing it out of consciousness—allowing him/her to maintain a normal or near-normal level of functioning. This is supported by cases like that of Ross Cheit, who recovered memories of childhood abuse when he was 36 years old

and a professor at Brown University (Freyd, 1996). Based on such evidences, dissociation that allows a victim to compartmentalize trauma and maintain high levels of functioning could be highly adaptive, even if it is also associated with negative sequelae.

Dissociative disorders tied to child abuse (Herman, 1992) are not beneficial once a child is free of the situation that forced him/her to employ such extreme cognitive strategies. This is because people with a history of abuse often have difficulty accurately assessing dangers in the world around them. However, dissociative tendencies lie on a continuum (Bernstein & Putnam 1986). In other words, people with mild to moderate dissociative tendencies may be more resilient when faced with repeated childhood trauma than people who experience either high levels of dissociation or little to no dissociation. In regards to childhood trauma involving attachment bonds that are so essential, this could very well be the case. It is therefore possible that, firstly, people with moderate dissociative tendencies are more resilient to childhood abuse than those with very high or very low tendencies, and that, secondly, people with moderate dissociative tendencies can be expected to utilize multiple attachment strategies. A hyperbolic relationship is predicted for the relationship between dissociation and resiliency, with a certain level of dissociation being beneficial. This dissociation, in turn, is expected to be associated with greater variability in attachment styles.

Method

Participants

Participants signed up for the study through the University of Oregon's online system for study management, which enables students in the psychology and linguistics departments to receive class credit for participating in research. The ethnicity of the participants therefore reflects the ethnicity of the university student population. Participants were 1.5% American Indian/Alaska Native, 9.5% Asian, 1.5% Native Hawaiian or Other Pacific Islander, 2% Black or African American, 79.3% Caucasian, and 5.5% other. 0.8% of participants declined to self-identify ethnicity. Participation in the study required fluency in written English but there were no other restrictions. In total, 514 people participated in the study and complete data collection included 400 participants in the analysis. . Of these, the average age was 19.9 years with 68.8% female participants and 31.3% male participants. This ratio represents a somewhat biased sample, with women being more likely to experience a betrayal trauma than men (DePrince & Freyd, 2004).

Materials

Four different measures were included in the study. To begin, the Brief Betrayal Trauma Survey (BBTS; Goldberg & Freyd, 2006) was used to measure trauma exposure. The BBTS measures both betrayal trauma (if a person has been abused by a trusted other) and non-betrayal trauma. The BBTS includes two sets of 14 identical questions, targeting experiences before and after the age 18. A sample item includes "You were made to have some form of sexual contact, such as touching or penetration, by someone with whom you were very close (such as a parent or lover)." Participants then responded based on how many times the above event

occurred, and response options for frequency questions were as follows: Never, 1 or 2 times, and More than that.

The second survey used was the Dissociative Experience Scale (DES II; Bernstein & Putnam, 1986), which measures dissociation tendencies. This scale is a 28-item measure that examines the percentage of time a person spends in a dissociative state. An example item includes, "Some people have the experience of finding themselves dressed in clothes that they don't remember putting on." Participants are then asked to "choose a number to show what percentage of the time this happens to you" with options ranging in 10% increments from 0% of the time to 100% of the time.

The Inventory of Parents and Peer Attachment (IPPA; Armsden & Greenberg, 1987), was the third measure used. It is a useful measure because it assesses attachment in more than one domain. It is an assessment of an individual's attachment to his/her parents and an individual's attachment to her/his peers. The measure is comprised of 53 items, 28 pertaining to attachment to parents and 25 that assess attachment to peers. The scale can be further broken down along three domains with items measuring trust, communication, and alienation for both parents and peers. An example of a trust item regarding parents would be, "My parents accept me as I am," while an example of an alienation item for peers would be, "I get upset a lot more than my friends know about." Participants then chose between five options: Almost always or always true, Often true, Sometimes true, Seldom true, and Almost never or never true.

The last measure presented to participants was the Trauma Resilience Scale (TRS; Madsen, 2010). The TRS is a 48-item measure of resiliency along four domains, including the ability to generate and maintain supportive relationships, optimism or hopefulness, spirituality, and problem solving skills. The scale includes 13 spirituality items, 13 relationships items, 12 optimism items, and 10 problem solving ability items. A sample question for optimism includes, "Most people say that I have a hopeful outlook on life." Participants then chose from seven options: Almost never true of me, Rarely true of me to, Frequently not true of me, Sometimes not true of me/Sometimes true of me, Frequently true of me, Very often true of me, and Almost always true of me.

Procedure

Participants were recruited online via Sona Systems and the study was administered online. The study could therefore take place at any location where internet access was available. The surveys were always presented in the same order, beginning with the BBTS followed by the DESII, then the IPPA, and finally the TRS. As all surveys were self-report questionnaires, a controlled environment was not deemed necessary. The average amount of time that it took to complete the entire study was 35.23 minutes.

Results

Descriptive Statistics

See Table 1 and Table 1.1 for detailed descriptive statistics. Table 1 shows the total percentage and numbers of participants with either high betrayal trauma histories or low/no

betrayal trauma histories. This grouping was determined by placing all participants that reported a betrayal trauma in the betrayal trauma group while all other participants were placed in the low/no betrayal trauma group. In addition, 42.3% or 169 participants reported interpersonal violence (physical or sexual assault which includes both betrayal and non-betrayal trauma) while 57.8% or 231 participants did not. These numbers are similar to those found by DePrince and Freyd (2004) in a college sample that reported interpersonal violence rates of 45%. Moreover, they found that these rates were lower than a community sample that had rates of interpersonal violence at 79%.

Table 1.1 shows the means, standard deviations, and minimum and maximum scores for the Trauma Resilience Scale (TRS), the Inventory of Parents and Peer attachment just including parents (IPPA Parents), the Inventory of Parents and Peer attachments just including peers (IPPA Peers) and the Dissociative Experience Scale II (DES II). For the TRS, the highest possible score (i.e. a score of seven for all questions) is 336 while the lowest possible score (i.e., a score of one for all questions) is 48. For the IPPA parents the highest score possible is 140 with the lowest score possible being 28. For peers the highest possible score is 125 while the lowest is 25. In regards to the DESII, the measure includes 28 items, and the highest score possible for each item is 10 and the lowest possible score is zero.

Table 1. Breakdown of trauma history into High and Low/No betrayal trauma groups.

BBTS	High Betrayal	Low Betrayal/No Betrayal
	33.2% (129 participants)	67.8% (271 participants)

Table 1.1. Descriptive statistics for Trauma Resilience Scale (TRS), Inventory of Parents and Peer Attachments (IPPA), and the Dissociative Experience Scale II (DESII).

Measure	Mean	Standard Deviation	Minimum	Maximum
TRS	236.35	39.91	122.00	332.00
IPPA Parents	94.10	10.28	59.00	115.00
IPPA Peers	89.88	9.28	50.00	113.00
DESII	11.85%	11.15	0.00%	58.00%

Questions about dissociation

A linear regression model and independent t-test was used to determine the effects of dissociation on trauma resiliency. The TRS score was the dependent variable and the DES score was the independent variable. Higher dissociative scores were significantly predictive of lower resiliency, $F(1, 400) = 21.05, p < 0.05, r^2 = 0.05$. That is, people with higher dissociative scores were less resilient to trauma. Betrayal trauma was also found to predict dissociation. Results of a one-way ANOVA with the DES as the dependent variable and the independent variable as trauma category (high betrayal trauma or no and/or low betrayal trauma) indicated that high betrayal trauma predicts higher dissociation scores, $F(1, 397) = 9.58, p < 0.05, r^2 = 0.02$ compared to low or no betrayal trauma.

In a test of the first hypothesis, which questions the relationship between dissociation and resiliency, a quadratic regression model was used to examine a curvilinear relationship between resiliency and dissociation (see Figure 1). The dependent variable was the TRS score and the independent variables were DES score and the DES score squared. Higher resiliency was found in people with very high dissociative scores compared to those with moderate dissociative scores, $F(1, 400) = 11.10, p < 0.05, r^2 = 0.03$. This is contrary to the prediction that a benefit to dissociation would be found in people with moderate dissociative scores as opposed to very high scores. Moreover, results were also significant when this analysis was repeated controlling for betrayal trauma, $F(1, 400) = 5.65, p < 0.05$ and $r^2 = 0.01$, and for a non-betrayal trauma, $F(1, 400) = 6.26, p < 0.05, r^2 = 0.02$.

Questions about betrayal trauma and resiliency

Results of a one-way ANOVA, where the dependent variable was also the TRS score and the independent variable was high betrayal trauma or no and/or low betrayal trauma, indicated that betrayal trauma predicted lower trauma resiliency, $F(1, 397) = 6.91, p < 0.05, r^2 = 0.02$. A linear regression model where the dependent variable was the TRS score and the independent variable was a continuous variable measuring number of betrayal traumas, also indicated that higher betrayal trauma scores predicted lower trauma resiliency, $F(1, 400) = 9.98, p < 0.05, r^2 = 0.02$. A linear regression model using number of non-betrayal traumas instead of betrayal traumas also revealed that higher numbers of trauma predicted lower resiliency, however the effect size was smaller, $F(1, 400) = 5.54, p < 0.05$ and $r^2 = 0.01$.

Questions about attachment

A linear regression model with the dependent variable being the difference scores between parents and peers and the DES score being the independent variable was used to test the second hypothesis. Results found that people with higher dissociative tendencies were not more likely to have greater differences between parent and peer attachments, $F(1, 400) = 0.67, p > 0.05, r^2 = 0.00$. However, in a one-way ANOVA, individuals that experienced betrayal trauma were more likely to have a greater difference in attachment scores in regards to parents and peers than individuals that did not experience betrayal trauma, $F(2, 400) = 10.70, p < 0.05, r^2 = 0.03$.

A one-way ANOVA with a dependent variable of IPPA scores for parents and an independent variable of either high betrayal trauma or no and/or low betrayal trauma was also conducted. Betrayal trauma was found to predict lower attachment scores to parents $F(1, 397) = 10.56, p < 0.05$, and $r^2 = 0.03$. However, a repetition of this analysis using IPPA scores for peers, found that betrayal trauma did not predict attachment to peers, $F(1, 397) = 0.08, p > 0.05$ with $r^2 = 0.00$. Interestingly, a linear regression model with the TRS as the dependent variable and difference scores between parents and peers as the independent variable found that higher difference scores in attachments to parents and peers predicted lower resiliency $F(1, 400) = 6.18, p < 0.05$, and $r^2 = 0.02$.

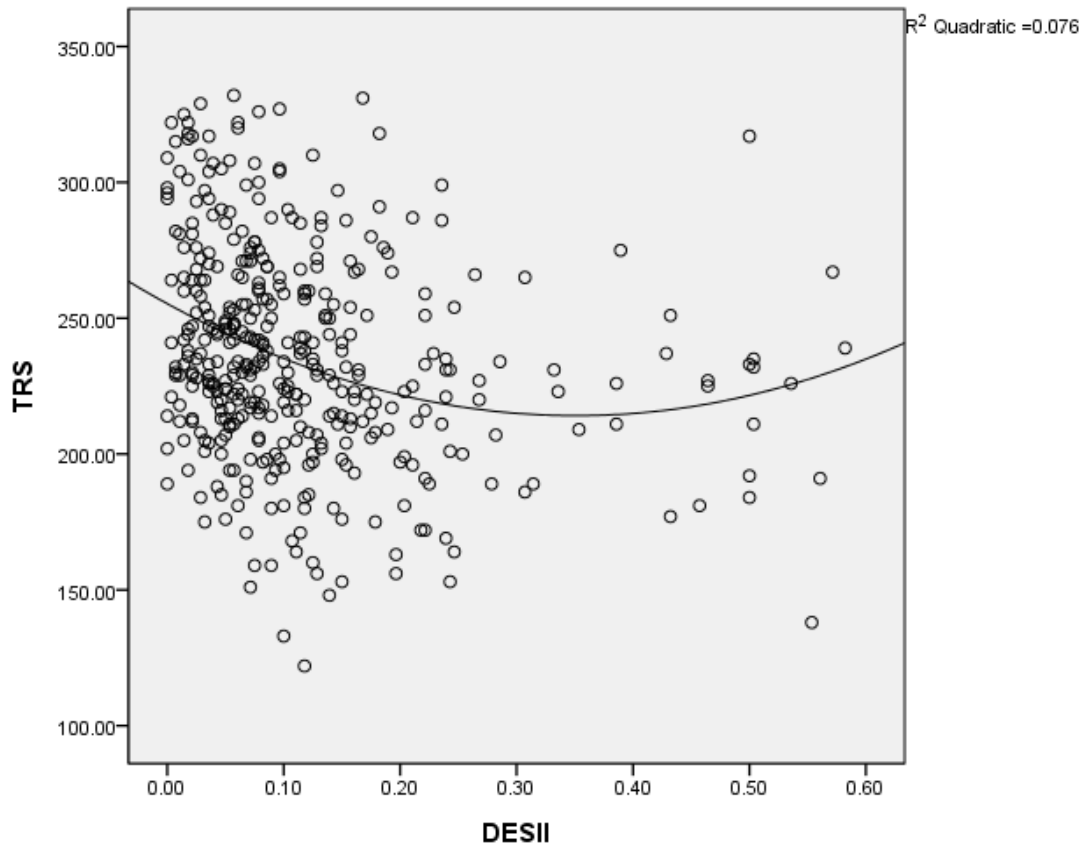


Figure 1. Interaction between TRS score and DESII scores.

Discussion

We hypothesized that moderate dissociative scores would be associated with higher resiliency for participants with a history of betrayal trauma. Moreover, we expected that higher dissociative scores would correlate with lower resiliency in a simple regression model across participants. In regards to this second expectation, the results indicated that higher dissociative scores were significantly associated with lower resiliency. These data support previous research correlating dissociation with negative effects (Freyd, 1996; Loitti, 2004; Crittenden, 2000). A statistically significant effect was also found for the hypothesized curvilinear relationship between resiliency and dissociation in a quadratic regression model. However, this relationship is opposite to our prediction. Findings did not support the idea that people with moderate dissociative tendencies were more resilient to childhood abuse than other groups. Surprisingly, high resiliency scores were associated with participants who had very low or very high dissociative scores but were not associated with participants with moderate dissociative scores. Trying to replicate these findings would be beneficial, as dissociation was only related to higher resiliency when scores were at a level that could indicate a possible diagnosis of a dissociative disorder (Briere et al., 2005). This is counter-intuitive, as dissociative disorders are generally thought to be found in people who are the least resilient (Briere et al., 2005). In the current study, dissociation does not seem to relate to higher resiliency, except in very extreme cases.

Regarding the hypothesis concerning differences between parent and peer attachments, participants who experienced betrayal trauma were, as predicted, more likely to demonstrate greater variability in attachment. In a one-way ANOVA, individuals who experienced betrayal trauma were more likely to have greater difference scores in attachment with regards to parents and peers than individuals that did not experience betrayal trauma. Attachment differing between parents and peers is particularly interesting because it indicates that primary relationships may not uniformly affect attachments—at least among people with a history of betrayal trauma. However, this trend does not seem to be related to dissociation as was expected from the literature. A linear regression model indicated that people with higher dissociative tendencies were not more likely to utilize multiple attachment strategies. Therefore, while data supported the idea that people with a history of betrayal would be more likely to have higher difference scores between parents and peers, dissociation did not seem to be involved. Thus, how dissociation protects a child's attachment to his/her primary caretaker is still unclear. Variability in attachment styles in participants with a history of betrayal trauma is still a noteworthy finding.

The finding that participants who experienced betrayal trauma were more likely to have higher differences in attachment scores to parents and peers is noteworthy because it may potentially inform attachment theory. Attachment theory posits that primary relationships formed in childhood structure the models through which all other later relationships are perceived (Bradbury & Karney, 2010). Moreover, considerable research has found that attachment styles may be moderately to highly constant across time. Scharfe (2003), in a review, found that approximately 60%-70% of participants maintained attachment styles and 30%-40% reported change in attachment style when measured across various time periods. However, little research has examined reasons for change in adult attachment styles, although some support has been found for an association between change in attachment style and change of relationship status (Scharfe & Cole, 2006). This finding in relation to betrayal trauma may provide evidence that betrayal trauma history may be another variable that is associated with a higher likelihood of differing attachment styles across different relationships.

These results are also relevant because they may provide additional insight in Bowlby's (1982) hypotheses regarding trauma and attachment. Although Bowlby (1982) expected that attachments would remain relatively stable throughout time, he also discussed changes in attachment. In particular, Bowlby theorized that changes in attachment styles may occur in reaction to traumatic events or experiences (Scharfe, 2003). Bowlby also hypothesized that this response may be adaptive because it would allow an organism to adjust to its environment (Scharfe, 2003). Therefore, the results of this study, which indicate that differences in attachment styles may be more variable between parents and peers when betrayal trauma is involved, could support this idea. These findings indicate that although betrayal trauma predicted lower attachment scores to parents, it did not predict lower attachment scores to peers, as measured by the IPPA. This further supports more fluidity in regards to attachment styles and betrayal trauma. The differential attachment scores between parents and peers warrant additional research. This is positive information for people who have experienced betrayal trauma as it supports the idea that different relationship outcomes are possible—at

least in relation to peers. Furthermore, it is worth exploring what factors could have led to the results that were found and what role dissociation may have in protecting attachments to primary caretakers.

As discussed above, in the context of childhood abuse, dissociation can be seen as a beneficial response to trauma because it allows a child to maintain an attachment bond to his/her primary caretaker (Freyd, 1996). Unfortunately, childhood abuse may also lead to a disorganized attachment style, which is associated with poorer overall outcomes in adulthood (Purnell, 2010). It has also been suggested that a disorganized attachment is still a type of attachment and may, in fact, be an effective strategy for dealing with unpredictable caregivers in situations that are not ideal (Purnell, 2010). Consequently, a disorganized attachment can be seen to be both hazardous and helpful in dealing with an unpredictable caretaker. Because dissociation did not appear to be related to attachment styles, these results indicate that an important distinction may have to be made. By helping a child maintain his/her attachment, dissociation may protect an emotional bond with a caretaker, which is beneficial for survival. However, a disorganized style of attachment, characterized by high levels of dissociation and conflicting strategies (Purnell, 2010), may be a hindrance to future development because it could lead an individual to incorrectly interpret his/her environment. One possible limitation in this study is the fact that although attachment was assessed for both parents and peers, emotional feelings, such as love, were not separately examined. The idea of attachment styles and emotional involvement being inequivalent is supported by previous research (Stein, Fonagy, Fultz, & Target, 2005).

Attachment styles reflect how people view themselves and others, and how they expect other people to respond in a relationship. They do not reflect how connected people feel or how much love a person feels for another. A study by Stein et al. (2005) examined this idea, specifically looking at whether positive feelings for a relationship were being confounded with secure attachment items and vice-versa for insecure attachment styles. The authors found that positive feelings for a relationship (i.e. feeling accepted, enjoying being with a person) were not necessarily indicative of a secure or insecure attachment (Stein et al., 2005). Attachment styles can therefore be seen as internal working models that determine what type of bond an individual may have with another—not the strength of the bond. Therefore, it could be that dissociation is beneficial in that it protects not attachment styles, but rather emotional attachment or attachment strength.

It is therefore possible that cognitive strategies that children sometimes employ, such as self-blame or dissociation, could help preserve feelings of attachment rather than attachment style. Moreover, in a study exploring why women do not choose to leave abusive relationships, Ferraro & Johnson (1983) found that lack of options coupled with emotional attachment and loyalty led women to ignore or rationalize the abuse. Evidently, these women, although probably not securely attached to their partner, still experienced a strong bond. In regards to children who are completely dependent on their primary caretakers, these emotional attachments may be what is preserved when children are ignorant to betrayal. This highlights a key limitation in this study, as the IPPA measures attachment but does not determine an attachment style, nor does it include any measures that consider feelings of love and connection. The IPPA examines three

dimensions of attachment—trust, communication, and alienation—domains that do not clearly examine feelings of love and connection nor do they concretely determine an attachment style. Undoubtedly, feelings of attachment and attachment style would be interesting to examine, as it would provide a more complete picture.

Although dissociation does not seem to benefit attachment relationships as earlier proposed, it may be that the benefit of dissociation resides in protecting feelings of love and connection. To determine if this is the case, it could be interesting to repeat this experiment with some changes. For example, a measure like the Experiences in Close Relationships Inventory Revised (EDR-R; Fraley, Waller, & Brennan, 2005) could be included to measure attachment styles (Sibley, Fischer, & Liu, 2005), and the Rubin Love and Liking Scales (LOV & LIK; Rubin, 1970) could be used to measure emotional attachments (Bailey & Nava, 1989). A replication of this experiment including these scales could provide a more accurate description of this phenomenon by comparing the relation between attachment style and dissociation with the relation between feelings of love and dissociation. Participants with a history of betrayal trauma with higher dissociative scores could be expected to have higher scores on the LOV and LIK scales than those with lower dissociative scores, and attachment styles may not always match up with LOV and LIK scores.

Undoubtedly, dissociation is a common response to traumatic events and Freyd's (1996) betrayal trauma theory explains why such an extreme and outwardly counterintuitive response would occur. How dissociation protects relationships is still not entirely clear. Although the research presented here does not provide clear answers concerning this question, it does provide additional relevant information and brings up issues that require further consideration. The results indicating that higher variability in attachment between parents and peers is associated with betrayal trauma is particularly relevant because it could provide additional information on attachment theory and the effects of trauma on attachment. Moreover, the fact that dissociation did not seem to correlate with this higher variability indicates that dissociation may not affect attachment style. However, this does not mean that dissociation does not protect some element of attachment. Future research should examine whether dissociation could allow a child to protect his/her emotional bond to his/her primary caregiver.

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