

Motivated Forgetting and Misremembering: Perspectives from Betrayal Trauma Theory

Anne P. DePrince, Laura S. Brown, Ross E. Cheit, Jennifer J. Freyd,
Steven N. Gold, Kathy Pezdek, and Kathryn Quina

Abstract Individuals are sometimes exposed to information that may endanger their well-being. In such cases, forgetting or misremembering may be adaptive. Childhood abuse perpetrated by a caregiver is an example. Betrayal trauma theory (BTT) proposes that the way in which events are processed and remembered will be related to the degree to which a negative event represents a betrayal by a trusted, needed other. Full awareness of such abuse may only increase the victim's risk by motivating withdrawal or confrontation with the perpetrator, thus risking a relationship vital to the victim's survival. In such situations, minimizing awareness of the betrayal trauma may be adaptive. BTT has implications for the larger memory and trauma field, particularly with regard to forgetting and misremembering events. This chapter reviews conceptual and empirical issues central to the literature on memory for trauma and BTT as well as identifies future research directions derived from BTT.

A.P. DePrince (✉)

University of Denver, Denver, CO, USA

e-mail: Anne.DePrince@du.edu

L.S. Brown

Fremont Community Therapy Project, Seattle, WA, USA

R.E. Cheit

Brown University, Providence, RI, USA

J.J. Freyd

University of Oregon, Eugene, OR, USA

S.N. Gold

Nova Southeastern University, Fort Lauderdale, FL, USA

K. Pezdek

Applied Cognitive Psychology, Claremont Graduate University, Claremont, CA, USA

K. Quina

University of Rhode Island, Providence, RI, USA

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Historically, traumatic responses have been understood as tied to experiences of fear at the time or in the aftermath of the trauma (see DePrince & Freyd, 2002a, 2002b). The emphasis on fear as the dominant response in understanding traumatic responses, including memory for the event, makes intuitive sense. Fear-inducing events often involve life-threat, activating a cascade of physiological and emotional responses, such as those seen among survivors diagnosed with PTSD. The traumatic event itself and the cascade of responses all seem as if they would be quite memorable. Further, the very use of the word *trauma* implies that events should be memorable. The word *trauma* comes from the Greek term for a wound. Physical wounds often leave visible scars. Even if not frightening or terribly painful, a physical wound seems unforgettable simply because a physical trace remains present and knowable.

However, clinical and research accounts have documented trauma survivors' reports of forgetting trauma and trauma-related information as well as misremembering events as less traumatic than they actually were since the nineteenth century (see Herman, 1992). As reviewed in this chapter, the literature on forgetting has expanded significantly in recent years to consider multiple facets of the phenomenon of forgetting, most often in terms of characteristics of individual abuse victims/survivors (e.g., survivors' age at the time of the event) and the veracity of victims'/survivors' memories. Betrayal trauma theory (BTT; Freyd, 1996) provides an important framework for expanding beyond an emphasis on the characteristics of individual survivors and fear to consider the dynamic and complex interpersonal contexts in which abuse often takes place, particularly familial abuse.

At its heart, "BTT is an approach to conceptualising trauma that points to the importance of social relationships in understanding post-traumatic outcomes, including reduced recall" (Freyd, DePrince, & Gleaves, 2007, p. 297; see also Freyd, 1994, 1996, 2001). Initially offered as a framework for understanding *why* victims of abuse would be motivated to forget the abuse or abuse-related information (Freyd, 1996), "the phrase *betrayal trauma* refers to a social dimension of trauma, independent of the individual's reaction to the trauma" (Freyd et al., 2007, p. 297). According to the original framing of BTT, the degree to which the abuse event represents a betrayal by a trusted, needed other person mediates the manner in which abuse-related information is processed and remembered (Sivers, Schooler, & Freyd, 2002). Freyd, Klest, and DePrince (2010) describe BTT as providing

a theoretical framework for understanding the impact of interpersonal traumas in which the victim trusts, depends upon, or feels close to the perpetrator...The victim of a betrayal trauma has a profound conflict between the usual need to be aware of betrayal (and thus to confront or withdraw from the betrayer) and the particular need to maintain a close relationship with a significant attachment figure (and thus to maintain proximity and closeness). According to betrayal trauma theory, the victim is likely to respond to such violations by avoiding awareness of the betrayal in the service of maintaining the relationship. Avoidance of awareness may lead to some degree of forgetting of the betrayal trauma (p. 20).

Introduced by Jennifer Freyd in 1994, BTT grew up, so to speak, in a particular socio-political context. The same socio-political context that influenced the initial conceptualization and ongoing development of BTT has also influenced the field more generally – driving not only the questions of the day, but the methods used and the interpretations made by cognitive scientists. In this chapter, we first turn to a discussion of forgetting and misremembering, including the empirical evidence documenting that forgetting abuse does occur. We then turn to reviewing empirical and theoretical work on BTT, placing this work in the larger context of the literature on trauma and memory. We next address several issues that are relevant to BTT, but for which the theory does not imply a particular stance (e.g., processes by which memories are recovered; veracity of recovered memories; trauma therapy). We then take a step back to consider the socio-political context in which research on forgetting (and misremembering) is situated to inform our closing discussion of the contributions BTT makes to future research directions.

Forgetting and Misremembering

Defining Terms

The title of this chapter highlights both forgetting and misremembering. We deliberately chose two terms to capture the phenomena of knowledge isolation for abuse. Drawing on the framework articulated by Freyd et al. (2007), *knowledge isolation* refers to the diverse ways information can be hidden from awareness. With the term forgetting, we invoke Freyd's concept of "unawareness", which describes situations in which abuse-related information is inaccessible to conscious recall (Freyd et al. 2007). The term is not used to imply a particular mechanism by which the inaccessibility arose. In fact, understanding the mechanisms by which forgetting occurs is a separate question from documenting the phenomenon of and motivations for forgetting. BTT is primarily concerned with the latter. Misremembering is a term we use to reflect knowledge isolation that involves biases to remember autobiographical events as more positive (or less negative) than they were. Such reconstruction of events in memory offers a strategy by which victims abused by people on whom they depend may be able to minimize or isolate knowledge about the abuse.

Two things should be noted before reviewing evidence regarding motivations for forgetting and misremembering. First, researchers and the public have primarily concerned themselves with questions related to the *absence* of information rather than other forms of knowledge isolation that may help people cope with and survive certain forms of trauma, particularly abuse by close others. Complete forgetting of abuse-related information has garnered the majority of attention (and controversy) in the research literature. However, BTT argues that knowledge isolation can also take the form of misremembering.

Second, BTT's focus on the *social context* in which abuse occurs highlights that the field has focused scrutiny nearly exclusively on *victim* reports of forgetting. For example, research questions have most often been framed to identify which victims/survivors forget and why; the processes by which victim forgetting and remembering occur; as well as criteria by which we deem believable victim memories among people who claim to have forgotten for some period of time. This body of work has largely – albeit often implicitly – biased scrutiny of victim memory to the exclusion of scrutiny of offender memory. For example, one rarely (if ever) hears about research on forgetting, misremembering, or even false memories in offenders who protest that they did not commit abuse. Surely individual abusers have motivation to forget and/or misremember abuse (as well as perhaps society; see Herman, 1992 for a related discussion on societal denial of trauma and abuse). In fact, such motivation must in most instances be quite strong; the person who can avoid remembering harming a child is denying criminal actions. Thus, we will highlight opportunities to extend research on victim memory to address important questions about offender memory.

Methodological Issues in Research on Victim Forgetting

Several methodological issues should be considered when reviewing data on survivors' forgetting for abuse. First, research on forgetting and misremembering of trauma is difficult, as the phenomena themselves beg important questions about methods and participants. For example, how do you measure a memory that is not accessible (or was never encoded) for a private event that was not witnessed by anyone but the perpetrator, as is the case for many abuse experiences? Who are the best participants for studies on forgetting and misremembering: people who report having forgotten and now remember; people who we have some reason to believe they were abused and now forget; or another group altogether? Thus, an important challenge faced by the field is to study rigorously something that has been naturalistically observed for so long, but appears to fit poorly into previously developed memory paradigms.

Second, self-reports of memory for personal events, no matter how banal, are not objective. Even the most skilled researcher cannot verify the accuracy of participants' memories, nor be certain that participants are forthcoming in their self-reports. Descriptions of personal experience are filtered through each participant's own interpretations, even for events in the recent past; memories from childhood are particularly subject to elaboration and interpretation through an adult's cognitive capabilities (e.g., Sloutsky & Fisher, 2004). Events that are well-remembered may be omitted or deemed too insignificant, or too difficult, to report. And a large body of laboratory research demonstrates that misremembering of details in a short film is common, even when the major event is correctly recalled (e.g., Loftus, 1975).

Third, difficulties with self-report are only magnified when the memory is for a traumatic event. Among other challenges, researchers have documented underreporting of trauma (Smith et al., 2000; Ullman, 2007), particularly sexual assault and abuse. For example, as recently reviewed by Belknap (in press), some estimates suggest that as few as 8–10% of women report their rape experiences to law enforcement. While a higher proportion of people may disclose their experiences to researchers when they are asked about victimization than they spontaneously disclose to law enforcement, certainly not all do. In addition, researchers must grapple with and acknowledge limitations of research related to a complex range of situations, such as participants' failure to define (and thus report) an experience as "abuse" (Koss, 1993) as well as a lack of detail when traumatic experiences are described (Lindholm & Gray, 2010).

Fourth, the previous three issues intersect with the challenges of studying memory outside the lab, particularly autobiographical memory. The practice of drawing conclusions about individual experiences from lab experiments, addressed early on by Sears (1936), remains a problem, particularly in the face of social pressures to discount abuse survivors (Freyd & Gleaves, 1996; Herman, 1992) and to privilege researcher voices (which may or may not be survivor voices) over lay survivor voices, which lack the tonalities or the authority of the academy or the laboratory (Freyd & Quina, 2000). Writing about a project to document abuse in an institution that housed developmentally disabled girls and young women, Malacrida (2006) notes that "...like many other survivor narratives, filled with hidden stories of physical, sexual, economic, psychological, medical and legal abuse, and like other survivor stories about these kinds of abuse, the potential for discrediting these memories is high" (p. 406). The author goes on to note that "From Sigmund Freud, whose patients' reports of sexual abuse from male relatives were so discounted as to form the basis of his theory of oedipal desire and penis envy, to current debates over 'false memory syndrome' that continue to keep vulnerable individuals from disclosing the harms done to them, relatively powerful social actors have consistently had the capacity to discredit and silence the memories of those in the margins" (p. 406).

For many of us doing research on forgetting and misremembering, we inherently have an impact on the legitimacy afforded to survivors' voices from the margins. Researchers are afforded great social power to legitimize viewpoints, referred to as cognitive authority (for related discussion, see Freyd, 1997). Rightly or wrongly, from cable news to magazines, researchers are often credited with the ability to identify Truth. In individual survivor cases, though, this is a power we simply do not have. Thus, our field faces numerous potential pitfalls in terms of what science can tell us about the truth of any one person's experiences. Even when we focus in on some piece of the puzzle of forgetting and misremembering that seems "objective", such as reaction times or imaging data or a checklist of remembered words from a list, it is incumbent on us to interpret that work in the particular socio-political context in which we labor. Currently, the context continues to be one where researcher voices are privileged over survivor voices. The legitimacy offered to researchers comes with a responsibility to approach research on forgetting and misremembering with tremendous humility, honesty, and open-mindedness, and with full awareness

that our conclusions have an impact on the extent to which survivors' voices on the margins are further legitimized or diminished (Freyd & Quina, 2000).

Research Findings on Victim Forgetting Generally

Given the myriad challenges in research on forgetting (e.g., victim under-reporting, difficulty defining and measuring constructs), the consistency with which forgetting (including failure to report or recall all or part of an abusive experience) is reported across studies is actually quite impressive. While the percentages of participants who report forgetting varies with the methods, definitions, and populations sampled, a diverse range of research studies and case reports consistently reveal a substantial proportion of adult survivors who experience a period of partial or complete forgetting for childhood abuse.

Though physical and emotional abuse have been linked to forgetting (as have other traumatic events, such as exposure to war), childhood sexual abuse (CSA) generally leads to greater disruption (Elliott, 1997); therefore, we focus on CSA in this review. Table 1 provides a brief snapshot of studies that have reported memory disruptions among CSA survivors. Across studies, several factors emerge in terms of links to increased memory disruption. While the factors are discussed in turn, these factors often co-occur within a single victim, and a predictor which may be statistically significant must nonetheless be interpreted in the larger context of the abusive dynamic.

Also indicated in Table 1, many studies suggest the experience of forgetting is not usually an all-or-nothing amnesia. In fact, most studies describe a continuum between complete forgetting and always remembering, here referred to as "partial forgetting." (e.g., Crowley, 2007; Gold, Hughes, & Swingle, 1999). Examples include forgetting some of the abusive incidents but not all; remembering physical abuse but not sexual abuse; or experiencing confusion about details of the original experience. Furthermore, the memory itself may be piecemeal, and may involve more primal senses such as taste or odor, feelings of pressure or touch memories, with or without accompanying visual, auditory, or narrative memory (Stoler, 2001).

Clinical versus Non-clinical Samples. Among 30 women in long-term treatment for severe and enduring abuse, Crowley (2007) found that 33% reported partial forgetting, while 47% reported complete forgetting. Gold et al. (1999) found rates of 37% and 27% for partial and complete forgetting, and Briere and Conte (1993) reported forgetting in 59% of 450 men and women in treatment. In contrast, Epstein and Bottoms (2002) and Freyd, DePrince, and Zurbriggen (2001) each found that only 14% of college students who reported childhood sexual abuse also reported forgetting, and Melchert (1996) and Melchert and Parker (1997) reported rates of 18% and 20%, respectively. Studies using national samples report slightly higher rates, between 30% and 52% (Elliott & Briere, 1995; Fish & Scott, 1998; Fivush & Edwards, 2004; Wilsnack, Wonderlich, Kristjanson, Vogeltanz-Holm, & Wisnack, 2002).

Table 1 Rates of forgetting for CSA across representative research studies

Study	Sample	% forgetting CSA	Factors increasing forgetting
Allard (2009)	79 Japanese male and female students: 53% reporting medium - and 47% reporting high - betrayal abuses	68% across types of trauma	Greater for high and medium than for low betrayal
Briere and Conte (1993)	450 men and women in therapy	59%	Earlier onset and more enduring abuse
Chu et al. (1999)	74 women inpatients reporting CSA	26% partial 34% complete	Earlier age of onset. (Earlier age also associated with PTSD and elevated DES scores.)
Couacaud (1999)	112 women	59%	Abuse perpetrated by caretaker
Crowley (2007)	30 women patients with severe, long term CSA from multiple abusers	33% partial 47% complete	
Dale and Allen (1998)	24 outpatients, 12 therapists, men and women, reporting CSA	16.5% partial 30% complete (overlapping categories due to multiple abuses)	
Elliott and Briere (1995)	152 women, 70 men reporting CSA in national stratified random sample	22% "some period" (partial) 20% complete	More threats, more distressing experience; earlier mean age of onset for complete than for partial group. No effect of age at onset, duration, frequency, penetration, incest, number of abusers, use of force
Epstein and Bottoms (2002)	104 college women reporting CSA	14%	Greater for abuse by trusted caregiver with betrayal (45%) and trusted caregiver plus shame (28%)
Feldman-Summers and Pope (1994)	24 male, 46 female APA members reporting CSA	53% for abuse by relative 44% for abuse by nonrelative	Greater number of abuses Nonsignificant tendency for age of onset and duration of abuse

(continued)

Table 1 (continued)

Study	Sample	% forgetting CSA	Factors increasing forgetting
Fish and Scott (1998)	135 male and female members of American Counseling Association reporting CSA	52%	Secrecy demanded by abuser Did not tell anyone
Fivush and Edwards (2004)	12 women reporting CSA by family member	50%	
Freyd et al. (2001)	74 college students reporting CSA	14%	Perpetrated by caretaker, regardless of age of onset or duration
Ghetti, et al. (2006)	137 women involved in legal proceedings for CSA as children; prospective study.	15%	More severe abuse, less involvement with legal system
Gold et al. (1999)	167 female outpatients	37% partial 37% complete	Younger at time of abuse
Goodman, et al. (2003)	175 young adults (141 females) involved in legal proceedings for CSA as children; prospective study.	19% did not disclose or denied ever being victim; 3 said charges were false	Younger at time of abuse, more severe abuse, less maternal support
Grassian and Holtzen (1996), reported in Herman and Harvey (1997)	42 men and women abused by same priest	47%	
Herman and Harvey (1997)	77 women in therapy	17% partial 16% complete	
Loftus, et al. (1994)	55 women in outpatient substance abuse treatment	12% some aspects of event 19% complete	No effect of incest, violence
Melchert (1996); Melchert and Parker (1997)	College women (n = 72 and 110)	18% and 20%	Perpetrated by trusted caregiver (parent or stepparent); experienced betrayal
Melchert (1999)	25 college students reporting CSA	32%	More incidents, greater severity; no effect of age of onset
Schultz et al. (2003)	82 college women reporting CSA	38%	Family substance abuse, multiple perpetrators, emotional closeness to abuser.

Stoler (2001)	26 adult women reporting CSA	58%	Younger at age of abuse, more closely related to abuser
Widom and Morris (1997)	75 women with documented CSA histories, prospective study	32% did not report in interview 20 years later	Under 5 years old
Williams (1995)	129 women with hospital records of CSA, prospective study	38% did not report; 16% had earlier period of forgetting	Perpetrator an older person against their will
Wilsnack, et al. (2002)	106 women reporting CSA from a national probability sample	26.5% (intrafamilial) 31.2% extrafamilial	Younger at onset of abuse Less support from mother

Clinical studies may in part reflect a bias in recruiting clients from agencies that specialize in treating trauma-related issues, who have self-selected as needing intervention with their recovery process. However, it is also the case that survivors who seek clinical intervention are often those with more traumatic experiences and more difficulties overcoming the myriad of symptoms associated with those experiences. Indeed, severe sexual abuse has been associated with higher levels of a wide range of symptoms, including PTSD and dissociative disorders, both of which have as symptoms memory disruptions. Chu, Frey, Ganzel, and Matthews (1999) reported that among 70 women inpatients reporting child sexual abuse, those with an earlier age of onset not only experienced greater memory disruption, but also were more likely to be diagnosed with PTSD and to score higher on the Dissociative Experiences Scale (DES). Although not analyzed with the rest of their data, Goodman et al. (2003) noted that in a subsample, those who reported forgetting also had higher DES scores. These findings are consistent with the relationship between peri-traumatic dissociation of combat, motor vehicle or disaster trauma and the development later of more serious symptoms of PTSD than in similarly trauma-exposed individuals with no dissociative symptoms (DePrince, Chu, & Visvanathan, 2006; Marmar et al., 1994; Koopman, Classen, & Spiegel 1994; Ursano et al., 1999). Further, these findings are consistent with BTT insofar as BTT implicates dissociation as potentially important to unawareness (Freyd, 1996).

Abuse Severity. As noted, while forgetting has been reported for other childhood abuses (physical and emotional), the level of disruption tends to be greater for CSA (e.g., Epstein & Bottoms, 2002; Melchert, 1999). Within CSA comparisons, the rate of forgetting is greater for those abused by an older person against their will (Widom & Morris, 1997) and in those whose court documents reveal more severe assaults (Ghetti et al., 2006). Interestingly, Melchert (1999) found that while survivors of more severe abuse reported more disruption for memory of their abusive experience(s), general childhood memory was not affected by abuse severity. Expanding the definition of severity to include the terror associated with the abusive experience, Elliott and Briere (1995) found that more threats made to the child by the abuser and more distress reported at the time of the abuse were predictors of memory disruption, while the use of force and penetration were not.

Age of Abuse Onset. Several studies suggest that very young children are more likely to forget abuse (e.g., Loftus, Garry, & Feldman, 1994; Widom & Morris, 1997; Williams, 1995), although such associations are not always observed (e.g., Melchert, 1999). Inconsistencies in observing associations between age and memory suggest that "age of onset" is probably not a singular predictor. For example, Elliott and Briere (1995) did not find that age of onset was an overall predictor of forgetting, but did observe that those reporting complete amnesia were on average younger at the time of the abuse onset than those with partial amnesia.

Early onset of sexual abuse is likely to be confounded with other characteristics of the abusive experience. For example, abuse by a family member or caregiver often starts at a young age and continues for some period of time (Courtois, 2010), which would then bring into play confounding factors of more severe types of abuse, greater betrayal, less protection from other family members, and the like. Briere and

Conte (1993) make this distinction, noting more memory disruptions among those with earlier onset *and* more enduring abuse. Furthermore, family dynamics that either support the child in resuming a normal life or fail to acknowledge the abuse or support the child (e.g., Ullman, 2007) may interact with other aspects of development (e.g., developing memory systems) to influence memory for the event.

Betrayal Trauma Theory

From a Focus on Individual Characteristics to Social Motivations

As noted previously, BTT focuses on motivations for forgetting, placing the individual victim in a social context to consider the influence of the victim-perpetrator relation. The theory predicts that closer victim-perpetrator relationships will be more strongly related to forgetting and misremembering. A host of studies now document links between the victim-perpetrator relationship and reports of forgetting across multiple data sets collected in diverse samples (e.g., undergraduates, community, help-seeking). Among undergraduates, Freyd et al. (2001) reported that physical and sexual abuse perpetrated by a caregiver was related to higher levels of self-reported memory impairment for the events compared to non-caregiver abuse. In another sample of 174 college students, those who reported memory loss for child sexual abuse were more likely to experience abuse by people who were well-known to them, compared to those who did not have memory loss (Sheiman, 1999). Further, in Epstein and Bottoms' (2002) sample of college women reporting CSA, rates of forgetting jumped dramatically higher, from an overall 14%, for those women who reported their perpetrator had been a trusted caregiver and that they had experienced betrayal (45%) or felt shame (28%).

Supporting BTT, Freyd (1996) reported on re-analyses from several data sets that showed that incestuous abuse was more likely to be forgotten than non-incestuous abuse, including a prospective sample derived from childhood visits to an emergency room and later assessed by Williams (1994, 1995). Similarly, retrospective samples assessed by Cameron (1993) and Feldman-Summers and Pope (1994) also link incestuous abuse to reports of forgetting. In addition, research by Schultz, Passmore, and Yoder (2003) as well as a doctoral dissertation by Stoler (2001) documented similar results. Schultz et al. (2003) noted in their abstract: "Participants reporting memory disturbances also reported significantly higher numbers of perpetrators, chemical abuse in their families, and closer relationships with the perpetrator(s) than participants reporting no memory disturbances." Similarly Stoler (2001) noted in the abstract to a dissertation: "Quantitative comparisons revealed that women with delayed memories were younger at the time of their abuse and more closely related to their abusers."

Stoler recruited 26 adult women who had been sexually abused as children, and found that 15 (58%) reported a period of forgetting. In qualitative interviews, the

women reporting a period of forgetting described their relationship with the abuser in ambiguous or even positive terms: a father or stepfather who was well-liked by others, who was kind and loving during the daytime while abusive at night. In contrast, women with continuous memories reported either no ongoing relationship with the abuser, or an always-distrustful, negative dynamic: a neighbor, a father who was abusive with everyone. The family dynamic also differentiated the two groups. Forgetters described initial attempts to tell someone which were met with no action at best or negative consequences at worst, while others just said simply they knew they could not tell anyone. Women with continuous memories, on the other hand, were more likely to have told someone and to have been supported, even when the abuse did not stop.

Two prospective studies (Goodman et al., 2003; Williams, 1995) examined links between children's perceived level of support from their mothers and reporting, documenting that less perceived support was associated with failure to report the abusive experience in subsequent interviews. Fish and Scott (1998) surveyed 432 members of the American Counseling Association and found that among those reporting CSA, forgetting was greater for those who had kept the abuse a secret, either because of threats from the abuser or because they were not able to tell anyone. These studies point to another aspect of CSA: the family dynamic in which abuse takes place matters for outcomes. In particular, treatment by non-abusive family members can also be harmful. Whitmire, Harlow, Quina and Morokoff (1999) found that among adult women, a history of CSA was strongly associated with a more negative family environment while growing up. Herman (1981) found that women incest survivors described their mothers as unable or unwilling to protect them, in contrast to women with fathers they felt were potential abusers but who had not acted that out.

More recently, research relevant to BTT has been extended cross-culturally. Allard (2009) studied betrayal in a sample of Japanese college students. Participants were asked to describe their full range of traumas, as well as the level of betrayal associated with each. These traumas were subsequently categorized according to level of betrayal (high, medium, and low), with sexual abuse among the high-betrayal acts. Allard reported that forgetting was more often reported for those experiences that were also experienced as high and medium betrayal than low.

Not surprisingly given the complexity of issues involved in studying forgetting of abuse, several studies report data that have been interpreted as inconsistent with BTT. For example, Goodman et al. (2003) reported that they failed to find a statistically significant relationship between betrayal trauma and memory impairment in a sample of adults who had been involved in child abuse prosecution cases during childhood. However, involvement in child abuse protection cases meant that the abuse was discovered and likely discussed repeatedly with the victims. Repeated discussion of the event and other consequences of disclosure (e.g., removal of the offender) are likely to affect memory and victim functioning, making the Goodman sample quite different from those reviewed above. In addition to the unusual nature of this sample, it is not clear whether there was simply insufficient statistical power to detect any relationship between betrayal trauma exposure and memory (see Zurbriggen & Becker-Blease, 2003).

Recent work by Lindblom and Gray (2010) points to the importance of considering the means by which researchers assess forgetting as well as the importance of BTT to understanding motivation. The studies described above largely involved participants' beliefs about their memories – that is, whether memories had ever been forgotten and if so, to what degree (an important exception to this tendency is work by Williams (1995), who compared women's reports of life experiences to documented abuse from an emergency room 17 years earlier). Lindblom and Gray measured narrative detail provided by a sample of undergraduates who met Criterion A of the PTSD diagnosis and who rated the abuse as their most distressing trauma. The authors operationalized memory in terms of word count in the narrative; perhaps because it is a highly variable measure and perhaps because of their small number of participants, word count was not significantly associated with most of their predictors. They found "more betrayal was associated with less detailed trauma narratives (p. 1)"; however, they concluded their results could be explained by factors other than BTT, such as survivor age, PTSD avoidance symptoms, and gender. Freyd, Klest, and DePrince (2010) pointed out that several problems with that conclusion. For example, it is not obvious that BTT would predict that memory for betrayal traumas should lead to the use of fewer words (even though a negative relationship between betrayal and avoidance was observed in these data). In addition, other research now suggests that betrayal trauma may mediate gender-PTSD links (Tang & Freyd, *in press*). Perhaps most importantly, though, Lindblom and Gray (2010) treat PTSD-Avoidance as unrelated to BTT, while Freyd et al. (2010) note that avoidance is indeed a form of unawareness. Further, Lindblom and Gray (2010) assessed memory in terms of the current narratives provided by college students, implicitly assuming that unawareness (as tapped by their word count measure) would continue into young adulthood when the pressure to maintain abusive attachments is presumably less than in childhood. BTT does not require indefinite unawareness – rather, the theory describes motivation for forgetting in the context of attachment and survival goals, which will of course change over time as relationships change.

In contrast to Lindblom and Gray (2010), O'Rinn, Lishak, Muller, and Classen (*under review*) interviewed 110 treatment-seeking women, all of whom reported histories of childhood sexual abuse (and many of whom reported histories of childhood physical or emotional abuse as well). Women who reported abuse by a parental figure (a high betrayal trauma) reported greater feelings of betrayal than women abused by a non-parental figure. Further, women who reported abuse by a parental figure also reported greater recovery of memories than those abused by a non-parental figure, though the groups did not differ in their reports of the clarity of memories. The question of how abuse survivors' own assessment of their betrayal, as measured by O'Rinn and colleagues, relates to outcomes is an interesting one. BTT suggests that abuse survivors will be less aware of betrayal while it is ongoing, processes that studies of adult survivors of childhood abuse are less likely to tap. As noted in considering Lindblom and Gray's (2010) findings, the BTT framework does not directly address victim/survivor responses once the abuse has ended. DePrince, Chu, and Pineda (2011) take up these issues in work examining women's perceptions of

betrayal by abusive intimate partners. They found that, consistent with BTT, less awareness of betrayal was associated with higher dissociation for recent abuse. Thus, researchers should consider the current abusive context in interpreting findings, particularly if there is no longer dependence between the victim and perpetrator.

Disentangling Motivation and Mechanism

BTT lays out issues related to the *motivation* for victim forgetting; the theory was not developed to identify or require particular cognitive mechanisms by which forgetting occurs. Indeed, explications of the mechanisms should be examined separately from those of the motivations for their occurrence. However, while BTT does not specify mechanisms by which forgetting can or must occur, the theory can certainly inform work related to mechanisms. For example, Anderson (e.g., Anderson, 2001; Anderson et al., 2004; Anderson & Huddleston, 2012) has conducted extensive work on inhibitory processes in memory, drawing specifically on BTT. As early as 2001, Anderson noted: "The proposal offered here is that betrayal traumas are much more likely to create circumstances conducive to retrieval-induced forgetting, and thus suppression, than are cases of stranger abuse" (p. 202). In addition, the study by Lindblom and Gray (2010) described above may point to the importance of avoidance mechanisms that could contribute to awareness.

Given links between dissociation and familial abuse, it has been reasonable to evaluate the role that dissociation may play in relation to unawareness and betrayal. In his seminal book on the development of dissociation, Putnam (1997) notes that the "relationship to the perpetrator emerged as a powerful predictor of pertinent outcome measures" (p. 50) in his longitudinal research with sexually abused girls. Indeed, Putnam talks at great length about the interactions of the family environment and developmental processes in the development of dissociation.

Several datasets link dissociation and betrayal traumas. For example, Chu and Dill (1990) reported that childhood abuse by family members (both physical and sexual) was significantly related to increased dissociation scores (as measured by the Dissociative Experiences Scale) in psychiatric inpatients. However, abuse by nonfamily members was not significantly associated with dissociation. Plattner et al. (2003) report that they found significant correlations between symptoms of pathological dissociation and intrafamilial (but not extrafamilial) trauma in a sample of delinquent juveniles. Freyd, Klest, and Allard (2005) and Goldsmith, Freyd, and DePrince (in press) report that high betrayal trauma exposure predicts dissociative symptoms in chronically ill participants and college students respectively. DePrince (2005) reported that the presence (versus absence) of betrayal trauma before the age of 18 was associated with pathological dissociation and with revictimization after age 18. In a study of mothers and school-aged children, maternal dissociation was significantly and positively related to maternal betrayal trauma history (Chu & DePrince, 2006). In particular, the number of betrayal trauma types to

which women had been exposed predicted higher levels of dissociation. Further, mothers who reported exposure to one or more betrayal traumas reported significantly higher dissociation scores than mothers who reported no betrayal trauma exposure. In addition, children exposed to betrayal trauma events also had higher dissociation scores than their peers without betrayal trauma exposure. Finally, both mothers' and children's histories of betrayal trauma exposures were found to significantly predict children's dissociation. Hulette, Kaehler, and Freyd (2011) report similar intergenerational effects for mothers and children with betrayal trauma histories.

In addition, still other studies demonstrate links between familial experiences more generally and dissociation. For example, Mann and Sanders (1994) reported that dissociation was associated with parental rejection and inconsistency in applying discipline among boys ($N=40$). In a longitudinal study, Ogawa, Sroufe, Weinfield, Carlson, and Egeland (1997) observed that disorganized or avoidant attachment styles in child in relation to their mothers increased the risk for developing dissociation in adolescence. Interestingly, higher levels of dissociation were linked to decreased likelihood of disclosing childhood sexual abuse in a sample of young adults who had participated in criminal justice proceedings related to the abuse approximately 10 years earlier (Goodman et al., 2003), demonstrating the complex inter-relationships among factors in this line of research. To the extent that dissociation is linked to decrease likelihood of disclosure of CSA, this has an effect on the phenomenon we can observe in the lab.

Given links between dissociation and disruptions in memory (e.g., Putnam, 1997) and/or decreased disclosure of abuse (e.g., Goodman et al., 2003) in applied research, many researchers (including Freyd and her colleagues) have turned to basic laboratory tasks to examine dissociation and cognitive functioning with the hope that such a line of work could inform models of forgetting. Freyd and her colleagues have repeatedly documented links between high levels of dissociation and alterations in basic cognitive processing in the lab (e.g., Freyd et al., 1998; DePrince & Freyd, 2001, 2004; DePrince, Freyd, & Malle, 2007). Several researchers other than Freyd have also documented links between dissociation and alterations in attention and memory. Some of this work documents links directly between dissociation and disruptions in memory in the lab, such as work by Moulds and Bryant (2002). Moulds and Bryant compared participants diagnosed with Acute Stress Disorder (ASD; which is partially characterized by dissociative symptoms; see Spiegel & Cardena, 1991) with non-traumatized participants on a directed forgetting task, where participants were directed to remember some words and forget others; and later tested on all words. The ASD group had poorer recall of to-be-forgotten trauma-related words than the non-traumatized group. In a replication and extension, Moulds and Bryant (2005) found that membership in a trauma-exposed ASD group was associated with reduced recall compared to trauma-exposed-no-ASD and no-trauma groups. In addition to the specific example offered in Moulds and Bryant's research, many studies conducted by researchers other than Freyd document links between dissociation and alterations in memory and attention function in the lab, including but not limited to: Chiu et al. (2010), Chiu, Yeh, Huang,

Wu, and Chiu (2009), DePrince, Weinzierl, and Combs (2008), De Ruiter, Phaf, Veltman, Kok, and Van Dyck (2003), De Ruiter, Phaf, Elzinga, and Van Dyck 2004, Dorahy, Irwin, and Middleton 2004, Dorahy, Middleton, and Irwin, 2005, Elzinga et al. (2007), Simeon (2006) and Veltman et al. (2005).

While some have argued or implied that specific failures to document forgetting in laboratory tasks (e.g., that involve memorizing lists of words) diminishes the validity of BTT (e.g., Devilly et al., 2007; McNally, 2012) or of forgetting for abuse altogether, such arguments simply do not make sense (see, e.g., Freyd et al., 2007). Failure to identify mechanisms in the lab does not mean that phenomena do not exist in the real world; rather, failure to identify mechanisms in the lab simply means researchers have not yet identified and/or manipulated conditions in the lab in a way that reflects the real world. Brewin (2007) notes problems with some of the critiques leveled based on laboratory findings:

More recent evidence...indicates that dissociative reactions at the time of the trauma are linked both with a disturbance in voluntary trauma memories and with an increased risk of involuntary trauma memories. Individuals with high levels of dissociative symptoms are less likely to disclose previously documented abuse in their childhoods (Goodman et al., 2003), and are superior at forgetting trauma words (Moulds & Bryant, 2002, 2005). DePrince and Freyd (2001, 2004) conducted directed forgetting experiments with healthy volunteers who were low or high in trait dissociation, requiring them to forget neutral and trauma-related words. They reported that the high dissociators were superior at forgetting trauma words, but only when they were distracted by having a secondary cognitive task. McNally Ristuccia, and Perlman (2005) conducted a similar experiment with groups of individuals reporting continuous memories of sexual abuse, recovered memories of abuse, or no abuse, but failed to support the prediction that the recovered memory group would be better at forgetting trauma words under divided attention conditions. However, it is not clear whether McNally et al.'s recovered memory group reported more betrayal trauma or were more highly dissociative, the two factors identified as critical by DePrince and Freyd. (p. 241)

Brewin (2007) goes onto note: "These results are consistent with clinical views about the importance of defensive mental processes that affect attention and memory. Although there is little firm evidence yet to link these processes to the forgetting of trauma, there is ample reason to believe they are clinically relevant and will repay additional clinical and experimental investigation" (p. 241).

In recent years, Freyd and her colleagues have documented important links between betrayal trauma exposure and a range of negative outcomes. For example, Freyd, Klest, and Allard (2005) found that a history of betrayal trauma was strongly associated with physical and mental health symptoms, including dissociative symptoms, in a sample of ill individuals. Goldsmith et al. (in press) reported similar results in a sample of college students. In addition, Reichmann-Decker, DePrince, and McIntosh (2009) found that women who reported exposure to high-betrayal abuse (compared to those who did not report such exposure) showed alterations in basic, automatic emotional processes in the lab that were consistent with caregiving-maintenance goals in an abusive environment.

Several other researchers have also documented links between exposure to traumas high in betrayal and negative outcomes. For example, Edwards, Freyd, Dube,

Anda, and Felitti (in press) used data from the second wave collected as part of the Adverse Childhood Experiences (ACE) Study (Felitti et al., 1998) to test the hypothesis that social betrayal is harmful to a variety of health outcomes. In particular, Edwards et al. compared adults whose abuser was a family member or non-relative living in the home to those whose abuser was a family friend, relative living outside the home, or a stranger on several health outcomes. Participants in this second wave included slightly less than 7,000 of the original ACE sample ($N = 17,337$). A total of 3,100 (17.4%) participants reported one form of childhood sexual abuse (fondling, attempted intercourse, or intercourse) and also identified their abuser. As reviewed by Freyd et al. (2007), Edwards and colleagues documented that "Of sexual abuse survivors, 32% reported exposure to events high in betrayal, defined as an abuser who was a family or nonfamily member living in the home. High-betrayal abuse was related to depression, anxiety, suicidality, panic, and anger. High-betrayal participants had poorer health functioning on the SF-36 role-physical, role-emotional, and social functioning scales than low-betrayal victims." The Edwards et al. study is in line with other research that suggests abuse perpetrated by caregivers is associated with worse outcomes than non-caregiver abuse. For example, Atlas and Ingram (1998) reported that, in a sample of 34 hospitalized adolescents (aged 14–17 years), sexual distress was associated with histories of abuse by family members as compared to no abuse or abuse by a non-family member, whereas post-traumatic stress was not. Turell and Armsworth (2003) compared sexual abuse survivors who self-mutilate with those who do not. The authors reported that self-mutilators were more likely to have experienced familial relative to non-familial abuse. Using a sample of trauma survivors, Kelley (2009) compared the impact of perceptions of life threat and perceptions of betrayal in predicting PTSD. Kelley found a modest association between life threat and PTSD and a strong association between betrayal and PTSD. Using a sample of college student participants, Kaehler and Freyd (2009) found an association between high and medium betrayal trauma exposure and borderline personality characteristics. These results were replicated for women in an adult community sample, whereas men showed a different pattern (Kaehler & Freyd, in press).

Misremembering: The Literature on False Events in Memory

BTT focuses not only on forgetting, but also misremembering abuse as a means by which victims maintain attachments to abusive others on whom they depend (Freyd, 1998). We turn now to research on the conditions under which memory errors occur, particularly errors of misremembering or reconstruction. We will briefly review the literature on "false memories" to identify the kinds of memory errors people make as well as the conditions under which those errors are most likely to occur. While this literature has often been used to question the validity of victims' memories, we extend discussion to consider the implications of this work for misremembering abuse events as more positive (or less negative) than they were.

Cognitive Components Underlying the Construction of False Memories

We turn first to examining the cognitive conditions under which false events are more or less likely to be planted in memory. As recently as 2009, Bernstein and Loftus reported that "Many cases of allegedly recovered memories have turned out to be false memories implanted by well-meaning therapists who use suggestion and imagination to guide the search for memories" (p. 372). Their conclusion was based primarily on the results of Loftus and Pickrell (1995) who reported that 25% of their 24 participants remembered either "fully or partially," a false childhood event (i.e., being lost in a shopping mall) that was suggested by a close relative. However, it is clear that all life events are not equally likely to be planted in memory. What types of events are relatively more or less likely to be planted in memory and what are the cognitive operations that underlie this process?

In a model first proposed by Pezdek, Finger, and Hodge (1997), it was predicted that a necessary condition for planting a suggested event in memory is that the suggested event must first be considered true. Accordingly, *plausible* events – those perceived as having a high probability of occurrence for individuals in the cohort tested – should be more likely to be suggestively planted in memory than implausible events. In fact, studies by Pezdek et al. (1997) with adults and Pezdek and Hodge (1999) with children confirmed this prediction: plausible false events (e.g., being lost in a shopping mall) were more likely to be suggestively planted in memory than implausible false events (e.g., receiving a rectal enema).

The effect of plausibility can likely account for the finding that imagining oneself performing an event increases individuals' belief that the event had actually occurred to them (Garry & Polaschek, 2000; Mazzoni & Memon, 2003). Imagining oneself performing an event – like actually experiencing the event or viewing a doctored up photograph of oneself performing an event (Wade, Garry, Read, & Lindsay, 2002) – serves to increase the perceived plausibility of the event. However, Pezdek, Blandón-Gitlin, and Gabbay (2006a) reported that whereas imagining plausible events increased people's belief that the event had occurred to them, imagining implausible events had no effect on people's autobiographical beliefs.

Although plausible events are more likely to be suggestively planted in memory than implausible events, what makes an event plausible, and plausible to whom? When conveying to participants what the plausibility of an event is, the instructions indicate the prevalence rate of the event for individuals in a specific reference group. Blandón-Gitlin and Pezdek (under review) tested the hypothesis that when the reference group upon which the reported prevalence ratings are based has more in common with an individual, the group will be more likely to affect the individual's own autobiographical beliefs and memories than when the reference group has less in common with the individual, even if the individual is literally a member of both groups. In this study with college students, knowing the prevalence rate of a target event among "other college students like you" (i.e., *cohort plausibility*) affected participants' own autobiographical beliefs significantly more than did knowing the

prevalence rate of "adults in a nationwide poll" (i.e., *general plausibility*). In light of the fact that the likelihood of forgotten memories of child sexual abuse has been reported to be a relatively implausible event both personally and in cohort members (Pezdek & Blandón-Gitlin, 2008), the results of this study suggest that the probability of planting a false memory of sexual abuse, for example in therapy, is likely to be low except when it is suggested that this event is likely to have occurred to other people who have much in common with the client. Simply knowing that rates of sexual abuse are relatively high in the general population is not likely to lead an individual to believe that they themselves may have been sexually abused.

According to the model of Pezdek et al. (1997), once an event is judged to be true, details of the generic script for the event as well as details from related episodes of the event are "transported" in memory and used to construct a memory for the suggested false event. It should thus be the case that the more one knows about a suggested event (that is, the greater the corpus of an individual's relevant background knowledge), the more likely it is that the suggested event will be incorporated into memory. To test this component of the model, Pezdek, Blandón-Gitlin, Lam, Hart, and Schooler (2006b) independently manipulated plausibility (the prevalence rate for the target event was described as high or low) and background knowledge (detailed descriptive information about the target event was presented or not). The main effect of each of these factors significantly affected individuals' beliefs that the target event had occurred to them in childhood. Similar results have been reported by others, including Mazzoni, Loftus, and Kirsch (2001). However, it is important to note that the background information provided only influenced people's beliefs about an event that was more consonant with their personal experiences. For example, if background details are presented about a target event administered in a hospital, and the individual knows that she was never in the hospital as a child, providing this background information is not likely to affect her belief that the suggested target event had occurred to her. These findings suggest that gaining knowledge about sexual abuse may be more likely to produce false memories of sexual abuse if one possesses relevant experiences to which that knowledge might apply. For example, gaining knowledge about sexual abuse might be more likely to influence the memories of individuals who recall dysfunctional relationships to which additional sexual details could be added, and be less likely to influence memories of individuals without dysfunctional childhood relationships.

The final major cognitive component underlying the construction of false events in memory occurs when the source of a suggested event is misattributed to that of an event actually experienced. When this occurs, a suggested event is likely to be erroneously judged to have actually occurred. However, these source misattribution errors do not always transpire. Once a memory for a suggested false event has been constructed, can it be discriminated from a memory for an event actually experienced? Yes, usually so. According to Johnson, Foley, Suengas, and Raye (1988), (see also Johnson, Raye, Mitchell, & Ankudowich, 2012), and more current research recently reviewed by Lindsay (2009), memories for experienced events are stored and embedded in memory within an elaborate informational network that typically includes a significant quantity of perceptual details (e.g., color, sound, and smell)

and contextual information (e.g., time and place). On the other hand, memories for imagined or otherwise non-experienced events typically include less perceptual and contextual information and rather have more information about the cognitive processes that produced them. In fact, among the seven studies in which the phenomenal characteristics of memory for perceived versus suggested or imagined events were reviewed by Pezdek and Taylor (1999), in the majority of these studies, participants' (a) ratings of their confidence, (b) their ratings of the sensory clarity of their memories, and (c) the verbosity of their memory descriptions were significantly higher for perceived than for non-perceived events.

Recently, Blandón-Gitlin, Pezdek, Lindsay, and Hagan (2009) extended these findings to assess whether accounts of true events could be discriminated from accounts of suggested events that were believed to be true. Using the criterion-based content analysis (CBCA) and CBCA-trained judges, CBCA scores (as well as self-report memory measures) were significantly higher for accounts of true events than suggested events. However, for participants with "full" memories for the suggested event, there was no significant difference in ratings between conditions. Thus, although memories for true events can generally be discriminated from memories for false events, for a subset of individuals in the Blandón-Gitlin et al. (2009) study, those who had developed specially compelling false memories for events that were believed to have been experienced, CBCA ratings of these memories were similar to those of memories for true events actually experienced.

Suggestively Changing a Memory Rather than Planting a New Memory

The majority of research on memory suggestibility has used a three-stage procedure that dates back to the mid-1970s (Loftus, 1975; Loftus, Miller, & Burns, 1978; Pezdek, 1977). In this classic approach, individuals view a sequence of slides, a videotape, or a film of an event (often a traffic accident or a robbery) in the *presentation stage*. In the *suggestion stage*, the individuals are read a narrative or are asked some questions that intentionally mislead them about the identity of the target item (the misled condition), or they do not receive the misleading information (the control condition). In the *test stage*, participants are given a recognition or recall test for the original event. If memory for the target events is more accurate in the control condition than in the misled condition, this is taken as evidence for the suggestibility effect; that is, individuals have been misled by the post-event information in the suggestion phase. This is a robust effect: across numerous studies over the past 35-years, differences of 20–30% between performance on misled and control items have generally been reported.

This research on the suggestibility of memory is often used to support the claim that it is relatively easy to suggestively influence memory, to mislead people to believe that an event has occurred when it in fact has not. However, there is an important difference between the structure of this generalization claim and the structure

of the source experiments on suggestibility. Whereas most of the suggestibility studies are structured such that event A occurs, event B is suggested, and memory is tested for A versus B, in the generalization claim regarding planting entirely new memories, A never occurs, A is suggested, and memory is tested for A versus not-A. In the first case, memory for an event that actually occurred is changed. In the second case, memory for an event that did not occur is planted. In the few studies that have used a procedure that involves suggestively planting (rather than changing) details that never occurred (e.g., Lane, & Zaragoza, 2007; Zaragoza, & Lane, 1994), what was suggested was a detail in an event sequence and not an entirely new event that had never occurred.

What evidence is there that planting event memories and changing event memories involve different cognitive processes and have different probabilities of occurrence? Pezdek and Roe (1997) tested 4-year old and 10-year old children on their relative vulnerability to suggestibility for changed, planted, and erased memories. Each child was touched in a specific way, or they were not touched at all, and it was later suggested that a different touch, a completely new touch, or no touch at all had occurred. The suggestibility effect occurred only in the changed memory condition, but not in the planted or erased memory condition. This finding is consistent with the false memory model of Pezdek et al. (1997) mentioned above. According to this model, a false memory for an event is constructed from details of the generic script for the event as well as details from related episodes of the event. In suggestively changing a memory for an event that actually occurred, memory for what transpired would remain intact with the exception of the altered details which would replace or over-ride the relevant details in memory. In suggestively planting a whole new memory, all of the details used to construct the suggested event in memory would be transported from the generic script for the event and from related episodes. The resulting memory would thus be more similar to the original memory in the changed than the planted memory condition, and thus more likely to be held as true. Thus, although it is relatively easy to change memory for a detail of an event that did occur, it is relatively more difficult to plant a memory for an event that did not occur.

Constructing Memories: Implications for Misremembering

What evidence is there that autobiographical memory is constructed rather than simply being a recording of one's life experiences, and what factors affect this constructive process? Significant evidence suggests that the onset of autobiographical memory begins with the onset of language (Nelson, 1993a), and parent-child talk about present and past life events affects how children remember these events (Nelson, 1993b). Tessler and Nelson (1994) reported a study in which three and a half year old children were observed during a museum visit with their mothers. The mother-child conversations were recorded. Children were interviewed in their homes 1 week later and asked to tell what they remembered of the visit to the

museum. No child in either group recalled (free recall or prompted recall) any objects that had been seen but not talked about in a parent-child conversation; the parent-child conversation was a necessary condition for children's memory. Further, the content and style of each child's conversation tended to mirror that of his or her mother's conversation. Similar results have been reported by Fivush (1991).

These results supports Nelson's model of memory development. According to this model, talk between adults and children serves to structure children's experience, and this talk is internalized in the children's mental representation and subsequent recall of the experience. Thus, the way that adults construe events experienced by a child, and convey that construal to the child through language, affects how the event is remembered by the child. Accordingly, children's memory for the events of their life - their autobiographical memory - could relatively easily be socially constructed by the parent-child conversations that occur regarding these events. For example, consistent with BTT, conversations with parents, relatives, and older siblings could easily misconstrue the troubling events of one's childhood to have been happy events, and explain how troubling events could be *misremembered or reconstructed* otherwise.

The broader literature on memory errors in laboratory tasks (see DePrince, Allard, Oh, & Freyd, 2004) has important implications for misremembering. One of the most widely used tasks to study memory errors has been the Deese-Roediger-McDermott (DRM) paradigm. In the DRM, participants are asked to study a list of related words. During a later recognition task, a critical lure - a related word that was not presented with the original list - is presented. The sorts of memory errors in which a word that is related but was not presented is recalled - have been described as "false memories" and used to try to understand the risk for and experience of false memories for abuse. Indeed, in various studies with participants who report continuous versus discontinuous memories for abuse, the DRM paradigm is used to assess memory function, and presumably vulnerability for "false memories".

For example, Geraerts et al. (2009), (see also Geraerts, 2012) used the DRM as well as another task to estimate prior remembering in a sample of 120 adults who were classified into four groups: participants with spontaneously-recovered memories (recalled outside of therapy); recovered-in-suggestive-therapy memories; continuous memories; and control group (no reported abuse history). The groups did not differ in rates of overall correct recall of words presented during the DRM task. However, participants with recovered-in-suggestive-therapy memories were more likely to erroneously recall (and recognize) critical lures (that is, a related but not studied word) than participants in the other three groups. The same pattern was reported for recognition memory (though recognition memory was not independent of recall). The authors conclude:

As a group, people who believed that they had recovered a memory of CSA through suggestive therapeutic techniques showed a pronounced tendency to incorrectly claim that they had experienced events that they had not really experienced, as measured by a simple cognitive test of false memory formation. To the extent that this pattern on the DRM task is indicative of a broader deficit in monitoring the source of one's memories, this finding suggests that such reports of recovered memories should be viewed with a cautious eye, as they may reflect the unwitting interaction of suggestive therapy with preexisting deficits in source memory (p. 96).

Importantly, the "events" that the participants erroneously said they *recognized* were lures; that is, items closely related to words in the list they had in fact studied. Geraerts and colleagues interpret these findings as evidence that the participants' autobiographical memories for abuse should be viewed skeptically, particularly when recalled in therapy.

At least two issues affect interpretation and generalization of these findings. First, Geraerts et al. (2009) data seem to speak less to the problem of erroneously "remembering" a whole new autobiographical memory of a life event that did not occur (e.g., falsely remembering CSA in the context of the reality of a lifetime of pleasant to positive experiences) and more to the importance of studying how people may come to *misremember* details that are related to what they actually experienced. If people in suggestive therapy tend to misremember details of events (in the case of this research, words) that they actually experienced, it remains unclear what implications this has for understanding the accuracy of CSA memories generally (see Freyd & Gleaves, 1996). Second, these data are not representative of all memories recalled in therapy. In fact, the authors focus on a subgroup that they describe as having received suggestive therapy. Thus, we must be cautious not to use these data to impugn memories of CSA generally or those recalled in non-suggestive therapy.

These findings also highlight important questions about the meaning of different types of memory errors in laboratory tasks. The recovered-memories-in-suggestive-therapies group was as accurate as the other groups in terms of correctly recalling the studied words; however, they mis-recalled related words that were not actually presented. Thus, is it not just as reasonable to argue that these findings suggest that participants are actually accurate with regard to the gist of an event, making errors in the details of the event? By analogy to autobiographical memories, then, is it not just as reasonable to argue that these participants are more likely to make errors in details, but to be accurate about the gist of the event (in this case, that CSA occurred)?

Interestingly, much of the research on errors in details for memories, such as the findings presented by Geraerts and colleagues, has focused on possible implications for memory errors in terms of falsely recalling abuse. An equally important question raised by this research, though, is: if some people are prone to misremembering details of actual events, are these people more likely to misremember childhoods that involved abuse as more positive (and less abusive) than they were? Misremembering abusive events may help an individual to maximize unawareness for abuse by a trusted/needed other. If one misremembers an abusive childhood as more positive than it was, this might help short-term survival goals (as described by BTT); however, resolving the psychological and physical consequences of abuse when one misremembers childhood as positive may be confusing to adults trying to make meaning of their experiences.

The literature on source monitoring errors (see Johnson, 2006; Johnson, Raye, Mitchell, & Ankudowich, 2012) is very relevant to how misremembering may contribute to victims' unawareness. As noted by Johnson (2006), "Memories are attributions that we make about our mental experiences based on their subjective

qualities, our prior knowledge and beliefs, our motives and goals, and the social context (p. 760)". Johnson's work points to the importance of similarity in source memory errors, noting that "...the most compelling false memories seem to come from importation of features from real memories of actually perceived events rather than from imagination alone (p. 762)." Indeed, the source monitoring literature provides extensive documentation that these sorts of memory errors are more likely to occur when the erroneously recalled information is closely, semantically tied to a real experience. Thus, source monitoring errors may not explain for false memories of abuse in families that did not actually involve some degree of abusive behaviors (as the false information would be too different from the true information). However, this literature may have important implications for misremembering the abuse and/or abusive family context as more positive/less negative than reality. As noted by Freyd et al. (2007) and Stoler (2001), abusive family contexts often comprise a mix of abusive and caring acts directed at children. Thus, abuse and care are closely tied experiences, providing a context that increases the likelihood of source monitoring errors. Given the survival motivations described by BTT, the same processes that contribute to source monitoring errors may facilitate victims to misremember the family context as more positive than it was.

Could victims misremember childhoods as more positive than they actually were thereby minimizing awareness of abuse? Freyd (1996) writes, "It is generally noted that human beings have a bias toward positive memories...Waldfoegel (1948) discovered that adults are more likely to forget unpleasant childhood memories than pleasant ones. Wagenaar (1986) found a similar effect when he studied autobiographical memory" (p. 112–113). Similarly, Greenhoot, McClosky, and Glisky (2005) documented more positive misremembering of childhood by adolescents known to have experienced or witnessed family violence.

Thus, several pieces of evidence suggest that positive misremembering is possible. First, humans (including even violence-exposed teens) have a positivity memory bias. Second, memory errors are more likely to occur when the error is semantically-related to reality (e.g., stimuli presented in DRM and source monitoring paradigms). Third, it is easier to suggestively change a true memory than to plant an entirely new false memory (e.g., Pezdek & Roe, 1997). Fourth, abusive family contexts often also include positive experiences (e.g., Stoler, 2001). Thus, memory processes are amenable to misremembering in ways that can facilitate victim awareness of positive information and unawareness of abuse. Consistent with BTT, victims may misremember family experiences as more positive than they were to minimize awareness of abuse and therefore maintain necessary attachments.

Recovered Memories

BTT is agnostic about when and how memories are "recovered" (for research on potential mechanisms of memory recovery, see inhibitory mechanisms; see Anderson, 2001; Anderson & Huddleston, 2012). However, Freyd (1998) has written

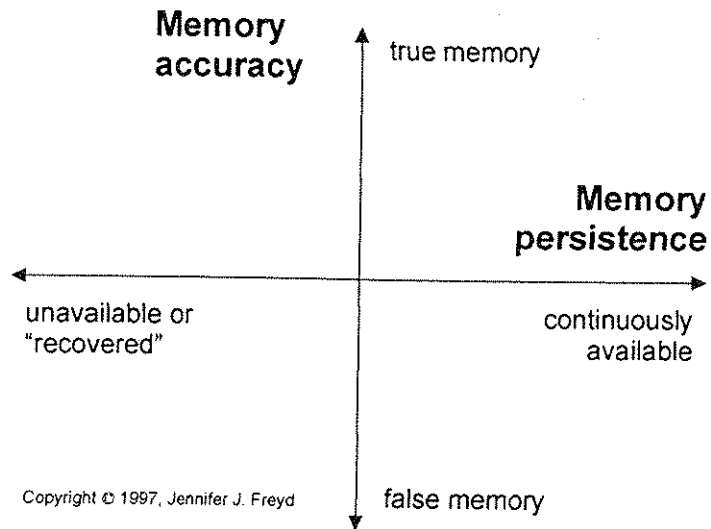


Fig. 1 Schematic depiction of two conceptually separable dimensions of memory that are often confused with one another in the context of the debate about recovered memories of abuse (Figure Copyright Jennifer J. Freyd, 1997. Reprinted with permission)

about the problematic conflation of the concepts of memory accessibility and accuracy. In particular, as illustrated in Fig. 1, Freyd (1998) argues that memory accuracy and accessibility are conceptually independent of one another. An inaccurate memory could be continuously available to someone; and an accurate memory could be unavailable for a period of time (see Freyd et al., 2007 for further discussion). Similarly, the fact that some survivors experience continuous (even intrusive) memories of corroborated traumatic events does not disprove the fact that some survivors experience unawareness (and later awareness) of corroborated recovered memories. Because the accuracy of recovered memories has important implications for the literature on trauma and memory generally as well as implications for BTT, we turn now to consider two central issues. First, what is the evidence (from both legal cases and psychological research) for the question of whether recovered memories can be accurate? And second, what role might trauma therapy play (if any) in the accurate recall of recovered memories?

Accuracy of Recovered Memories: Corroboration Research

In a recent review, Erdelyi (2010) summarizes the state of memory research as follows:

The research literature since Ebbinghaus has shown unmistakably that—terminology aside—memory for materials “not thought of”/“excluded”/“repressed”/“suppressed”/“inhibited”/“cognitively avoided”/“dissociated”/“censored”/“rejected” from consciousness declines over time.

This rule presumably applies regardless of the motive for the exclusion or the person's consciousness of the exclusion. Thus, successful repression (it is not always successful) should yield amnesia. It has also been shown, as we have seen, that retrieval effort can at least partially reverse the amnesic trend of memory and produce hypermnesia.

Thus, both defensive repression (repression used to avoid upsetting memories, with consequent amnesia) and the recovery of such repressed memories should be obvious and universally accepted in scientific psychology. (Erdelyi, 2010, p. 630).

While a rich history of memory research now documents that unawareness and later recall are possible, considerable dialogue still surrounds the veracity of recovered memories. For better and sometimes worse (as discussed elsewhere, because of problems such as lack of witnesses, fallibility of offender memory), researchers have tended to treat corroboration of recovered memories as the gold standard by which to evaluate the veracity of those memories. As we review below, a substantial number of survivors obtained evidence to support that the abuse on which their recovered memories were based indeed took place. These cases document, therefore, that accurate recall of recovered memories is in fact possible (though, at this juncture, such cases do not help to describe the conditions under which accurate recall is most likely).

It is important, however, to put the issue of corroboration into perspective: a lack of corroboration for trauma does not mean the claim is false.¹ Not all CSA survivors attempt to corroborate their traumatic memories, and among those who do, not all are able to find any evidence, due to the circumstances, deaths of perpetrators and other family members, and the like. The focus on corroborated cases of recovered memory should not be conflated with an expectation that such evidence should exist in every case. An examination of corroborated cases of recovered memory can nevertheless be useful, since the sheer number of these cases disproves the extreme position that such cases do not exist. Furthermore, corroboration has been documented for victims with both continuous and recovered memories of the abuse.

No accepted definition for the term corroboration exists in the fields of psychology or law. In both psychology and law contexts, various kinds of evidence might be considered corroborative, and in turn, corroborative evidence can provide differing levels of proof. If corroboration is defined in the strictest ways, cases with corroboration are unusual, but available. In evaluating the difficulties in classifying abuse allegations in the Child Protective Service context, Herman (2005) notes that sometimes "there is absolutely clear and convincing corroborative evidence that abuse has occurred." In his view, the four best kinds of corroborative evidence are: medical, documentary, eyewitness, and confession. The same categories of evidence appear in many other studies.

¹Until the 1980s, some states required corroboration from external witnesses to proceed with charges of rape, based on the assumption that women and children were prone to lying about sexual assault. These unreasonable requirements frequently prevented women and children from testifying about their own abuse, even when the event had just recently occurred and memories were fresh. Advocacy groups that today dismiss uncorroborated reports of recovered memory are adopting a similar position, often accompanied by the suggestion that women and children experience "false memories," or worse yet, lie about abuse.

As strong as these types of evidence might appear, it is important to note there are potential exceptions to each one. Only some kinds of medical evidence are considered *diagnostic* of sexual abuse; many medical findings are considered *indicative* or *supportive* but not *diagnostic*. Confessions can be false and eyewitness testimony can be erroneous. Documentary evidence, such as photographs or videotapes, would seem to be the strongest evidence of all, but even videotapes can be contested in various ways. Couacaud (1999) addressed these concerns by grouping types of corroboration according to the degree of external validation potentially available. High corroboration involved evidence that could potentially be examined independently, such as court records, medical records, police records, documentary evidence. Medium corroboration comprised statements from friends, family, or other victims. An example might be a childhood friend who corroborates that he or she was told about the abuse at the time. One could verify whether the friend made that claim, but there is no way of verifying whether it was true in the first instance. The lowest form of corroboration in Couacaud's (1999) study of 112 adult, female sexual abuse survivors was evidence that the perpetrator abused others. That kind of evidence is often excluded in criminal cases because its probative value is considered lower than its potential to suggest guilt by association, but it is generally allowed in family court.

Evidence from Legal Cases: The Recovered Memory Project

The Recovered Memory Project (Cheit, 1998; www.recoveredmemory.org), an internet-based archive of corroborated cases of recovered memory, was created in part to address the claim that corroborated cases did not exist. Launched in 1997, the archive is a collection of cases that disprove this claim. The archive currently contains 101 cases of recovered memory with corroborative evidence varying from extremely strong to circumstantial. The accumulation of cases and the lack of criticisms of most cases in the Archive provide compelling evidence that recovered memories can be later recalled accurately.²

An example of strong corroborative evidence is Julie Herald's recovered memory of sexual abuse by her uncle, Dennis Hood. Herald presented a taped telephone conversation in which her uncle indicated that she "had been the only one". Further, Two therapists testified that at a meeting in their offices, Hood admitted sexually abusing Herald (Fields, 1992). The jury verdict assessing compensatory and punitive damages against Hood was upheld by the Ohio Supreme Court.

²An additional impetus was the claim by a television documentary producer for PBS that after almost a year of research she could find "only one case where a claim of recovered memory could be backed up by anything more substantial than a woman and her therapist believing it so" (Johnson, 1995, p. C3).

Another example of strong corroboration is Peter VanVeldhuizen's memories of childhood sexual abuse from 1966 to 1968 by Reverend J. Van Zweden of the Netherlands Reformed Congregation Church in Iowa. VanVeldhuizen did not recall the abuse until February 1991, while undergoing psychotherapy. To avoid litigation, VanVeldhuizen agreed to submit the claim and all related evidence to the Institute for Christian Conciliation. VanVeldhuizen introduced a variety of corroborating evidence, including testimony that Rev. Van Zweden sexually abused his grandson and eyewitness testimony to one of the incidents of sexual abuse of Peter VanVeldhuizen by Rev. Van Zweden. The mediator concluded that "Peter has more than met the highest biblical standard of proof, which is actually required only in capital offenses, namely, that the sin be confirmed by the testimony of at least two witnesses." This case is particularly notable because VanVeldhuizen's access to his highly corroborated memories returned during therapy.

The archive also contains cases with lower levels of corroboration. An example of a case with circumstantial corroboration is Marilyn VanDerbur, a former Miss America. Her memories were corroborated by her sister, Gwen Mitchell, who had continuous memory of similar abuse and long thought that she "was the only one" sexually abused in the family (Germer, 1991). The corroborative evidence is not direct proof, but it is one of the three types of corroborative evidence incorporated into the framework adopted by Geraerts et al. (2007).

The only other significant critique of the archive to date involves McNally (2003), who noted that Archive is an "important step toward providing the evidence for recovered memory of traumas" but raised a concern about the financial motives that might cause people with continuous memory of abuse to claim recovered memory.³ According to McNally, "state laws seldom permit people to file suit against alleged perpetrators unless the memories were entirely repressed" and concluded that this "is a serious problem" (p. 223) for the civil cases in the archive. McNally's critique was based on an incorrect view of the law. Many states that allow for civil claims for recovered memory also allow for claims by those who had continuous memory but only recently comprehended the wrongful nature of the abuse. There is no incentive to claim recovered memory in states that also have "comprehension-based" statutes of limitation (Cheit & Jaros, 2002). Given that a comprehension-based claim is not subject to the same controversy as a recovered-memory claim, the incentives would be *against* making a claim of recovered memory in those states. Williams (2000) did a careful survey of these differences in state statutes and concluded that there were only six jurisdictions (including the District of Columbia) that were "recovered-memory only." Thus, McNally's "serious problem" applies to only a handful of cases in the Archive.

As further evidence against a "serious problem" of financial motives in the Archive, the Archive includes several criminal cases that did not involve any civil claim for damages. There are also civil cases where the claimant did not expect to

³Piper (1999) challenged the factual basis of seven of the original 44 cases; however, even these seven cases are factually defensible (see queryCheit, 1999).

Table 2 Reports of memory corroboration by CSA survivors

Study	Sample	% obtaining corroboration
Chu et al. (1999)	19 women reporting complete amnesia for CSA who attempted corroboration	89%
Couacaud (1997)	112 women	46% (delayed recall) 65% (continuous recall)
Feldman-Summers and Pope (1995)	24 male, 46 female APA members reporting CSA	46.9%, across types of abuses
Geraerts et al. (2007)	57 adults (45 women) reporting discontinuous memories of CSA; 71 adults (55 women) reporting continuous memories	37% (discontinuous, recovered outside therapy); 45% (continuous); 0% (discontinuous, "suggestive therapy")
Hardt and Rutter (2004)	Review of eight studies	Concludes "retrospective reports of serious abuse/neglect/conflict are sufficiently valid to be usable" (see their Table 1)
Herman and Shatzow (1987)	53 outpatients and former patients	74%, not different from those with continuous memories
Melchert (1999)	38 college students reporting CSA	50% "some form"
Stoler (2001)	26 community women reporting CSA	86% (delayed memories); 46% (continuous memories)

collect anything, including a few from the "recovered-memory only" states. There are also cases where the recovered memory could never be subject to a financial claim, including cases involving war trauma or murder. McNally did not acknowledge or examine the myriad cases in the Archive that contradict his concern.

Evidence from Research Studies on Recovered Memories

In addition to the Archive, clinical and survey research provide important evidence to demonstrate that corroboration of recovered memories of child sexual abuse can occur, although most of these studies rely on self-reports and have not applied as strict standards (see Table 2). One of the earliest studies to examine corroboration of recovered memories was conducted by Herman and Shatzow (1987). Among 53 female outpatients who had participated in short-term therapy groups for incest survivors, 64% did not have full recall of the sexual abuse. However, 74% of the women were able to obtain confirmation of the abuse from another source. Schooler (1994) later reported on a personal communication with lead author Judith Herman, who indicated that the corroboration rates did not vary significantly by whether the memory was continuous or not.

Dalenberg (1996) found that "memories of abuse were found to be equally accurate whether recovered or continuously remembered" (p. 229). Using a prospective method, Williams (1995) investigated the memories of women who, 17 years earlier as children, had been admitted into a hospital emergency room for sexual assault. Williams noted that: "In general, the women with recovered memories had no more inconsistencies in their accounts than did the women who had always remembered. (p. 660)". Williams commented further: "In fact, when one considers the basic elements of the abuse, their retrospective reports are remarkably consistent with what had been reported in the 1970s" (p. 662).

Feldman-Summers and Pope (1994) also examined the presence of corroboration among participants who reported recovered memory for child sexual abuse. Almost half (46.9%) of the participants who reported recovered memories ($n=32$) were able to find corroborating evidence. Further, 15% of the participants reported more than one type of corroboration. Couacaud (1997) found similar results: among adult women reporting a period of time when they could not recall some or all of an experience of CSA, 46% found corroborating evidence, compared to 65% of those who reported continuous memory.

Stoler (2001) found that almost twice as many – 86% – of women who reported a period of forgetting had corroborated their memories through another victim or a family member, compared to 46% of the women with continuous memories. Her qualitative interviews revealed that women who had recovered memories were more likely to attempt corroboration, since their memories were unexpected, confusing, and in some cases, incomplete.

Schooler and his colleagues added to this literature with a "corroborated case study" method that involved a detailed factual investigation of the circumstances and corroboration surrounding reported cases of recovered memory. Schooler et al. (1997) found evidence that some participants who reported recovered memory of abuse had apparently forgotten that they reported the abuse to someone else at an earlier date. This finding demonstrates the inadequacy of dichotomous categories that classify memories as either continuous or long-forgotten. Given that the cases all involved some form of corroboration, this research also contradicts the extreme position that trauma is always memorable and that reports of recovered memory of sexual abuse are always fictitious.

Geraerts et al. (2007), Geraerts (2012) also examined the presence or absence of corroborative evidence in a laboratory study that involved 128 participants, 57 of whom reported indicated that there was "a time when you were completely unaware that you had ever been a victim of abuse, and that you later came to remember that you were abused" (p. 565). Of those 57, only 16 (28%) indicated that they recovered access to memories during therapy. Relying on three types of corroborative evidence (another person reported learning of the abuse soon after it occurred, reported abuse by the same alleged perpetrator, or reported having committed the abuse), the authors found that the corroboration rate for memories recovered outside of therapy did not differ from the corroboration rate for those continuous abuse memories. The authors reported significantly more corroborative evidence for memories recovered outside of therapy than for memories reported to have been

gradually recovered in therapy; however, the authors acknowledge that criteria for corroboration applied in the study do not prove the accuracy of the underlying memory beyond a reasonable doubt. That is, this evidence does not indicate that the memories recovered outside of therapy were necessarily more accurate than those recovered in therapy. Since only a small proportion of their sample recovered memories in therapy, and most of their sample was adults reporting less severe assault (fondling and oral sex without strong fear), it is difficult to draw conclusions about memory reliability based on lack of corroboration from their data.

Implications of Trauma Therapy for Recovered Memories

One of the issues that has fueled contention in the field over issues of forgetting and remembering is the allegation that therapists “implant” false memories of trauma, especially of childhood sexual abuse (CSA), in clients with no such history (e.g., Bernstein & Loftus, 2009). Because claims about therapy have played a prominent role in questions about the phenomena of forgetting and misremembering, we turn now to a brief discussion of treatment issues that are relevant to evaluating claims about memory from the empirical literature. The approach to treatment that was purportedly responsible for this phenomenon was “recovered memory therapy” (RMT). One puzzling aspect of this claim is that there is no established form of psychological treatment corresponding to this term. As Schefflin (1999) noted, “there are no known schools of recovered memory, no conferences on how to practice recovered memory therapy, nor are there any textbooks on the topic” (p. 2).

Schefflin’s (1999) observation points to a source of continuing frustration for experts in the treatment of CSA-related problems. Careful inspection of the literature on the treatment of CSA survivors will show that memory uncovering is not currently advocated as a central treatment strategy (see, e.g., Briere, 1996; Chu, 1998; Cloitre et al., 2006; Courtois, 2010; Gill, 1988; Gold, 2000). In fact, this has been the case since the development of treatment approaches for this population first emerged in the late 1980s. One of the earliest comprehensive works on therapy for survivors of CSA, *Healing the Incest Wound* (Courtois, 1988), contained a mere two-paragraph section titled “Recounting the Incest.” Even within this brief segment, Courtois explicitly stated that exhaustive disclosure of abuse details is *not* required for effective treatment. She does mention that it is not unusual for memories of abuse to arise during the course of therapy, but the clear implication is that this phenomenon occurs spontaneously rather than being a purposeful aim of treatment.

Although rhetoric in the recovered memory debate has implied that most traumatic memories characterized by delayed recall emerge in treatment, empirical research strongly contradicts this claim. In a national probability sample, Wilsnack et al. (2002) observed that less than 15% of previously-forgotten CSA memories had been recovered during the course of therapy. Elliott (1997) reported that in a survey of a community sample of 505 adults, 72% reported having experienced some form of trauma, and of these 32% reported some degree of delayed recall.

Among 12 cues for delayed recall, the most common was a media presentation (54%) and the *least common* was psychotherapy (14%). Her findings not only indicate that delayed recall is much more often triggered outside of the context of therapy than within it, but also demonstrates that recovered memory is a phenomena that occurs in every type of trauma, not just in CSA.

What, then, do therapists with expertise in psychological trauma focus on in treatment, if not encouraging clients to access to memories of abuse or other forms of trauma that were previously inaccessible? When trauma practitioners do address traumatic memories, it is usually not to foster the emergence of incidents that were not previously retrieved. Rather, most often recollections of trauma that the client already knows about are targeted for systematic exposure. Although there is a range of variations on this basic technique, such as prolonged exposure (PE; Foa & Rothbaum, 1998), eye movement desensitization and reprocessing (EMDR; Shapiro, 2001) and traumatic incident reduction (French & Harris, 1999), all are based on the principle that when a fear response has been conditioned to a particular stimulus, substantial efforts are commonly made to avoid that conditioned stimulus (CS). In this case the CS is the thinking about traumatic event and encountering stimuli that are associated with that event. By intentionally and systematically confronting the memory of the traumatic event, the fear response (in traumatic events, the fight/flight reflex) is eventually extinguished (Foa & Rothbaum, 1998). It is generally agreed among trauma therapists that when conducting exposure-based intervention approaches, it is not necessary to press for any more traumatic material than the client already remembers. While additional details may spontaneously emerge during the exposure process, whatever the client has retained is sufficient to serve as the target of exposure.

For some time now, trauma specialists have recognized that in clients with CSA histories, who often experienced repeated instances of molestation over a prolonged period of time, processing of traumatic memories, either through exposure or other means, should neither be the initial nor the most central focus of treatment. Rather, particularly in individuals with repeated or prolonged trauma, therapy should be "phase-oriented," unfolding as a three-stage process (Courtois, 2010; Courtois, Ford & Cloitre, 2009; Herman, 1992). The first stage centers on the establishment of *safety and stabilization*. Part of the initial assessment is aimed at determining whether the trauma is, in fact, over or whether the client continues to be endangered. A common example of the latter circumstance is someone who presents for therapy while still ensnared in a relationship marked by domestic violence. Rather than encouraging the processing of the still-being-experienced trauma in the battering relationship, the first order of business is to foster the development of a safety plan so that if violence erupts again the client is equipped to get away and escape to a secure place whether the violent partner is not likely to be able to follow. Where the trauma is not currently continuing, the primary goal of this first stage of therapy is to help the client stabilize, e.g., by teaching methods for reduction of anxiety and other forms of chronic distress, bolstering and expanding the client's coping skills, and, to the extent possible, establishing or enhancing adaptive occupational and social functioning.

We are ultimately left, however, with a seemingly glaring contradiction. The mainstream literature on trauma treatment does not advocate suggestive or leading therapeutic practices, and for quite some time now have often explicitly discouraged them

(see, e.g., Chu, 1998; Courtois, 2001; Gold & Brown, 1997). And yet, Geraerts et al. (2009), (see also Geraerts 2012) were able to identify respondents who recovered memories of CSA in therapy that used leading and suggestive approaches very different from those described above, which raises two important issues. First, Geraerts et al. research is not epidemiological in nature. Their sample was one of convenience, not a random sample of people in therapy. Thus, their research tells us that people report therapy that involved suggestive techniques, but not about how generalizable these findings are to the public at large nor how their particular findings extend to people who recall memories of abuse in therapy that was not suggestive.

The second issue is how to explain that suggestive therapy is taking place at all. Sadly, despite an extensive body of literature documenting that traumatic experiences and trauma-related disorders are highly prevalent (Gold, 2004), training in empirically validated and widely accepted treatment methods among experts in psychological trauma remains limited. Coverage of this area in most graduate programs in the helping professions is minimal to non-existent (Courtois & Gold, 2009; Miller, Coonrod, Brady, Moffitt, & Bay, 2004).

This observation points to a painful irony at the core of the recovered memory controversy. Detractors of trauma therapy have long accused practitioners of using intervention tactics that are suggestive and likely to implant false recollections of CSA in their clients. We would argue, however, that it is not therapists who are knowledgeable about and skilled in treatments in trauma psychology who engage in these practices. The mainstream literature on the subject does not promote such interventions. On the contrary, it explicitly discourages their use. Instead the literature emphasizes intervention strategies aimed at augmentation of present-day coping and adaptation as the initial and primary focus of treatment, particularly for survivors of prolonged CSA. Taken as a whole, the body of evidence suggests that it is clinicians who have *not* been adequately educated in trauma psychology that are at risk for employing suggestive approaches to therapy. What is called for, therefore, is not the suppression of trauma therapy, but just the opposite. In order to reduce the use of suggestive techniques while meeting the needs of survivors for mental health services which effectively address their trauma-related difficulties, much more extensive incorporation of mainstream, empirically grounded approaches to trauma training into the core curriculum of graduate education for mental health practitioners is indicated (Courtois & Gold, 2009).

Before Moving Forward, Taking a Look Back: The Historical Context for Studying Memory Processes

We have reviewed empirical and theoretical work on forgetting and misremembering trauma, particularly CSA. The research and clinical work that shapes this literature did not take place in a scientific vacuum – rather, this work developed in a very specific socio-political and historical context. Thus, before describing future research directions derived from BTT, we first take a look back to examine the socio-political and historical context that has influenced research to date. This context

is important for understanding and interpreting where we have been – and perhaps even more important for setting the course for future research.

Our generation is not the first to be fascinated by memory puzzles. In fact, the complexity of memory has captured researchers' attention since the inception of psychology as a discipline. Factors influencing recall, limitations, and techniques for improving memory were well established with early research (e.g., Carmichael, Hogan, & Walter, 1932; Ebbinghaus, 1885; Miller, 1956; Sears, 1936). Of particular interest to researchers have been questions related to the conditions under which memories are flawed. For example, Bransford and Franks (1971) demonstrated misremembering of complex sentences when participants were presented with shorter sentences containing overlapping words and semantic meaning, sparking debate about methodological issues such as mode of presentation (Flagg & Reynolds, 1977). In a series of early studies, Loftus and her colleagues (e.g., Loftus, 1975) demonstrated misremembering of specific objects in fast-moving films of an auto accident or enactments of a classroom disruption, particularly when viewers were questioned with misleading cues.

These early demonstrations of memory fallibility largely relied on verbal or visual stimuli, such as lists of words or brief movies, shown under controlled conditions in laboratory settings or classrooms. Failures in individuals' memories for personal events were discussed in clinical and case studies, especially the psychoanalytic literature of Charcot, Janet and Freud (see Herman, 1992). These studies involved naturalistic observations, often of people whose basic human rights to safety and dignity had been violated through interpersonal violence committed by the people closest to them. After World War I, clinical reports of memory disruptions related to "war neurosis" began to appear, drawing the attention of a wider audience of professionals. Sears (1936) reviewed evidence for memory repression and dissociation after diverse traumatic experiences, including war, drawing from both research and clinical sources. While he attempted to bring together these two diverse types of information, he also acknowledged the necessary divide between research data and individual experiences. The phenomena of forgetting and misremembering combat experiences were widely accepted after World War II. In fact, after veterans returned from Vietnam reporting disruptions in memory processes (both intrusive and dissociative), Posttraumatic Stress Disorder (PTSD) was introduced into the Diagnostic and Statistical Manual of Mental Disorders-III (DSM III, American Psychiatric Association, 1980). The PTSD diagnosis included a criterion of memory impairment then and has retained this criterion through to the current DSM IV TR, (American Psychiatric Association, 2000).

Interpersonal Violence and the Socio-Political Context of Trauma Memory

In the 1970s, adult survivors of sexual abuse and rape began to speak out, much as their counterparts who had survived combat in the Vietnam War also began to speak out (see Herman, 1992 for a review). Survivors of rape and abuse did so in

non-therapeutic contexts for the most part; the earliest collections of autobiographical writing by adult survivors of childhood abuse emerged from political and literary contexts (e.g., Angelou, 1969; Armstrong, 1978; Bass & Thornton, 1983). Following behind the survivors, the mental health disciplines began to acknowledge the impacts of childhood sexual abuse (CSA; Courtois, 1988; Herman, 1981; Quina & Carlson, 1989). As the experience of childhood abuse was moved by professionals from its grass-roots feminist political and consciousness-raising context into a medical-psychological one, the diagnosis of PTSD was applied to traumatized abuse survivors.

The subsequent groundswell of research on trauma, including child abuse, forever changed the field's view of trauma exposure. At first defined as *an event outside the realm of usual human experience* in DSM III, the very definition of trauma had to be changed in the next edition to reflect the fact that a vast majority of Americans report exposure to some form of trauma in their lifetimes (Davidson & Foa, 1991). Indeed, research in the 1980s and 1990s documented that exposure to interpersonal traumas, including child physical and sexual abuse, is far more common than previously believed. Contemporary, well-executed epidemiological studies indicate that approximately 80% of youth already report at least one lifetime incident of victimization; 15% of youth report lifetime maltreatment exposure (Finkelhor, Ormrod, & Turner, 2009). Approximately 10–11% of youth ages 3–11 report exposure to multiple forms of victimization, which Finkelhor and colleagues describe as poly-victimization. These numbers are particularly startling insofar as they involve youth; the rates of exposure for these young people may go even higher as they continue to develop into adulthood and experience new traumatic events as they age. In fact, other researchers have documented that violence early in life begets exposure to additional violence (e.g., Classen, Palesh, & Aggarwal, 2005; DePrince, 2005), pointing to the complexity and severity of the reality of abuse for many young people.

Some of those CSA survivors writing their stories in the early 1980s reported that the memories of their abuse had surfaced unexpectedly, sometimes after decades of being unaware of their existence (e.g., Armstrong, 1978; Bass & Thornton, 1983; Butler, 1978). Clinicians working with CSA survivors began to report that clients had recovered memories of CSA as a matter of course in their practices. As noted, many clinicians had long observed delayed recall in survivors of other traumas; however, reports of CSA were often dismissed as fantasy-driven. As feminist therapy changed the *social* context of understanding psychology and effective therapy in the 1980s, and as survivors began breaking their silence and connecting with others who could corroborate their reports, clinicians began to accept the veracity of CSA reports, including those once forgotten (Pope & Brown, 1996). It is in this context that BTT offered an important way to understand why CSA might be associated with forgetting.

As the enormity of both CSA and attendant memory difficulties became apparent, perpetrators began to be held legally and morally accountable, often years later after victims were grown and able to speak out. In some cases, charges of CSA occurred after the survivor remembered the abuse following a period of forgetting.

Perhaps in response to a new demand for accountability (e.g., in the courts), some began to question the reliability of recovered memories, and even the possibility that forgetting and remembering could occur. "False memory" became the subject of academic and legal debate for the next two decades [for reviews, see the report of the American Psychological Association Working Group on Investigation of Memories for Childhood Abuse (Alpert et al., 1996); special issues of *Consciousness & Cognition* (1994, volume 3, issues 3–4) and *Ethics & Behavior* (1995, volume 8, issue 2)].

During this period, organizations arose dedicated to discrediting survivors' delayed memories and targeting therapists who had witnessed survivors' stories when memories of CSA emerged. A "false memory syndrome" (FMS) narrative portrayed clients as the suggestible victims of unscrupulous or naïve therapists (see, e.g., Olio & Cornell, 1998; Pope, 1997). Since so many (though not all) of those who reported delayed recall for abuse memories were women, it was noted that the undertones of the FMS narrative appeared to include covertly sexist, and often overtly anti-feminist sentiments (see Brown, 1996). The circumstances of CSA made it all too easy to discount survivors' stories out of hand. Unlike combat (and other traumas more commonly experienced by men than women), where the trauma is public and therefore witnessed by those who can corroborate events, the only other witness to CSA is often the perpetrator.

Balancing Perspectives on Trauma Memory

Thankfully, the majority of researchers and clinicians have moved largely beyond the extreme positions of the past two decades, with wide acceptance of reports of memory disruptions in adult CSA survivors, observed in men and women after emotional, physical and/or sexual abuse in diverse samples (see Table 1). While there continue to be lawsuits against therapists in which expert witnesses testify that it is impossible for a childhood trauma to be unavailable to memory and then return to conscious recall, one of the genuinely positive results of the so-called memory wars has been the flourishing of solid research on forgetting, misremembering, and remembering abuse.

As the field embarks on the creation of high-quality psychological science to enhance understanding of issues of forgetting and misremembering, it is important to keep conversations rooted in the socio-political context in which abuse occurs. As researchers asking questions about memory for trauma, we are necessarily also asking questions that have bearing on issues central to basic human rights, which are violated when children are abused. In her now-classic text, *Trauma and Recovery*, Judith Herman (1992) captures poignantly the complex socio-political context in which society (including scientists) react and respond to human-induced traumas such as child abuse:

To study psychological trauma means bearing witness to horrible events. When the traumatic events are of human design, those who bear witness are caught in the conflict between the victim and the perpetrator. It is morally impossible to remain neutral in this conflict. The bystander is forced to take sides. It is very tempting to take the side of the perpetrator. All the perpetrator asks is that the bystander do nothing. He appeals to the universal desire to see, hear, and speak no evil. The victim, on the other hand, asks the bystander to share the

burden or pain. The victim demands action, engagement, and remembering. After every atrocity one can expect to hear the same predictable apologies: it never happened, the victim lies, the victim exaggerates, the victim brought it on herself and in case there is time to forget the past and move on. The more powerful the perpetrator, the greater is his prerogative to name and define reality and the more completely his arguments prevail. In the absence of strong political movements for human rights, the active process of bearing witness inevitably gives way to the active process of forgetting. Repression, dissociation and denial are phenomena of a social as well as individual consciousness. (p. 8).

Questions of forgetting and misremembering cut to the heart of how society views and evaluates victims' and survivors' voices. The science that we produce is informed by and consumed in a particular socio-political context, one that has most often privileged the voice and reality of the offender over the voice and reality of the victim. Offenders are commonly members of the dominant groups of a culture; they are overwhelming male, they are adults when their victims are children, they are often situated in positions that are accorded institutional reverence and respect—parent, teacher, coach, priest. They carry the privilege of their social position, which includes the power to be believed by those around them, to be found credible, rational, and right.

Victims, conversely, are usually among the most vulnerable members of our society. They are children; many of them are girls. Many of the boys, according to the most recent research, are gender non-conforming or gay (Balsam, Rothblum, & Beauchaine, 2005). They may be emotionally dysregulated and engage in self-destructive behaviors, such as abusing substances and sometimes their own bodies, (either because they were abused or because perpetrators seek out victims with such attributes who are less likely to be believed; Salter, 2003). A few survivors, lacking interventions or support, find their lives spiral into further vulnerability, including a lack of education, addictions, sex work, and incarceration (Farley & Barkan, 1998; Quina & Brown, 2008; Zierler, Feingold, Laufer, Velentgas, & Mayer, 1991). Thus, victims are easy to discount or disbelieve, particularly relative to more powerful abusers.

Today, cognitive scientists have developed sophisticated research paradigms to ask incisive questions about forgetting and misremembering, and are contributing greatly to our understanding of traumatic memory. Memory is subject to error and false accusations sometimes do occur. However, it is incumbent on researchers who study forgetting and misremembering to simultaneously acknowledge the reality of child abuse in our society. CSA is a violation of the basic human rights of a child. Like all such violations, attempts will be made by its perpetrators to cover it up. As Sears' (1936) admonishments remind us, researchers also need to remember that the results of a laboratory study do not always neatly line up with the experiences of a child experiencing nightly rape by a parent, or an adult recalling such childhood experiences.

Using BTT to Frame New Directions of Inquiry

As reviewed in the previous section, the field has come to recognize the reality of child abuse experienced by a significant minority of the population and the very real consequences for memory for abuse. In the context of this larger literature on memory for abuse, BTT provides a useful framework for understanding conditions under

Table 3 Contributions of BTT to existing research and future directions

Contributions of existing BTT-related research

- Motivations for unawareness
- Documenting reports of forgetting
- Cognitive correlates of betrayal trauma exposure
- Physical and psychological correlates of betrayal trauma exposure

Future directions of BTT-related research

- Non-offending parent (or bystander) memory
- Perpetrator memory
- Application of memory error research to unawareness for betrayal (e.g. misremembering abuse/abusive contexts as more positive than they were)
- Re-conceptualization child abuse traumas in terms of betrayal (rather than primarily fear)

which forgetting and misremembering may occur. For example, while much of the literature on forgetting has assumed forgetting is amotivational, caused simply by passive processes such as decay (see Freyd, 1996), BTT describes a motivation for forgetting and misremembering. Though BTT does not specify mechanisms by which forgetting occurs, the theory sets the stage for several lines of inquiry that have now provided fruitful information for the field. Several studies now document cognitive correlates of betrayal and dissociation as well as deleterious outcomes related to betrayal traumas (see Table 3 for examples of correlates).

BTT also provides a framework for future directions in research. We turn now to describing some of these future directions (see summary in Table 3).

Non-offending Parent and Perpetrator Memory. As noted earlier in this manuscript, researchers have focused almost universally on victims' memory accuracy, to the exclusion of memory accuracy among non-offending family members and/or perpetrators. Given that victims' memory accuracy is sometimes evaluated by looking for corroboration with other family members and/or potential victims, it is critically important that researchers focus on memory processes among these individuals. Like the victim, non-offending others in family systems where abuse occurs may experience similar pressure to remain unaware, particularly non-offending parents. Researchers have yet to identify the conditions under which non-offending parents may respond similarly to victims, forgetting or misremembering abuse against children to maintain their own attachment with the offender. Research should evaluate the degree to which economic, emotional, and/or legal dependence on the offending parent may motivate unawareness in non-offending parents. To the extent that non-offending parents may be unaware of abuse because of their own dependence on the offender, their reports should not be used to corroborate the accuracy of victim reports. In addition to implications for research on corroboration, non-offending parents' unawareness can have an important effect on the safety and well-being of the child victim as the non-offending parent is likely to be less of a resource in ending and/or seeking out interventions to address the deleterious consequences of the abuse.

Similarly, researchers have yet to focus substantial effort on understanding the motivation to forget and misremember among offenders (see Becker-Blease &

Freyd, 2007 for a rare exception). Extending research to focus on offender memory is an essential directional shift, expanding to focus on the reliability perpetrators' memories. Offenders have overwhelming legal (as well as perhaps social and financial) motivations to indict victim memory. Like non-offending parents' memories, offender memories and motivations for unawareness have critically important implications for corroboration studies. The extent to which an offender forgets, misremembers, or lies about his or her actions has a direct bearing on the ability of the victim to corroborate the abuse. Thus, corroboration studies must be applied carefully to victim memory, as they can too easily be used to impugn victim memory while (implicitly) failing to question offender (and bystander) memories.

Misremembering. As researchers studying memory errors continue to document the conditions under which memory errors are likely to occur (e.g., when reality is similar to errors; when errors involve related information; see Geraerts, 2012; Geraerts et al., 2009; Johnson, 2006; Johnson et al., 2012), BTT offers a framework for considering how those processes may result in errors with regard to details about abusive experiences and/or misremembering of abusive families as more positive than perhaps they were. While much of the research derived from the betrayal trauma theory framework has focused on forgetting, BTT points to the need for additional research into how victims may *misremember* abuse and/or abusive contexts as more positive than they were to serve underlying attachment goals related to unawareness. Research paradigms that focus on errors in memory seem especially relevant to future research on misremembering (e.g., the DRM and source monitoring tasks). To date, evidence on memory errors in the DRM and source monitoring literature have largely been applied to the questions of how false memories for abuse that did not really happen could develop. However, given the similarity required to elicit source monitoring errors (e.g., a critical lure that is closely related to what was actually viewed by the participant is erroneously recognized in the DRM), these paradigms may actually be poised to inform misremembering. For example, in a complex family dynamic where information related to abuse and positive care from a caregiver are both presented to a child victim, that child may be more likely to misremember or reconstruct related, positive events that did not occur.

Fear or Relational Betrayal? BTT points to the need for research that considers deeply the social context in which traumas occur. To date, research has focused extensively on individual differences in fear when conceptualizing the harm caused by trauma. In fact, early focus in the trauma field on the sequelae of one-time events, sometimes referred to as Type 1 traumas (see Terr, 1990; e.g., as firestorms, earthquakes, combat traumas, and crime victimization), prioritized emphasis on experiences that often involved overwhelming fear. Type 1 traumas differ from most traumas high in betrayal (particularly child sexual abuse) in important ways. Type 1 traumas tend to be one-time events that involve witnesses and *do not* occur behind closed doors in isolation. Type 1 events do not necessarily involve larger familial and social dysfunction, whereas much child sexual abuse (e.g., incestuous abuse) does. While Type 1 traumas can be disruptive to illusions about personal safety and invol-

nerability (e.g., Janoff-Bulman, 1992), they are rarely experiences that inherently undermine victims' close attachment relationships at periods in development when such dependent attachments are necessary for survival.

Complementing the emphasis on fear in deleterious trauma responses, BTT provides a lens through which to consider also the role that social betrayal plays in responses to traumas (see DePrince & Freyd, 2002a, 2002b). By focusing on the relational contexts in which betrayal occurs, BTT shifts the paradigm to encourage research questions about wounds to attachment engendered by the violation of basic care-giving contracts between adults and children. Indeed, stories of forgotten (and later remembered) abuse are frequently characterized as confusing, disorienting, complicated situations in which a family member introduced sexual contact into a relationship in which a child was dependent for care, protection, and love (see Clancy, 2010, for one in-depth analysis of this kind of relational trauma). BTT points out that relational betrayals require management of the awareness of betrayal balanced against management of necessary attachment(s); and argues for the importance of examining consequences of such betrayals on attachment and cognitive processes.

BTT may have important connections to the growing literature on complex trauma responses, such as complex PTSD. Complex PTSD, first conceptualized by Herman (1992), has received increased attention in recent years (Courtois & Ford, 2009). Complex PTSD emphasizes the damage to multiple systems caused by chronic, interpersonal traumas that occur during development. In particular, complex PTSD has been proposed to include problems in: affect and impulse regulation; attention and consciousness; self perception; relations with others; somatic functioning; and systems of meaning (see Dorahy et al., 2009; Ford 1999; Herman, 1992; Taylor, Asmundson, Carleton, 2006). The chronic, interpersonal traumas that are believed to lead to complex PTSD, such as familial sexual abuse, include significant betrayals. Thus, BTT provides a roadmap for encouraging critically important research questions about the role that betrayal and attachment play in serious post-traumatic responses, such as complex PTSD. Where the field previously privileged fear narratives, BTT requires consideration of relational frames.

Future research should continue to improve on the operationalization and measurement of a continuum of betrayal. For example, relative to other abuse perpetrated by someone on whom a child depends, familial *sexual* abuse appears to be unique in several ways. First, familial sexual abuse stands apart from usual relationships between adults and children in contrast to physical and emotional abuse, which can occur on a continuum with other, more accepted behaviors in adult-child relationships. Thus, sexual abuse can involve dynamics in which offenders designate sexual abuse as "special", weaving it into a larger relational narrative that can be especially confusing for children. For example, cuddling can morph into sexual touch; sexual abuse can feel arousing to the child. Second, for some sexual abuse survivors, the sexual abuse experience may not necessarily be frightening at the time (relative to experiences of physical assault, for example), but may involve confusing and conflicting information (see Clancy, 2010, for one in-depth analysis of a relational trauma, and McNally, 2012, for similar notions regarding delayed shock

and betrayal). Third, adults who sexually abuse children are likely aware that the actions are criminal (or at least disapproved of by most people) and cannot be justified in the way that people may justify severe physical punishment or emotional abuse. Sexually abusive perpetrators may, consequently, behave in ways that communicate to the child that something is amiss, leading to overt or covert demands for secrecy. The veil of secrecy enforced by perpetrators serves as a potent suggestion to forget the abuse (see Veldhuis & Freyd, 1999). The degree to which perpetrators demand secrecy may differ in important ways across forms of abuse, even within a close victim-perpetrator relationship.

Summary and Conclusion

For nearly 20 years now, researchers (in their labs) and clinicians (in their therapy offices) have studied the experience of remembering and forgetting childhood abuse. In 1994, the clinician members of the APA Working Group on Recovered Memory pointed out that the absence of a science of memory for trauma did not equate with an absence of reality of forgetting and later recollection of memories for abuse. Indeed, survivors of childhood abuse, particularly sexual abuse, have continued to report forgetting and misremembering, regardless of the accuracy of lab models trying to account for the phenomenon. The outcry that such delayed recall must be impossible has died down, although it has not become completely silent. The science that facilitates our comprehension of the mechanisms of forgetting, misremembering, and later recall has matured.

Also for nearly two decades, cognitive scientists have considered how to study effectively and understand experiences of remembering and forgetting. The controversy of the so-called memory wars reflected how ill-informed the field was in the early 1990s regarding the biological, psychological, psycho-social, and existential dynamics of childhood maltreatment, particularly abuse by caregivers. The research reviewed in this chapter demonstrates how cognitive science studies that begin with a thorough understanding of the dimensions of childhood traumatic experience (e.g., relational and attachment perspectives, human rights violations inherent in child abuse) can inform both researchers and clinicians seeking to understand motivations and mechanisms by which forgetting and misremembering occur.

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Epilogue: Continuing Points of Contention in the Recovered Memory Debate

Robert F. Belli

Abstract Four contentious issues in the recovered memory debate are explored. Volume contributors offer differing perspectives on the generalizability of laboratory research, on the role of emotion in memory, on the prevalence of false recoveries, and on the motivations that underlie differences in opinion, especially with regard to whether the debate ought to be framed within a larger sociopolitical context. The recovered memory debate is argued to center on two ethical concerns that happen to be in conflict, equality among groups on one hand and due process protections on the other. Additional movement toward reconciliation is possible with a fair assessment of all available evidence, with a mutual understanding of differing perspectives, and with civil discourse.

Keywords Emotion and memory • False memories • Scientific debate • Sociopolitical context

The history of the recovered memory debate has led to a number of contentious issues, some of which there has been movement toward reconciliation (Belli, 2012, this volume), and others which continue to be in dispute. Based on the contributions to this volume, which present a comprehensive picture of the continuing views of notable scholars who continue to explore the nature of recovered experiences, I have settled on four contentious issues that seem most profound as barriers to a full reconciliation of the pertinent issues. None of these issues are new to the debate, although each has been impacted by the most recent relevant evidence.

One of these issues concerns the extent to which laboratory research can be generalized to the real world, and hence, the extent to which laboratory findings on false

R.F. Belli (✉)
University of Nebraska, Lincoln, NE, USA
e-mail: bbelli2@unl.edu

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