Many traumatic events involve some degree of social betrayal. In cases of interpersonal violence, betrayal may take the form of caregivers' or trusted partners' perpetration of violence. Some forms of trauma are less likely to involve social betrayal, such as natural disasters. This chapter explores gender differences in traumas that involve betrayal, using this framework to make predictions about gender and memory impairment in posttraumatic stress disorder (PTSD).

Childhood sexual abuse and adult betrayal traumas are gender-asymmetric. More girls than boys are abused in childhood, and more women than men are abused in intimate relationships; abusers are more likely to be men than women. Approximately one in four adult women is a survivor of childhood sexual (contact) abuse and the rates go up when adult victimization is included (Finkelhor, 1979, 1986; Kinsey, Pomeroy, Martin, & Gebhard, 1953; Koss, Gidycz, & Wisniewski, 1987; Russell, 1986; ). Understanding the dynamics of response to these traumas is particularly important for understanding the role of gender in posttraumatic responses. If males and females are more likely to experience different types of traumatic events (e.g., sexual abuse vs. combat), how will this affect the posttraumatic response? How might differences in the perpetrator relationship and/or the context of traumatic events (e.g., age at time of trauma, duration of trauma) lead to alterations in cognitive processing and memory impairment?

Cognitive models of posttraumatic responses provide a framework for understanding onset and maintenance of trauma-related distress, including memory impairment. Researchers have increasingly turned to cognitive methods to examine the role of attention (e.g., DePrince & Freyd, 1999; Freyd, Martorella, Alvarado, Hayes, & Christman, 1998; Williams, Mathews, & MacLeod, 1996) and memory (DePrince & Freyd, 1999), among other variables, in posttraumatic responses. Cognitive frameworks have also been employed to propose interventions for treatment (e.g., Rothbaum & Foa, 1996). However, the role of gender has not yet been integrated into cognitive approaches to trauma.

The current chapter considers how gender differences in the experience of and responses to trauma may relate to information processing in trauma. We first consider gender differences in rates of PTSD and in type of trauma experienced. Next, we draw on one specific cognitive model, betrayal trauma theory, to examine how the type of trauma experienced (i.e., the relationship to the perpetrator) and gender relate to one criterion of the current PTSD diagnosis: memory impairment for the traumatic event. Memory impairment is associated with PTSD in the avoidance cluster of symptoms as defined by the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994). Memory impairment has been well documented following trauma in samples of individuals with and without PTSD, making it an important variable for consideration following trauma (e.g., Elliott, 1997; Feldman-Summers & Pope, 1994; Freyd, 1996; Williams, 1994; ). To date, theoretical models of memory impairment have not taken gender into account; this chapter focuses specifically on the interaction of gender and memory impairment in cognitive models. Through our analysis, we do not suggest that differences in information processing of traumas for men and women reflect any essential biological sex difference. Rather, we propose that gender differences in rates of interpersonal violence lead to predictable alterations in memory for women compared to men.

In considering cognitive models of memory impairment, we draw on both betrayal trauma theory and social constructionist views of gender. Betrayal trauma theory posits that psychogenic amnesia and unawareness are often necessary for survival in cases in which abuse occurs at the hands of a parent or caregiver. Information, or knowledge of the abuse that would otherwise interfere with one's ability to function within an essential relationship is blocked, for instance, that of parent and dependent child. Betrayal trauma theory is discussed in greater detail later in the chapter.

A social constructionist view focuses on the role that culture plays in ideas about gender, mental health, and trauma. Social constructionist perspectives encourage us to examine previously pathologized aspects of responses to abuse and trauma that in fact make sense as adaptations to the exploitive environment; our assumptions of sanity and insanity are often flip-flopped (Armstrong, 1994; Brown, 1994). Is it a sign of mental illness, deviance, or disorder to forget traumatic events perpetrated on a dependent child, or is such blindness instead one route to survival and thus a sign of vitality? Betrayal trauma theory, with its focus on forgetting as a way to
that memory for trauma is neither fixed nor indelible, and that memory for traumatic events are amplified as PTSD symptoms increase.

PTSD AND GENDER

Research suggests that women are diagnosed with PTSD at higher rates than men (for a review, see Wolfe & Kimerling, 1997). To date, gender differences have not been thoroughly examined in light of the role that cultural and gender factors may play in the diagnosis of PTSD. Along these lines, some researchers have argued that cross-cultural issues in the diagnosis and prevalence of PTSD are poorly understood (e.g., Berberich, 1998). Willer and Grossman (1995) have suggested that women and men are treated differently in the mental health system, leading to different diagnoses for similar symptoms. For example, Willer and Grossman (1995) found that males in a Veterans Administration psychiatric outpatient clinic were given the diagnosis of PTSD more frequently than women, who tended to receive affective and schizoaffective diagnoses. Gender differences in rates of PTSD diagnosis may reflect cultural assumptions about women's mental health and realities (for a review of related issues, see Caplan, 1995).

Arguably, gender differences in PTSD may also reflect differences in the amount of trauma males and females experience. However, the literature does not clearly support the argument that women simply experience more trauma than men. Breslau and Davis (1992) reported that women were diagnosed with PTSD more frequently than men, even when men and women did not differ in the number of traumatic events experienced as measured in the study. The possibility remains that women did experience more trauma, but that such trauma was less likely to be reported because women perceived the events, or reporting of the events, as more stigmatized and secret than did men. The different rates of unreported trauma in the histories of the men and women may have had an impact on the PTSD rates.

GENDER DIFFERENCES IN TRAUMAS EXPERIENCED AND REACTIONS

There is evidence in the literature that men and women experience different types of trauma. For example, a recent survey of 1,000 female and male active-duty U.S. soldiers revealed that whereas females tended to report more sexual traumas, males tended to report more nonsexual traumas (Stretch, Knudson, & Durand, 1998). Research on sexual abuse suggests that girls tend to experience sexual abuse within the family for a longer duration of time compared to boys, who tend to experience sexual abuse by non-
family members for a shorter duration (Dhaliwal, Gauzas, Antonowicz, & Ross, 1996; Gordon, 1990).

In addition to gender differences in types of traumatic events, there may also be gender differences in reactions to trauma. For example, sexually abused girls blamed themselves more for the assault than did boys. In a recent review, Wolfe and Kimerling (1997) noted that this difference in self-blame is likely very important to examine, and argued that girls might be at greater risk than boys for the self-blame associated with depression, shame, guilt, and social isolation following childhood sexual abuse.

INTERSECTION OF COGNITIVE MODELS AND GENDER RESEARCH

The current literature focusing on cognitive models for memory impairment and information-processing approaches to PTSD does not examine the relation between gender and memory. Though little attention has been paid to interactions between gender and PTSD, recent research suggests that women and men's experiences of trauma and emotional responses differ in some important ways. These differences appear to be important in building cognitive models for understanding posttraumatic stress responses. Betrayal trauma theory provides a framework through which to speculate on how gender may relate to memory impairment in PTSD.

BETRAYAL TRAUMA THEORY OVERVIEW

Betrayal trauma theory seeks to account for memory impairment following traumatic events. The theory posits that there is a social utility in remaining unaware of abuse when the perpetrator is a caregiver (Freyd, 1996), and it contributes to the field of traumatic stress in a number of ways. First, it accounts for memory failure in a way that can be empirically tested. Second, the theory stresses a meaning or emotion following trauma that has remained largely unexamined in research: betrayal.

BETRAYAL TRAUMA THEORY: MOTIVATION

Betrayal trauma theory draws on a variety of perspectives to explain the motivation for forgetting trauma. First, drawing on evolutionary psychology, we note that humans are excellent at detecting betrayals, which makes good sense, so that they can remove themselves from relationships in which they are being cheated. However, under some circumstances, detecting betrayals may be counterproductive to survival. Specifically, in cases when a victim is dependent on a caregiver, survival may require that she or he remain unaware of the betrayal. In the case of childhood sexual abuse, a child who is aware that her or his parent is being abusive may withdraw from the relationship (e.g., withdraw in terms of proximity, emotion, etc.). For a child who depends on a caregiver for basic survival, withdrawing may actually be at odds with survival. In such cases, children's survival would be better ensured by their being blind to the betrayal and isolating the knowledge of the event.

Betrayal trauma theory identifies attachment as an important motivation for being unaware of abuse. Infants and children depend on successful attachment to caregivers and are active in maintaining the attachment relationship. Child abuse is likely to produce a social conflict or betrayal for the victim. If the child processed the betrayal in the manner predicted by evolutionary psychology, the betrayal would be experienced as a form of emotional pain. Emotional pain, much like physical pain, can be adaptive for changing behavior. For example, physical pain caused by a broken leg provides good motivation to not walk on the leg, thereby preventing further injury. The psychic pain in detecting a betrayal would usually lead to behavior change that removes the victim from the relationship with the perpetrator. However, to withdraw from a caregiver on which the victim is dependent would create an additional threat to survival. In such a case of child abuse by a caregiver, the child may actually be better benefited for long-term survival by blocking information about the abuse from mental mechanisms that control attachment and attachment behavior. Thus, the victim would be unaware of the abuse at a conscious level.

SUPPORT FOR BETRAYAL TRAUMA THEORY

Research drawing on multiple data sets has supported betrayal trauma theory predictions that more memory impairment is found when the perpetrator is a caretaker (for a review, see Freyd, 1996). In a recent study, a sample of 202 undergraduates were asked about their experiences of physical, sexual, and emotional abuse (Freyd, DePrince, & Zurbriggen, 2001). Among those participants who reported physical and sexual abuse, more memory impairment was reported for abuse perpetrated by caretakers than by noncaretakers.

Other research indirectly provides support for betrayal trauma predictions. For example, Elliott (1997) surveyed a random sample of participants about their experiences of three types of trauma: noninterpersonal trauma (e.g., car accident, natural disaster), a witnessed trauma (e.g., witnessing domestic violence as a child), and experienced interpersonal trauma (e.g., physical assault). Participants were asked about their memory for the event, and their responses were classified into three categories of memory
loss, ranging from no memory impairment to complete memory loss for some period of time. Elliott reported memory impairment across all types of trauma but particularly high rates of impairment for interpersonal victimization. Though these data do not speak directly to the victim-perpetrator relationship, they do suggest that traumas of an interpersonal nature, which have the potential for more social betrayal than noninterpersonal events, are related to higher rates of memory impairment.

**BETRAYAL TRAUMA THEORY: MECHANISMS**

Betrayal trauma theory implicates dissociation as a possible mechanism in blocking information about or knowledge of the trauma. Building on lessons from cognitive psychology, betrayal trauma theory suggests that dissociations or disconnections may occur between normally connected aspects of processing and memory. Via these disconnections, threatening information may be separated from awareness in the case of betrayal traumas. These cognitive dissociations, in turn, may lead to the more global symptomology of clinical dissociation.

Betrayal trauma theory does not argue that traumatic information is totally blocked from entering the nervous system. Rather, the information is blocked from mechanisms that control attachment behavior. This suggests that the information is blocked from declarative or episodic knowledge, which includes memories for which people can make statements; for example, autobiographical information, such as the names of family members, is a form of declarative knowledge. In instances when betrayal trauma information is blocked from conscious awareness, the information will be processed by other, less conscious mechanisms, such as sensory stores and/or implicit memory, which includes memories for which we do not have the ability to describe the memory verbally. For example, the process of riding a bike is a form of implicit memory; people generally cannot explain with words the procedure by which they are able to balance on a bicycle while riding.

Information about betrayal traumas may also be blocked from consciousness through the use of attention systems. Laboratory tasks have shown a relationship between attention and dissociation that may have a bearing on understanding some memory impairment seen in PTSD. Dissociation has been defined as a lack of integration of thoughts, feelings, and experiences into the stream of consciousness. Many studies have shown a relationship between PTSD and dissociation, though dissociation is not a criterion of the DSM-IV PTSD diagnosis (Bremner et al., 1992; Carlier, Lamy, Fouchet, & Gersons, 1996; Marmar et al., 1994). Although most people show some ability to dissociate (e.g., highway hypnosis), high levels of dissociation are far less common, such as feeling states of depersonalization or derealization. The most extreme form of dissociation is dissociative identity disorder. The Dissociative Experiences Scale (DES) has been widely used to measure individual level of dissociation. In order to examine the relation between dissociation and attention, individuals who scored within the normal range on the DES (low DES) and those who scored in the clinically high range (high DES) were recruited to participate in an experiment employing selective and divided attention versions of the Stroop task (DePrince & Freyd, 1999). High DES participants performed worse on the selective attention task and better on the divided attention task when compared to low-DES participants. This finding suggests that high-DES participants may be better able to process information in divided attention structures than in selective attention environments compared to low DES participants.

In a follow-up study using a directed forgetting paradigm, DePrince and Freyd (2001) found that high-DES participants recalled fewer emotionally charged words and more neutral words under divided attention conditions when compared to low-DES participants. This finding suggests that divided attention may help high dissociators to keep threatening information from awareness and illustrates a way in which attention can be used to alter emotional threat in the information into awareness. While these studies group participants by dissociation rather than PTSD status, the relation between dissociation and PTSD suggests that these results offer possible mechanisms for some memory impairment in PTSD through dissociation. These empirical findings fit with clinical anecdotes about the frequently chaotic behavior seen in clients diagnosed with PTSD and/or dissociative disorders; that is, clients may create chaos, to some extent, in their lives in order to maintain a divided attention environment. The divided attention environment, in turn, may better enable clients to keep threatening information about trauma from awareness.

**IMPORTANCE OF EMOTIONS INVOKED BY TRAUMA**

Freyd (2001) suggested that traumatic events can contain both life-threatening and/or social betrayal components (see Figure 4.1). She noted that whereas some traumas may be high in fear/terror, such as a natural disaster, others traumas may be high in both fear and betrayal dimensions, such as some sadistic abuse. Still other traumatic events may be high in social betrayal but may not invoke life-threatening terror, such as some molestation by trusted others or caregivers. Betrayal trauma theory would predict more memory impairment for events that fall in the quadrants that are high in social betrayal than for events in the quadrant high in fear alone. The proposed distinction between fear and betrayal begins to tease apart how different emotions may relate to different memory and distress outcomes.
EXPLORING THE INTERSECTION OF GENDER, BETRAYAL, AND MEMORY

To date, gender differences in PTSD response have not been empirically tested with respect to predictions made from cognitive models. Given evidence that women and men differ along important dimensions, such as relationship to the perpetrator, in their reports of trauma, we believe that there may be cases in which gender differences in memory impairment can be predicted from cognitive models. Specifically, we can explore predictions derived from betrayal trauma theory relevant to gender.

The research literature indicates that males and females are exposed to traumatic events that differ in important ways. Taking sexual abuse as an example, males and females differ in their relationship to the perpetrator: Girls more often tend to be abused by family members than do boys. Working within a betrayal trauma framework, this difference in perpetrator-victim relationship will lead to very different information-processing strategies. We predict that this would lead to differences in memory for the events given that the betrayal trauma framework proposes that remaining unaware of trauma helps to preserve necessary attachments. Girls who are sexually abused by caretakers will be more likely to isolate knowledge of the betrayal via information-processing mechanisms, such as alterations in attention and dissociations between normally connected aspects of consciousness. Boys, who tend to be abused more frequently by non-family members, will be less likely to isolate knowledge of the event, because it does not represent betrayal in a caretaking relationship.

Differences in the degree of betrayal and ensuing information processing may then be related to symptoms of distress. Working within the betrayal trauma theory framework, betrayal may involve dissociative mechanisms to keep threatening information from awareness. If this is the case, then betrayal via dissociative mechanisms may lead individuals to experience dissociative symptoms and problems with dissociation. For example, we predict that more betrayal would be related to higher levels of dissociation on measures of dissociation, such as the DES. Dissociating awareness of betrayals may also lead females to experience higher levels of the PTSD avoidance symptoms. If this is the case, the frequency of betrayals experienced in important attachment relationships may help us to understand in part why women receive diagnoses of PTSD and the dissociative disorders more frequently than do men.

Whereas we have proposed that females may experience more betrayal trauma than males, at least two alternative explanations can be considered in this intersection of trauma, gender, and betrayal. The first we call here the “dispositional” explanation; the second, the “situational” explanation. The dispositional explanation assumes that women may be socialized to perceive or notice betrayal more frequently than do males. The notion that females may perceive more betrayal is consistent with the idea that females are socialized to put greater value on interpersonal relationships than males (e.g., Gilligan, 1982). This socialization process may result in a disposition to notice betrayal. If females attend more to betrayal, this may lead to a compensatory mechanism that increases the likelihood that they use dissociative mechanisms to cope with the betrayal information.

The second explanation is also about perception and sensitivity to betrayal but emphasizes the situation in which women may often find themselves in society—in a role without as much power as those around them (Miller, 1986). This situational explanation assumes that the less powerful person at the time is more likely to attend to the possibility of betrayal than is the more powerful person. Less powerful individuals are likely more often in a dependent role in relationships. Being less powerful and more dependent, these individuals may perceive and notice betrayal more frequently. Betrayal trauma theory would predict that these individuals, if dependent, would then—as a compensatory reaction—be motivated to remain unaware of the betrayal.

These possibilities—that women actually experience more betrayal traumas, that they are socialized to perceive more betrayal, and that less powerful people in a given situation are more sensitive to betrayal—are not
mutually exclusive. We would likely find great overlap in these categories. For example, in many cultures, females have less power than males; individuals who have less power are likely at greater risk for interpersonal trauma, which in turn leads to the first explanation—that women experience more betrayals. In this analysis, it less clear whether gender or power best explains perceptions and/or experiences of betrayal.

The notion of power as an additional variable that intersects with gender and trauma offers interesting clinical implications. It may be that individuals who are disempowered, whether male or female, will experience distress related to the betrayals they have experienced in trauma, whereas those who have access to power may experience distress related to other aspects of the event, such as the fear invoked. One reviewer of this manuscript offered the example of different reactions in Vietnam veterans, some of whom readily identify with feelings of betrayal by the government, whereas others find the notion of betrayal foreign.

**FUTURE STUDY**

Empirical investigation of gender differences in betrayal traumas, memory impairment and dissociative/avoidance symptoms must include methodology that gathers information about the context of the traumatic event. For example, improved questions about the victim-perpetrator relationship are needed. To date, most research has categorized interpersonal violence into two categories: family or nonfamily violence. Likely, much violence perpetrated by family members involves betrayal; however, in some cases, abuse by a family member may be perpetrated by someone on whom the victim is not dependent for survival, such as a distant relative or a parent who lives outside the home. In some nonfamily abuse, the level of betrayal of an important attachment relationship may actually be quite high. For example, a child may be abused by a trusted coach or religious leader on whom he or she is emotionally dependent. Survey and interview questions must be designed to elicit the context of the perpetrator-victim relationship in order to understand the degree of betrayal. In our laboratory, we have been developing the Betrayal Trauma Inventory, in which we ask participants whether the perpetrator was responsible for caretaking and was someone trusted.

A second methodological issue to be addressed is the inclusion of questions about betrayal in research and clinical practice. To date, the PTSD literature has been most focused on the role that fear plays in the onset and maintenance of PTSD. This is likely, because the diagnosis of PTSD was established in the context of combat survivors. Historically, the assumption was that the primary emotion invoked by combat trauma was fear or terror given the life-threatening nature of war. While asking about fear/terror makes good theoretical sense for life-threatening events, other traumatic events may be high in social betrayal components that will affect information processing, memory, and distress. These events are more likely to be experienced by females, such as those sexually abused by caregivers. Notably, social betrayal dimensions of life-threatening events such as combat should also be assessed. Shay (1994) has discussed the powerful role betrayal played in the experience and subsequent distress of many male Vietnam veterans. Vietnam veterans experienced various forms of betrayal by the military (e.g., provided with faulty weapons) responsible for their well-being, and additional betrayals upon their return to the United States, where they were frequently blamed for the war rather than celebrated, as had been veterans of previous wars. Parallels can be drawn between the veterans' experience of betrayal and interpersonal violence perpetrated by caregivers; veterans and child victims are dependent on their caregivers, the military and the family, respectively.

The proposed differences for women in cognitive processing of events related to the higher level of betrayal traumas have important implications for revictimization. If future studies support the prediction that women experience more betrayal traumas and more memory impairment, this will likely be important in understanding patterns of revictimization and relational difficulties. If compensatory processes following betrayal traumas relate to some women's failure to attend to or to process threatening information fully, these women may be at greater risk for future assault. This view is consistent with discussions in the literature of the possible role of dissociation and failures to appraise threats (e.g., Cloitre, 1998).

The role of betrayal is also critical to the examination of how women understand their own histories and make meaning of their emotions and reactions to betrayal traumas. For example, betrayal trauma theory could argue that betrayal leads women, more so than men, to avoid processing traumatic memories in a way that integrates these memories with autobiographical knowledge—keeping the memories away from awareness to preserve important attachments. However, betrayal trauma theory also posits that the event is processed at some level—an implicit level. So women may still have the experience of anxiety, fear, and shame but not have the autobiographical knowledge of its source. In these cases, in which women may feel "crazy," that image of women as "crazy" is then supported by cultural myths about women's mental health.

Finally, the role of betrayal traumas in changing how women function in relationship must be examined. Herman's (1992) complex PTSD contains a cluster of symptoms for alterations in relations with others, and many women have been labeled with borderline personality disorder
diagnoses that reflect difficulties in relationships with others. Relational changes, such as withdrawal, disruptions in intimate relationships, and persistent distrust, may be related to the violations experienced in interpersonal violence. If it is the case that women experience more betrayal traumas than men, this may explain in part the differences in relational difficulties. The role of betrayals in important attachments also encourages questions about healing in relationships, such as in the context of the therapy relationship.

SUMMARY AND CONCLUSIONS

Based on the current literature, we have evidence that females experience more betrayal traumas than males, when betrayal is defined as “abuse by someone on whom the victim is dependent.” We do have to be cautious in interpreting this finding. Although we have evidence of differences in men’s and women’s reports of trauma, we cannot determine which of these differences are explained by socialization as opposed to experience with traumatic events; that is, are women simply more willing to report abuse by caregivers than men? We do not know whether the gender differences for reported betrayal versus fear reflect gender narratives that men and women learn as they are sex-role socialized, or the experience of different traumatic events; most likely they reflect both. (An interesting, related issue is the extent to which the field of traumatic stress itself has been biased by the gendered “trauma narratives” of the researchers, clinicians, and theoreticians.) If men are on average more inclined to focus on the life-threatening aspects of trauma and less on interpersonal aspects of trauma and betrayal, this inclination may have had an impact on the field of traumatic stress studies, a field historically dominated by men. In recent years, the field has seen a substantial increase in women researchers, clinicians, and theoreticians; it has also seen a substantial increase in its focus on interpersonal trauma and events marked by betrayal. These two changes may be more than coincidental. With the important advances in the field of trauma, researchers and clinicians must maintain, as well as deepen, the commitment to examine the context of trauma, in order to understand better the influence of gender and culture on posttraumatic responses and healing.

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