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REPRESSIVE AND DISSOCIATIVE COPING STYLES
AS A FUNCTION OF CONFLICT AND TERROR
EXPERIENCED WITH CHILDHOOD SEXUAL AND PHYSICAL ABUSE

by
KATHLEEN ACKLEY FELTON

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Department of Psychology

Carleton University
Ottawa, Ontario
May 2000
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Submitted by Kathleen Ackley Felton, M. A.

In partial fulfillment of the requirements for

The degree of Doctor of Philosophy

Chair, Department of Psychology

Thesis Supervisor

External Examiner

CARLETON UNIVERSITY
May 2000

ABSTRACT

Histories of childhood sexual and/or physical abuse were examined in 106 women to address whether the conflict model also plays a role in psychological trauma. The degree to which women experienced conflict and terror was examined in relation to the type of coping style they used. It was hypothesized that women who experienced terror tactics and feelings would use a dissociative coping style, while women who experienced conflict tactics and feelings would use a repressive coping style. Findings indicated that women who were more dissociative experienced more terror tactics and conflict tactics, while women who were more repressive experienced less terror feelings.

Women's experiences of conflict and terror and repressive and dissociative coping styles were also examined to see if they vary as a function of the type of abuse. It was hypothesized that women with childhood physical abuse would be more dissociative than women without childhood physical abuse. Findings indicated that although women in this study with sexual abuse were the most repressive, they were the *least* dissociative. Dissociative coping increased when women's abuse involved physical abuse.

These findings complement a growing body of literature demonstrating a relationship between dissociation and the experience of childhood abuse, while also suggesting that a trauma-dissociation (PTSD) conceptualization of trauma may be limited in explaining the impact of childhood sexual abuse. These findings suggest that dissociative coping, may not be the predominant coping style when people experience sexual abuse without physical abuse. Future research expanding on both the phenomenological experience of childhood sexual abuse as well as the relational and interpersonal context in which the abuse is perpetrated warrants further research. While

dissociative coping generally led to results predicted by the PTSD model, repressive coping requires further investigation.

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Repressive and Dissociative Coping Styles

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Overview

Research concerning the psychological sequelae of childhood abuse has flourished over the past two decades. With that emergence, we have witnessed a revival of interest in the century-old notion of 'repression' and 'dissociation.' A historical review reveals that two, seemingly incompatible, theoretical formulations have been put forth to account for psychopathology associated with psychological trauma (Nemiah, 1989; Scharff & Scharff, 1994). The classical 'conflict model' (e.g., Freud) is a psychodynamic model of psychopathology with 'repression' as its central defense mechanism. An alternative model of psychopathology once referred to in the literature as the 'deficit model' or 'ego deficit' model (e.g., Janet) is essentially a trauma model with 'dissociation' as its primary defense. Abundant research over recent years has shown an association between childhood trauma and adult dissociative symptomatology, as well as symptoms of posttraumatic stress (PTSD). Consequently, the Janetian model has reemerged in the contemporary literature, but is now commonly referred to as the trauma-dissociation or PTSD model (van der Kolk, 1987; van der Kolk, Brown, & van der Hart, 1989; van der Kolk & van der Hart, 1991; Briere & Conte, 1993; van der Kolk, 1994; van der Kolk & Fisler, 1995; Elliott & Briere, 1995; van der Kolk & McFarlane, 1996; van der Kolk, van der Hart, & Marmar, 1996). Proponents of this model, like Janet a century ago, view dissociation as the defensive process used to cope with overwhelming traumatic experiences.

I present here a model of abuse that combines the ideas of terror and conflict into a single model. In this model, repressive and dissociative coping styles will be related to characteristics of childhood abuse. In brief, the model states that terror leads to dissociation while conflict leads to repression. To this end, women who have had histories of childhood sexual, physical, or combined sexual and physical abuse characteristics will be examined. Women's experiences of terror-laden and conflict-laden tactics of abuse, the extent of their conflict-laden and terror-laden feelings, and how these experiences of conflict and terror relate to their coping styles will be investigated.

Thus, the primary intent of this thesis is to examine the degree to which women, sexually and/or physically abused during childhood, experienced conflict and terror to determine whether repressive and dissociative coping styles vary as a function of conflict and terror. In addition, experiences of conflict and terror and repressive and dissociative coping styles will be examined to see if they vary as a function of type of abuse. A series of secondary analyses will attempt to replicate, in a community¹ sample, some of the findings previously demonstrated to be common predictors of dissociation in clinical samples. The prevalence of abuse-related amnesia and characteristics typical of traumatic (dissociated) memories will also be investigated.

Roadmap

I will first introduce my theoretical formulation in a global sense. I will then point out several ambiguities that have prevailed historically involving the use of the terms

¹ By community sample, I mean that women in the sample, who were self-identified as having been sexually and/or physically abused before age 13, were recruited from the community as opposed to recruiting a clinical sample from a psychiatric treatment program.

'repression' and 'dissociation' and emphasize an important distinction between them. Subsequently, I will define the 'repressive coping style' and 'dissociative coping style' as they will be used within the context of this thesis. I will then highlight some of the historic and contemporary literature, as well as two pre-existing distinctions in the literature that influenced my rationale for developing this two-dimensional model. I will argue that a core symptom paradigm (e.g., PTSD or trauma-dissociation model) disregards the potential long-term impact of intrapsychic conflict. The experience of conflict may be associated with some of the symptoms and psychological disturbances exhibited by some adults with histories of childhood abuse. I will then highlight several other contemporary, multifaceted models that have been proposed to help explain the diverse array of complex symptoms manifested by many adult survivors of childhood abuse. I will conclude the introduction by proposing a new two-dimensional model which builds upon the idea that terror incites a dissociative coping style, whereas conflict incites a repressive coping style, and will summarize my hypotheses in this regard.

Need for Both Models

Nemiah (1989) proposes that the conflict model and the 'ego-deficit' model are not mutually exclusive accounts of the pathogenesis of psychiatric disorders. Instead, he points out.

In any given patient, mental illness may be the result of either kind of psychopathological process, and it is the clinician's task to determine which is involved in the production of individual symptoms. And in an overarching theory of psychopathology there is room for both conceptual models, each providing different but complementary explanations of the mechanisms underlying the clinical phenomena. The early strife between the followers of Freud and Janet was, therefore, perhaps unnecessary and

was based more on a narrowness of scientific outlook and *parti pris* than on any inherent incompatibility in their theoretical positions (Nemiah, 1989, p. 1528).

With this in mind, I intend to examine these two theoretical positions further, in an attempt to shed additional light on the influence of childhood sexual and physical abuse on women's lives.

My Model

It is proposed here that the extent to which a repressive or dissociative coping style is adopted depends on the extent to which the childhood abuse invokes conflict or terror. Thus, individuals who accepted bribes, or were told by the perpetrator that they were 'special' or 'needed' (non-violent types of abuse) will experience conflict and will show a tendency towards a repressive coping style and exhibit one set of clinical manifestations. Similarly, abuse involving threats to withhold love or attention, but not threats of violence, will also tend to be associated with the experience of intrapsychic conflict and a repressive coping style. Use of a dissociative coping style, on the other hand, will be associated with the experience of terror. People with an abuse history demonstrating that they experienced terror will show a tendency towards a dissociative coping style and exhibit a different set of clinical features from repressors.

Repression and Dissociation Defined Historically

Historically, definitions of 'dissociation' and 'repression' have been anything but clear. In fact, the usage of the two terms has been riddled with ambiguity throughout the history of psychology (see Rivers, 1918). Prior to giving the definitions to be used in the

current study, a brief review is presented for the interested reader (see Appendix A for a more detailed view). According to Rivers (1918, p. 173), the term 'repression' is

used for the *process* whereby a person endeavours to thrust out of his memory some part of his mental content, and it is also used for the *state* which ensues when, either through the process or by some other means, part of the mental content has become inaccessible to manifest consciousness. In the second sense the word is used for a state which corresponds closely with that known as dissociation, but it is useful to distinguish mere inaccessibility to memory from the special kind of separation from the rest of the mental content which is denoted by the term "dissociation." The state of inaccessibility may therefore be called suppression in distinction from the process of repression.

Sources of confusion. Rivers (1918) sees 'repression' as a process, while 'suppression' is its corresponding state. Unfortunately, despite this distinction between repression and suppression, Rivers (1918, p. 173, emphasis altered) points out that suppression "corresponds closely" to dissociation. To confuse matters even more, Nemiah (1984, pp. 50-51) points out that,

Central to his [Janet's] theoretical scheme is the concept of dissociation—that *process (and state)* by which ideas escape from conscious awareness and recall, and are rendered unconscious (1984, p. 50-51, emphasis altered).

The process of repression involves an active process of rejecting unacceptable ideas from consciousness. "by an ego strong enough to banish [the idea] from sight" (Nemiah, 1979, p. 317 in Steinberg). This *process* alleviates anxiety due to intrapsychic conflict (Steinberg, 1995). As Steinberg (1995, p. 11) explains,

Freud saw the unconscious as a source of pleasurable but disturbing impulses rather than painful memories. As a result, he construed that the

function of ego defenses was to repress these *conflictual* impulses to protect a person from anxiety (emphasis altered).

In contrast, dissociation entails a passive splitting of the mind due to a weak ego. It entails the sense of "not being there." In terms of psychological resources, Reviere (1996, p. 15) states,

Repression is thought to involve a strong ego's active, forceful rejection of traumatic material, while dissociation may involve an ego unable to bind or contain various psychic elements in a single integrated flow of consciousness.

State of confusion. Consequently, it should come as no surprise that much confusion surrounds the usage of the terms, and that some tend to use the terms interchangeably (c.f., Freud; Erdelyi, 1992), while others rely on the terms to denote different notions (c.f., Vaillant, 1990; Briere & Conte, 1993; Scharff & Scharff, 1994). Worthy of emphasis here is the fact that Rivers (1918, p. 173) not only acknowledged a similarity between the state of suppression and state of dissociation (i.e., a 'dissociated state'), but he may have been implying that some structural differences exist between these two states, when he urged us to make a distinction between mere inaccessibility of memory and "a special kind of separation from the rest of the mental content which is denoted by the term 'dissociation.'"

Contemporary confusion. What Rivers (1918, p. 173) alluded to when he made a distinction between the state of repression and the state of dissociation, and referred to "that special kind of separation... denoted by the term dissociation," is consistent with contemporary theories that posit that the state of repression ('suppression') assumes a

horizontal layered model of the mind (Reviere, 1996; Mitchell & Black, 1995). In other words, the process of repression entails a pushing downward into the unconscious, and only symbolic, indirect indicators point to its assumed existence. In contrast, the state of 'dissociation' assumes a vertical layered model of the mind. A dissociative process entails a fragmentation of, or splitting off from, consciousness into an alternative, parallel memory structure (Mitchell & Black, 1995).

Theoretical Frameworks Underlying the Process of Dissociation and Repression

Janetian 'Ego-Deficit' Model. Janet's 'ego-deficit' model, or what developmentalists refer to as an 'arrested development' model, tends to consider dissociative processes as its primary defense. Whereas Freud perceived repression to be the result of the active repression of undesirable and emotionally painful mental contents by an ego that was strong enough to banish them from conscious awareness (Nemiah, 1989, p. 1528), Janet perceived dissociation (i.e., pathological dissociation) as involving a 'falling away' (i.e., passive) of mental contents by an ego that was too weak ('ego-deficit') to retain them in consciousness (Nemiah, 1989, p.1528). Unlike the horizontal split characteristic of the conflict model (repression), in the 'ego-deficit- model, developmentalists conceptualize a mind comprised of vertical splits between different, unintegrated 'self-states' created by unmet developmental needs (Mitchell & Black, 1995). This veridical conceptualization of the mind typically characterizes the state of dissociation. In fact, more recently, other theorists (e.g., Bromberg, 1993; Davies, 1995; Mitchell, 1993) propose that it is "unintegratable, sometimes traumatic, early interactions," not unmet developmental needs per se, that create dissociation "among

multiple self-organizations and self-states" (Mitchell & Black, 1995, p. 218).

Dissociation, then, according to Putnam and Trickett (1993, p. 88), can be understood as a natural capacity that waxes and wanes over the course of normal development and that may be utilized by traumatized children to escape from overwhelming experiences.

Frequent or prolonged use of dissociative defenses is believed to seriously impair the consolidation of identity and continuity of memory in trauma victims. Theoretically, contemporary views of trauma tend to embrace the Janetian 'ego-deficit' model (cf. van der Kolk & McFarlane, 1996; Herman, 1992). Consequently, people working with trauma today tend to incorporate more of a Janetian perspective into their clinical interpretations with an emphasis on dissociative mechanisms.

Freudian conflict model. Initially, trauma formed the basis of Freud's formulation concerning symptom formation and hysterical neuroses, leading him to postulate that adult hysteria was due to sexual seductions during childhood -- memories of which had been repressed (Nemiah, 1984). Freud continually refined his theory of repression (Brenner, 1955). Moreover, as mentioned earlier, his use of the terms dissociation and repression were often ambiguous (Rivers, 1918). At the heart of his model, however, was conflict.

Freud began to realize the importance of psychic conflict in the etiology of neuroses. In fact, Freud at one point believed that the *trauma* and *conflict* of childhood sexual abuse were intimately connected and differentially influenced subsequent pathology. According to Brenner (1955, p. 196), Freud postulated that

If the patient had taken an active role in the pathogenic, or, as it came to be called, the traumatic, sexual experience of childhood, his later,

psychoneurotic symptomatology was obsessional. If, on the other hand, his role in the traumatic experience had been a passive one, his later symptoms were hysterical.

Freud's obsessive-compulsive clients could remember factual details of disturbing events, but had little or no awareness of their feelings (Erdelyi, 1990). Conversely, Freud's hysterics retained the emotional feelings, but had no awareness of the factual details of the distressing events (Erdelyi, 1990). Furthermore, two other points that have relevance to my model are what Scharff and Scharff (1994, p. 102) describe as 'repression proper', a "mental response to *internal conflict*." In contrast to repression proper, 'primal repression' is a "mental response to a *deficiency*" (Scharff & Scharff, 1994, p. 102).

Despite these distinctions, Freud interpreted both as forms of repression. His notion of 'primal repression,' however, resembles Janet's 'ego deficit' (e.g., 'deficiency') model. Freud also differentiated between the psychoneuroses and the traumatic neuroses. Both of these neuroses entail defensive actions by the ego. As Swanson (1988, p.13) pointed out,

The difference is that in the psychoneuroses, the person truly feels that the danger would not exist were it not for his own motives and he believes that the danger can be controlled or removed if his motives, or their significance, are different. In the traumatic neuroses, he feels that his motives make no difference, that no desire of his has led to the danger he encounters...

These subtle distinctions that Freud made between primal repression and repression proper, and between the psychoneuroses and traumatic neuroses as his theory of repression evolved are still apparent and encompassed within the two-dimensional model I am proposing. (For a more detailed review of some of these

distinctions, see Appendix A). Although these distinctions are subsumed within Freud's theory of repression, the characteristics described above that resemble Freud's notion of the traumatic neuroses are consistent with a dissociative coping style from the perspective of my model. For example, note that one of the characteristics of the traumatic neuroses is an overwhelming sense of helplessness and powerlessness that is typical of contemporary descriptions of trauma that provoke dissociation. Conversely, some of the characteristics typical of repression proper and the psychoneuroses are more in line with a repressive coping style.

Although Freud eventually abandoned his seduction hypothesis in favor of his theory of infantile sexuality, Nemiah (1984) points out that Freud's abandonment of his 'seduction hypothesis' did not invalidate his basic concept of intrapsychic conflict. Rather, "it merely changed the elements that entered into that conflict" (Nemiah, 1984, p. 58).

Repression and Dissociation Defined within the Present Context

Worthy of explicit mention at this point is the assumption underlying this thesis that the terms 'repression' and 'dissociation' are not one and the same construct. Therefore, it is assumed that repressive coping and dissociative coping are two distinct coping styles.

Repression. In short, my model rests on the assumption that repression involves a process whereby an individual defends against the anxiety of disturbing, conflictual mental contents by banishing them from conscious awareness. Weinberger (1990, p. 344) defines 'repressors' as individuals "who maladaptively avoid the perception or experience

of negative affect.” According to Weinberger (1990), people with a repressive coping style exhibit limited introspective awareness of their own affective reactions and convince themselves that if they do not pay attention to internal cues of distress, it will cease to exist. “In psychoanalytic terms, the distress becomes unconscious in that the person strongly resists acknowledging that the affect is unattended to rather than non-existent” (Weinberger, 1990, p. 362). In other words, repressors strongly resist admitting that they are avoiding the feeling, as opposed to denying that the feeling exists. Holmes (1974) points out that research has consistently failed to provide any empirical support for a theory of repression. On the other hand, it is impossible to conclude that it does not exist, because it is impossible to prove the null hypothesis (Holmes, 1974). Hence, in this study, it is the coping strategy, not the banishment from memory that is of concern.

The Marlowe-Crowne Social Desirability Scale (MC-SDS; Marlowe & Crowne, 1960), a measure of defensiveness, in conjunction with Taylor’s (1953, p. 288) Manifest Anxiety Scale-Revised (MAS; Taylor, 1953) will be used for this purpose. It has been shown that ‘repressors’, those who are high on social desirability and low on reported anxiety, have electrocardiographic (EKG) activity, electromyographic (EMG) activity, and skin resistance activity (GSR) showing high arousal (or anxiety), as well as high content avoidance and poor reaction times on a phrase association task (Weinberger et al., 1979). Hence, within this context, ‘repressors’ will be those individuals scoring low on the MAS while scoring high on the MC-SDS (Weinberger et al., 1979; Weinberger, 1990).

This coping style will essentially serve as an analog of the repressive process.

According to Weinberger (1990), a repressive system essentially involves ignoring the emotions. In fact, when describing repressors, Weinberger (1990, p. 343) actually refers to Freud who posited that

The very impressions, experiences, impulses and desires that one man indulges...will be rejected with the utmost indignation by another or stifled at once even before they enter consciousness....this formation of an ideal would be the condition of repression ([1914] 1957, p. 93).

Weinberger (1990) points out that repressors "seem actively engaged in keeping themselves (rather than just other people) convinced that they are *not* prone to negative affect" (p. 338). According to Weinberger (1990), people with repressive coping styles often use a variety of strategies to avoid awareness of both affect and impulse, when the affect or impulse is incompatible with their self-image. Weinberger (1990) does point out that such unconscious self-deceptive behaviors can also serve to give off a favorable impression to others, and under certain circumstances operate concurrently. In fact, considerable controversy does exist concerning Weinberger's notion of repressive coping style. Paulus (1984), for example, points out that the MC-SDS contains both self-deception and impression management (other-deception) items. In this regard, Weinberger's (1990) conclusions have been challenged on the basis of inadequate discriminant validity between self-deception and impression management.

Weinberger (1990) argues, however, and other research on the Marlowe-Crowne has demonstrated (Millham & Kellogg, 1980; Doster, 1975) that high scorers on the Marlowe-Crowne are primarily self-deceivers. In fact, a study by Millham and Kellogg

(1980) found that high other-deceivers (impression managers) corresponded to the defensive high anxious group (i.e., high Marlowe-Crowne, high anxiety).

Controversy also exists concerning the assumption that self-deception is unconscious in a repressive coping style. For example, Newton and Contrada (1992) have examined repressors by manipulating the social context to examine differences between repressors' public and private responses. Research by Newton and Contrada (1992) suggests that repressor's self-awareness may be enhanced in a public context, leading repressors to evaluate their own anxiety against standards of being stoic (e.g., the idea that they should not show anxiety). Newton and Contrada (1992) suggest that repressors verbal reports of low anxiety (despite increased heart rate) may be influenced by a self-concept of being stoic. Whereas some have posited that a repressive coping style involves unconscious self-deception because of the dissociations found between physiological measures of anxiety and repressors verbal reports, research examining the social context (e.g., Newton and Contrada, 1992) present an alternative explanation (stoicism) to past unconscious interpretations.

Dissociation. McGee et al. (1984) capture the essence of what I am referring to as a dissociative coping style when they differentiate between repression and "inhibition." According to McGee et al. (1984, p. 12), in such a state "the experiencing of a particular traumatic event is held out or suspended without ever having come fully into consciousness." Dissociated memories tend to be stored in a parallel segregated system (Revire, 1996) that can potentially be

accessed when in some alternate state of consciousness (cf. state dependency). Consequently, an individual who copes with anxiety predominantly by dissociative means tends to experience the self as fragmented. Hence, dissociation is essentially a breakdown of the integrative functions of consciousness (Pomeroy, 1995). The Dissociative Experiences Scale (DES-II) will be used to measure dissociative tendencies characteristic of a dissociative coping style.

Contemporary Research

Overview

Since the 1980's (Herman, 1992; Russell, 1986), interest in the prevalence and nature of childhood abuse has flourished. Childhood sexual abuse has been studied extensively (Russell, 1986; Finkelhor, 1979; Herman & Shatzow, 1987; Briere & Conte, 1993; Williams, 1994; Terr, 1993; Chu & Dill, 1990; Sanders & Giolas, 1991; van der Kolk et al., 1996), and physical abuse (Chu & Dill, 1990; Sanders & Giolas, 1991; Swett & Halpert, 1993; Lipschitz et al., 1996) and emotional abuse to a lesser degree (Briere & Runtz, 1988; Sanders & Giolas, 1991). Prolonged abuse, particularly childhood sexual abuse, appears to be a major factor contributing to memory impairments and psychological dysfunction in adulthood (Herman, 1992; Herman & Schatzow, 1987). Although only a minority of child abuse survivors become psychiatric patients, approximately 40-70% (Briere & Runtz, 1987; Bryer, Nelson, Miller, & Kroll, 1987; Carmen, Reiker, & Mills, 1984; Briere & Zaidi, 1989; Jacobson & Richardson, 1987) of psychiatric patients have histories of chronic childhood abuse. Recent interest has focused

on such areas as abuse-related amnesia, the nature of traumatic memory, dissociative and posttraumatic symptoms and the associated characteristics of childhood abuse, affective reactions to the abuse, and long-term psychological sequelae and maladaptive behaviors manifested in adulthood.

Road Map

I intend to begin this review of the contemporary literature by first reviewing some of the research since the late 1980's focused on delayed ('recovered') memories of child abuse, to show how a renewed interest in the Janetian concept of dissociation and a trauma-dissociation model emerged from these studies. I will then highlight some of the characteristics typical of traumatic memory. Thereafter, I will proceed to highlight relationships between different child abuse characteristics, posttraumatic stress symptoms (PTSD), and dissociation. Contemporary research on how different types of abuse are associated with other long-term effects of child abuse ranging from memory disturbances to psychological adjustment dysfunction in adults will be reviewed. I will then highlight several theoretical models that have been proposed by contemporary researchers. I will conclude the introduction by describing the model I propose and summarizing the hypotheses of the present study.

Long-term Effects of Childhood Abuse

Impact on memory. Much of the research examining both the nature and the effects of childhood trauma began by studying people with 'delayed memories' (Briere & Conte, 1993) or total amnesia (Williams, 1994; Herman & Shatzow, 1987) of their

childhood sexual abuse. Delayed memories are not uncommon in people with histories of childhood sexual abuse (Whitefield, 1995). Sexual abuse research has shown that between 28 and 65 percent of sexually abused people had forgotten at least part of their abuse at some point in the past (Roesler & Wind, 1994; Loftus, Polansky, & Fullilove, 1994; Williams, 1994; Briere & Conte, 1993; Herman & Schatzow, 1987; Cameron, 1994). Contemporary research reveals that a number of factors are associated with people's abuse-related memory impairments. For example, clinical studies by Herman and Schatzow (1987) and Briere and Conte (1993) found that violent, long-term sexual abuse and abuse occurring at a young age tended to be associated with memory loss.

Herman and Schatzow (1987) surmised that the findings of their study might reflect 'massive repression', whereby people attempt to cope with their past abuse by trying to reduce their intrapsychic distress by avoiding painful recollections of their abuse. Despite some evidence that memory impairment was due to the traumatic nature of the abuse, Herman and Schatzow (1987) did not explore the possibility that such delayed memories might also be motivated by *conflict* (Briere, 1992). Briere and Conte (1993), however, explicitly examined conflict variables. Their findings, from a clinical sample of adults who had been molested during childhood, revealed that prolonged and violent abuse resulting in physical injury, multiple perpetrators, fears of death, and abuse at a young age tended to predict abuse-related amnesia. Similarly, people reporting abuse-related amnesia, as opposed to people who always remembered their abuse, were more likely to report having been in fear for their life. When Briere and Conte (1993) examined abuse characteristics that they anticipated would be more likely to cause psychological

conflict (as measured by physical or emotional enjoyment of the abuse, whether the victim struggled with the abuser, whether the victim received bribes or special privileges for complying, guilt about the abuse or about not disclosing the abuse to others, or the degree of shame associated with sexual abuse experiences), such conflict-laden variables did not appear to be associated with abuse-related amnesia. Although Briere (1992) at times used the term 'repression' when describing psychogenic amnesia and described it as a way of banishing painful memories from awareness, he explicitly stated elsewhere (Briere & Conte, 1993) that he suspected that abuse-related amnesia is more likely due to dissociative processes. Briere (1992) pointed out that amnesia is extremely difficult to study because if traumatized individuals employ defensive styles involving amnesia, they, by definition, tend to be unaware of doing so. Briere (1992, p. 39) asserted,

Although Freud (1966) primarily conceptualized amnesia (what he referred to as *repression*) as a primitive way of avoiding deep-seated psychological conflicts, recent research on sexual abuse survivors suggests that it is trauma, rather than conflict per se, that is more likely to motivate amnesia for distressing events.

A study by Williams (1994) revealed an association between amnesia and age at time of abuse, as well as sexual abuse by a relative. Williams (1994) noted that when controlling for age, sexual abuse by a stranger was more likely to be remembered. In addition, Chu and Dill (1990) found that people were less likely to recall sexual abuse perpetrated by a family member than when a stranger perpetrated abuse. In fact, a relatively recent body of literature, 'Betrayal Trauma Theory' (Freyd, 1996), has emerged offering a new perspective on abuse-related amnesia. Freyd (1996) posits that it is not always the most overwhelming and terrifying aspects of the trauma that may be forgotten.

She views child abuse, particularly abuse perpetrated by a trusted caretaker, as a social trauma, and argues that betrayal is a fundamental component of social traumas.

According to Freyd (1996, p. 9), "the closer and more necessary the relationship, the greater the degree of betrayal." Betrayal trauma is a theory of psychological response to trauma which rests on the assumption that the extent to which one's traumatic experience involves betrayal will impact the traumatized individual's encoding of the traumatic event (Freyd, 1996). In addition, such betrayal will impact not only the individual's awareness of the event per se, but the individual's behavioral and psychological responses. Freyd (1996, p. 9) asserts that under certain circumstances, a betrayal requires "betrayal blindness." Betrayal blindness is the lack of conscious awareness of the betrayal. According to Freyd (1996), through a child's eyes, maintaining a full awareness of the betrayal by a loved one could be perceived as a matter of life and death. For the child who is completely dependent upon the abuser, forgetting becomes an adaptive function because just knowing about the abuse can be a threat to survival (Freyd, 1996). Hence, 'not knowing' ensures survival. This 'not knowing' that Freyd describes captures the essence of repressive coping described earlier.

Nature of traumatic memory. Studies on 'delayed memories' (Briere & Conte, 1993; Herman & Schatzow, 1987) of childhood sexual abuse stimulated other researchers during the past decade to examine some of the characteristics typical of traumatic memory. Van der Kolk (1996) points out that the way people experience traumatic memories differs dramatically from the way they experience significant personal events (van der Kolk, 1996). Whereas with ordinary non-

traumatic experiences the sensory elements of the experience are automatically integrated into one's personal narrative from the start, with traumatic memories, the disparate sensory elements become dissociated and are registered separately in consciousness (van der Kolk, 1996). Some people resort to the defensive use of dissociation to defend against overwhelming traumatic experiences (Putnam & Trickett, 1993; Chu & Dill, 1990; van der Kolk, 1996).

Many researchers and clinicians (van der Kolk & Fisler, 1995; van der Kolk & van der Hart, 1991; Terr, 1993; Kardiner, 1941; Janet, 1889, cited in van der Kolk, 1996) agree that traumatic experiences are organized in memory at the perceptual level. Research by van der Kolk and Fisler (1995) examining the retrieval of traumatic memories revealed that initially, people's memories of traumatic events are experienced as fragments of sensory aspects of the event. People often report having experienced somatosensory flashbacks (van der Kolk, 1995; 1996). Such flashbacks can occur in a variety of sensory modalities (e.g., visual, affective, auditory, olfactory, etc.). Such findings are consistent with past anecdotal accounts (cf. Christiansen & Nilsson, 1989; Christiansen, 1992; Terr, 1991). According to van der Kolk (1996), the dramatic differences seen between how people experience traumatic memories and how they remember other personally relevant experiences supports the idea that traumatic memories are dissociated and initially have no linguistic components (e.g., "speechless terror"). In time, people with traumatic memories are able to form a narrative account of their fragmented traumatic memories (van der Kolk, 1996). van der Kolk (1996)

asserted that people with PTSD are unable to process information on a symbolic level, something that is necessary for proper categorization and integration with other experiences. Van der Kolk and van der Hart (1991) pointed out that a century ago, Janet differentiated between traumatic and ordinary memory. Whereas ordinary memories are semantic and symbolic, traumatic memories tend to be highly state-dependent and consist of sensations, images, affective states and behaviors that do not change over time (van der Kolk, 1996). "Contemporary memory research, however, is just beginning to explore Janet's notion that traumatic memories are not (semantic) 'memories' at all, but merely somatosensory memory fragments related to prior overwhelming experiences" (van der Kolk & Hostetler, 1994, p. 586).

Neurobiology of Traumatic Memory. Trauma exerts numerous effects on memory function and brain structures involved with memory (Bremner, et al., 1995). Explicit (i.e., declarative) memory which involves the conscious awareness of facts and verbal information has been implicated in the neurobiology of PTSD (van der Kolk, 1996; 1994). Implicit (i.e., procedural) memory involves memories of skills, habits, and emotional responses, fears, somatosensory sensations, as well as reflexive actions and conditioned responses (van der Kolk, 1996; 1994). In times of heightened arousal due to stress or even events reminiscent of the original trauma, traumatic memories can emerge implicitly at a sensorimotor level (van der Kolk, 1994). Whereas the explicit memory system is a more advanced brain structure involving the cerebral cortex and hippocampus, the implicit memory system is a phylogenically more primitive brain structure. Implicit

memory is associated with particular areas of the central nervous system (van der Kolk, 1996). In order for emotions and somatosensory information to become integrated, more complex (explicit) information processing is required (Hovdestad & Kristiansen, 1996). Fragmented, somatosensory, implicit memories involve only subcortical processing. Whereas certain experiences can overwhelm the explicit memory system, they can be processed by the implicit memory system at a sensory level (van der Kolk, 1994). Hovdestad and Kristiansen (1996, p. 37) point out that, "neurostructural phenomena at the time of the trauma can account for both the implicit and fragmentary nature of recovered memories of trauma."

Both neurostructural phenomena and neurochemical changes are associated with trauma. According to van der Kolk (1987, 1994), both norepinephrine and endogenous opioids (endorphins) play an important role in memory in terms of their effects on the hippocampus and the processing of explicit information. During the time of stress, there is a release of norepinephrine that invokes a physiological (e.g., increased heart rate, respiration) response that prepares an organism for fight or flight (Hovdestad & Kristiansen, 1996). Fluctuations in norepinephrine influence memory. Whereas moderate levels of norepinephrine enhance explicit memory, very low or very high levels disrupt explicit memory. Subtle hints of potential impending retraumatization (e.g., being alone with the perpetrator) can increase arousal beyond the tolerance threshold of the explicit memory system, resulting in implicit memories becoming dissociated (Hovdestad & Kristiansen, 1996). A "successful stress response involves norepinephrine-induced arousal" (Hovdestad and Kristiansen 1996, p. 38). When the stress is not alleviated,

however, 'stress-induced analgesia' can begin (Hovdestad & Kristiansen, 1996). In cases of chronic abuse, an individual could develop an opioid-mediated dissociative response to stimuli signaling an impending trauma (Hovdestad & Kristiansen, 1996). In fact, van der Kolk has likened human dissociative reactions to chronic trauma to the opioid-mediated freezing and numbing of inescapably stressed animals.

Research confirms clinical observations that an individual's inability to comprehend an experience (i.e., dissociate) plays an important role in making a stressful experience traumatic (van der Kolk, Burbridge, & Suzuki, 1997). According to van der Kolk et al. (1997, p. 99), "dissociation causes memories of the trauma to be organized, at least initially, as sensory fragments and intense emotional states that may have no linguistic components." Such fragmentation is accompanied by such dissociative experiences as derealization and depersonalization (van der Kolk, et al., 1997). Sensory components of the original trauma subsequently intrude as flashbacks and altered states of consciousness, whereby the individual 'relives' the traumatic experience. According to van der Kolk et al. (1997) neuroimaging studies of PTSD patients has caused a shift in emphasis away from the neurochemicals involved in terms of how an organism responds to overwhelming threat. More recently, the neuronal filters associated with the interpretation of sensory input has been the center of attention. Of particular interest are the interactions between numerous parts of the central nervous system (CNS) such as the hippocampus, amygdala, anterior cingulate, prefrontal cortex, and corpus callosum that are involved in processing and interpreting the meaning of incoming information.

Impact on dissociative symptoms. Studies on various types of clinical populations (e.g., hospital inpatients and outpatients, crisis centre) have shown that cumulative trauma and exposure to multiple types of abuse are associated with greater dissociative symptoms. For example, studies of psychiatric inpatients (Chu & Dill, 1990; Zlotnick et al., 1994; Shearer, 1994) and psychiatric outpatients (Lipschitz, Kaplan, Sorkenn, Chorney, & Asnis, 1996) have demonstrated that dissociation is highest for people who experienced both sexual and physical childhood abuse relative to people experiencing sexual or physical child abuse alone. On the other hand, studies have also shown that people with childhood sexual abuse, not accompanied by childhood physical abuse, are the least dissociative (Swett & Halpert, 1993; Chu & Dill, 1990). High levels of dissociation among people with combined sexual and physical abuse are often interpreted (cf. Chu & Dill, 1990; Zlotnick et al., 1994; Shearer, 1994; Lipschitz et al., 1996) as evidence that increased dissociation is associated with 'severity' of abuse.

In addition to multiple types of abuse, research has demonstrated a link between dissociation and a host of other abuse-related characteristics. Studies of clinical populations have found that prolonged sexual abuse or sexual abuse beginning at an early age is associated with higher levels of dissociation (van der Kolk, et al., 1996; Kirby, Chu, & Dill, 1993; Zlotnick et al., 1994). Zlotnick et al. (1994) controlled for the number of sexual perpetrators; however, they found no relationship between dissociation and age of onset. In addition, others have demonstrated an association between age and dissociative capacity (Kirby, Chu, & Dill, 1986; Ross, Joshi, & Currie, 1990). More invasive types of childhood sexual abuse are related to greater dissociation (Kirby, Chu,

& Dill, 1986). Research has also shown a relationship between greater dissociation and intrafamilial sexual abuse (Chu & Dill, 1990; Zlotnick et al., 1996; Lipschitz et al., 1996; Strick & Wilcoxon, 1991), extrafamilial sexual abuse (Chu & Dill, 1990), and familial loss (Chu & Dill, 1990) during childhood. Roesler and McKenzie (1994) found that childhood sexual abuse contributed significantly to all symptom measures, and the most dramatic increase was in dissociation.

In terms of childhood physical abuse, research has demonstrated that dissociation is also associated with childhood physical abuse (Briere & Runtz, 1988), and frequent childhood physical abuse (Kirby, Chu, & Dill, 1986)

Impact on PTSD. Research has demonstrated that posttraumatic symptoms are also associated with the experience of childhood sexual abuse (Roesler & McKenzie, 1994; Briere & Runtz, 1990; Chu & Dill, 1990; Sanders & Giolas, 1991), childhood physical abuse (Chu & Dill, 1990; Sanders & Giolas, 1991), and psychological maltreatment (Briere & Runtz, 1988; Sanders & Giolas, 1991), as well as combined sexual and physical abuse (Bryer et al., 1987). Bryer et al. (1987) found no significant difference in PTSD symptoms when they compared people with incest experiences to people with nonincestual sexual abuse. Disturbing experiences can increase emotional reactivity and manifest as PTSD (van der Kolk, 1987; Briere & Runtz, 1985; Sedney & Brooks, 1984). Hence, the focus of many contemporary investigations has shifted toward examining a host of abuse-related characteristics and their relationship to posttraumatic symptoms. For example, research suggests that the nature of the sexual contact is associated with the degree of trauma experienced. Russell (1986) found that sexual abuse

involving completed or attempted intercourse, oral, or anal sexual activity, as opposed to touching and kissing, was more traumatizing. Although an earlier study by Finkelhor (1979) found no consistent relationship between various types of sexual contact and trauma, Finkelhor (1979) did note that the use of force accounted for more of the victims' negative reactions than any other aspects of the abuse. Along the same lines, Russell's (1986) participants rated themselves as extremely traumatized when their perpetrator had used force. Browne and Finkelhor (1986) pointed out that despite the assumption that abuse by a relative, as opposed to a non-family member, is more traumatic, this may not always be the case. In fact, Finkelhor (1979) and Russell (1986) found no differences in the traumatic impact between familial or nonfamilial childhood sexual abuse.

Impact on affective reactions. In addition to the host of dissociative and posttraumatic symptoms, research suggests that childhood abuse and some of the associated affective reactions may have other long-term effects. One common reaction to childhood sexual abuse is feeling isolated (Courtois, 1979; Briere, 1984; Herman, 1981). Williams (1994) suggested that abuse by a close relative likely provokes experiences of fear, conflict, and betrayal that could lead victims to experience considerable confusion about the nature of their abuse. She pointed out that such abuse, particularly if of a sexual nature, is likely associated with guilt and emotional distress stemming from the betrayal, and that people may experience confusion concerning their role in precipitating the situation. Further complicating matters is the fact that abuse by a close relative is sometimes ignored or silenced by other family members (Williams, 1994). Past studies (DeFrancis, 1969; Stein et al., 1988) on the initial effects of childhood sexual abuse has

shown that some of the most common reactions to abuse include fear, anger and hostility, shame and guilt, and low self-esteem. According to Browne and Finkelhor (1986), empirical studies examining the long-term effects of childhood sexual abuse confirm many of the clinical findings.

Long-term physical abuse during childhood is associated with hostility (Swett & Halpert, 1993), isolation (Briere & Runtz, 1988), and anger (Briere & Runtz, 1988). Briere and Runtz (1988) noted that unlike childhood sexual abuse, research on childhood physical abuse tends to focus more on the etiology of the physical abuse or the physical results of the abuse, as opposed to psychological sequelae.

Impact on the self. Many of the long-term effects of childhood abuse are complex and interrelated and contribute to self-disorders (Putnam & Trickett, 1993; Putnam, 1990). Childhood victimization affects the development of self-worth (Russell, 1986), self-esteem (Courtois, 1979; Herman, 1981), and self-concept, beliefs about self-efficacy, and personal power and control. For example, the intrinsic sense of powerlessness can diminish a child's developing sense of self (Trickett & Putnam, 1993). In addition, childhood victimization interferes with the development of both social and cognitive competencies. Although a number of the above effects were experienced by women in a study by Courtois (1979), surprisingly, adult victims in her study with the longest lasting childhood sexual abuse histories reported the least trauma.

Impact on adjustment. Abundant research shows that a history of childhood sexual abuse often increases the risk of some degree of psychological and adjustment problems in adulthood. For example, a variety of adult psychiatric symptoms may be related to

childhood sexual abuse such as borderline personality disorder (Herman, Perry & van der Kolk, 1989; Bryer, Nelson, Miller & Kroll, 1987); multiple personality disorder (Putnam, 1989; Coons, 1986); somatization (Bryer et al., 1987; Lowenstein, 1990; van der Kolk, et al., 1996); eating disorders (Coons, Bowman, Pellow, & Schneider, 1989); substance abuse (Root, 1989; Herman & Schatzow, 1987; Stein et al., 1988); depression (Stein et al., 1988; Briere & Runtz, 1985; Sedney & Brooks, 1984; Herman 1981); and interpersonal problems and maladaptive behaviors (Herman 1981; Briere, 1984; Courtois, 1979; Briere & Runtz, 1988; Cole & Putnam, 1992); sexual problems (Herman, 1981; Briere, 1984); phobias, panic disorder, and obsessive compulsive disorders (Stein et al., 1988); a vulnerability to re-victimization (Russell, 1986; Briere, 1984); and substance abuse, particularly with women.

In terms of the long-term effects of childhood physical abuse, a review of the literature shows that some psychiatric symptoms are associated with childhood physical abuse, such as interpersonal relationship problems (Jacobson & Richardson, 1987; Briere & Runtz, 1988) and maladaptive behaviors (Briere & Runtz, 1988). Aggressive and violent behaviors, as well as non-violent criminal behaviors have been found to be associated with childhood physical abuse, as well as with academic and vocational problems (Malinosky-Rummell & Hanson, 1993). When Bryer and colleagues (1987) compared people with childhood sexual abuse to those with physical abuse, borderline personality and maladaptive behaviors (i.e., suicide attempts) were more common for people with childhood sexual abuse. Long-term effects of childhood physical abuse can

also include somatization, obsessive-compulsive disorder, and paranoia (Swett & Halpert, 1993).

Abuse Summary

Despite the complex array of potential long-term effects of child abuse demonstrated by research over the past two decades, there are those who question whether childhood abuse is harmful (Henderson, 1983). Nevertheless, the evidence speaks for itself. Clearly, many victims of both childhood sexual and physical abuse do exhibit a wide array of complex symptoms and pathological behaviors. Kendall-Tackett, Williams and Finkelhor (1993) emphasized that there are some individuals who exhibit no apparent symptoms. Moreover, although both clinical and non-clinical studies comparing adults who were sexually abused as children to non-abused people demonstrated some degree of psychological impairment in abused populations, less than 20% evinced serious pathology (Browne & Finkelhor, 1986). Hence, although victims of childhood sexual abuse are at higher risk for psychological sequelae, it is not inevitable (Browne & Finkelhor, 1986).

Trauma -Dissociation (PTSD) Model

PTSD from military and natural disasters. The core symptoms of the PTSD model define the posttraumatic stress-related symptoms observed in victims of military combat (Bremner & Brett, 1997) and natural disasters (Koopman & Classen, et al., 1994; MacFarlane, 1986). The cardinal symptoms of the PTSD model are hyperarousal and intrusiveness. Hyperarousal triggers intrusive flashbacks or reexperiencing of the original trauma. It also triggers the attempt to cope by way of hypervigilance or emotionally

numbed avoidance (Ford, 1999; Yehuda & McFarlane, 1995). Research findings on traumatic memory are consistent with PTSD seen in military combat (Bremner & Brett, 1997) and natural disasters (Koopman & Classen, 1994).

PTSD of child abuse. Many of the features of PTSD (e.g., intrusions, hypervigilance, dissociation) are common in victims of childhood trauma and many contemporary researchers have since adopted a PTSD or trauma-dissociation model to help explain the psychological sequelae of childhood trauma. A number of researchers find the PTSD (trauma-dissociation) model useful in explaining the core symptoms of posttraumatic stress and dissociation seen in victims of child abuse. The physical trauma, in particular, appears to elicit a dissociative process, whereby the traumatic experience becomes compartmentalized, only to emerge later as posttraumatic stress symptoms such as dissociative amnesia (Spiegel, 1997). According to Briere (1992), victims of physical abuse tend to experience posttraumatic stress symptoms involving autonomic responses, intrusive thoughts, violent nightmares, and avoidance of abuse-related thoughts or stimuli more often than do victims of sexual abuse. There is an increasing consensus in the clinical literature that dissociative phenomena are a defense against posttraumatic distress. In fact, dissociation is one of the criteria for Acute Traumatic Disorder in the DSM-IV (1994). According to Putnam (1989), dissociation allows the traumatized individual to escape reality and compartmentalize traumatic memories and associated affects outside of normal awareness. In addition, it permits an individual to detach from a sense of self, as if the traumatic event is happening to someone else. Dissociation also acts as analgesia (Putnam, 1989). Functioning in such a disintegrated fashion lessens the

emotional impact of the abuse. The etiology of dissociation is likely very complex (Briere, 1992).

Expanded Models: Toward a More Global Focus

Complex PTSD or Disorders of Extreme Stress (DESNOS). This model was developed to expand upon the original PTSD formulation. The earlier PTSD model was derived originally from observations of victims of relatively circumscribed events (Herman, 1992) such as disasters, combat, and rape. According to van der Kolk (1996, p. 562), "the presumption behind the acceptance of PTSD is that a single disorder results from a variety of traumatic stressors ranging from combat and rape to motor vehicle accidents." This is not always the case, however, because there is considerable variability in the patterns of symptoms and psychopathology manifested by trauma survivors (van der Kolk, et al., 1993). This is particularly true in the case of child abuse trauma, as evidenced by the vast array of long-term effects described earlier. For example, the DSM-IV field trials for PTSD (van der Kolk, et al., 1993) revealed several subtypes of reactions common in victims of traumatic stress (e.g., somatization, amnesia, dissociative symptoms) in addition to the primary features of PTSD (e.g., hyperarousal, intrusion). Herman (1992) points out that unlike some cases of trauma such as a natural disaster or traffic accidents, there are other traumas in which the victim is under the control of the perpetrator and unable to escape. Under such circumstances, the victim endures prolonged contact with the perpetrator (e.g., in a concentration camp or prison). Herman (1992) points out that similar conditions exist in some religious cults, institutions, and some families (e.g., those exhibiting child abuse or wife abuse). According to Herman

(1992), characteristics such as extreme affective and impulsive lability, dissociation, interpersonal conflict and self-fragmentation are typical characteristics of DESNOS and typical of much childhood trauma. van der Kolk (1996) argues that restricting diagnostic criteria in the DSM-IV to only the essential features (e.g., hyperarousal; intrusive images) necessary for making clinical diagnoses dismisses many characteristics associated with experiences of trauma that have clinical and treatment relevance. In light of this, some research psychiatrists (Herman, 1992; van der Kolk, 1996) proposed the designation of a new formulation to accommodate for those cases that exhibit more than just the primary PTSD features of hyperarousal and intrusiveness. 'Complex PTSD' or 'Disorders of Extreme Stress' (DESNOS) was formulated to encompass not only the cardinal features of PTSD, but other symptoms that often accompany trauma such as somatization, dissociative disorders, and amnesia. This proposed model was intended to expand the concept of PTSD to include a trauma spectrum ranging from brief stress reactions to a single event, through simple PTSD, to complex PTSD or Disorders of Extreme Stress (DESNOS; van der Kolk, Roth, Pelcovitz, & Mandel, 1993), which follows exposure to prolonged chronic trauma, including child abuse. Unfortunately, this expanded model was not accepted into the DSM-IV (1994). "Acute Stress Disorder" was the only new traumatic disorder accepted into the latest revision of the DSM-IV (van der Kolk, 1996). Recent research on PTSD and DESNOS suggest that DESNOS and PTSD may be comorbid conditions, yet distinct posttraumatic stress syndromes. Ford (1999) suggested that DESNOS may best be viewed as a developmentally adverse trauma that is independent of PTSD, but definitive etiology cannot be ascertained without longitudinal

investigation. Her study did note a negative relationship between DESNOS and PTSD in terms of object relations, and that marked intrusive reexperiencing was associated with DESNOS, but not PTSD, which has potential implications for child abuse research. Ford (1999, p. 18) pointed out,

The sequelae of early childhood and atrocity trauma may involve "traumagenic dynamics" (e.g., a sense of betrayal and stigmatization; Finkelhor, 1995) that go beyond PTSD and may best be understood in terms of DESNOS.

Multifaceted models. The core symptoms associated with posttraumatic stress and dissociative disorders continue to be useful to some extent in helping to explain the symptoms associated with childhood abuse. Such a model, however, is limited in its ability to account for the vast array of symptoms exhibited by some victims, particularly of those with childhood sexual abuse (Finkelhor, 1988). Others (Corwin, 1989; Jampole & Weber, 1987) have posited that both PTSD and sexualized behaviors are the core manifestations of sexual trauma. Putnam (1990), and Putnam and Trickett (1993), however, interpreted the diversity of abuse-related symptoms differently. For example, Putnam & Trickett (1993) pointed out that the host of symptoms (e.g., borderline personality, multiple personality, interpersonal problems, eating disorders, substance abuse) share a common denominator, or a core psychological feature. They asserted that such symptoms involve disturbances to one's sense of self, such as low self-esteem, identity disturbances, or distortion of body image. Furthermore, self-injury is a common maladaptive behavior that tends to be associated with each symptom. According to

Putnam and Trickett (1993), such behaviors are indicative of self-disturbances and inner conflicts, as well as mood and behavior disorders.

Although trauma models that focus on posttraumatic symptoms may adequately account for the experience of physical abuse, some (cf. Finkelhor, 1987, 1988; Kendall-Tackett, Williams, & Finkelhor, 1993) challenge the utility of the PTSD model, or any 'core symptom' model for that matter, in explaining the complex array of symptoms associated with childhood sexual abuse. Kendall-Tackett, Williams, and Finkelhor (1993) emphasized that a large part of childhood sexual abuse involves the manipulation of affections and the misrepresentation of social standards as opposed to extraordinary, overwhelming danger. As noted earlier, although some victims of childhood sexual abuse do exhibit some symptoms easily explained by a PTSD or trauma-dissociation model, such core symptoms are not universal. Kendall-Tackett, Williams, and Finkelhor (1993) found 'core symptom' models problematic, because of the absence of one consistent and dominant set of symptoms. Moreover, research on the effects of childhood sexual abuse over recent years has begun to suggest that the experience of childhood sexual abuse is very complex and appears to produce multifaceted effects on people. Hence, some researchers (Finkelhor, 1988; Kendall-Tackett, Williams, Finkelhor, 1993; Finkelhor & Browne, 1985; Briere, 1992; Conte & Schuerman, 1987; Clausen & Crittendon, 1991) have begun to consider more multifaceted, or multi-dynamic approaches to understanding the complex array of symptoms associated with childhood sexual abuse.

For example, Clausen and Crittendon (1991) posited that family dysfunction or being in an abusive environment, rather than the sexual abuse per se, is at the heart of the

trauma of childhood sexual abuse. Kendall-Tackett, Williams, and Finkelhor (1993) noted that even though Clausen and Crittendon (1991) found similarities in the range and type of symptoms manifested by abused children in their sample, some of their findings relative to non-abused siblings within those same dysfunctional families exhibited fewer symptoms than the abused siblings. Hence, Kendall-Tackett, Williams, and Finkelhor (1993) argued that the trauma of childhood sexual abuse may be independent of generalized family dysfunction or an abusive environment. Nevertheless, they agreed that a dysfunctional family environment could exacerbate the traumatic impact of childhood sexual abuse. Conte and Shuermann (1987) also favored a multi-dynamic model and posit that both dysfunctional family context and a host of abuse-related characteristics play a role in the traumatic impact of sexual abuse.

One of the most elaborate multidynamic models to date has been developed by Finkelhor and Browne (1985), whose comprehensive dynamic model to account for sexual abuse trauma is known as the 'Traumagenic Sexualization' model. The underlying assumption of this model is that there are four mechanisms (traumatic sexualization, betrayal, stigmatization, powerlessness) that can account for the constellation of symptoms commonly observed in victims of childhood sexual abuse. According to Finkelhor and Browne (1985), traumatic sexualization stems from inappropriate conditioning of sexual responsiveness and the socialization of faulty assumptions concerning sexual behavior. The act of betrayal destroys any sense of hope in the child that the trusted caretakers have the capacity to provide a protective environment. The stigmatization dynamic is comprised of mechanisms (e.g., shame, acquisition of negative

stereotypes) that essentially undermine an individual's positive self-image (Finkelhor & Browne, 1985). Finally, the dynamic of powerlessness is the dimension that is comprised of PTSD-type mechanisms such as a sense of fear and helplessness when the victim is unable to stop, or escape from, the abuse. Hence, this model is considerably more comprehensive and multidimensional in that symptoms commonly accounted for by a PTSD or trauma-dissociation model are subsumed within this more dynamic model. The authors (Finkelhor & Browne, 1985) argued that the above dynamics are inherent in childhood sexual abuse in varying degrees. In fact, they point out that certain symptoms are more closely associated with certain dynamics. For example, self-esteem issues are connected more to stigmatization. Similarly sexual symptoms are tied to the traumatic sexualization dynamic, whereas such things as fear and PTSD are more connected to the powerlessness dimension (Finkelhor & Browne, 1985).

On a similar note, Briere (1992) now endorses a multi-dynamic approach. Briere (1992) posits four dynamics: 1) negative self-evaluation; 2) chronic perception of danger; 3) powerlessness and preoccupation with control; and 4) reduction of painful internal states. Both the Finkelhor and Brown (1985) and the Briere (1992) dynamic models encompass aspects of the aforementioned 'core symptom' models. While each has dimensions that address symptoms of posttraumatic stress and self-disturbances, they also encompass other dynamics. In comparison with the Finkelhor and Browne (1985) model, it appears that Briere's model places considerably more emphasis on the posttraumatic theme (e.g., danger, powerlessness, reduction of painful internal states). However, the 'Traumagenic Sexualization' model proposed by Finkelhor and Browne (1985)

encompasses the posttraumatic aspects of abuse, but places considerable emphasis on the relational and interpersonal context within which the sexual abuse is perpetrated. Despite abundant research over recent years, there is no universally agreed upon model for explaining the vast array of symptoms and psychological disorders observed in survivors of child abuse.

Rationale Behind this Study

Knowledge of the many characteristics of child abuse and some of the possible antecedents of dissociative and posttraumatic stress symptoms provides a partial understanding of the potential etiology of adult psychopathology, symptoms, and memory impairments, yet offers little about the phenomenology of people's experiences in terms of *how* they may have perceived or experienced abuse and its potential influence on their coping styles. According to van der Kolk, Herron, and Hostetler (1994, p. 586), "Contemporary scientists agree with Janet that what memory processes best is not specific events, but the quality of experience and the feelings associated with it." Kendall-Tackett, Williams, and Finkelhor (1993) asserted that despite voluminous child abuse research over recent years documenting a host of abuse-related symptoms and some of their correlates, there have been few theoretical advances. They pointed out that there is

a nearly universal absence of theoretical underpinnings in the studies being conducted on this subject to date. Researchers evince a great deal of concern about the effects of sexual abuse but disappointingly little concern about why the effects occur. Few studies are undertaken to establish or confirm any theory or explanation about what causes children to be symptomatic (p. 175).

Kendall-Tackett, Williams, and Finkelhor (1993) asserted that future research should be aimed at developing and confirming theory.

The Present Study

The present study investigated women's experiences of childhood sexual and physical abuse and abuse-related characteristics to address whether the conflict model also plays a role in psychological trauma. In addition, it set out to predict situations where the conflict and/or deficit model would apply. Toward this aim, and as outlined in the model, the hypothesis of the present study was that the extent to which a repressive or dissociative coping style is adopted depends upon the extent to which a person's childhood abuse involved conflict or terror. It was predicted that conflict-laden tactics employed by the perpetrator and conflict-laden feelings would predict a repressive coping style, whereas terror-laden tactics employed by the perpetrator and terror-laden feelings would predict a dissociative coping style. In addition, experiences of conflict and terror and repressive and dissociative coping styles were examined to see whether they would vary as a function of type of abuse. This model hypothesized that people with histories of childhood physical abuse would report the most terror. Furthermore, it was hypothesized that people with childhood physical abuse would be more dissociative than people without a history of childhood physical abuse. A series of secondary analyses attempted to replicate, in a community sample, some of the findings previously demonstrated to be common predictors of dissociation in clinical populations. The prevalence of abuse-

related amnesia and characteristics typical of traumatic (dissociated) memories was also examined.

Several other secondary hypotheses were investigated in an attempt to replicate, in a community sample, some of the findings previously demonstrated in clinical populations. It has been demonstrated in clinical studies that early onset and long-term sexual abuse (van der Kolk, et al., 1996; Kirby, Chu, & Dill, 1993) predict dissociation. Hence, it was hypothesized that early onset, long-term abuse would predict a dissociative coping style. In addition, past research has shown evidence that abuse by a close relative is associated with a dissociative coping style (Chu & Dill, 1990; Zlotnick et al., 1996; Lipschitz et al., 1996; Strick & Wilcoxon, 1991). Because periods of amnesia for abuse memories are not uncommon among people with childhood histories of abuse (Briere & Conte, 1993; Williams, 1996), this study also examined the prevalence of abuse-related amnesia to see whether repressive and dissociative coping styles varied depending upon whether or not participants experienced any memory loss for their abuse. Given that characteristics such as memory fragments, flashbacks, body memories, nightmares, dreams, sudden intense emotional feelings, and other somatosensory experiences are typical of traumatic memory (van der Kolk & Fisler, 1995; van der Kolk & Hostetler, 1994), the nature of people's abuse-related memories were also examined. It was hypothesized that memories returning as fragments, gradually over time, as opposed to memories returning all at once, would predict a dissociative coping style. Finally, it was

hypothesized that 'recovered memories' of abuse returning by way of somatosensory processes would predict a dissociative coping style.

Method

Participants

A community sample of 106 adult women from Ottawa and its surrounding communities participated in this study. Each participant spent approximately two hours completing the survey questionnaire ($M = 118.80$, $SD = 48.60$ minutes). The duration of the post-survey discussion and debriefing session ranged from 10 to 80 minutes ($M = 27.61$, $SD = 12.86$). The duration of this post-survey session was essentially controlled by the participant. Although the debriefing itself took approximately ten minutes, many participants welcomed the opportunity at the end of the study to share additional personal information, comment on the experience of having participated in a study of this nature, or learn more about this research.

Procedure

This research was approved by Carleton University's Department of Psychology Ethics Committee. Prior to conducting the survey a pilot study was conducted with five female volunteers to estimate the time necessary for completing the questionnaire survey and to get feedback on questionnaire construction, clarity, and overall survey design. Suggestions forthcoming from the pilot study were to include an item inquiring about eating disorders and participation in special treatment programs such as (e.g., substance abuse). The questionnaire was modified to include two additional items concerning eating disorders and three items inquiring about participation in inpatient or outpatient psychological (or substance abuse) treatment programs and self-help groups.

Announcements reading, "Adult women who experienced physical abuse or sexual abuse beginning before age 13 are wanted to participate in a 2-hour study. Your participation will entail completing a questionnaire and sharing information concerning your abuse, how you have coped with that abuse, and the impact that abuse has had on you. Confidentiality is assured," were distributed via facsimile-trees throughout the Ottawa community, and posted at local universities, community centers, health centers, therapists' offices, and retail establishments. Research announcements were also published in local newspapers and on the local community television network.

During initial telephone contact, prospective participants conversed directly with the researcher for approximately 10-20 minutes. During this initial contact, prospective participants were given a brief description of the study, informed of the average time commitment, what their participation would involve, and the sensitive nature of the study. Callers who continued to express interest in participating were pre-screened to assure they met four criteria. To be eligible for participation, volunteers had to be female, at least 18 years old, sexually and/or physically abused prior to age 13, and not experiencing suicidal or other high-risk self-injurious behaviors. Prospective participants were also asked if they were currently in therapy. Those acknowledging that they were currently in therapy, were encouraged to discuss their intention to participate in a study of this nature with their therapist. Three women acknowledged they were currently engaging in self-injurious behaviors, and were asked, for safety reasons, to wait until they were more grounded and no longer engaging in self-harm before participating in a study of this nature. Women who met the criteria scheduled a survey session with the researcher at a mutually

convenient time and place (e.g., the university, a centrally located community center, the woman's home, or anywhere the participant would feel most comfortable).

At the beginning of each survey session, the researcher introduced herself and described the survey session and informed participants that when they finished writing the questionnaire, time would be available for additional comments and a debriefing. Women were encouraged to take breaks whenever desired, and informed that they could take as much time as they needed for the survey. Participants were also informed that they could stop at any time, and that the researcher would be nearby and available to offer emotional support or answer questions if necessary. Before beginning the survey, participants signed an informed consent (see Appendix B). In addition, because the questionnaire was comprised of a variety of measures organized in four parts and instructions varied from one section to another, the researcher gave participants a general overview of the questionnaire format beforehand and emphasized that instructions might vary from one page to the next and that they would encounter a transition (from general to more specific) as they progressed through the questionnaire.

After completion of the questionnaire, participants engaged in a short post-survey interview with the researcher which provided participants an opportunity to elaborate further about their experience. The survey process concluded with a debriefing wherein the researcher discussed the purpose of the study in more detail, answered any questions, and conversed with the participant to provide time for each participant to become grounded before departing. Each participant was also provided with a written copy of the debriefing (see Appendix C) and a list of phone numbers and names of various crisis

centers and abuse-related resources in the community. In addition, participants were given the researcher's name and phone number and informed that if they felt the need for emotional support after participating in this research, but did not have a therapist available to them, they should contact the researcher, because prior arrangements had been made with the Ottawa Sexual Assault Support Centre (SASC) to provide crisis counseling to any participant desiring such. No participants contacted the researcher after the study requesting follow-up support at SASC.

Materials

Overview. The survey questionnaire was comprised of a variety of measures aimed at examining women's experiences of childhood sexual and/or physical abuse and coping styles. The instruments were organized into four sections. Part I included instruments to obtain general information about each participant (e.g., demographics, therapy background, coping styles) and Part II summarized sexual and/or physical abuse history in general terms (e.g., age of onset; duration; number of, and relationship to, perpetrators). Part III focused on the childhood sexual and/or physical abuse by a specific perpetrator whom the participant felt had the most significant psychological impact on her. The last part of the questionnaire concluded with a sentence completion exercise and several items for assessing how participants felt after participating in the study. Because the survey questionnaire was voluminous, any measure that is readily available from its original source has been described and cited so it can be easily obtained, but only measures not readily available elsewhere are included as appendixes. All instruments included in the questionnaire are summarized below.

Demographics, Therapy History, and Recovery. The first section of the questionnaire gathered information about participants' age, educational level, employment status, income level, relationship status, therapy background, and recovery process (see Appendix D).

The Traumatic Antecedents Questionnaire (TAQ-S).² The TAQ-S (Trauma Center, HRI, 1995) is a self-report assessment for the occurrence of three types of trauma-physical abuse, sexual abuse, and witnessing domestic violence, as well as four types of disrupted parenting (e.g. separation, environmental chaos, physical and emotional neglect). For example, 'People in my family called me insulting names' is an item from the Emotional Abuse subscale. Participants indicate the intensity to which they experienced such an event on a four-point scale (never, very rarely, sometimes, often; or 'don't know') at four different points across the lifespan (ages: 0-6-, 7-12, 13-18, adult). Scoring involves averaging scores for all items in each subscale across each age group. A total score for each subscale can be calculated by adding the scores across all age groups. Rating total childhood trauma on a continuous variable on the TAQ-S enables correlation with degree of personality pathology (Herman, Perry, & van der Kolk, 1989). The TAQ-S is able to differentiate trauma scores of people with definite borderline personality disorder from people with borderline traits and people with other closely related but nonborderline diagnoses. Reliability and validity of the self-report version of the TAQ is unknown.

² Both the TAQ-S along with scoring instructions and the Structured Interview for Disorders of Extreme Stress can be purchased by contacting the Research Coordinator at the Trauma Center, 227 Babcock Street, Brookline, MA 02146.

Structured Interview for Disorders of Extreme Stress-NOS).³ This instrument is a structured clinical interview, and was used during the DSM IV field trials for PTSD. It is a 48 item inventory useful in assessing features commonly associated with PTSD. The measure is comprised of seven dimensions: alterations in regulation of affect and impulses, alterations in attention or consciousness, alterations in self-perception, alterations in perception of the perpetrator, alterations in relations with others, somatization, and alterations in systems of meaning, and respondents describe both past and current experience relative to each item. Two dimensions, 'alterations in attention or consciousness' and 'alteration in self-perception' were of particular interest within the context of this study, because they consisted of items pertaining to dissociative experiences and feelings of guilt and shame. According to van der Kolk, et al. (1996) and Pelcovitz et al. (1996), this instrument has good behavioral anchors and high reliability and validity. The authors report that inter-rater reliability as measured by Kappa coefficients for lifetime and current symptoms were .81 and .67, respectively. Internal consistency with coefficient alpha ranged from .53 to .96. Regarding validity, the authors (Pelcovitz & van der Kolk, 1996) report that during DSM-IV PTSD field trials 33 of 34 comparisons comparing interpersonal violence subjects to disaster subjects revealed significant differences in the percentage of people endorsing items on this measure.

Traditionally, this measure is used as a structured clinical interview that inquires about typical reactions that some people have following a traumatic experience. For the

³ Both the Structured Interview for Disorders of Extreme Stress and the TAQ-S along with scoring instructions can be purchased by contacting the Research Coordinator at the Trauma Center, 227 Babcock Street, Brookline, MA 02146

purposes of this study the format was modified slightly to be appropriate as a self-report measure, but item content and order of item presentation remained the same. The revised format enabled respondents to report not only the level of severity of their reaction during the past month, but also the level of their reaction during their lifetime, as shown in Table 1.

Table 1

Sample Item From Structured Interview for Disorders of Extreme Stress-NOS With

Modified Self-Report Format

People were instructed to read a statement such as the following and circle the number of the response that best described their experience at two points in time (e.g., “for significant part of my life” and during “past month”).

I feel chronically guilty about all sorts of things.

	<u>For Significant Part of My Life</u>	<u>Past Month</u>
Never. Not at all	0	0
I feel more responsible than I need to for things that go wrong.	1	1
I blame myself for things that go wrong even when I had nothing to do with it.	2	2
I blame myself and punish myself for whatever goes wrong, even when I have nothing to do with it.	3	3

Note. Sample item from The Structured Interview for Disorders of Extreme Stress-NOS (DESI), (Trauma Center, HRI, 1995). Format modified for this self-report study.

Marlowe-Crowne Social Desirability Scale (MC-SDS). Initially the MC-SDS (Marlowe & Crowne, 1960) was developed as a measure of social desirability response style. It is comprised of 33 true/false items (Marlowe-Crowne, 1960). The MC-SDS contains little pathology-relevant items, but instead consists of culturally sanctioned behaviors that are unlikely to occur (e.g., 'I have never intensely disliked anyone.' 'I have never felt that I was punished without a cause.'). Each item is scored one point for endorsing as true the socially acceptable behavior or denying as false socially unacceptable behavior. Crowne and Marlowe (1960) found significant positive correlations between the MC-SDS and the test taking attitude (K) scale of the MMPI ($r = .40, p < .05$) and the lie (L) scale of the MMPI ($r = .54, p < .01$), which are two scales on the MMPI that are generally interpreted as indicating 'defensiveness' and the attempt by people to cast themselves in a favorable light. In addition, they found that the MC-SDS correlated with 17 MMPI validity, clinical, and derived scales. Furthermore, their findings were similar to those previously found between the Edwards Social Desirability Scale and MMPI items. Hence, since the 1960s the MC-SDS has been used to measure social desirability and discriminate defensive versus non-defensive people. High scores on the MC-SDS represent high defensiveness. Crowne and Marlowe (1964) realized that their scale primarily measures a substantive individual difference dimension as opposed to a response bias. Past research demonstrates internal consistency to be .88 and test-retest reliability of .89 with a normal university population. The Marlowe-Crowne is believed to measure affect inhibition (Weinberger, Schwartz, & Davidson, 1979), and has proven to be a valid measure of "defensiveness and protection of self-esteem" (Crowne

& Marlowe, 1964, p. 206; Weinberger et al., 1979; Weinberger, 1990.). More recent research (Weinberger et al., 1979) using the MC-SDS along with a measure of trait anxiety, and behavioral and physiological measures, has demonstrated that the MC-SDS is a valid measure of defensiveness; and will be described in more detail in a subsequent section (see 'Measure of Repressors').

Revised Taylor Manifest Anxiety Scale (MAS). The revised MAS (Taylor, 1953) is comprised of 28 items derived from the MMPI, which clinicians judge to be indicative of manifest anxiety. It assesses the severity of anxiety in a true/false format (e.g., 'I am often sick to my stomach' 'At times I lose sleep over worry'). The MAS reports satisfactory test-retest reliability. Pearson product-moment correlation revealed a .85 correlation between the old and the new version of MAS (when the latter had been administered 3 weeks after initial testing). According to Taylor (1953) this figure is consistent with the test-retest coefficient found for the previous version of the MAS when tested after a similar interval. Test-retest reliability was .88 after a four-week interval. In terms of validity, distributions of scores comparing normal individuals and a clinical population reveal marked differences, suggesting a relationship between anxiety-scale scores and clinical observations of manifest anxiety. The 28 item Taylor's (1953) Revised Manifest Anxiety Scale (MAS) will be used in conjunction with the MC-SDS to identify participants exhibiting a repressive coping style as described in the next section.

Measure of Repressors. Weinberger et al. (1979) redefined 'repressors' as those people who score low on a measure of trait anxiety such as the Manifest Anxiety Scale (MAS), while scoring high (at least upper third) on a measure of defensiveness (e.g.,

Marlowe-Crowne). Truly low anxious people can be differentiated from repressors because, unlike repressors, truly low anxious people score low both in anxiety and defensiveness (Weinberger et al., 1979; Weinberger, 1990). Construct validity has been demonstrated in studies comparing repressors to high-anxious and low-anxious subjects. Weinberger et al. (1979) demonstrated that despite repressors' self-reports of low anxiety, several behavioral and physiological indicators contradict repressors' verbal reports indicative of repressive defensiveness. More specifically, repressors' defensiveness has been illustrated by high content avoidance and poor reaction times on phrase association tasks as well as various physiological measures such as increased heart rate, forehead muscle tension, and sweat gland activity (Weinberger et al., 1979).

Dissociative Experiences Scale II (DES-II). The DES II (Carlson & Putnam, 1993) is a revision of the DES that allows for easier scoring than the original version. Like the original DES (Taylor, 1953), the DES II is a 28 item self-report questionnaire containing items such as 'Some people have the experience of not being sure whether things that they remember happening really did happen or whether they just dreamed them. What percentage of the time does this happen to you?' There are minor scale changes between the original DES and the newer version. The DES II was tested and produced scores very similar to those of the original DES (ref) although more testing is underway. Test-retest reliability of the original DES is .84 . The DES also reveals good split-half reliability. Item scale score correlations indicate good internal consistency. With regard to validity, the original DES is able to distinguish between participants with dissociative disorders and other participants. (Carlson & Putnam, 1993). Specifically,

individuals with PTSD, MPD, and dissociative disorders not otherwise specified (DDNOS) score very high on the scale. Furthermore, high scores for individuals with PTSD are consistent with literature demonstrating high dissociative symptoms associated with PTSD. Adults from the general population tend to score very low on the DES.

Abuse History Summary. Those participants who experienced childhood sexual abuse prior to age 13 completed an abuse history summary of childhood sexual abuse (see Appendix E) indicating at what age(s) they experienced sexual abuse/sexual assault and indicated the total impact of all their childhood sexual abuse (no impact, slight, moderate, or extensive impact). Women also indicated the types of people who perpetrated their childhood sexual abuse and indicated the level of distress (no distress, slight, moderate, or extreme distress) associated with each abuser. Similarly, participants who experienced childhood physical abuse prior to age 13 completed an abuse history summary of childhood physical abuse in the same manner (see Appendix F).

Affective Reactions to Abuse Inventory. Part III of the questionnaire asked women to make a transition from referring to their overall abuse history (i.e., if multiple abusers had been involved) to describing experiences associated with the sexual and/or physical abuse perpetrated by one particular abuser. They were asked to consider the abuse that they felt had the most significant psychological impact on them and indicate whether this abuse was solely sexual in nature, solely physical in nature, or a combination of both. With this abuse in mind, women were asked to complete an affective reactions to abuse inventory relative to this experience (see Appendix G). Women were presented with 17 feelings that are sometimes experienced by abused people (e.g., frightened,

ashamed, powerless, guilty). Women reported on a five-point Likert scale (never, rarely, occasionally, often, almost always) the degree to which they felt such a feeling associated with this abuse.

Trauma Constellation Identification Scale. The TCIS (Dansky, Roth & Kronenberger, 1990) assesses negative affective and maladaptive cognitive responses to serious life events. For the purposes of this study, when women responded to the items contained on this measure, they were referring to the sexual and/or physical abuse (by one specific perpetrator) that they perceived had the most significant psychological impact on them. The 30 item self report measure is comprised of 6 affective categories (e.g., fear, loss, shame, overwhelming emotions, rage, helplessness) and 9 schemata categories (e.g., self-worth, self-blame, reciprocity, isolation, legitimacy, malevolent world, meaningless world, trust, alienation). Items are arranged on a seven point scale (strongly disagree to strongly agree). The TCIS has high internal reliability and two higher-order dimensions ("negative self schemata and affects" and "hostile world"). Chronbach's $\alpha = .94$ (Dansky, Roth, & Kronenberger, 1990). The TCIS has been found to be related to a variety of coping and outcome variables. The TCIS was developed to measure maladaptive responses to traumatic and stressful life events. The authors (Dansky, Roth, & Kronenberger, 1990) found evidence for construct validity, and found that high scores on the TCIS categories and factor scores were related to psychological symptomatology on the SCL 90 R. In particular, symptoms of intrusions, denial, somatization, obsessive-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoia, and psychoticism are highly and positively correlated with the TCIS (Dansky,

Roth, & Kronenberger, 1990). In addition, they found that avoidance coping was also strongly related to TCIS factor scores and the Total score.

Impact of Events Scale Revised. The IES-R (Weiss, 1996) is a 22 item self-report instrument that measures both emotional and cognitive experiences of three types of traumatic stress responses: intrusions, hyperarousal, and avoidance. Items are measured on a four-point Likert scale (not at all, rarely, sometimes, often). Generally it targets symptomatology of the past seven days; however, for use in the context of the present study, participants had been instructed to indicate “how frequently these comments were true for you during your life with respect to the specific abuse that you feel had the most significant impact on you.” The IES-R subscales of avoidance, intrusions, and hyperarousal were of particular interest within the context of this study given these characteristics have relevance to dissociative and repressive coping styles. According to Weiss (1996), a recent study revealed coefficient alpha values for the intrusion and avoidance subscales to be $\alpha = .85$ and hyperarousal $\alpha = .77$. Test-retest data of a recent study of earthquake victims was .47 for intrusion, .51 for hyperarousal, and .40 for avoidance, and for emergency services workers, .56, .50, and .51 respectively. With regard to validity, a recent study demonstrated that current symptom distress of emergency service workers was in the clinical range and consistent with PTSD prevalence rates for trauma victims in general and female crime victims.

Perpetrator Tactics. Women were asked to describe the tactics (see Appendix H) the abuser employed while perpetrating the abuse (i.e., the tactics of one specific sexual and/or physical abuser that they perceived had the most significant psychological impact

on them). Women identified who the perpetrator was, and using a five-point Likert scale (never, rarely, occasionally, often, almost always) indicated how often their abuser employed each of the eleven tactics (e.g., ‘bribed me,’ ‘used violence,’ ‘tried to be gentle’). Women also reported the level of distress (not at all distressing, slightly, moderately, very, or extremely distressing) associated with each tactic.

Traumatic Memory Characteristics. Women were also asked to describe the characteristics of their memories relative to the abuse (by one specific perpetrator) that they perceived had the most significant psychological impact on them (see Appendix I). Women responded to a dichotomous item, ‘Have you always known that this abuse happened to you, or was there a time that you had no recollection that these things ever happened to you?’ and indicated whether they had always known what happened or whether they had no recollection at times. Those reporting that they had no recollection at times were asked to respond to the remaining memory items. Women were presented with six statements such as ‘have fragments of memories, but no coherent picture of what happened’. Using a five-point Likert scale (never, rarely, occasionally, often, almost always), those women who had reported having ‘had no recollection at times’ reported the types of circumstances (e.g., anniversary, sensory reminders, talking therapy) that seemed to precede memory recovery. Using the same five-point Likert scale, women also described the extent to which their memories of the abuse emerged via such processes as flashbacks, body memories, dreams, fragments. This section concluded with a dichotomous item inquiring whether or not the woman had dealt with this abuse in

therapy, and if so, she was asked to rate on a five-point scale how helpful this therapy was.

Nature of Sexual/Physical Abuse. Participants were asked to describe the nature of the sexual and/or physical abuse they experienced before age 13. They described the nature of the sexual and/or physical abuse relative to the abuse (by one specific perpetrator) that they perceived had the most significant psychological impact on them. Women were presented 24 sexual contact items that are sometimes reported by people who have experienced sexual abuse (Pearlman, 1996). The nature of the sexual experiences resembled the type of sexual experiences described in the 'sexual contact as a child' portion of the TSI Life Event Questionnaire (see Pearlman, 1996, Section H, p. 425-426), and ranged from such sexual activities as experiencing sexual threat or genital exposure, sexual touching, or any sexual behavior by family and/or non-family members, as well as activities such as engaging in vaginal, anal, oral, or group sexual activity, posing for or viewing pornographic photos, being forced to watch others engaged in sexual activity, or seeking sexual activity with an older person. Using a five-point scale, women in this study were asked to report the frequency (never, rarely, occasionally, often, almost always) and the level of distress (not at all distressing, slightly, moderately, very, or extremely distressing) experienced during the sexual experience (i.e., by the perpetrator they perceived as having the most significant psychological impact on them). An 'unsure' response option was also available for each contact item for anyone that was uncertain whether she had experienced the event. Similarly, women also reported both the frequency and level of distress (as described above) for physical abuse ranging from such

experiences as spankings and punishing enemas, to beatings, being bound or locked up, and actual death threats. The eight physical abuse items in this study resembled the type of physical contact items described within the 'domestic violence' portion of the TSI Life Event Questionnaire (see Pearlman, 1996, Section F, p. 424). Women also indicated whether their injuries required and received medical intervention.

Sentence Completion Test For Women - Form 81. The Sentence Completion Test for Women – Form 81 (Hy & Loevinger, 1996; Loevinger, 1998; Loevinger & Cohn, 1998) is a semi-projective test for assessing ego development in women. It presents women with a list of 33 incomplete sentences (e.g., "When I am criticized ...;" "When a child will not join in group activities ...") and asks them to complete each sentence. The eight potential rated levels of ego development are impulsive, self-protective, conformist, self-aware, conscientious, individualistic, and autonomous.

In the present study, it quickly became apparent that women were using the sentence completion task as a 'wind down' exercise to lighten their mood at the end of a difficult questionnaire. Some women commented that they found the exercise amusing or fun, and a few occasionally recited a humorous, angry, or sarcastic response aloud. For example, several women wrote "A husband has a right to '*nothing*.'" Other examples are provided in Appendix J. Thus, because of its questionable validity in the context of the whole questionnaire, the sentence completion questionnaire was not used as a measure of ego development in the present study.

Post-Survey Assessment. After writing the questionnaire, women responded to three items on a five-point Likert scale which inquired about how they felt after participating in the study (see Appendix K).

Results

Participant Characteristics

Demographic Characteristics

The 106 women who participated in this study were between the ages of 18 and 60 years ($M = 34.39$, $SD = 10.77$). Thirty-four percent of the participants were recruited from research announcements posted at Carleton University, another 34% responded to research announcements in various Ottawa community newspapers, and 4% from notices in a Quebec community newspaper. Another 11% were recruited from announcements in local community centers or sexual assault center, 8% from notices on local community bulletin boards, 4% had been told by a friend, 3% responded to research notices in their therapist's office, and 3% were recruited from announcements on the community television network. Women's educational background is summarized in Table 2. Women participating in this study were well educated. One third of the women had already completed a university level degree, while another third were still pursuing an undergraduate or graduate degree. Only seven participants (7%) had less than a high school diploma.

Women's employment status is summarized in Table 3, and shows that half of the women were employed at least part-time and one third were pursuing their education at least part-time. Approximately one fifth of the women reported being a volunteer and/or on disability, while 12.3% reported being unemployed and 13.2% identified themselves as homemakers. Only one woman reported being self-employed.

Table 2

Highest Educational Level of Participants

Educational Level	Highest Diploma/Degree Earned	
	<u>N</u>	%
Less than high school diploma	7	7
High School	47	45
Trade School/College	16	15
Undergraduate	23	22
Graduate	11	11

Note. Of the women that reported high school as their highest degree at the time of the study, 81% (n = 38) were currently pursuing college/university studies. N = 104

Table 3

Employment Status of Survey Participants

Employment Status	<u>N</u>	Valid %
Employed full-time	29	27.4
Employed part-time	24	22.6
Student full-time	26	24.5
Student part-time	11	10.4
Homemaker	14	13.2
On disability	22	20.8
Unemployed	13	12.3
Volunteer	23	21.9
Self-employed	1	.9

Note. Above categories are not mutually exclusive. N = 106

As summarized in Table 4, almost two-thirds of the participants were either living with a partner (39.6%) or currently in a significant relationship (22.6%), while 37.7% reported they had no current significant involvement. Forty-five percent of the women had children and approximately two-thirds of these women continued to have at least one child dependent upon them for financial support.

Therapy Background

The vast majority of women (90.4%) had engaged in some degree of psychological therapy at some point during their lives. Table 5 summarizes the frequency of women's therapy history. Of those women who did have therapy ($n = 94$), 72.3% ($n = 68$) had attended greater than twenty sessions. Over one-third (36.2%) reported they were currently in therapy. Women reported being as young as six and as old as 46 when they first began therapy ($M = 22.21$, $SD = 8.98$). Some women also reported other means of professional psychological support during their lives such as having been in an in-patient program for psychological treatment (21.7%) and/or an outpatient program for psychological treatment (26.9%). Over half (51.9%) of the women had engaged in self-help support groups.

Level of Functioning

Women in this study appeared to be relatively high functioning. Women responded to nine items (cf. Kristiansen, Allard, Felton, & Hovdestad, 1996) relative to three stages of recovery described by Herman (1992). Using a five-point Likert scale ranging from 0 (never) to 4 (almost always), women rated their level of functioning. Means and standard deviations for women's responses to the nine items are

Table 4

Relationship Status of Survey Participants

Relationship Status	<u>N</u>	Valid %
<hr/>		
No current significant involvement	40	37.7
Current significant involvement	24	22.6
Living with partner	42	39.6

N = 106

Table 5

Extent of Women's Psychotherapy Background

Number of Therapy Sessions	<u>N</u>	%
0 sessions	10	9.6
1 – 2 sessions	8	7.7
3 – 6 sessions	5	4.8
7 – 11 sessions	5	4.8
12 – 20 sessions	8	7.7
Greater than 20 sessions	68	65.4
<u>N</u> = 94		

shown in Table 6. As can be seen, women in this study were very rarely abusing substances or alcohol at this point in their lives. As expected, given that women who were suicidal or currently engaging in self-injurious behaviors had been discouraged from participating in this study, women in this study rarely reported self-abuse issues. Furthermore, in terms of safety, women reported that they often felt safe and able to trust themselves, and to a somewhat lesser degree, trust others. Although women reported that they still mourned their childhood losses occasionally and recovered new memories from time to time, women were usually dealing with issues concerning what Herman (1992, p. 155) describes as “reconnection with ordinary life.”

Childhood Sexual and Physical Abuse History

All women in this study had a history of childhood sexual and/or physical abuse prior to age 13. Over half (57%) of the women had experienced both sexual and physical abuse, while 28% had a childhood history of sexual abuse, and 15% physical abuse. Both physical abuse ($M = 4.36$, $SD = 3.19$) and sexual abuse ($M = 5.89$, $SD = 3.13$) began at an early age. The mean duration of childhood abuse before age 13 was 7.66 years ($SD = 3.68$) for childhood physical abuse, and 5.33 years ($SD = 3.65$) for childhood sexual abuse. In both cases, whether sexual or physical, nearly half (42.5%) of the women reported that the abuse extended beyond age 13. Of those women with childhood sexual abuse ($n = 89$), 34.8% had only one sexual perpetrator, whereas the majority (66.3%) had been sexually abused by multiple perpetrators.

Table 6

Means and Standard Deviations for Level of Functioning Items for Women With
Histories of Childhood Sexual and/or Physical Abuse

Recovery Level	<u>M</u>	<u>SD</u>
Experiencing safety or self-abuse issues	1.04	.88
Abusing drugs or alcohol	.79	1.11
Feel safe and able to trust yourself	3.15	.98
Feel safe and able to trust others	2.70	1.04
Still recovering new abuse memories	1.73	1.10
Still mourning childhood losses	2.24	1.02
Limiting activities to deal with own issues	1.51	1.22
Limiting activities to feel safe/comfortable	1.96	1.16
What extent is your recovery well on its way?	2.86	1.06

Note. Response options were 0 = never; 1 = rarely; 2 = occasionally; 3 = often; 4 = almost always. N's = 102-105.

Similarly, of those women with childhood physical abuse ($n = 73$), 26% had only one physical abuser, whereas the majority (76.7%) had multiple physical abusers. Women reported having up to thirteen specific types of sexual abusers ($Mdn = 2.00$, $SD = 2.37$), and up to a dozen specific types of physical abusers ($Mdn = 2.00$, $SD = 2.23$) prior to age 13. These estimates will under represent the number of abusers, given that women reported whether or not their abuse involved a specific *type* of sexual and physical perpetrator (e.g., a brother, a neighbor, other male or female relative), but not the precise number of each type of perpetrator. For example, if a woman indicated that her sexual abuse was by a brother, it meant she was abused by at least one brother. Women reported the total impact that all their childhood sexual and/or physical abuse experiences had on them using a four-point scale ranging from 0 (no impact) to 3 (extensive impact), revealing that sexual abuse ($M = 2.59$, $SD = .71$) and physical abuse ($M = 2.50$, $SD = .70$) had a similar impact. A summary of women's sexual abusers and the level of distress experienced with each type are summarized in Table 7. As for the most common types of familial sexual perpetrators, 34% had been sexually abused by a father, 27% by at least one brother/step-brother, 25% by a grandfather, and 39% by 'other male relatives' (e.g., uncle, cousin). Mothers and other female relatives were less often reported as childhood sexual abusers. In terms of non-familial sexual perpetrators, 40% of the women reported sexual abuse by a neighbor or acquaintance and 25% by a stranger, but other non-familial perpetrators such as a teacher or coach, priest or minister, or babysitter were less common.

Table 7

Sexual Perpetrators Identified By Women and Mean Levels of Distress Attributed to Sexual Abuse By Specific Perpetrators.

Sexual Perpetrators	% Reporting at least 1	<u>M</u>	<u>SD</u>
<u>Intrafamilial</u>			
Father	34	2.80	.41
Step-father/mom's boyfriend	8	2.29	.95
Brother/step-brother	27	2.42	.88
Grandfather	25	2.41	.91
Other male relative	39	2.49	.78
Mother	8	2.29	1.11
Other female relative	7	1.67	1.21
<u>Extrafamilial</u>			
Neighbor/Acquaintance	40	2.17	.81
Stranger	25	2.23	.75
Priest/Minister	10	2.22	1.09
Babysitter	15	1.77	1.17
Babysitter's relative	2	2.50	.71

Note. Includes women with a history of solely sexual ($n = 31$) and combined sexual and physical abuse ($n = 58$). Women may have reported multiple perpetrators above. Response options ranged 0 (no distress) to 3 (extreme distress).

In terms of the distress associated with childhood sexual abuse, Table 7 also shows that women reported the most distress when the sexual perpetrator was their father. A summary of women's childhood physical abusers and the level of distress experienced with each are summarized in Table 8. By far the most common perpetrators of childhood physical abuse were mothers (71%) and fathers (64%), and to a lesser extent, brothers/step-brothers (33%) and/or other female relatives (25%). As shown in Table 8, non-familial childhood physical abuse was not common (2.7%). In terms of the distress associated with these childhood physical abuse experiences, Table 8 also shows that women tended to report higher levels of distress when the physical perpetrator was a relative (with the exception of grandfathers). Although physical abuse by priests or ministers was a far less common occurrence, women reported more distress under such circumstances, in comparison to other non-familial physical abusers (e.g., neighbor, teacher or coach, babysitter).

Abuse Having the Most Significant Psychological Impact

Given that it was not unusual for women to have more than one sexual and/or physical abuser, in addition to summarizing their overall abuse history, women had been asked to elaborate on the abuse by one perpetrator that they felt had the most significant psychological impact on them. Intrafamilial and extrafamilial perpetrators are summarized in Table 9.

Specific types of sexual and/or physical abusers are listed along with the overall percent (in parentheses) of women having been sexually (or physically) abused by that perpetrator before age 13. Also depicted in Table 9 is the percent of women that

Table 8

Physical Perpetrators Identified By Women and Mean Levels of Distress Attributed toPhysical Abuse By Specific Perpetrators

Physical Perpetrators	% Reporting at least 1	<u>M</u>	<u>SD</u>
<u>Intrafamilial</u>			
Father	64	2.34	.89
Step-father/mom's boyfriend	12	2.67	.50
Brother/step-brother	33	2.42	.78
Grandfather	11	1.50	1.07
Other male relative	10	2.71	.49
Mother	71	2.37	.91
Other female relative	25	2.22	.81
<u>Extrafamilial</u>			
Neighbor/Acquaintance	15	2.09	.83
Stranger	12	2.22	.67
Teacher/coach	14	1.80	.79
Priest/Minister	4	2.67	.58
Babysitter	8	1.33	.82

Note. Includes women with a history of solely physical ($n = 15$) and combined sexual and physical abuse ($n = 58$). Women may have reported multiple perpetrators above. Response options ranged 0 (no distress) to 3 (extreme distress).

Table 9

Types of Sexual and Physical Perpetrators Experienced by Women and the Percentage of Each Described as Having Had the Most Significant Psychological Impact

Perpetrator	Sexual Abuse		Physical Abuse	
	% Reporting (<u>n</u> = 89)	% Most Significant (Of those reporting)	% Overall (<u>n</u> = 73)	% Most Significant
<u>Intrafamilial</u>				
Father	(34)	86.6	(64)	48.9
Step-Father/mom's boyfriend	(8)	28.6	(12)	33.3
Mother	(8)	71.4	(71)	36.5
Brother	(27)	50.0	(33)	12.5
Grandfather	(25)	36.0	(11)	50.0
Other Male Relative	(39)	40.0	(10)	42.9
Other Female Relative	(7)	--	(25)	--

(Table 9 continues)

Table 9 (continued)

<u>Extrafamilial</u>				
Neighbor	(40)	16.7	(15)	9.1
Stranger	(25)	4.5	(12)	--
Teacher/Coach	(10)	--	(14)	--
Priest/Minister	(10)	--	(4)	--
Babysitter	(15)	7.7	(8)	--
Babysitter's Relative	(2)	100.	(1)	100.

Note. 'Percent overall' (within parentheses) represents the percent of all women who were abused by that specific perpetrator; whereas 'percent most significant' is the percent of those women who described their abuse by that perpetrator as having the most significant impact on them. The sample included women with solely sexual abuse ($n = 31$), solely physical abuse ($n = 15$), and combined sexual and physical abuse ($n = 58$). A dash signifies that no one reported abuse by that perpetrator as the most significant.

described the abuse by each of those specific perpetrators as having had the most significant psychological impact on them. Women often described the abuse perpetrated by a family member as the abuse with the most significant psychological impact. More than one third (34%) of the sexually abused women had been abused by their father, and 86.6% of those women perceived the abuse as having had the most significant psychological impact. Although far fewer women (8%) had been sexually abused by their mother, 71.4% of those women reported the abuse as having the most impact. Half of those women sexually abused by at least one brother (27%) felt the abuse had made the most significant psychological impact. In terms of sexual abuse by extended family members, of those abused by a grandfather (25%), and those abused by some other male relative (39%), 36% with grandfather abuse and 40% abused by other male relatives felt the abuse had had the most significant impact psychologically. Women were much less likely to describe non-familial sexual abuse as having had the most significant psychological impact on them, with one exception. Two of the women's sexual abuse was exclusively non-familial and had involved sexual abuse by both a babysitter (15%) and either the babysitter's son or brother (2%). Under these circumstances, both women (100%) rated the abuse by the babysitters' relatives as having had the most significant impact.

With regard to physical abuse, nearly three quarters (71%) of childhood physical abuse was perpetrated by women's mothers, and 36.5% of women physically abused by their mother perceived that abuse as having had the most significant psychological impact. Physical abuse by the father (64%) was also common, and of these women, nearly half (48.9%) considered the abuse had the most significant psychological impact

on them. Although far fewer women (12%) had been physically abused by a step-father (or mother's boyfriend) or by a grandfather (11%), one third (33.3%) and one half (50%) respectively reported the abuse had the most significant impact. Similarly, although fewer (10%) experienced physical abuse by other male relatives (e.g., uncle, cousin), 42.9% viewed this abuse as having the most significant psychological impact. Finally, one third of the women experienced physical abuse by at least one brother, 12.5% of whom perceived the abuse as having the most significant psychological impact. As with sexual abuse, women with childhood physical abuse were much less likely to describe non-familial abuse as having had the most significant psychological impact on them, with the exception of the one woman (1%) who had been both sexually and physically abused by her babysitter's relative.

Nature of Sexual and Physical Abuse Experiences

Women described the frequency at which they experienced a wide range of childhood sexual experiences and the level of distress experienced with each. The nature of the sexual experience, the percent of women who actually experienced each, along with mean frequency and mean distress are shown in detail Appendix L. The ten most common childhood sexual experiences, reported by greater than 50% of the sexually abused women, are summarized in Table 10.

Women also described the frequency at which they experienced a variety of childhood physically abusive experiences and the level of distress experienced with each.

Table 10

Mean Frequency and Level of Distress of the Ten Most Common Types of ChildhoodSexual Experiences for Abuse Having the Most Significant Psychological Impact

Nature of Sexual Experience	% Reporting Sexual Experience	<u>Frequency</u>		<u>Level of Distress</u>	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Engaged in sexual activity Against your wishes	88	2.66	1.45	3.40	1.09
Family member kissed, Touched in sexual way	79	2.59	1.56	3.38	1.03
Felt sexual threat	78	2.34	1.49	3.12	1.13
Engaged in sexual activity with family member	77	2.30	1.53	3.26	1.20
Family member or Relative exposed genitals	71	2.08	1.62	2.98	1.24
Someone spoke of sexual things that were disturbing	68	1.64	1.37	2.52	1.44
Oral sex	63	1.92	1.73	3.30	1.45
Engaged in sexual activity And told it was your fault	56	1.56	1.55	3.11	1.39
Became aroused by unwanted sexual activity	54	1.39	1.46	2.47	1.65
Someone tried to engage you in sex, but it did not happen	54	1.07	1.16	2.62	1.51

Note. Most common sexual abuse experiences in descending order by percent of women reporting experience. Frequency responses ranged 0 (never) to 4 (almost always), or unsure. Distress levels ranged 0 (not distressing) to 4 (extremely distressing), or N/A.

The nature of the physical abuse, the percent of women who actually experienced each type, along with mean frequency and mean distress are shown in detail in Appendix L.

The five most common physically abusive experiences, reported by greater than 50% of the physically abused women, are summarized in Table 11.

Table 11

Mean Frequency and Level of Distress of the Five Most Common Types of Childhood Physical Abuse Having the Most Significant Psychological Impact

Nature of Physical Experience	% Reporting Physical Experience	<u>Frequency</u>		<u>Level of Distress</u>	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Hit (spanked) with object	92	2.83	1.22	3.32	.94
Hit with fist, kicked, tossed down stairs, or into wall	89	2.37	1.32	3.16	.90
Burned or bruised	73	1.85	1.42	2.95	1.38
Punished in inhumane ways (e.g., tied, locked up)	64	1.58	1.49	3.03	1.48
Threatened by someone that he/she would kill you	63	1.68	1.56	3.00	1.58

Note. Most common type of physical abuse in descending order by percent of women reporting experience. Frequency responses ranged 0 (never) to 4 (almost always), or unsure. Distress levels ranged 0 (not distressing) to 4 (extremely distressing), or N/A.

Exploratory Analyses

Overview

Prior to examining the hypotheses, the data were explored extensively in order to reduce the data, develop scales, examine multivariate assumptions, and transform data when necessary. These preliminary analyses are outlined below, and details are included in the appendixes.

Conflict and Terror Scales

Conflict and terror were measured by examining two aspects of people's abuse experiences. People reported not only their feelings about the abuse, but the tactics the abuser used while perpetrating the abuse.

Tactics. The frequency of which participants experienced eleven perpetrator tactics was examined using Principal Components Analysis to look for potential underlying dimensions with regard to the tactics abusers employed while perpetrating the abuse. Varimax rotation showed that two dimensions emerged (see Appendix M). Factor 1 was comprised of primarily terror-laden items (e.g., 'threatened to kill me;' 'used violence'). Factor 2 consisted of conflict-laden tactics (e.g., 'bribed me;' 'threatened loss of love'). Alpha reliability for the six terror-laden tactics was $\alpha = .79$, and $\alpha = .70$ for the four remaining conflict-laden tactics.

Feelings. Seventeen affective reactions commonly experienced by abused people were examined using Principal Component Analysis with varimax rotation to look for underlying dimensions with regard to people's feelings about their abuse. Three dimensions emerged (see Appendix M). The first factor consisted of terror-laden feelings

(e.g., fearful, terrified, anxious) while the second factor was comprised of conflict-laden feelings (e.g., ashamed, guilty). A third factor also emerged for two sensuous response items (i.e., 'I felt pleasure;' 'I felt sexually aroused') but was excluded because it only contained two items. Alpha reliability was performed on each set of factor loadings for scale development. The terror-laden feelings scale was comprised of six items (i.e., terrified, anxious, frightened, vulnerable, powerless, fearful), $\alpha = .89$. The conflict-laden feelings scale was comprised of five items (i.e., guilty, embarrassed, blamed, exploited, humiliated), $\alpha = .83$.

Scale Transformations. Further exploration of the above conflict and terror scales and evaluation of the assumptions revealed a marked departure from normality and problems with univariate and multivariate outliers. Terror-laden tactics and conflict-laden tactics, were characterized by positively skewed distributions indicating that the majority of women scored on the lower end of those scales. Conversely, terror-laden feelings and conflict-laden feelings both had negatively skewed distributions, representing that the majority of women scored high on those measures. Because traditional data transformations proved unsuccessful in resolving ceiling and floor effects, conflict-laden tactics, terror-laden tactics, conflict-laden feelings, and terror-laden feelings were transformed into new variables, each comprised of four categories (none, low, moderate, high) to reduce skewness in their distributions (see Appendix M). (Tabachnick & Fidelle, 1989). The correlation between original and transformed conflict-laden tactics scale was $r = .96$ ($p < .001$), terror-laden tactics ($r = .93$, $p < .001$), conflict-laden feelings ($r = .87$, $p < .01$), and terror laden feelings ($r = .87$, $p < .001$). All further analyses were conducted using the transformed variables. There were no violations of

assumptions concerning the multivariate equality of the covariance matrices as tested using Box's M with the transformed scales.

Convergent Validity. Because some of the subscales from the Trauma Constellation Identification Scale (Dansky, Roth, and Kronenberger, 1990) had some indicators of conflict and terror that were very similar to the indicators from Section I that were used to develop the conflict-laden and terror-laden feelings scales described earlier, correlations between these scales and similar subscales on the TCIS were examined to look for evidence of convergent validity. Correlations between the conflict-laden feelings and terror laden-feelings scales and affective categories of the TCIS are shown in Table 12. Terror-laden feelings scores were moderately and significantly correlated with the fear, overwhelming emotions, and loss subscales of the TCIS. Conflict-laden feelings scores were moderately and significantly correlated with both the shame and overwhelming emotions subscales of the TCIS.

Coping Styles

Dichotomous Measures of Repressive and Dissociative Coping Styles. A repressive coping style was measured by calculating people's scores on both the MC-SDS (Crowne & Marlowe, 1961) and Taylor's MAS (Taylor, 1953). Table N-1 (see Appendix N) summarizes the means, medians, and standard deviations for the MC-SDS, MAS, and DES scores. When used in tandem, the MC-SDS and MAS can differentiate repressors from truly low anxious individuals. According to Weinberger et al. (1979), repressors will not only score low on a measure of trait anxiety such as the MAS, but score high on the MC-SDS.

Table 12

Correlations Between Conflict and Terror-Laden Feelings Scores and Affective
Subscales of Trauma Constellation Identification Scale (TCIS)

TCIS Subscale	Terror-laden Feelings	Conflict-Laden Feelings
Fear	.37***	.16
Shame	.18	.30**
Loss	.28**	.11
Overwhelming Emotions	.26**	.20*
Rage	.19	.10
Helplessness	.19	.10

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

Many researchers using these measures to examine a repressive coping style generally take people's scores on each of these continuous measures, and subsequently use quartile splits (Weinberger et al., 1979; Asendorpf & Scherer, 1983; Myers, Brewin, & Winter, 1999) and median splits (Orbach & Mikuliner, 1996; Hansen, Hansen & Shantz, 1992; Davis & Schwartz, 1987; Ward, Leenthal & Love, 1988) to dichotomize MC-SDS and MAS scores into high and low in order to differentiate repressors from non-repressors. In the present study, the use of median splits to differentiate repressors from non-repressors and dissociators from non-dissociators was explored (see Appendix N) along with the possibility of using continuous measures as recommended by Pedhazur (1982) instead of median splits. His reasons include throwing away valuable information by creating categories and confusion in the literature because high and low categories are sample specific and may be quite different. For example, the dissociative scores tended to be low in this sample DES (Mdn = 14.11 where most authors define high dissociators as those individuals scoring greater than 30 on the DES (cf., Putnam et al., 1996; Zlotnick et al., 1994), or at some intermediate point such as 25 (cf., Saxe et al., 1993)). For these reasons, and because the continuous scores correlated well with the dichotomous scores as reported in the next section, the continuous measures were used throughout the thesis.

Continuous Measures of Repressive and Dissociative Coping Styles. Dissociative coping in its original form was a continuous measure based on people's scores on the DES (M = 20.80, SD = 16.65). Original scores were characterized by a positively skewed distribution, indicating that the majority of women scored on the lower end of the DES. A logarithmic transformation was performed on the dissociative coping style scores to reduce skewness. From this point forward, all analyses referring to dissociative coping

are based on transformed continuous dissociative coping style scores. After logarithmic transformation, the correlation between the dichotomous and continuous measure of dissociative coping style was $r = .83, p < .001$.

Given that a repressive coping style was characterized by a high score on the Marlowe-Crowne Social Desirability Scale (MC-SDS) and low scores on the Taylor Revised Manifest Anxiety Scale (MAS), a continuous measure of repressive coping was obtained by calculating a difference score between peoples' scores on the MC-SDS and MAS. This was accomplished by subtracting each woman's standardized MAS score from her standardized score on the MC-SDS. Hence, a repressive coping style was characterized by high, positive difference scores. The correlation between the dichotomous and continuous measure of repressive coping style was $r = .71, p < .001$.

Convergent Validity. The literature identifies correlates of repression and dissociation that can be used to check for convergent validity. In particular, it is suggested that those with a repressive coping style avoid negative affective states (Weinberger, 1990) and that people exposed to traumatic experiences commonly exhibit hyperarousal, intrusive, and dissociative symptoms (van der Kolk, 1996). Because the Impact Event Scale-Revised (IES-R, Weiss, 1996) is comprised of 'avoidance,' 'intrusion,' and 'hyperarousal' subscales, correlations between people's scores on the IES-R subscales and dissociative and repressive coping style scores were examined. The results of this analysis are summarized in Table 13. Dissociative coping scores were significantly and positively correlated with overall IES-R scores as well as with each of its subscales (i.e., Intrusion, Avoidance, and Hyperarousal).

Table 13

Correlations Between Two Coping Styles and Intrusion, Avoidance, and HyperarousalSubscales of the Impact Events Scale-Revised

Scale	DES	IES-R Intrusion	IES-R Avoidance	IES-R Hyperarousal	IES-R Total
Repressive	-.35***	-.50***	-.33***	-.53***	-.52***
Dissociative		.43***	.43***	.54***	.55***
Intrusion			.46***	.81***	.87***
Avoidance				.45***	.79***
Hyperarousal					.87***

Note. Dissociative Coping = logarithmic transformation of dissociation score.

*** $p < .001$.

Conversely, a repressive coping style was significantly, but inversely, correlated with overall IES-R scores and each of its subscales. That is, whereas higher dissociation scores were associated with higher scores on each of the IES-R subscales, higher repressive coping scores were associated with lower scores on the Intrusion, Hyperarousal, and even the Avoidance subscales of the Impact of Events Scale and vice versa.

Extent of Sexual and Physical Abuse

A predictor variable, 'extent of sexual abuse,' was created to represent both age of onset and duration of childhood sexual abuse in order to avoid problems with multicollinearity, because the original variables 'age of onset' and 'duration' were highly correlated ($r = -.80, p < .001$). Transformation of 'age of onset' and 'duration' into a new composite variable ('extent of sexual abuse') was accomplished by first reflecting 'age of onset' then taking the mean of standardized scores for both 'duration' and the new reflected 'age of onset' variables. In this way the new composite variable provided a continuous score whereby progressively positive scores represented abuse beginning earlier in childhood and extending over a longer duration. Conversely, abuse of shorter duration and commencing later in childhood was represented by more negative scores.

As with extent of sexual abuse described above, extent of physical abuse, was a composite variable created to represent both 'age of onset' and 'duration' of childhood physical abuse, in order to avoid problems with multicollinearity. Original variables 'age of onset' and 'duration' of physical abuse were highly correlated ($r = -.84, p < .001$). Transformation of 'age of onset' and 'duration' into a new composite variable ('extent physical abuse') was accomplished in the same manner as described for sexual

abuse so that progressively more positive scores represented abuse beginning earlier in childhood and extending over a longer duration.

Relatedness of Perpetrator

Participants were asked to indicate who perpetrated the abuse that they felt had the most significant psychological impact on them (e.g., mother, father, brother, other male relative, other female relative, teacher, neighbor, babysitter, stranger). From these reports, a continuous indicator of the degree of 'relatedness' was developed, where a high score represented the perpetrator was a parent or step-parent, a moderate score represented that the perpetrator was some other family member, and a low score represented that the perpetrator was a non-family member. This new 'relatedness' variable was used as the independent variable in subsequent regression analyses.

Ways Abuse Memories Return

Two continuous measures of how women's memories returned, 'all at once, suddenly remembering the whole story' or as 'fragments, gradually over time' were used as predictor variables. Using scales ranging from 0 (never) to 4 (almost always), the women who had previously reported that they 'had no recollection at times' were asked to describe the extent to which their memories returned as 'fragments, gradually over time' as opposed to 'all at once, suddenly remembering the whole story.' The variable 'all at once' was positively skewed indicating that the majority of the people scored low on this measure. Logarithmic and square root transformations were attempted, but neither normalized the distribution, so this variable was not transformed.

Underlying dimensions of the ways in which memories return were explored using a combination of PCA and theoretical considerations (see Appendix O). Two

scales resulted. The first, 'somatosensory' scale (i.e., flashbacks, body memories, mental images while awake, sudden intense emotional feelings, and other sensory processes) had an alpha reliability of .85. The 'symbolic expression' scale (i.e., dreams, nightmares, music, and forms of artistic expression) had alpha reliability = .81.

Level of Functioning

As discussed previously, using a five-point Likert scale with response options of 0 (never) to 4 (almost always), women had rated their level of functioning by responding to nine items relative to three stages of recovery described by Herman (1992). In order to examine the relationship between women's level of functioning and coping styles, a 'functioning' scale ($\alpha = .82$) was developed. Because high scores on certain items represented higher functioning (e.g., 'To what extent do you currently feel safe and able to trust another person?'), while high scores on other items represented lower functioning (e.g., 'To what extent are you currently experiencing safety or self-abuse issues, such as suicidal feelings, self-injury, or dangerous risk-taking?'), six of the nine original items were reflected so that a high score (maximum 4) on each item would consistently represent higher functioning, and low scores (minimum 0), lower functioning. Subsequently, an overall level of functioning score was calculated based on women's mean scores across the nine items. Mean level of functioning scores for the women in this study were $M = 2.60$, $SD = .68$ (range .33 to 3.89), suggesting that women were 'occasionally' to 'often' showing signs of relatively high functioning.

Testing the Hypotheses

Conflict, Terror and Coping Style

First, the hypothesis that the extent to which a repressive or dissociative coping style is adopted depends upon the extent to which a person's childhood abuse involved conflict or terror was examined. A multivariate regression analysis was performed using the continuous measures⁴ of repressive coping and dissociative coping styles as dependent variables with two terror-laden variables (tactics and feelings) and two conflict-laden variables (tactics and feelings) as predictors. Total *N* of 104 was reduced to 100 due to missing data on one or more predictor variables.

Intercorrelations, means, and standard deviations of repressive and dissociative coping styles, terror-laden tactics and feelings, and conflict-laden tactics and feelings are depicted in Table 14. Repressive and dissociative coping styles were significantly and negatively correlated ($r = -.347, p < .001$). All the predictors were significantly and positively correlated with dissociative coping style. The finding that terror was significantly and positively correlated with dissociative coping is consistent with the hypothesis; however, the significant and positive correlations between conflict and dissociative coping are not. In terms of a repressive coping style, four predictors were significantly, but inversely, correlated with repressive coping, indicating that the more repressive women were, the less they reported experiencing terror-laden tactics, terror-laden feelings, and conflict-laden feelings. The significant and inverse correlations

⁴ A MANOVA using dichotomous measures of repressive and dissociative coping had also been examined yielding essentially comparable findings. Regression analysis was preferred for the reasons noted earlier under 'Exploratory Analyses.' Correlations between dichotomous and continuous measures of dissociative coping ($r = .83, p < .001$) and repressive coping ($r = .71, p < .001$) show an agreement between the dichotomous and continuous measures.

Table 14

Intercorrelations, Means, and Standard Deviations for Dissociative and RepressiveCoping Styles, Terror Tactics and Feelings, and Conflict Tactics and Feelings (N =100)

Variables	Dissociative	Conflict Tactics	Terror Tactics	Terror Feelings	Conflict Feelings	<u>M</u>	<u>SD</u>
Repressive	-.35***	-.12	-.23*	-.34***	-.19*	-.02	1.62
Dissociative		.36***	.38***	.34***	.25**	1.18	.37
Conflict Tactics			.06	.17*	.37***	1.62	1.08
Terror Tactics				.54***	.21*	1.69	1.06
Terror Feelings					.44***	2.00	.88
Conflict Feelings						2.01	.83

Note. Dissociative Coping = logarithmic transformation of dissociation scores

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

between repressive coping and terror (tactics and feelings) are not surprising and would have been expected had the hypothesis been tenable; however, the significant inverse correlation between repressive coping and conflict-laden feelings is contrary to the hypothesis. As might be expected, terror-laden tactics correlated significantly with terror-laden feelings. Similarly, conflict-laden tactics were significantly correlated with conflict-laden feelings. Conflict-laden tactics were also significantly correlated with terror-laden feelings, but to a lesser degree. Conflict-laden feelings and terror-laden feelings were significantly correlated with each other, but conflict-laden tactics and terror-laden tactics were independent.

Multivariate regression analysis revealed a significant relationship between a linear combination of repressive and dissociative coping styles and the four predictor variables. Using Wilks' criterion, the combined DV's differed significantly for the unique contributions of conflict-laden tactics, $F(2, 94) = 5.36, p < .01, \eta^2 = .10$ and terror-laden tactics, $F(2, 94) = 3.80, p < .05, \eta^2 = .08$.

Multiple regression of each dependent variable separately revealed that the linear combination of the four predictor variables significantly predicts each dependent variable (for dissociation, $R^2 = .27, F(4, 95) = 8.58, p < .001$; for repression, $R^2 = .12, F(4, 95) = 3.34, p < .05$). Looking at the unique relationship of each predictor variable to the individual DV's, a dissociative coping style was significantly and positively related to conflict-laden tactics, $F(1, 95) = 10.71, p < .001, \eta^2 = .10$ and terror-laden tactics $F(1, 95) = 7.65, p < .01, \eta^2 = .08$ (see Table 15).

Table 15

Multiple Regression of Conflict Tactics and Feelings and Terror Tactics and Feelings
On Dissociative Coping Style

Variable	<u>B</u>	<u>SE B</u>	β	$\underline{sr}^2$ (unique)
Conflict Tactics	.11	.03	.31***	.08
Terror Tactics	.10	.04	.29**	.06
Terror Feelings	.05	.05	.118	
Conflict Feelings	.01	.05	.020	
<u>Note.</u> $R^2 = .27$ ($p < .001$). *** $p < .001$. ** $p < .01$. $N = 100$				

Repressive coping style was significantly, but inversely, related to the unique effects of terror-laden feelings, $F(1,95) = 5.24, p < .05, \eta^2 = .05$. That is, higher repression was predicted by lower terror-laden feelings. To summarize, both conflict-laden tactics and terror-laden tactics made a significant unique contribution to a dissociative coping style. Although terror and conflict feelings were correlated with dissociative coping style, they failed to uniquely predict, due to the intercorrelations among the predictor variables. Terror-laden feelings made a significant unique contribution to a repressive coping style but in the reverse direction. That is, more repressive women reported less terror-laden feelings. In terms of the simple correlations, all of the predictor variables were negatively related to repressive coping style, although conflict tactics failed to reach significance.

Conflict, Terror, and Type of Abuse

To examine whether conflict and terror vary as a function of the type of abuse women experienced during childhood (e.g., solely sexual, solely physical, or both) and to examine the hypothesis that the physical abuse group would report the most terror-laden tactics and terror-laden feelings, a one-way multivariate analysis of variance was performed using the two terror-laden variables (tactics and feelings) and two conflict-laden variables (tactics and feelings) as dependent variables with type of abuse (sexual, physical, or both) as the predictor variable. MANOVA was used because of the discrete nature of the groups. The three types of childhood abuse in this analysis consisted of women with a childhood history of sexual abuse ($n = 27$), women with a childhood history of physical abuse ($n = 15$), and women with a childhood history of combined sexual and physical abuse ($n = 58$). Total N for this analysis of 104 was reduced to 100

because four cases were missing at least one dependent variable. Evaluation of multivariate assumptions was undertaken as described previously. Equality of covariance matrices for this analysis was demonstrated by a non significant Box's M.

Multivariate analysis revealed a significant main effect for type of abuse. Using Wilks' criterion, the combined DV's differed significantly for type of abuse, $F(8,188) = 6.04$, $p < .001$, $\eta^2 = .21$. At the univariate level, tests of between-subjects effects was done to examine the impact of groups on the individual DV's. Terror-laden tactics, $F(2,97) = 19.00$, $p < .001$, $\eta^2 = .28$ and terror-laden feelings, $F(2,97) = 12.65$, $p < .001$, $\eta^2 = .21$ differed significantly depending upon the type of childhood abuse women had reported. There were no significant differences for conflict-laden tactics, $F(2,97) = 1.42$, $p > .05$ or conflict-laden feelings, $F(2,97) = 1.32$, $p > .05$.

Pairwise post hoc comparisons were performed on the three abuse history groups (sexual, physical, both) for the two terror scales. Mean performance for terror-laden tactics is shown in Figure 1. All pairs were significantly different ($p < .05$), with highest terror-laden tactics for women who experienced physical abuse only and least terror-laden tactics for women who experienced sexual abuse only.

Mean performance for terror-laden feelings is shown in Figure 2. The sexual abuse group reported significantly lower terror-laden feelings than either the physical abuse groups ($p < .001$) or the combined sexual and physical abuse groups ($p < .01$). There was no significant difference between the physical and combined sexual and physical groups.

Figure 1. Mean Terror-laden Tactics Scores as a Function of Sexual Abuse ($n = 27$), Physical Abuse ($n = 15$), or Combined Sexual and Physical Abuse ($n = 58$).

Figure 2. Mean Terror-laden Feelings Scores as a Function of Sexual Abuse ($n = 27$), Physical Abuse ($n = 15$), or Combined Sexual and Physical Abuse ($n = 58$).

Repressive Coping, Dissociative Coping, and Type of Abuse

To examine whether repressive and dissociative coping styles vary as a function of the type of abuse women experienced during childhood (e.g., sexual, physical, and both), a one-way multivariate analysis of variance was performed using continuous measures of repressive and dissociative coping styles as dependent variables and type of abuse (sexual, physical, or both) as the predictor variable. The three types of childhood abuse in this analysis consisted of women with a childhood history of sexual abuse ($n = 31$), women with a childhood history of physical abuse ($n = 15$), and women with a childhood history of combined sexual and physical abuse ($n = 58$). Total N for this analysis was 104. Evaluation of multivariate assumptions was undertaken as described previously. Equality of covariance matrices for this analysis was demonstrated by a non significant Box's M.

Multivariate analysis revealed a significant main effect for type of abuse. Using Wilks' criterion, the combined DV's differed significantly for type of abuse, $F(4,200) = 5.79, p < .001, \eta^2 = .10$. At the univariate level, tests of between-subjects effects was done to examine the impact of the main effect on the individual DV's. Repressive coping, $F(2,101) = 6.28, p < .01, \eta^2 = .11$ and dissociative coping, $F(2,101) = 9.10, p < .001, \eta^2 = .15$ differed significantly depending upon the type of childhood abuse women had reported.

Pairwise post hoc comparisons were performed on the three abuse history groups (sexual, physical, both) for the two coping styles. Mean performance for repressive coping are shown in Figure 3. The sexual abuse group reported significantly higher

Figure 3. Mean Repressive Coping Scores as a Function of Sexual Abuse ($n = 31$), Physical Abuse ($n = 15$), or Combined Sexual and Physical Abuse ($n = 58$)

repressive coping scores than either the physical abuse groups ($p < .05$) or the combined sexual and physical abuse groups ($p < .01$). There was no significant difference between the physical and combined sexual and physical groups. Mean performance for dissociative coping are shown in Figure 4.

The physical abuse group ($p < .01$) and the combined sexual and physical group ($p < .001$) reported significantly higher dissociative coping scores than the sexual abuse groups. There was no significant difference between the physical and combined sexual and physical groups.

Extent of Abuse and Coping Styles

To examine the hypothesis that early onset and long-term sexual and physical abuse during childhood predicts a dissociative coping style and to examine whether it predicts a repressive coping style, a multivariate regression analysis was performed using the continuous measures of repressive coping and dissociative coping styles as dependent variables with extent (e.g., age of onset and duration) of sexual abuse and the extent (e.g., age of onset and duration) of physical abuse as predictors. Women with combined childhood sexual and physical abuse ($N = 58$) were included in this analysis. Using a $p < .05$ criterion for Mahalanobis distance and < 1 criterion for Cook's distance, no outliers or influential points were detected.

Figure 4. Mean Dissociative Coping Scores as a Function of Sexual Abuse ($n = 31$), Physical Abuse ($n = 15$), or Combined Sexual and Physical Abuse ($n = 58$).

Intercorrelations, means, and standard deviations of repressive and dissociative coping styles, extent of childhood sexual abuse, and extent of childhood physical abuse are depicted in Table 16. Extent of childhood sexual abuse correlated significantly and positively with a dissociative coping style, indicating that an earlier the age of onset and longer duration of childhood sexual abuse was associated with higher levels of dissociative coping. Conversely, extent of childhood sexual abuse correlated significantly, but inversely, with a repressive coping style, indicating that later onset and shorter duration of childhood sexual abuse was associated with higher repressive coping scores. Extent of physical abuse also correlated significantly and positively with extent of sexual abuse; but contrary to the hypothesis, the extent of childhood physical abuse was not correlated with a dissociative (or repressive) coping style.

Multivariate regression analysis revealed a significant relationship between a linear combination of repressive and dissociative coping styles and the two predictor variables. Using Wilks' criterion, the combined DV's differed significantly for the unique contribution of extent of childhood sexual abuse, $F(2, 54) = 5.75, p < .01, \eta^2 = .18$, but not for extent of childhood physical abuse, $F(2, 54) = .97, p > .05$.

Multiple regression of each dependent variable separately revealed that the linear combination of the two predictor variables significantly predicts dissociation, $R^2 = .16, F(2, 55) = 5.13, p < .01$, but not repression, $R^2 = .06, F(2, 56) = 1.88, p > .05$. Looking at the unique relationship of each predictor to the individual DV's, a dissociative coping style was significantly and positively related to extent of childhood sexual abuse, $F(1, 55) = 10.08, p < .01, \eta^2 = .16$ (see Table 17). Repressive coping style was inversely related

Table 16

Intercorrelations, Means, and Standard Deviations for Dissociative and Repressive Coping Styles and Extent of Childhood Sexual and Physical Abuse

Variables	Dissociative Coping	Extent of Sexual Abuse	Extent of Physical Abuse	<u>M</u>	<u>SD</u>
Repressive Coping	-.35***	-.24*	.01	-.28	1.51
Dissociative Coping		.36**	-.05	1.25	.35
Extent of Sexual Abuse			.29*	.01	.99
Extent of Physical Abuse				-.04	.92

Note. Dissociative Coping = logarithmic transformation of dissociation scores
 *** $p < .001$. ** $p < .01$. * $p < .05$. N = 58.

Table 17

Multiple Regression of Extent of Childhood Sexual and Physical Abuse On Dissociative Coping Style

Variable	<u>B</u>	<u>SE B</u>	β	$\underline{sr}^2$ (unique)
Extent of Sexual Abuse	.15	.05	.41**	.15
Extent of Physical Abuse	-.07	.05	-.18	

Note. $\underline{R}^2 = .16$ ($p < .01$). ** $p < .01$. N = 58

to the unique effects of extent of childhood sexual abuse, but not significant, $F(1,55) = 8.26$, $p = .059$, $\eta^2 = .06$.

To summarize, extent (onset and duration) of childhood sexual abuse, but not the extent of childhood physical abuse, made a significant unique contribution to a dissociative coping style. Although extent of childhood sexual abuse was significantly and inversely correlated with repressive coping style, it failed to uniquely predict it.

Degree of Relatedness and Coping Styles

To examine whether being closely related to the sexual perpetrator would predict a repressive or dissociative coping style, a multivariate regression analysis was performed using the continuous measures of repressive coping and dissociative coping styles as dependent variables with the degree of relatedness (non-family, other family member, parent) of childhood sexual abuse perpetrator. Both women with solely sexual abuse ($n = 30$) and women with combined sexual and physical abuse ($n = 58$) were included in this analysis, for a total N of 88. An analysis of the degree of relatedness of the physical perpetrator was not performed, because the number of women with non-parental physical abuse was deemed insufficient for statistical analysis. Using a $p < .05$ criterion for Mahalanobis distance and < 1 criterion for Cook's distance, no outliers or influential points were detected.

Intercorrelations, means, and standard deviations of repressive and dissociative coping styles and relatedness of sexual abusers are depicted in Table 18. Relatedness of sexual abuser correlated significantly, but inversely with a repressive coping style, indicating that the more closely related women were to their sexual perpetrator the lower

Table 18

Intercorrelations, Means, and Standard Deviations for Dissociative and Repressive Coping Styles and Relatedness of Sexual Abuser

Variables	Dissociative Coping	Relatedness of Sexual Abuser	<u>M</u>	<u>SD</u>
Repressive Coping	-.35***	-.32***	.10	1.56
Dissociative Coping		.08	1.15	.37
Relatedness of Sexual Abuser			2.32	.70

Note. Dissociative Coping = logarithmic transformation of dissociation scores

*** $p < .001$. N = 88.

their repressive coping scores. Relatedness of sexual abuser was not significantly correlated with a dissociative coping style.

Using Wilks' criterion, the combined DV's differed significantly for the unique contribution of relatedness of sexual perpetrator, $F(2, 85) = 4.72$, $p < .05$, $\eta^2 = .10$.

Multiple regression of each dependent variable separately revealed that relatedness of sexual perpetrator significantly predicts a repressive coping style, $R^2 = .10$, $F(1, 86) = 9.49$, $p < .01$, $\eta^2 = .10$, but not a dissociative coping style, $R^2 = .007$, $F(1, 86) = .60$, $p > .05$. Looking at the unique relationship of relatedness of sexual perpetrator predictor variable to the individual DV's, a repressive coping style was significantly, but inversely related to relatedness of sexual abuser (see Table 19).

Memory and Coping Styles

Some women ($n=53$) reported having always known about their abuse while others ($n=50$) reported having had no recollection at times. Therefore, to see if women's coping styles would vary depending upon whether or not they reported having a period of amnesia for the abuse, a one-way multivariate analysis of variance was performed on continuous measures of repressive and dissociative coping styles as dependent variables and memory as the predictor variable. The two levels of the predictor variable were 'I've always known what happened' ($n = 53$) versus 'I've had no recollection at times' ($n = 50$). Total N for this analysis was 103. Equality of covariance matrices was demonstrated by a non-significant Box's M.

Multivariate analysis revealed a significant main effect for memory. Using Wilks' criterion, the combined DV's were significantly affected by whether or not people had

Table 19

Multiple Regression of Degree of Relatedness on Repressive Coping Style for WomenWith Childhood Sexual Abuse

Variable	<u>B</u>	<u>SE B</u>	β	$\underline{sr}^2$ (unique)
Relatedness of Sexual Abuser	- .70	.23	- .32**	.10

** $p < .01$). $N = 88$.

continuous memory of their abuse, $F(2, 100) = 3.21, p < .05, \eta^2 = .06$. At the univariate level, tests of between-subjects effects was done to examine the impact of the main effect on the individual DV's.

As shown in Table 20, dissociative coping style was significantly higher for those women who reported having 'had no recollection at times' than those who reported they 'always remembered' their abuse, $F(1, 101) = 5.54, p < .05, \eta^2 = .05$. There was no significant difference in repressive coping scores between women who reported having 'always known' (about the abuse) and those who reported they 'had no recollection at times,' $F(1, 101) < 1$.

To test the hypothesis that memories returning as 'fragments,' gradually over time' as opposed to returning 'all at once' would be a predictor of a dissociative coping style, a multiple regression was performed between the continuous measure of dissociative coping style as the dependent variable and these two continuous measures of how women's memories returned as predictor variables. More specifically, using scales ranging from 0 (never) to 4 (almost always), the women who reported that they "had no recollection at times" were asked to describe the extent to which their memories returned as 'fragments, gradually over time' as opposed to 'all at once, suddenly remembering the whole story.' Total N of 50 was reduced to 49 due to missing data on one or more predictor variable. Using a $p < .05$ criterion for Mahalanobis distance and < 1 criterion for Cook's distance, no outliers or influential points were detected.

Table 20

Mean Repressive and Dissociative Coping Scores for Women With Continuous Versus Discontinuous ('Recovered') Memories of Childhood Abuse

Coping Style	"I've always known" (<u>n</u> =53)		"No recollection at times" (<u>n</u> =50)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Repressive Coping	-.01	1.52	-.01	1.59
Log Dissociative Coping	1.09	.34	1.26	.38

As shown in Table 21 which displays the means, standard deviations, and intercorrelations for dissociative coping style and the nature of memory recall, there was a significant, positive association between dissociative coping and the extent to which women reported their memories returning as fragments gradually over time. Conversely, there was a significant inverse relationship between dissociative coping and women's reports that their memories returned all at once as if suddenly remembering the whole story. The more dissociative the women were, the more their abuse memories returned as fragments gradually over time, and the less their memories returned all at once as if suddenly remembering the whole story. The more women experienced their memories returning 'all at once, suddenly remembering the whole story,' the lower their dissociation scores.

Table 22 displays the unstandardized regression coefficients (B), standard error, the standardized regression coefficients (β), semipartial correlations, and R^2 . The proportion of variance due to regression was significantly different from zero, $F(2,46) = 9.24$, $p < .001$. Both of the predictors, memories returning as 'fragments, gradually over time' ($sr^2 = .17$) and those returning 'all at once, suddenly a whole story' ($sr^2 = .08$) contributed uniquely to the prediction of a dissociative coping style.

Altogether 29% (26% adjusted) of the variability in dissociative coping style was predicted by knowing whether women's abuse memories returned as 'fragments, gradually over time,' or 'all at once, suddenly remembering the whole story.'

Table 21

Intercorrelations, Means, and Standard Deviations for Dissociative Coping and the Nature of Memory Recall

Variable	All at once	Fragments	<u>M</u>	<u>SD</u>
DES	-.34**	.46***	1.27	.37
All at once		-.13	.90	1.19
Fragments			2.35	1.23

Note. DES = logarithmic transformation of dissociation scores. *** $p < .001$. ** $p < .01$. N = 48.

Table 22

Multiple Regression of Ways Forgotten Memories Returned on Dissociative Coping Style

Variable	<u>B</u>	<u>SE B</u>	β	$\frac{sr^2}{\text{(unique)}}$
All at once	-.09	.04	-.28*	.08
Fragments	.13	.04	.42**	.17

Note. $R^2 = .29$. (n = 49; $p < .001$). ** $p < .01$. * $p < .05$.

To test the hypothesis that memories that return ‘all at once’ would predict a repressive coping style, another multiple regression was performed between a repressive coping style as the dependent variable and the two continuous measures of how memory return as predictor variables. Using a $p < .05$ criterion for Mahalanobis distance and < 1 criterion for Cook’s distance, no outliers or influential points were detected. Only those women who “had no recollection at times” were included in this analysis. Total N of 50 was reduced to 49 due to missing data on one or more predictor variables.

The proportion of variance due to regression ($R^2 = .08$) was not significantly different from zero, $F(2,46) = 2.05$, $p > .05$, and neither regression coefficients differed significantly from zero. Intercorrelations between both memories returning as ‘fragments gradually over time’ and memories returning ‘all at once’ revealed a non-significant, association with a repressive coping style.

In addition to reporting whether their memories returned as ‘fragments gradually over time’ or ‘all at once, suddenly remembering the whole story,’ women that reported they had not always remembered their abuse were asked to describe other ways by which their previously forgotten abuse memories returned. Using scales ranging from 0 (never) to 4 (almost always), women reported the extent to which their memories returned by a variety of other methods which are summarized in Table 23.

Review of the means and standard deviations for the ways memories returned shows that the most common ways women’s previously forgotten abuse memories returned were as flashbacks, fragments gradually over time, sudden intense emotional feelings, images in their mind while awake, and as body memories, as well as by way of other sensory processes, behaviors, nightmares and dreams to a somewhat lesser extent.

Table 23

Means and Standard Deviations of Ways Memory Returned In WomenReporting the Return of Previously Forgotten Memories

Way Memory Returned	<u>M</u>	<u>SD</u>
Flashbacks	2.67	1.28
Fragments	2.33	1.24
Sudden, intense emotional feelings	2.25	1.39
Images in mind while awake	2.19	1.33
Body memories	2.08	1.50
Other sensory processes (e.g., sounds, colors, tastes, odors)	1.77	1.43
Through behaviors (e.g., aversions, avoidance, re-enactments)	1.67	1.45
Nightmares	1.63	1.51
Dreams	1.48	1.49
Writings	1.06	1.36
All at once, suddenly remembering the whole story	.90	1.21
Drawings, paintings, sculpting	.75	1.26
Music	.67	1.12

Note. Response options were: 0 = never; 1 = rarely; 2 = occasionally;
3 = often; 4 = almost always. N = 48

As described earlier, exploratory analysis revealed that these memories had two possible underlying dimensions (somatosensory and symbolic expression), which led to the development of both a somatosensory and symbolic expression scale. To test the hypothesis that memories returning by way of somatosensory processes would predict a dissociative coping style, and to see whether memories returning by way of symbolic expressive processes would also predict a dissociative coping style, a multiple regression was performed between the continuous measure of dissociative coping style as the dependent variable and the somatosensory scores and symbolic expression scores as predictor variables. Total N of 50 was reduced to 49 due to missing data on one or more predictor variable. Using a $p < .05$ criterion for Mahalanobis distance and < 1 criterion for Cook's distance, no outliers or influential points were detected.

As shown in Table 24 which displays the means, standard deviations, and intercorrelations for dissociative coping style and somatosensory and symbolic expression subscales, a significant, positive association exists between dissociative coping and both the somatosensory and symbolic expression modes of memory return. Hence, both appear to be positively associated with a dissociative coping style, but the high correlation between the two scales is such that only somatosensory return has unique significance.

Table 25 displays the unstandardized regression coefficients (B), standard error, the standardized regression coefficients (β), semipartial correlations, and R^2 . The proportion of variance due to regression was significantly different from zero, $F(2,46) = 8.00$, $p < .001$.

Table 24

Intercorrelations, Means, and Standard Deviations for Dissociative Coping and Somatosensory and Symbolic Expressive Modes of Memory Recall (N = 49)

Variable	Somatosensory	Symbolic Expression	<u>M</u>	<u>SD</u>
Dissociative Coping	.50***	.37**	1.27	.37
Somatosensory		.55***	2.20	1.08
Symbolic Expression			1.17	1.10

Note. Dissociative Coping = logarithmic transformation of dissociation scores
 *** $p < .001$. ** $p < .01$.

Table 25

Multiple Regression of Somatosensory and Symbolic Expressive Modes of Memory Return on Dissociative Coping Style

Variable	<u>B</u>	<u>SE B</u>	β	$\frac{sr^2}{\text{(unique)}}$
Somatosensory	.15	.05	.42**	.12
Symbolic Expression	.04	.05	.13	

Note. $R^2 = .26$. ($n = 49$; $p < .001$). ** $p < .01$.

The predictor variable, somatosensory return contributed uniquely to the prediction of a dissociative coping style ($\underline{sr}^2 = .12$). Therefore, 26% (23% adjusted) of the variability in dissociative coping style was predicted by knowing whether women's abuse memories returned in somatosensory ways.

To examine whether a similar pattern emerged with a repressive coping style, and whether memories returning by way of symbolic expressive processes would predict a repressive coping style, another multiple regression was performed between the continuous measure of a repressive coping style as the dependent variable and the somatosensory scale and symbolic expression scales as predictor variables. Total N of 50 was reduced to 49 due to missing data on one or more predictor variable. Evaluation of assumptions was accomplished as described in detail in a prior analysis. Using a $p < .05$ criterion for Mahalanobis distance and < 1 criterion for Cook's distance, no outliers or influential points were detected.

Whereas the prior analysis showed a significant positive association between a dissociative coping style and somatosensory and symbolic expression modes of memory return, a somewhat different picture emerged for a repressive coping style.

As shown in Table 26 which displays the means, standard deviations, and intercorrelations for repressive coping style and somatosensory and symbolic expression subscales shows a significant, *inverse* association between a repressive coping and both the somatosensory and symbolic expression modes of memory return. Hence, both somatosensory and symbolic expression modes of memory return appear to be significantly associated with a repressive coping style, but women with low scores on somatosensory and symbolic expression indicators tend to score high on the measure of

repressive coping style, while women who score high on somatosensory and symbolic expression indicators have low repressive coping scores.

Table 27 displays the unstandardized regression coefficients (B), standard error, the standardized regression coefficients (β), semipartial correlations, and R^2 . The proportion of variance due to regression was significantly different from zero. $F(2,46) = 5.68$ $p < .01$. As with dissociation, only the regression coefficient for somatosensory return differed significantly from zero, but the regression coefficient for symbolic expression did not differ from zero. The predictor variable, somatosensory return contributed uniquely to the prediction of a repressive coping style ($sr^2 = .12$). Therefore, 20% (16% adjusted) of the variability in repressive coping style was predicted by knowing whether women's abuse memories returned in somatosensory ways

Repressive Coping, Dissociative Coping, and Level of Functioning

Because this sample was comprised of women with repressive and dissociative coping styles, to see if women's level of functioning recovery varies as a function of coping style, a multiple regression was performed between level of functioning as the dependent variable and repressive coping and dissociative coping styles as the predictor variables. Using a $p < .05$ criterion for Mahalanobis distance and < 1 criterion for Cook's distance, no outliers or influential points were detected. Total N of 104.

Intercorrelations, means, and standard deviations of level of functioning, repressive, and dissociative coping styles are depicted in Table 28. Both predictors, repressive and dissociative coping styles, were significantly correlated with functioning.

Table 26

Intercorrelations, Means, and Standard Deviations for Repressive Coping and Somatosensory and Symbolic Expressive Modes of Memory Recall (N = 49)

Variable	Somatosensory	Symbolic Expression	<u>M</u>	<u>SD</u>
Repressive Coping	-.44***	-.29*	-.01	1.70
Somatosensory		.55***	2.20	1.08
Symbolic Expression			1.17	1.10

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

Table 27

Multiple Regression of Somatosensory and Symbolic Expressive Modes of Memory Return on Repressive Coping Style

Variable	<u>B</u>	<u>SE B</u>	β	$\frac{sr^2}{\text{(unique)}}$
Somatosensory	-.65	.25	-.41*	.12
Symbolic Expression	-.09	.25	-.06	

Note. $R^2 = .20$. (N = 49; $p < .01$). * $p < .05$.

Table 28

Intercorrelations. Means, and Standard Deviations for Level of Functioning, Repressive, and Dissociative Coping Styles

Measure	Repressive Coping	(DES) Dissociative Coping	<u>M</u>	<u>SD</u>
Level of Functioning	.45***	- .56***	2.60	.69
Repressive Coping		- .35***	- .01	1.59
Dissociative Coping			1.18	.37

Note. Dissociative Coping = logarithmic transformation of dissociation scores

*** $p < .001$. N = 104

Whereas there was a moderate, positive correlation between a repressive coping style and level of functioning, there was a moderate negative correlation between a dissociative coping style and level of functioning. That is, the more repressive women were, the higher their level of functioning scores, and the less repressive they were, the lower their level of functioning scores. Conversely, the more dissociative women were, the lower their level of functioning scores, and the less dissociative they were, the higher their level of functioning scores.

Table 29 displays the unstandardized regression coefficients (B), standard error, the standardized regression coefficients (β), significant squared semipartial correlations ($\underline{sr}^2$), and R^2 for the regression of repressive and dissociative coping on level of functioning. The proportion of variance due to regression was significantly different from zero, $F(2,101) = 32.67, p < .001$. Both regression coefficients differed significantly from zero and indicated that each was uniquely associated with level of functioning. Altogether 39% (38% adjusted) of the variability in level of functioning was predicted by knowing women's coping style.

Table 29

Multiple Regression of Repressive and Dissociative Coping on Level of Functioning

Variable	<u>B</u>	<u>SE B</u>	β	$\underline{sr}^2$ (unique)
Repressive Coping	.13	.04	.29***	.08
Dissociative Coping	-.87	.16	-.46***	.19

Note. $R^2 = .39$ ($p < .001$). *** $p < .001$. $N = 104$.

Discussion

Overview

The current study examined both dissociative and repressive coping styles in a community sample of adult women who had been sexually and/or physically abused prior to age thirteen.⁵ The purpose of this study was two-fold. The primary intent was to examine the potential relationship between women's experiences of conflict and terror and repressive and dissociative coping styles. A secondary focus was to attempt to replicate, in a community sample, some of the findings previously observed among clinical populations relative to common childhood antecedents of dissociative coping, and to examine potential childhood antecedents of a repressive coping style. These findings complement a growing body of literature demonstrating a relationship between dissociation and the experience of childhood abuse, while also suggesting that current conceptualizations of trauma appear limited in explaining the impact of childhood sexual abuse. In particular, these findings suggest that dissociative coping, albeit a common means of coping among many people with histories of childhood abuse, may not be the predominant coping style when people experience sexual abuse without physical abuse. Although the results are not conclusive, I will argue that women in this study who had experienced sexual abuse, may have exhibited a repressive coping style..

⁵ Abuse beginning prior to age 13 (pre-adolescence) was selected as the cut-off for "childhood" abuse in an attempt to target sexual abuse experiences occurring prior to sexual maturity.

Abundant research has demonstrated a link between dissociative coping and a host of abuse-related characteristics such as type of abuse, abuse at a young age and over a long duration, abuse by multiple perpetrators, intrafamilial abuse, and violent abuse. Although factors such as these provide a partial understanding of the etiology of symptoms, psychopathology, and memory impairments observed in adult survivors of childhood abuse, they say little about the phenomenology of the victims' experiences in terms of *how* they may have perceived or experienced their abuse. Hence, women's experiences of conflict and terror and their coping styles were of primary interest in this study.

Given that evidence was found in support of a relationship between experiences of terror and dissociative coping, but not between experiences of conflict and repressive coping, I will proceed with the discussion in the following manner. I intend to discuss first, all the findings relative to a dissociative coping style, beginning first with those pertaining to the primary hypothesis, then proceeding on through a series of secondary analyses examining some of the characteristics of the abuse associated with dissociation. In so doing, I will draw attention to those findings that are consistent with past research, and that are accounted for within the trauma-dissociation or PTSD framework. I will also draw attention to findings that were inconsistent with previous research. I intend to conclude the discussion relative to dissociative coping by discussing several analyses which examined the nature of traumatic memory and characteristics typical of dissociative amnesia. After discussing all the findings relative to dissociative coping, I will proceed to discuss all findings relative to a repressive coping style and highlight the

methodological problems encountered when attempting to measure a repressive coping style. In addition, I will draw attention to an interesting finding concerning dissociation that is actually consistent with past childhood sexual abuse research, but that may not be sufficiently explained by the trauma-dissociation or PTSD framework. Although the results are not conclusive, the finding that women with sexual abuse were the least dissociative, yet the most repressive, is of particular interest. I will conclude by highlighting the theoretical implications of this finding, some of the limitations of the present study, and worthwhile directions for future research on childhood sexual abuse.

Dissociative Coping Style

The results support the dissociative part of the primary hypothesis. Women exposed to childhood abuse involving terror-laden tactics by the perpetrator are more dissociative. In fact, there is overwhelming support in these data for most of the hypotheses relative to dissociative coping, and those details will follow. However, these data also demonstrate that women exposed to conflict-laden tactics during the abuse also tend to be more dissociative, which is contrary to the hypothesis. Another finding not anticipated in the study was that terror-laden feelings and conflict-laden feelings were highly correlated. The women did not differentiate between various affective states, even though their reports of terror and conflict tactics were independent. Both terror-laden feelings and conflict-laden feelings were significantly and positively correlated with a dissociative coping style. Because the feelings were highly correlated, terror-laden feelings did not uniquely predict a dissociative coping style when conflict feelings were

statistically controlled. The findings that conflict tactics (as well as terror tactics) appear to be associated with dissociative coping is not only inconsistent with my model, but also has theoretical implications given that contemporary conceptualizations of trauma and PTSD (Herman, 1992; van der Kolk, 1987). Proponents of this model describe trauma as extraordinary, potentially life-threatening experiences that invoke terror in the victim. A trauma-dissociation or PTSD model focused on overwhelming terrifying experiences does not encompass the potential role that conflict might play in dissociation.

My model views trauma as being two dimensional, and comprised of conflict and terror. In times of heightened anxiety, conflict incites a repressive coping style and terror incites a dissociative coping style. Hence, the finding that both conflict tactics and terror tactics predicted dissociation in this study suggests that my model is overly simplistic in separating conflict from terror. Although conflict is incorporated into the model, the model links conflict to repressive coping while linking dissociative coping entirely to terror. On the other hand, the 'trauma' of the PTSD model is narrowly conceived in the sense that it is tied exclusively to overwhelming terror, and does not account for conflict or non-violent sexual abuse.

Examination of women's histories of abuse revealed that women's coping styles varied depending upon the nature of their childhood abuse. As hypothesized, women who had experienced physical abuse (physical abuse or combined physical and sexual abuse) exhibited higher dissociation than women with sexual abuse. In fact, women with sexual abuse had the lowest dissociation scores. These findings are consistent with previous clinical studies (e.g., psychiatric inpatient or outpatient program; or crisis center) in terms

of people with sexual abuse being the least dissociative. In fact, psychiatric inpatients in the Swett and Halpert (1993) and Chu and Dill (1990) studies with sexual abuse, not only exhibited less dissociation than people with physical abuse or both, but even less than the non-abused group. The lower levels of dissociation observed, in the current study and in past studies, when childhood sexual abuse was not accompanied by physical abuse could suggest that people react to (or experience) sexual and physical aspects of abuse differently. Each may have psychological sequelae, but perhaps it is the physically abusive aspects that make the experience extremely terrifying.

The finding that high levels of terror were associated with abuse involving physical trauma is consistent with current conceptualizations of trauma as described by Judith Herman (1992) and van der Kolk (1996) that define traumatic experiences as extraordinary, overwhelming, often uncontrollable and terrifying threats to life and bodily integrity (Herman, 1992). As Judith Herman (1992, p. 33) describes,

Traumatic events are extraordinary, not because they occur rarely, but rather because they overwhelm the ordinary human adaptation to life. [They] generally involve threats to life or bodily integrity, or a close personal encounter with violence or death. They confront human beings with the extremities of helplessness and terror, and evoke the responses of catastrophe...the common denominator of psychological trauma is a feeling of intense fear, helplessness, loss of control, and threat of annihilation.

Comparing my physical abuse findings to those same studies, however, reveals that my findings are not consistent with past clinical findings done on psychiatric inpatients (Chu & Dill, 1990; Zlotnick et al., 1994; Shearer, 1994; Swett & Halpert, 1993) and psychiatric outpatients (Lipschitz, Kaplan, Sorkenn, Chorney, & Asnis, 1996;

Waldinger, Swett, Frank, & Miller, 1994). Whereas dissociation for people with physical abuse in my sample did not differ significantly from people with both physical and sexual abuse, other studies have demonstrated that dissociation was highest when people had experienced both sexual and physical abuse. This discrepancy between past studies and the present study in terms of high dissociation may be a reflection of the different populations studied (i.e., community sample versus psychiatric populations) or it may be a function of the poor power associated with the present study with only fifteen of the respondents having physical abuse but not sexual abuse. There was a moderate effect size in the predicted direction, but dissociative coping scores exhibited by women with physical abuse and those with combined sexual and physical abuse were not statistically different, suggesting a lack of power.

When women's conflict and terror scores were examined relative to the type of abuse they experienced during childhood, differences were observed depending upon whether women had experienced childhood sexual or physical abuse. As hypothesized and as might be expected, women reported experiencing significantly more terror tactics and feelings when their childhood abuse involved physical abuse. Their reports of conflict tactics and feelings, however, did not vary as a function of the type of abuse they experienced as a child. Despite the fact that both terror-laden tactics and conflict-laden tactics had predicted dissociative coping, and dissociative coping was more common for women with physical abuse, women's reports of conflict tactics or feelings did not vary as a function of the type of their abuse. According to my model, the greatest conflict (tactics and

feelings) should be observed in the sexual abuse group. There were no significant differences observed between groups on conflict-laden feelings or conflict-laden tactics scores and the small differences obtained were not in the predicted direction. Either I am mistaken in my conflict hypothesis, oversimplifying the origins as only related to non-violent sexual abuse or my measurement of conflict was not separating out the appropriate tactics and feelings. The possibility of an improved conflict measure, taking into consideration Freyd's (1996) idea of betrayal trauma will be further explored.

The findings relative to the extent (early onset, long duration) of childhood sexual abuse are consistent with contemporary trauma-dissociation views in two ways. First, the finding that the extent of (e.g., early onset and long-term) childhood sexual abuse was associated with greater dissociation in women with combined sexual and physical abuse is consistent with what others have asserted, that traumatic abuse is associated with greater dissociation (van der Kolk et al. 1996; Kirby, Chu, & Dill, 1993). Secondly, that early onset of sexual abuse was associated with greater dissociation is also consistent with research demonstrating a relationship between age and dissociative capacity (Ross, Joshi, & Currie, 1990).

Surprisingly, there was no evidence in the present study that extent of childhood physical abuse predicted dissociative coping when women had experienced combined sexual and physical abuse during childhood. In this study, the vast majority of women with childhood physical abuse were abused by a parent, and this could account for this

finding. Perhaps in certain circumstances, physical abuse by a parent is perceived differently (e.g., as discipline 'for their own good'), and lacks that extraordinary, overwhelming quality that is typical of many types of traumatic events.

Past research (Zlotnick et al., 1996; Lipschitz et al., 1996; Chu & Dill, 1990; Strick & Wilcoxon, 1991) has demonstrated a relationship between high levels of dissociation and childhood sexual abuse by close family members. Surprisingly, sexual abuse by a close family member did not predict greater dissociative coping style in the present study, as some studies have. This discrepancy between past studies and the present study may be a reflection of the different populations studied. Median dissociation scores of the women in this community sample were considerably lower than those reported among clinical populations. There have been studies, however, that found no significant differences in PTSD symptoms when comparing people with incestuous abuse to those with non-incestuous sexual abuse.

Memories

When the nature of women's memories of their childhood were examined, nearly half reported that there had been a time when they had had no recollection of their childhood abuse. This finding is consistent with the findings of others (Williams, 1994; Briere & Conte, 1993; Cameron, 1994; Herman & Schatzow, 1987; Burgess et al., 1994) and suggests that abuse-related amnesia is common. Furthermore, the finding in this study that dissociation was significantly higher for women reporting abuse-related amnesia is consistent with the assertion by others (Briere & Conte, 1993; van der Kolk,

1987, 1994; Olio, 1989) that dissociative processes underlie the amnesia associated with childhood abuse. In this study, the more dissociative women were, the more likely they were to report that their memories returned in fragments rather than all at once. This was consistent with the hypothesis and contemporary theories on traumatic memory (van der Kolk, 1996; van der Kolk & Fisler, 1995).

Examination of how women experienced their abuse memories when the memories returned revealed findings which support the claim (van der Kolk, 1994) that memories return in the way they were experienced. Traumatic memory, unlike memory for ordinary events, is often context-free and fragmented and processed at a somatosensory level (van der Kolk, 1986; van der Kolk & Fisler, 1995; Terr, 1991). Consequently, instead of returning all at once, as complete verbal narratives, traumatic memories tend to emerge as fragments at a sensorimotor level. When women's previously forgotten memories returned, they typically emerged either by way of a somatosensory mode (e.g., flashbacks, body memories, sudden intense emotional feelings, or other sensory processes) or by symbolic forms of expression (nightmares, dreams, music, or other artistic forms of expression). It would certainly appear then, as van der Kolk (1994, p. 253) asserts, that during times of heightened emotional arousal, "the body keeps the score." Both somatosensory and symbolic expressive memory were positively associated with a dissociative coping style. The finding that somatosensory memory uniquely predicted a dissociative coping style, whereas symbolic expression did not, is likely due to the high intercorrelations between the somatosensory and symbolic expressive modes. Both had high simple correlations with dissociation, as well as with each other.

In terms of women's level of functioning, an association was found indicating that lower levels of functioning were associated with greater dissociative coping style. The less women were experiencing safety and trust issues, abuse memories, and mourning over childhood losses, the higher their level of functioning, and the less dissociative they were. Herman (1992) describes this stage as 'reconnection,' a point where people's functioning is well on the way to permitting them to "live again." Whereas 'reconnection' is represented by high levels of functioning, there is no sense of 'reconnection' with lower levels of functioning. Hence, lower levels of functioning imply 'disconnection.' Given the disintegrated, even disconnected, nature of the dissociative process, the finding that lower levels of functioning were associated with higher levels of dissociative coping makes sense given that people with posttraumatic and dissociative symptoms frequently experience safety issues such as self-injury and intrusive abuse memories.

Repressive Coping Style

Contrary to hypothesis, neither conflict-laden tactics nor conflict-laden feelings predicted a repressive coping style. Low terror-laden feelings scores, however, predicted greater repressive coping style. In terms of simple correlations, all of the predictor variables, conflict tactics and feelings and terror tactics and feelings, were negatively related to repressive coping style.

The finding that people with high repressive coping scores ('repressors') consistently exhibited low scores on measures of both conflict and terror (tactics and feelings), and many other predictors for that matter, raises an issue with regard to

measuring repressive coping style. In brief, are 'repressors' less likely to report negative feelings because they are somehow avoiding those repressed feelings or are they not repressing at all, but simply less distressed? One explanation is that the repressive coping style measure did not actually identify individuals who tend to avoid their feelings. Instead, those high on the measure were simply less distressed, thus actually experiencing less negative feelings because of having been exposed to fewer tactics.

On the other hand, 'repressors' would be less likely to report negative feelings. In previous research, they have been shown to avoid negative affective states and deny negative feelings, while experiencing arousal as independently measured (Weinberger, 1990). As mentioned earlier, however, some of Weinberger's (1990) conclusions are open to controversy. For example, some of the criticisms (Paulus, 1984) have centered on the issue that the MC-SDS contains both impression management and self-deception items and the discriminant validity between impression management (i.e., other deception) and self-deception has been questioned. Others examining 'repressors' have manipulated the social context (e.g., public versus private) and argued that research suggests that repressors' reports of anxiety may be lower than high anxious subjects because they have a self-concept of being stoic (see Newton & Contrada, 1992).

If repressors are being correctly identified in the present study, the finding that higher repressive coping style was associated with lower reporting of terror-laden and conflict-laden feelings would be plausible. Along a similar line, lower reporting of terror-laden tactics and conflict-laden tactics by 'repressors' might result from minimizing their childhood abuse experiences, something that is not uncommon with some victims of

violence (Courtois, 1992; Femina, Yeager, & Lewis, 1990). Women may have been minimizing their experience in terms of what the perpetrator did to them. In fact, past research (Femina, Yeager, & Lewis, 1990) has demonstrated that some people minimize their abuse experience out of a sense of embarrassment, a desire to protect the perpetrator, or a desire to forget. The idea that women were minimizing out of a 'desire to forget' (Femina, Yeager, & Lewis, 1990) certainly makes sense according to my model. However, there is no evidence in the present study that 'repressors' acknowledge any desire to forget. For example, the finding that women who were more repressive were less likely to acknowledge avoidant-type behaviors on the avoidance subscale of the IES-R, (Weiss, 1996) would appear to rule-out that any potential 'desire to forget' was motivated by any conscious process on their part to reject disturbing thoughts or feelings from awareness.

It is possible that women's repressive defensiveness may have enabled them to wall-off their emotions, and block awareness of their emotional states, although the possibility that the 'repressors' are simply less distressed cannot be ruled out on the basis of the results in this study. I will, however, with appropriate qualification, examine the relationship between repressive coping style and other measures as if it is a valid measure.

Whereas women with sexual abuse were the least dissociative, the reverse pattern emerged with regard to a repressive coping style. Women with sexual abuse exhibited the highest repressive coping scores, as opposed to those with physical abuse or combined physical and sexual abuse who exhibited the lowest repressive coping scores. This is an

interesting finding, and suggests that the experience of childhood sexual abuse may be qualitatively different from childhood physical abuse. As Freyd (1996) points out, in some circumstances, especially long-term childhood sexual abuse perpetrated by a parent, the abuse begins as loving caresses, but in time gradually evolves into sexual behavior. In such cases it is possible that the abuse is not experienced as 'extraordinary' or overwhelming, but rather, as betrayal (Freyd, 1996).

Relationship of sexual abuser was associated with a repressive coping style in the sense that women who had been sexually abused by a close family member were less repressive. They were more repressive when abused by a non-family member. This contradicts my hypothesis. I expected that sexual abuse by a close family member might frequently involve conflict. Hence, I anticipated that even though abuse by a close family member did not predict dissociative coping, it might predict repressive coping. It turned out that abuse by a close family member was associated with less repressive coping. Freyd's (1996, p. 136) notion of betrayal trauma defines betrayal as a "conflict between reality and the need to trust the caregiver." Hence although the experience of betrayal was not explicitly inquired about in the present study, conflict-laden tactics were. By including conflict-laden tactics in the present study, I was attempting to take into account some of the relational aspects of sexual abuse when it is perpetrated by a trusted caretaker in a non-violent manner. My conflict-tactics measure, however, may not have tapped enough of these relational components. It was anticipated that sexual abuse by a close family member might very well predict a repressive coping style,

particularly in the absence of any relationship between closeness of perpetrator and dissociative coping. There was no evidence in this study, however, that sexual abuse by a close family member, or conflict-laden tactics predicted a repressive coping style. In fact, quite to the contrary, women in this study reporting sexual abuse by a close family member were *less* repressive.

Although evidence had been found demonstrating that dissociative coping was associated with fragmented memories, there was no evidence in the current study supporting the hypothesis that memories returning all at once, as complete narratives were in any way associated with a repressive coping style. Given that repressive coping was believed to be an *active* process whereby individuals defend against anxiety by avoiding negative affect, I hypothesized that if repressors did have 'delayed memories,' they would likely return as complete narratives, unlike the fragmented somatosensory memories common in dissociative processes. There was no evidence that repressor's memories returned as complete narratives. However, whereas memories of a somatosensory and a symbolic nature were typical when women were more dissociative, such phenomena were atypical for women exhibiting a repressive coping style. The association found here between dissociative coping and memories returning by way of somatosensory fragments is very consistent with recent research on traumatic memory (van der Kolk, 1996). These findings with regard to delayed-memory characteristics does suggest that abuse-related amnesia is more likely to be due to dissociative processes, as Briere and Conte (1993) have posited.

Higher levels of functioning were associated with a repressive coping style. This would suggest that people with repressive coping styles are either less symptomatic in terms of feeling unsafe and experiencing child abuse memories, or simply not in touch with such feelings. This is the same measurement dilemma in terms of repressive coping style.

Worthy of emphasis here, is that the majority of women in this study were well educated, the vast majority had undergone psychotherapy at some point during their lives, and many were relatively high functioning. As indicated earlier, potential participants were pre-screened, and women who were suicidal or engaging in self-injurious behaviors did not participate in this study. Hence, factors such as these should be taken into account when generalizing these findings to clinical studies. Thus, many of the findings from the present study relative to dissociative coping add to the generalizability of other clinical findings with more distressed populations. At the same time, some of the different characteristics (e.g., level of functioning) between the present sample and clinical populations may have potentially biased the effects on outcomes and possibly account for some of the discrepancies noted earlier relative to dissociative coping seen when comparing people with histories of physical abuse to those with histories of combined sexual and physical abuse.

Theoretical Implications

If we assume that high repressive coping scores are a measure of repressive coping style, the finding that women with sexual abuse were the least

dissociative, but the most repressive would have important theoretical implications. Contemporary proponents of a trauma-dissociation model (van der Kolk, 1987; van der Kolk & van der Hart, 1989; van der Kolk & Kardish, 1987) view dissociation as a process with which humans react to overwhelming, uncontrollable, and terrifying experiences. Although women in this study with sexual abuse were the most repressive, they were the *least* dissociative. Dissociative coping increased when women had experienced physical abuse (or combined sexual and physical abuse). Such findings would suggest that it is the physical abuse aspect that is more apt to make one's experience 'extraordinary' in terms of being potentially life threatening and provoking overwhelming terror in the victim. Experiencing sexual abuse could certainly provoke a sense of overwhelming terror and helplessness in the victim, particularly when the perpetrator used force or coerced the victim by using verbal threats of physical harm or death. This, however, may not always be the case with childhood sexual abuse, according to betrayal trauma theory (Freyd, 1996, p. 24). Consequently, the current PTSD or trauma-dissociation conceptualization appears limited in its ability to account for these findings relative to childhood sexual abuse, unless one assumes that sexual abuse without terror is less traumatic. Given that women with sexual abuse were less dissociative, but more repressive, than women with physical abuse or combined sexual and physical abuse, a more plausible explanation is that sexual abuse without terror could be traumatic still, but the nature of the trauma (e.g., 'betrayal trauma') is different. For example, the betrayal

trauma that Freyd (1996) describes has a relational or interpersonal component that is not necessarily 'unusual' and 'extraordinary.' This type of trauma is not adequately accounted for by the PTSD model. In fact, my data for women with relatively non-violent sexual abuse fit the model Freyd (1996) describes better than my own. Although inconclusive, these findings suggest that dissociation may not be the only process with which people react to certain childhood abuse experiences. In fact, Finkelhor (1990) argues that a PTSD conceptualization of childhood sexual abuse is limited, because it fails to account for the interpersonal and relational context of the abuse. Although sexual abuse in this study did not preclude situations where the abuser used force or coercion, sexually abused women very rarely reported terror-laden tactics (e.g., force and coercion). This may suggest that something in the interpersonal and relational context of the abuse (e.g., betrayal) could play a role in a repressive coping style.

Limitations of the Present Study

Overall, these findings have been fruitful in replicating, in a community sample, some of the findings previously demonstrated in clinical populations. Nevertheless, this study has limitations. As with any non-experimental research design, a causal relationship between the experience of childhood abuse, affect states, coping styles, memory, or functioning level is impossible to establish. This study is doubly vulnerable in this regard, having relied on unverified retrospective self-reports.

The findings of the present study raise methodological, theoretical, and clinical issues. In terms of methodological issues, attempts to measure a repressive coping style

with a measure of repressive defensiveness appeared to be problematic. It is impossible to tell whether this measure tapped a repressive coping style such that events and feelings were minimized or whether higher scores belonged to those who were less distressed. The measure has been useful in past research, showing expected relationships between repressive coping and negative adjustment (Weinberger, 1990). While Weinberger (1979) was able to validate the scale by taking physiological measures (e.g., EMG, GSR), this was not done in the current study. The issue here may not be so much the measure that was used, as the ability of people with that style to report their feelings and experiences accurately. If individuals are adept at a repressive coping style, they successfully avoid (defend against) negative affective states; hence, any attempt to measure a repressor's emotional experiences is problematic because they are likely too defended (e.g., out of touch with those feelings) to report such feelings. As demonstrated, even attempts to measure repressors' reports of their own behaviors (or others') appeared to be problematic. In retrospect, when people's reports of affective states is of utmost interest, it appears that any attempt to measure a repressive coping style by way of verbal self-report is futile and becomes an exercise in attempting to measure the immeasurable. Complicating research of this nature further, is the fact that many abuse-related experiences do not occur in isolation. As a result, attempts to discern the factors underlying human behavior becomes an onerous task. Interrelationships among variables and multiple types of abuse are both common and complex, and can confound simplistic explanations.

The DES-II is typically taken as a measure of dissociation per se. Whether this can be seen as both a measure of the involuntary type of separation that occurs due to trauma

as well as the more voluntary coping strategy used to "leave" the dentist's chair, is not clear. However, its link to the measures of terror and conflict are clear.

Theoretically, the findings from the present study do lend additional support to the trauma-dissociation model, but also suggest some limitations of the model, particularly with regard to experiences of childhood sexual abuse. First, as Freyd (1996) points out with her theory of betrayal trauma, childhood sexual abuse, particularly that perpetrated by a primary caretaker, often begins as non-sexual, loving caresses. Under such circumstances, the abuse may not be experienced as something extraordinary or overwhelming and terrifying in quite the same way as other types of traumatic experiences. Second, although current conceptualizations of trauma can account for the relationship between psychological terror (e.g., terror-laden tactics) and dissociation, they do not adequately explain how experiencing conflict-laden tactics relates to dissociation. Third, as Finkelhor (1988) points out, contemporary trauma-dissociation models (e.g., PTSD) do not really take into account the interpersonal and relational context of the abuse. Although contemporary trauma-dissociation models may be sufficient for explaining the trauma of childhood physical abuse and some childhood sexual abuse experiences, they appear to be inadequate in terms of explaining experiences of childhood sexual abuse that do not take place under, threatening, or violence circumstances.

Findings suggest an association between conflict, particularly conflict-laden tactics perpetrated by the abuser, and dissociative coping; however, there

was no evidence in the present study suggesting any relationship between the experience of conflict and a repressive coping style.

Clinically, despite the evidence that people with histories of sexual abuse are less dissociative than people with physical (or combined sexual and physical) abuse, caution should be exercised when interpreting these findings relative to a 'repressive' coping style in light of the aforementioned methodological issues. Inasmuch as these findings suggest that some people exhibit a dissociative coping style, while others appear to exhibit 'repressive defensiveness,' it would be premature to jump to the conclusion, based on the findings of this study, that high scores on this measure signify repressive defensiveness. Although I have discussed this possibility in detail, further research will be required to determine whether the measure is identifying those who are not acknowledging their feelings.

Future Directions

In light of the above, it appears that any model conceptualizing the traumatic impact of child sexual abuse must be able to account for a variety of factors such as experiences of terror and conflict, betrayal, the relational aspects of the abuse, and family dynamics. Future research expanding on both the phenomenological experience of childhood sexual abuse as well as the relational and interpersonal context in which the abuse is perpetrated warrants further research. Some of the issues being explored in betrayal trauma theory, which posits that childhood sexual abuse sometimes involves "a conflict between reality and the need to trust the caregiver" (Freyd, 1996, p. 136) may

shed light on the role that conflict plays in people's coping processes. Future studies using a repressive coping style measure need to provide an anchor other than the self-report of the participant on the extent of feelings and severity of reported events. For example, studying a group of highly repressive people with corroborated childhood sexual abuse, accompanied by the use of some objective measure (e.g., EMG, GSR) of distress may prove more beneficial.

Conclusions About My Model.

This thesis started out to test a model in which it was assumed that terror would lead to dissociation and conflict would lead to repression. The research showed this model to be inadequate in a number of ways. First, negative feelings did not differentiate into terror and conflict feelings; they were highly correlated. To those answering the questionnaire, bad feelings don't differentiate. Second, although the terror and conflict tactics were independent (perpetrator activities could be differentiated), conflict tactics were associated with dissociation. This ran counter to my theory, but makes sense in the context of Freyd's approach to betrayal trauma. Finally, while dissociative coping generally led to results predicted by the PTSD model, the measure of repressive coping requires further investigation with an independent assessment of arousal.

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Appendix A

Theoretical Distinctions Related to My Model

The ‘Primary Repression’/ ‘Repression Proper’ Distinction. As mentioned earlier Freud’s use of the terms dissociation and repression were often ambiguous (Rivers, 1918). Although he sometimes used the terms dissociation and repression interchangeably, he did make a potentially important distinction between two types of repression. Specifically, Freud differentiated between ‘repression proper’ and ‘primal repression.’ According to Macmillan (1997, p. 465), “primal repression was the response to the automatic anxiety caused by the excessive stimulation arising from the trauma.” This notion corresponds to dissociation. Conversely, Macmillan (1997, p. 465) states, “after-pressure, or repression proper, was a response to the signal of its possible recurrence.” This notion corresponds to our current notion of repression. Of particular interest, in light of several points made earlier, is that Scharff and Scharff (1994, p. 102) describe ‘repression proper’ as a “mental response to *internal conflict*.” In contrast to repression proper, ‘primal repression’ is a “mental response to a *deficiency*” (Scharff & Scharff, 1994, p. 102). As can be seen, the notions of ‘primary repression’ (e.g., dissociation) and ‘repression proper’ (e.g. repression) certainly capture the essence of what I am hypothesizing. That is, that increased trauma scores will be positively associated with dissociation scores and negatively associated with measures of ego development. Primal repression, according to Frank (1969 in Scharff & Scharff, 1994, p. 102), is due to a

developmental delay in achieving repression proper or because of an inability to cope in secondary process ways with an overwhelming assault on the stimulus barrier, so that the primary process became the organism's primary method of dealing with, and communicating about experience.

This may help explain the 'speechless terror' experienced by highly traumatized individuals as well as the apparent lack of verbal narratives common in severely traumatized individuals.

Psychoneuroses versus Traumatic Neuroses. Other terms that map onto this model are those of psychoneuroses and traumatic neuroses. According to van der Kolk and McFarlane (1996, p. 7) "the exploration of the fantasized elaborations of intrapsychic conflicts" is representative of what is referred to as the 'psychoneuroses' (e.g., Freud). Traumatic neuroses (e.g., PTSD) refers to the dissociative aspects of trauma. Van der Kolk and McFarlane (1996), point out that the primary symptoms are not defensive or symbolic, nor are they driven by secondary gain, which are typical characteristics of the 'psychoneuroses.' Rather, the issue central to PTSD is the incapacity to integrate the *reality* of traumatic experiences along with associated repetitive replays of the incident by way of images, behaviors, feelings, physiological reactions, and interpersonal relationships (van der Kolk & McFarlane, 1996). Freud acknowledged that anxiety can be "a direct consequence of the traumatic moment" or "a signal threatening a repetition of such a moment (Freud, 1933, p. 94-5). Worthy of emphasis here, is the fact that Freud's notion of 'primary repression' is a *response* to the former anxiety, as opposed to his notion of 'repression proper' which is a *response* to the later anxiety.

Swanson (1988) argues that danger, trauma, and anxiety are embedded in *both* the psychoneuroses and the traumatic neuroses. Furthermore, both entail defensive actions by the ego. As Swanson (1988, p. 13) points out, however,

the difference is that, in the psychoneuroses, the person truly feels that the danger would not exist were it not for his own motives and he believes that the danger can be controlled or removed if his motives, or their significance, are different. In the traumatic neuroses, he feels that his motives make no difference, that no desire of his has led to the danger he encounters...

When considering Swanson's distinction above, two themes re-emerge. The experience of psychoneuroses suggests to me some degree of self-involvement and intrapsychic conflict, whereas the experience of 'hopelessness' or speechless terror evident in the traumatic neuroses, implies an experience of being overwhelmed by a sense of ego deficiency and impending annihilation--common themes consistent with other distinctions I have pointed out. Scharff and Scharff (1994, p. 103) point out, however, that there are others (e.g., Kardiner) who view traumatic neurosis, as a psychophysiological response that is both an adaptation to the trauma of the real world [i.e., dissociation] and a failure of the normal adaptive capacity that utilizes symbol formation and psychic representation [i.e., repression].

Appendix B

Informed Consent

Coping With Abuse Study

The purpose of this informed consent is to insure that you understand the purpose of the study and the nature of your involvement so that you can make an informed choice about participating.

This research is being conducted by Kathleen Felton, a doctoral candidate in the Psychology Department of Carleton University (789-3977), and supervised by Dr. Jo Wood (Faculty Sponsor, 520-2600, x6627). Ethical concerns are overseen by Dr. M. Gick (Chair, Psychology Ethics Committee, x2664); and Dr. K. Matheson (Chair, Department of Psychology, x2648).

This study session will last approximately two hours at a location mutually agreed upon by you and the principal investigator. In this study you will be asked to complete a variety of questionnaires describing your experience related to childhood sexual and/or physical abuse *prior to age 13*. More specifically, the questions will ask about things such as the nature of your abuse, the impact of the abuse on you, how you coped with the abuse, and your memories of the abuse. In addition, you will be asked to do a sentence completion exercise. There are no right or wrong answers. After completing the questionnaires, you will be asked to participate in a short personal interview. During this interview, you will have the opportunity to share additional comments. At the end of this interview, the principal investigator will provide both a verbal and written debriefing. At the time of the debriefing you are welcome to ask questions related to this research.

Your participation will enable the investigator to assess your abuse history, coping styles, responses to serious life events, and the potential impact of the abuse in order to better understand the potential relationship between the experience of childhood abuse, various coping styles, and subsequent impacts in adulthood.

The information collected in this study is confidential. All data will be coded such that your name is not associated with the information. Some of the questions ask about the nature of your abuse. Hence, the subject matter could be potentially upsetting for some women. Certain safeguards have been incorporated into this study and the investigator is familiar with supportive and grounding techniques. It is important that you understand that your participation in this study is *completely voluntary*. You are *encouraged* to take breaks anytime during the survey session, if you wish. You are *free to refuse* to answer any questions and may withdraw from the study at any time. Thank you in advance for your participation!

Kathleen A. Felton, M.A., Principal Investigator

Date: _____

I acknowledge that I have read, and understand, the above information and willingly consent to participate in this study, while recognizing that I can stop participating at any time, for any reason.

Participant's Name (print): _____
(*sign*) _____

Appendix C

Debriefing

Coping With Childhood Abuse Study

Over the past two decades there has been a revival of interest in the relationship between childhood abuse and its subsequent impact on adults. There has been a renewed interest in the century-old notion of 'repression' and 'dissociation.' Historically, several theories have been put forth to account for problems associated with the psychological impact of abuse. One, known as the 'conflict model' (e.g., Freud) stems from the belief that people use repression to cope with the psychological impact of abuse. An alternative theory, proposed by Janet, is essentially a trauma model and rests on the belief that people use dissociation to cope with the impact of their abuse.

Many trauma experts today (e.g., van der Kolk, Briere) emphasize that dissociation is common in people who have been sexually and physically abused. Aside from the terror associated with experiences of abuse, it is possible that many women also experience guilt and shame. The main intent of this study is to survey the nature of women's sexual and/or physical abuse prior to the age of 13 and their coping strategies by having participants complete a variety of questionnaires designed to assess such things as abuse history, coping styles, emotional and physical reactions and maladaptive cognitive responses to serious life events, and ego strength, in an attempt to examine whether the 'conflict model' also plays a role in the psychological trauma associated with childhood sexual and/or physical abuse. In addition, this study will attempt to predict the types of situations where the conflict and/or trauma model will apply.

For more information about childhood abuse, available therapists, and other community resources dealing with recovery from child abuse, you might wish to contact Women's Place, 755 Somerset W. Street, Ottawa, Telephone: 231-5144. Emergency telephone support available in the Ottawa community includes The Ottawa Distress Center, 238-3311 and the Sexual Assault Support Center (SASC) Crisis Line, 234-2266. Rape Crisis Centre 562-2333.

Should you wish to discuss this study further, or if you find that participating in this survey has upset you and you desire additional support, but do not already have a therapist, please phone Kathleen A. Felton, M.A., from Carleton University at 789-3977, to obtain a referral for follow-support. Finally, should you have any complaints or comments about the way in which this study was conducted or how you were treated, please contact Dr. Mary Gick, Chair of the Psychology Ethics Committee, in Loeb A 515, 520-2600 ext. 2664, or Dr. Kim Matheson, Chair of Psychology Department, in Loeb B559, 520-2600 ext. 2648. Thank you for your participation.

Appendix D

Demographics, Therapy and Recovery History

PART I: ABOUT YOU AS A PERSON IN GENERAL SURVEY #: _____

A.1 Your age now: _____

A.2 Please indicate the *highest* level of education you have achieved.

- a. _____ Grade 8 or less
b. _____ High School => How many years? _____ H.S. Diploma? YES NO
c. _____ Trade School => How many years? _____ Trade Certificate? YES NO
d. _____ Undergrad Educ. => How many years? _____ Undergraduate Degree? YES NO
e. _____ Graduate School => How many years? _____ Graduate Degree? YES NO

A.3 Employment/Student Status (check all that apply)

- a. _____ Employed 35 hours/week or more e. _____ Homemaker
b. _____ Employed less than 35 hours/week f. _____ Disability
c. _____ Student: Full-time g. _____ Unemployed
d. _____ Student: Part-time h. _____ Volunteer

A.4 Total Household Income Level Per Year (check one)

- a. _____ under \$15,000 d. _____ \$45,000 - 59,999
b. _____ \$15,000 - 29,999 e. _____ \$60,000 - 74,999
c. _____ \$30,000 - 44,999 f. _____ over \$75,000

A.5 Relationship Status (check one)

- a. _____ None. No current significant involvement
b. _____ Current significant involvement
c. _____ Living with partner

A.6 a. Do you have any children? YES NO

b. If yes, how many are dependent upon household income for financial support? _____

A.7 Therapy Background

- a. Have you *ever* had any kind of psychotherapy? YES NO

b. If yes, check one of the following:

☐ 2 sessions or less ☐ 7 - 11 sessions
☐ 3 - 6 sessions ☐ 12 - 20 sessions ☐ more than 20 sessions

c. How old were you when you went to psychotherapy for the first time? ____ years old

d. Are you currently in psychotherapy? (circle one) YES NO

e. If not, how old were you when you last had psychotherapy? ____ years old

A.8 What forms of treatment have you had? (Please circle 'yes' or 'no')

a. Have you participated in any *inpatient treatment* programs? YES NO
 If yes, please explain type of program and how long: _____

b. Have you participated in any *outpatient treatment* programs? YES NO
 If yes, please explain type of program and how long: _____

c. Have you participated in any *self-help support* groups? YES NO
 If yes, please explain type of group and how long: _____

A.9 Stage of Recovery

The following questions ask about various aspects of the recovery process. Regardless of whether you have had therapy or not, please read each of the following questions and use the scale below to select a number that best describes your experience at the present time. Mark your choice on the line preceding each question.

0 = never 1 = rarely 2 = occasionally 3 = often 4 = almost always

- ____ a) To what extent are you currently experiencing safety or self-abuse issues, such as suicidal feelings, self-injury, or dangerous risk-taking?
- ____ b) To what extent are you currently abusing drugs or alcohol?
- ____ c) To what extent do you currently feel safe and able to trust yourself?
- ____ d) To what extent do you currently feel safe and able to trust another person (e.g., friend, therapist)?
- ____ e) To what extent are you still recovering new memories of your abuse?
- ____ f) To what extent do you currently mourn your childhood losses?
- ____ g) To what extent do you currently limit your activities and friendships so as to make time and energy to deal with your issues and recovery process?
- ____ h) To what extent do you currently limit your activities and friendships in order

- to feel safe and comfortable?
- ___ i) To what extent is your recovery process well on its way, allowing you to “live again?”

Appendix E Sexual Abuse History Summary

PART II: ABUSE HISTORY IN GENERAL

G.1 Did you experience sexual abuse/sexual assault before age 13?

___ NO (If 'NO,' skip to next page (Section H, Page: H - 1))

___ YES (If yes, please answer Section G below)

G.2 Please circle below *all* ages that you experienced sexual abuse/sexual assault.

Age: 0 2 3 4 5 6 7 8 9 10 11 12 or older

G.3 In general, please circle the impact *all* your childhood sexual abuse has had on you.

0	1	2	3
No Impact	Slight Impact	Moderate Impact	Extensive Impact

G.4 Relationship to Abuser

Consider *all* your *sexual abuse* experiences *before age 13*, and rate the degree of distress you experienced specific to *each* of the following people. On the line preceeding each of the following individuals, place a number from the scale below that best describes your experience. [NOTE: IF A PARTICULAR INDIVIDUAL *DID NOT SEXUALLY ABUSE YOU, PLEASE SELECT '4' FOR 'NOT APPLICABLE'*]

0	1	2	3	4
No Distress	Slight Distress	Moderate Distress	Extreme Distress	Not Applicable

a. ___ Father	g. ___ Mother
b. ___ Stepfather/mother's boyfriend	h. ___ Other female relative
c. ___ Grandfather	i. ___ Teacher/Coach
d. ___ Brother/stepbrother	j. ___ Priest/Minister
e. ___ Other male relative	k. ___ Babysitter
f. ___ Stranger	l. ___ Neighbor or acquaintance

PLEASE NOTE: If any of the above individuals **DID NOT** sexually abuse you, be sure you indicated a '4' above (for not applicable).

Appendix F

Physical Abuse History Summary

H.1 Did you experience physical abuse/physical assault before age 13?

___ NO (If 'NO,' skip to next page (Part III: Page: I - 1))

___ YES (If yes, please answer Section H below)

H.2 Please circle below *all* ages that you experienced physical abuse/physical assault.

Age: 0 2 3 4 5 6 7 8 9 10 11 12 or older

H.3 In general, please circle the impact *all* your childhood physical abuse has had on you.

0 1 2 3
No Impact Slight Impact Moderate Impact Extensive Impact

H.4 Relationship to Abuser

Consider *all* your *physical abuse* experiences *before age 13*, and rate the degree of distress you experienced specific to *each* of the following people. On the line preceding each of the following individuals, place a number from the scale below that best describes your experience. [NOTE: IF A PARTICULAR INDIVIDUAL DID NOT PHYSICALLY ABUSE YOU, PLEASE SELECT '4' FOR 'NOT APPLICABLE']

0 1 2 3 4
No Distress Slight Distress Moderate Distress Extreme Distress Not Applicable

a. ___ Father	g. ___ Mother
b. ___ Stepfather/mother's boyfriend	h. ___ Other female relative
c. ___ Grandfather	i. ___ Teacher/Coach
d. ___ Brother/stepbrother	j. ___ Priest/Minister
e. ___ Other male relative	k. ___ Babysitter
f. ___ Stranger	l. ___ Neighbor or acquaintance

PLEASE NOTE: If any of the above individuals DID NOT physically abuse you, be sure you indicated a '4' above (for not applicable).

Appendix G

Affective Reactions to Abuse Inventory

The abusive event that I experienced *before age 13*, that I feel had the *greatest psychological impact* on me involved:

- (check one) ☐ sexual abuse, but no physical abuse
 ☐ physical abuse, but no sexual abuse
 ☐ a combination of *both* sexual and physical abuse

Please take a moment to reflect on this abuse (that you checked above) that you feel had the *most significant psychological impact* on you. With this abuse in mind, use the following scale to rate the degree to which each of the following words captures your feelings associated with this abuse experience. Circle the number that best describes the degree to which you have felt such a feeling associated with this abuse.

	<u>Never</u>	<u>Rarely</u>	<u>Occasionally</u>	<u>Often</u>	<u>Almost Always</u>
I felt: humiliated	0	1	2	3	4
embarrassed	0	1	2	3	4
terrified	0	1	2	3	4
anxious	0	1	2	3	4
ashamed	0	1	2	3	4
frightened	0	1	2	3	4
sexually aroused	0	1	2	3	4
out of control	0	1	2	3	4
confused	0	1	2	3	4
vulnerable	0	1	2	3	4
powerless	0	1	2	3	4
guilty	0	1	2	3	4
exploited	0	1	2	3	4
fearful	0	1	2	3	4
pleasure	0	1	2	3	4
isolated	0	1	2	3	4
angry	0	1	2	3	4

Appendix H

Perpetrator Tactics

L1 Once again, in all of Section L consider the abuse that you feel had the most significant psychological impact on you. Please circle below who that particular abuser was.

a. Father	g. Mother
b. Stepfather/mother's boyfriend	h. Other female relative
c. Grandfather	i. Teacher/Coach
d. Brother/stepbrother	j. Priest/Minister
e. Other male relative	k. Baby-sitter
f. Stranger	l. Neighbor or acquaintance
	m. Other: _____

L2 Continue to reflect on the abuse that you feel had the most significant psychological impact on you. With this abuse in mind, rate how frequently your abuser used the following tactics when abusing you by circling a number in the 'Frequency' column. Also rate the 'Level of Distress' you experienced having been exposed to such tactics, by circling a number in the 'Level of Distress' column. Refer to the key below when circling your answers:

Frequency Key

- 0 = Never
1 = Rarely
2 = Occasionally
3 = Often
4 = Almost Always
? = Unsure

Level of Distress Key

- 0 = Not at all distressing
1 = Slightly distressing
2 = Moderately distressing
3 = Very distressing
4 = Extremely distressing
N/A = Not applicable

The Abuser:

	<u>Frequency</u>	<u>Level of Distress</u>
a. Bribed me	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
b. Used fear/coercion (e.g., threats to harm me or others)	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
c. Used force (e.g., holding, tying down)	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
d. Used violence (e.g., slaps, punches, etc)	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
e. Threatened loss of love	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
f. Gave me drugs or alcohol	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A

Frequency Key

0 = Never
1 = Rarely
2 = Occasionally
3 = Often
4 = Almost Always
? = Unsure

Level of Distress Key

0 = Not at all distressing
1 = Slightly distressing
2 = Moderately distressing
3 = Very distressing
4 = Extremely distressing
N/A = Not applicable

	<u>Frequency</u>	<u>Level of Distress</u>
The Abuser:		
g. Tried to be very gentle	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
h. Told me I was special	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
i. Told me I was needed	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
j. Threatened to kill me	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A
k. Threatened to abuse another family member, if I told or didn't comply	0 1 2 3 4 ? ==>	0 1 2 3 4 N/A

Appendix I

Memory of Abuse

L.3 In reference to this abuse that had the *most significant psychological impact* on you: Have you always known that this abuse happened to you, or was there a time that you had no recollection that these things ever happened to you? (check one)

a. ____ I' ve always known what had happened

(If your response was 'a', skip L.4 through L.6 and go to question L.7 on next page).

b. ____ I've had no recollection at times (continue on with question L.4 below)

L.4 In reference to this abuse that had the *most significant psychological impact* on you: How have you remembered the event(s) over time? (Check *one* statement below that best describes your memory for this abuse)

a. ____ always had memories, but did not think of events as abuse

b. ____ always had some memories, but details were filled in later

c. ____ had period of complete amnesia, now have clear memories

d. ____ had complete amnesia, filled in some blanks, but missing pieces remain

e. ____ have fragments of memories, but no coherent picture of what happened

f. ____ have no clear memories, but feelings, or other evidence makes me believe that I was abused.

L.5 In reference to this abuse that had the *most significant psychological impact* on you: Use the scale below to rate the extent forgotten memories related to this abuse seemed to be provoked by any of the following circumstances. Mark a number in the space provided to the left of each circumstance.

0 = Never 1 = Rarely 2 = Occasionally 3 = Often 4 = Almost Always

a. ____ related to anniversary

b. ____ related to emotions having to do with the abuse (such as intimacy, trust, power, fear, anger)

c. ____ related to sensory reminders (e.g., sounds, sights, smells, etc.)

d. ____ retrieved in talking therapy

e. ____ retrieved in altered state of consciousness (hypnosis, meditation, drugs)

f. ____ spontaneous (no awareness of precipitants)

g. ____ other (specify) _____

L.6 Using the scale below rate the extent to which your memories of this abuse emerged via the following processes. Mark a number in the space to the left of each process.

0 = Never 1 = Rarely 2 = Occasionally 3 = Often 4 = Almost Always

- a. ____ as flashbacks (as if you were reliving the event)
- b. ____ as body memories (physical sensations)
- c. ____ as other sensory processes (e.g., colors sounds, tastes, odors)
- d. ____ all at once, suddenly remembering the whole story.
- e. ____ in fragments, gradually over time
- f. ____ through dreams
- g. ____ through nightmares
- h. ____ images in my mind while awake
- i. ____ sudden, intense emotional feelings
- j. ____ through my drawings/paintings/sculpting
- k. ____ through my writings
- l. ____ through music
- m. ____ through behaviors (circle which: aversions, avoidance behaviors, re-enactments)
- n. ____ other: describe) _____

L.7 Have you dealt with this abuse in therapy? (circle one) YES NO

L.8 If yes, using the scale below, please rate how helpful this therapy was. (circle one)

0 1 2 3 4

not at all helpful slightly helpful somewhat helpful very helpful extremely helpful

Appendix J

Example of Responses to Sentence Completion Test (SCT)

Sentence Stem	Participant's Sentence Completion
<hr/>	
A husband has a right to ...	"-- has no rights."
A woman should always ...	"throw out a bad lover (p.s. make sure you have lots of batteries)."
A man's job ...	"is in the kitchen!"
Women are lucky because ...	"HAH!"
Women are lucky because ...	"B.S."
A man's job ...	"is to be invisible."
A man's job ...	"is to shut up and leave me alone."

Appendix K

Post-Survey Assessment

1. **How *upsetting* was it to participate in this study? (circle the number that best describes how upsetting it was to participate in this study)**

Not at all	Slightly Upsetting	Moderately Upsetting	Very Upsetting	Extremely Upsetting
0	1	2	3	4

2. **Right now, how *connected* do you feel with your body? (circle one number)**

Not at all	Slightly	Moderately	Almost Totally	Totally
0	1	2	3	4

3. **Right now, how *clear* is your thinking? (circle one number)**

Not at all	Slightly	Moderately	Almost totally	Totally
0	1	2	3	4

4. **Please describe in your own words how you felt while completing this questionnaire and how you feel right now.**

Appendix L

Nature of Sexual and Physical Abuse

Table L-1

Mean Frequency and Level of Distress Reported by Women of Types of ChildhoodSexual Experiences for Abuse Having the Most Significant Psychological Impact

Nature of Sexual Experience	% Reporting Sexual Experience	<u>Frequency</u>		<u>Level of Distress</u>	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Felt sexual threat	78	2.34	1.49	3.12	1.13
Slept with adult	46	1.09	1.42	2.22	1.72
Slept with nude adult	25	.64	1.24	1.71	1.76
Family member or Relative exposed genitals	71	2.08	1.62	2.98	1.24
Non-family member Exposed genitals	42	.97	1.35	2.33	1.61
Non-family member kissed Touched in sexual way	46	1.17	1.48	2.51	1.61
Family member kissed, Touched in sexual way	79	2.59	1.56	3.38	1.03
Shown sexual photos or Movies, or taken of you	32	.76	1.26	1.92	1.75
Someone made you/tried to make you watch sex acts	26	.65	1.22	1.76	1.76

	Repressive and Dissociative Coping Styles				173
Someone talked about sexual things that were disturbing	68	1.64	1.37	2.52	1.44
Engaged in sexual activity with family member	77	2.30	1.53	3.26	1.20
Engaged in sexual activity with non-family member	40	.93	1.39	2.43	1.63
Engaged in sexual activity Against your wishes	88	2.66	1.45	3.40	1.09
As child, sought sexual activity with older person	37	.76	1.15	1.68	1.58
Vaginal intercourse	47	1.46	1.72	3.16	1.40
Anal intercourse	19	.51	1.17	2.08	1.87
Oral sex	63	1.92	1.73	3.30	1.45
Forced to have sex with animal	7	.16	.70	.81	1.60
Forced to have group sex	13	.31	.90	1.29	1.80
Raped with an object	27	.70	1.30	2.21	1.86
Engaged in sexual activity and told it was your fault	56	1.56	1.55	3.11	1.39
Became aroused by unwanted sexual activity	54	1.39	1.46	2.47	1.65
Someone tried to engage you in sex, but it did not happen	54	1.07	1.16	2.62	1.51
Persons watched while you were sexually abused	33	.81	1.35	2.39	1.81

Note. Most common sexual abuse experiences in descending order by percent of women reporting experience. Frequency responses ranged 0 (never) to 4 (almost always), or unsure. Distress levels ranged 0 (not distressing) to 4 (extremely distressing), or N/A.

Table L-2

Mean Frequency and Level of Distress Reported by Women For Types of PhysicalAbuse Having the Most Significant Psychological Impact

Nature of Physical Abuse	% Reporting Physical Contact	<u>Frequency</u>		<u>Level of Distress</u>	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Hit (spanked) with object	92	2.83	1.22	3.32	.94
Hit with fist, kicked, tossed down stairs, or into wall	89	2.37	1.32	3.16	.90
Punished in inhumane ways (e.g., tied, locked up)	64	1.58	1.49	3.03	1.48
Burned or bruised	73	1.85	1.42	2.95	1.38
Needed but did not get Medical attention for wounds inflicted by Someone else	42	.95	1.34	2.32	1.72
Needed and got medical Attention for wounds inflicted by someone else	32	.70	1.23	2.11	1.83
Given enemas that felt punishing	16	.38	1.02	1.08	1.72
Threatened by someone that he/she would kill you	63	1.68	1.56	3.00	1.58

Note. Most common type of physical abuse in descending order by percent of women reporting experience. Frequency responses ranged 0 (never) to 4 (almost always), or unsure. Distress levels ranged 0 (not distressing) to 4 (extremely distressing), or N/A.

Appendix M

Exploratory Analyses: Conflict and Terror Scales

Table M-1

Principal Component Analysis With Varimax Rotation of Conflict-laden and Terror-laden Tactics

Perpetrator Tactics	Factor 1	Factor 2
Threatened to kill me	.762	
Used fear/coercion (threats to harm me others)	.708	-.268
Used violence (slaps, punches, etc)	.679	-.377
Threatened to abuse family member, if I told or didn't comply	.663	.275
Used forces (holding, tying down)	.599	-.335
Gave me drugs or alcohol	.425	.160
Told me I was special	-.250	.818
Told me I was needed		.707
Tried to be very gentle	-.526	.620
Bribed me	.138	.598
Threatened loss of love	.355	.556

Note. Factor 1 (without complex 'tried to be gentle' item) $\alpha = .79$. Factor 2 $\alpha = .70$. Values < 1 suppressed.

Table M-2

Principal Component Analysis With Varimax Rotation of Conflict-laden and
Terror-laden Feelings

Feelings	Factor 1	Factor 2	Factor 3
Fearful	.869		
Frightened	.857	.117	
Terrified	.850	.129	
Anxious	.748	.204	
Powerless	.734	.167	
Vulnerable	.671	.318	.156
Out of control	.522	.250	.253
Embarrassed	.157	.861	
Ashamed	.121	.807	.103
Humiliated	.390	.661	-.271
Exploited	.323	.652	
Guilty		.648	.236
Pleasure			.921
Sexually aroused			.910

Note. Factor 1 (without 'out of control') $\alpha = .89$. Factor 2 $\alpha = .83$. Factor 3 $\alpha = .85$.
Values < 1 suppressed.

Table M-3

Categorical Transformations of Conflict and Terror Predictor Variables

Predictors	Range of Scores			
	None	Low	Moderate	High
Conflict tactics	0 (<u>n</u> = 19)	.10 - 1.32 (<u>n</u> = 27)	1.33 - 2.74 (<u>n</u> = 27)	2.75 - 4 (<u>n</u> = 27)
Terror tactics	0 (<u>n</u> = 15)	.10 - 1.16 (<u>n</u> = 28)	1.17 - 1.99 (<u>n</u> = 27)	2.00 - 4 (<u>n</u> = 31)
Terror feelings	0 (<u>n</u> = 1)	.10 - 3.00 (<u>n</u> = 36)	3.01 - 3.83 (<u>n</u> = 35)	3.84 - 4 (<u>n</u> = 31)
Conflict feelings	0 (<u>n</u> = 1)	.10 - 2.60 (<u>n</u> = 35)	2.61 - 3.40 (<u>n</u> = 31)	3.41 - 4 (<u>n</u> = 36)

Appendix N

Exploratory Analyses: Measuring Repressive and Dissociative Coping

Table N-1

Mean, Median, and Standard Deviation of Social Desirability, Manifest Anxiety, and Dissociative Experiences

Scale	<u>M</u>	<u>Mdn</u>	<u>SD</u>
Marlowe Crowne Social Desirability	37.78	36.36	14.25
Manifest Anxiety	60.50	62.96	21.11
Dissociative Experiences	20.76	14.11	16.65

Table N-2

Cross Tabulation of Marlowe Crowne Social Desirability and Manifest Anxiety Scores
Based on Median Split

		<u>Manifest Anxiety</u>		Total
		Low <= 62.96	High > 62.96	
Marlowe Crowne	Low <= 36.36	23	32	55
	High > 36.36	30 ^a	20	50
Total		53	52	105

^a 'Repressors'

Table N-3

Cross Tabulation of 'Repressors' and Dissociators Based on Median Splits

		<u>'Repressor'</u>		Total
		Low	High	
Dissociator	Low ≤14.11	29	23^a	52
	High > 14.11	45^b	7	52
Total		74	30	104

^a 'Repressors' (high Marlowe Crowne, low Manifest Anxiety)

^b Dissociators

Appendix O

Exploratory Analyses: Ways Abuse Memories Return

Table O-1

Principal Component Analysis With Varimax Rotation of How Previously ForgottenAbuse Memories Return

Way Memory Returned	Factor 1	Factor 2
Flashbacks	.783	.064
Fragments	.771	.039
Images in mind while awake	.754	.192
Sudden, intense emotional feelings	.735	.353
Through writings	.640	.381
Other sensory processes (e.g., sounds, colors, tastes, odors)	.632	.430
Body memories	.591	.409
Through behaviors (e.g., aversions, avoidance, re-enactments)	.370	.340
Nightmares	.202	.847
Dreams	.133	.827
Through drawings, paintings, sculpting	.266	.703
Through music	.302	.517
All at once, suddenly remembering the whole story	-.303	.330

Table O-2

Principal Component Analysis With Varimax Rotation of How Previously ForgottenAbuse Memories Return

Way Memory Returned	Factor 1	Factor 2
<hr/>		
Fragments	.771	.034
Sudden, intense emotional feelings	.764	.327
Flashbacks	.764	.105
Images in mind while awake	.750	.215
Other sensory processes (e.g., sounds, colors, tastes, odors)	.654	.404
Body memories	.643	.319
Through writings	.622	.416
Nightmares	.187	.892
Dreams	.107	.864
Through drawings, paintings, sculpting	.251	.717
Through music	.291	.555