

Personality and Trauma: Adult Attachment and Posttraumatic Distress Among Former Political Prisoners

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Attachment patterns are especially salient in facing danger and threats to one's life. Earlier research has suggested that secure persons are protected and insecure persons vulnerable in conditions of traumatic stress. We argued that the general view may not apply to the complex person–trauma interaction that is characteristic to torture and ill-treatment. Rather, as Crittenden maintains, each attachment pattern involves a unique strategy that is the most adaptive solution, depending on the nature of the trauma. We hypothesized that the general view of the secure attachment pattern being protective, and the insecure patterns being unprotective, would apply when political prisoners are exposed to physical torture and ill-treatment. Whereas, when exposed to psychological torture involving interpersonal cruelty, securely attached persons would be more vulnerable than insecure. The hypotheses were examined among 176 Palestinian male former political prisoners living in the Gaza Strip. Their mental health was assessed by posttraumatic (PTSD) and somatic symptoms, and adult attachment patterns by an applied AAI-method. The results confirmed that among insecure (both dismissing and preoccupied) men, the exposure to a high level of physical

torture and ill-treatment was associated with increased levels of PTSD and somatic symptoms. On the other hand, exposure to psychological torture and ill-treatment was associated with an increased level of somatic symptoms among secure-autonomous, but not insecure, persons. The secure and insecure victims thus differed in their strengths and vulnerabilities depending on whether the torture was psychological and interpersonal or physical in nature. Both personality and the meaning of the trauma should thus be considered when helping victims of human rights abuse.

Many trauma survivors suffer from posttraumatic stress disorder (PTSD) and somatic symptoms (Basoglu & Mineka, 1992; Ramsay, Gorst-Unsworth, & Turner, 1993). There is also increasing evidence, however, that the link between the trauma and symptoms is *more* complex than originally thought, and that many personal and environmental factors are crucial in mediating them (Horowitz, Bonanno, & Holen, 1993; McNally, 1992). Personality is one of the factors that may explain why some traumatized individuals develop trauma-related symptoms, whereas others seem to be intact (Horowitz, 1979; Miller, 1992; Shalev & Yehuda, 1998; Wilson, 1989).

Attachment theory provides us with a dynamic concept of personality (Bowlby, 1969; Crittenden, 2000; Main, 1996). It contributes to our understanding of how childhood experience in perceiving and interpreting cues from the environment, and dealing with distress, affect the responses to threat and danger in adulthood. This study focused on the role of adult attachment patterns in explaining the level of posttraumatic and somatic symptoms manifested by trauma victims.

Research shows that the nature of trauma influences the severity of posttraumatic distress. It seems that a man-made trauma has more severe consequences than natural catastrophes. For instance, more than half of torture victims (Allodi, 1985; Hougen, Kelstrup, Petersen, & Rasmussen, 1988) and 32% to 80% of rape victims (Breslau, Davis, Andreski, & Petersen, 1991; Kilpatrick, Edmunds, & Seymour, 1992) suffer from PTSD, whereas the share is only 4% to 8% among the victims of hurricanes, volcanic eruptions, and floods (McMillen, North, & Smith, 2000; Norris, 1992).

Torture and ill-treatment are frequently used in military and political conflicts in order to warn, punish, and get information about the opponents (Amnesty International, 1984; Basoglu, 1992). Torture is a typical man-made trauma where another human being deliberately and systematically causes the victim psychological and physical suffering. Psychological torture is a complex form of interpersonal trauma that involves humiliation, threats, and fright. Physical torture causes intolerable pain, through such measures as beating, burning, and stretching. There is some evidence that physical and psychological means of torture associate with different symptoms: the former with somatic and avoidance symptoms, and the latter with intrusive symptoms (Carlson & Rosser-Hogan, 1994; El Sarraj, Punamäki, Salmi, & Summerfield, 1996; Turner & Gorst-Unsworth, 1990).

Attachment experiences are supposed to be triggered and crystallized in dangerous and threatening situations (Bowlby, 1973; Crittenden, 1997; Mikulincer, Florian, & Weller, 1993). This activation of attachment patterns may explain why trauma victims uniquely perceive, interpret, and experience physical and psychological torture, and subsequently differ in the severity of the posttraumatic symptoms.

ATTACHMENT PATTERNS

Attachment theory, as developed by Bowlby (1969, 1973, 1980), postulates a universal human need to form close affectional bonds. In the early parental relationship the child learns how to seek proximity, whether to trust others and value oneself, and how to regulate affect in order to receive attention, consolation, and security. These early experiences are internalized as working models that later will be generalized into new relationships and manifested in habitual response styles in intimate relationships, threatening and distressing situations, and help-seeking behavior. Researchers have described three major adult attachment patterns based on these response styles: secure–autonomous, insecure–dismissing, and insecure–preoccupied (Crittenden, 1992, 2000; Ainsworth, 1979; Main, 1996; Main & Goldwyn, 1991).

Secure–autonomous persons have, as children, experienced their attachment figures as available and responsive. They clearly value the early attachment relationships and are able to describe their experiences in a coherent and plausible way. They express a balanced evaluation of their childhood even if their parents were not ideal, because they are able to reflect on parental motives and mutual perspectives without either denying or being emotionally overinvolved. Secure–autonomous persons feel comfort with closeness and seek support in distress. They hold generally positive schemas of themselves and the world and are confident of other people's benevolent intentions (Crittenden, 2000; Main, 1996).

Insecure–dismissing persons, in turn, have experienced their attachment figures as unavailable, unresponsive, or insensitive. They tend to devalue their early attachment experiences and deny and belittle their emotional needs. Alternatively they may idealize their childhood and parents, without being able to provide succinct and relevant illustrations and positive narratives. The descriptions of insecure–dismissing persons are incoherent due to their inability to remember emotionally-loaded events and details, and because their tendency to either idealize or devalue their attachment experiences brings about illogical narratives. The dismissing individuals have learned to avoid closeness, to distrust emotional expression, and sometimes to compulsively assert their self-reliance and independence of others. They prefer emotional distance in adult relationships, minimize emotional involvement, deny the need for help and consolation, and inhibit ex-

pressions of distress (Bakermans-Kranenburg & van IJzendoorn, 1993; Main, 1996; Sagi et al., 1994).

Insecure–preoccupied individuals have experienced their attachment figures as both overinvolving and rejecting, and thus inconsistent and unpredictable. As adults they are still “stuck” in their past, immersed in bad childhood experiences and poor relationships. Their childhood memories involve vivid episodes, but are incoherent and unbalanced due to their current angry preoccupation with attachment figures. The incoherence in the processing of childhood memories is further manifested in unclear and illogical style, and contextual irrelevancy. Preoccupied individuals typically exaggerate distressing cues and maximize their suffering. Subsequently they easily get involved in intimate relationships, but fear rejections and face frequent conflicts and frustrations (Cole-DeTke & Kobak, 1996; Main, 1995; Bartholomev & Shaver, 1998).

The patterns of attachment have received extensive support in research with adults (for reviews, see Crittenden, 2000; Main, 1995, 1996). Individuals with different attachment patterns have been found to differ in their ways of expressing emotions and showing affective memories (Crittenden, 1994; Mikulincer, 1998), appraising and coping with threat and stressful life events (Mikulincer, Florian, & Weller, 1993), and forming intimate relationships (Collins & Rend, 1996; Shaver & Hazan, 1986) and therapy alliances (Kanninen, Salo, & Punamäki, 2000).

Furthermore, clinical studies have predicted a general vulnerability among persons with insecure attachment styles in developing psychopathology. Van IJzendoorn and Bakermans-Kranenburg (1996) found in their meta-analysis of 14 adult attachment interview studies that insecure and unresolved classifications were clearly overrepresented in pathological samples. Some specific associations have also been found: Dismissing individuals are more likely to be diagnosed with psychological disorders in which the distress tends to be minimized, such as substance abuse and somatic symptoms (Fonagy, 1997; Rosenstein & Horowitz, 1996). In contrast, individuals with preoccupied attachment styles are more likely to be diagnosed with psychological disorders reflecting high levels of subjective distress (Fonagy et al., 1996; Rosenstein & Horowitz, 1996) and relationship problems (Pianta, Egeland, & Adam, 1996). In normal populations, insecure–dismissing and preoccupied individuals are found to be more anxious and hostile than secure (Dozier & Kobak, 1992; Mikulincer et al., 1993). Dismissing individuals typically suffer from avoidant and somatization symptoms, and are preoccupied from both hyperactivated distress (Mikulincer et al., 1993) and depressive symptoms (Cole-DeTke & Kobak, 1996; Mikulincer & Orbach, 1995). Accordingly we hypothesize that secure–autonomous individuals will show fewer overall symptoms than individuals with insecure attachment patterns. Moreover, insecure–dismissing individuals will respond with somatic and avoidant symptoms, and insecure–preoccupied with intrusion and vigilant symptoms.

Assessment of Adult Attachment

There are two approaches in the adult attachment research that differ in their conceptualizations and procedures for assessment. In the first, the researchers applied attachment theory to conceptualize the content and quality of current romantic relationships and friendships, as related to personality characteristics. They used paper-and-pencil questionnaires and forced-choice descriptions of current core relationships to capture the characteristic ways in which secure and insecure individuals feel about themselves and how they behave in their current human relationships with others (Bartholomew & Horowitz, 1990; Collins & Read, 1990, 1996; Feeney, Noller, & Hanharan, 1994; Hazan & Shaver, 1987).

In the second approach, the researchers considered the adult attachment patterns resulting from early childhood relationships and developmental processes. The patterns manifest as a current state of mind that organizes emotions, cognitions, and behaviors. The unique ways secure and insecure individuals process relational and emotional information are measured by a method called the Adult Attachment Interview (AAI; Crittenden, 2000; George, Kaplan, & Main, 1985; Hesse, 1999; Main & Goldwyn, 1991).

The AAI is a semi-structured and qualitative method for identifying a person's working models or representations of their own attachment history. The participants were asked for descriptions and evaluations of their childhood attachment relationships, experiences of distress, loss, and separations and rejections from attachment figures. They were also asked to evaluate how their attachment experiences have influenced their development and personality, and for their explanations of their parents' behavior. The coding of the answers focuses on the ways in which the participants described their childhood memories (i.e., the use of semantic and episodic memory modalities) and how coherently they tell about their attachments (i.e., whether anger toward parents or need to avoid emotionally-loaded memories interrupts the remembering). The coding further focused on the participants' memories of the quality of their childhood parental relationships (i.e., loving, rejecting, pressuring to achievement, and role-confusing; Main, 1996; Main & Goldwyn, 1991; Sagi et al., 1994).

Our aim was to understand how individuals with different attachment patterns differ in their vulnerability in the face of traumatic events in adulthood, in this case torture and ill-treatment. Our choice was a written adaptation of the AAI, because this approach provides a more dynamic method of assessing the unique ways of remembering childhood relationships and processing emotionally loaded experiences. Furthermore, exposure to traumatic events activates ways of feeling, thinking, and behaving created early in life. Therefore, it is more informative to focus on attachment patterns resulting from early relationships and subsequent developmental processes than on current romantic relationships. Clinical observation shows that exposure to torture and ill-treatment evokes archaic conflicts and anxi-

eties in victims (Genefke, 1995), as well as revitalizes the attachment behavior of seeking safety and consolation. The choice of a written form was due to the fact that a full-blown AAI was not possible to do in our research circumstances.

ATTACHMENT PATTERNS AND TRAUMA RESPONSES

The attachment system is triggered by dangerous and stressful situations (Bowlby, 1973; Crittenden, 1997; Mikulincer et al., 1993), and the role of attachment in traumatic conditions is thus of particular interest. Mikulincer and his team have examined the activation process of attachment style among adults being exposed to military violence and trauma (Mikulincer et al., 1993; Mikulincer, Horesh, Eilati, & Kotler, 1999). Increasing literature is also available on childhood trauma and adult attachment (e. g., Alexander et al., 1998; Muller, Sicoli, & Lemieux, 2000; Roche, Runtz, & Hunter, 1999).

Mikulincer and his colleagues, (Mikulincer et al., 1993; Mikulincer, 1998) studied Israeli students after the Iraqi missile attacks and found that the secure individuals had the fewest symptoms overall. The insecure–preoccupied individuals reported most distress, whereas the insecure–dismissing rated highly on somatization. Their results confirmed that attachment patterns are especially salient in facing danger: insecure persons were particularly vulnerable to distress when they lived in a dangerous area, whereas in less dangerous areas the difference in symptoms between attachment styles was less evident. Research on Israelis in extreme life-endangering conditions during the Al Aqsa Intifada further confirmed that persons with the avoidant attachment style were especially vulnerable to psychopathology in the high-threat area, whereas the secure attachment style was associated with low levels of distress (Mikulincer et al., 1999).

There may be conditions, however, in which the general hypothesis that secure attachment is protective and that insecure attachment makes people vulnerable may be too simple. In extreme conditions, such as torture and ill-treatment, the person–trauma interaction may be much more complex. Crittenden (1997) regards each attachment pattern as involving a strategy that is the most adaptive solution to certain types of problems. We accordingly hypothesize that secure individuals' capability of dealing with general stress may not apply in a provocative interpersonal trauma such as psychological torture. Insecure–dismissing individuals' affective numbness, on the other hand, may provide them with protection in emotionally threatening circumstances typical of psychological torture. Insecure–preoccupied individuals' strategies involve expecting bad deeds from others and danger from the environment. Therefore, they may deal well with the deception, cruelty, and humiliation characteristics of psychological torture.

In summary, we examine how secure–autonomous, insecure–dismissing, and insecure–preoccupied individuals show distress in facing different kind of trau-

matic stress. We addressed the question among Palestinian men by examining their attachment patterns, exposure to psychological and physical torture and ill-treatment, and their PTSD and somatic symptoms. We hypothesized that their responses would be attachment- and trauma-specific. First, secure-autonomous men would show fewer overall symptoms than insecure, especially preoccupied men. Second, insecure-dismissing men would respond with somatic symptoms and avoidant posttraumatic symptoms, whereas insecure-preoccupied men would show high levels of intrusive and vigilant symptoms. As trauma activates dormant attachment-specific experiences, we hypothesize, third, that secure-autonomous attachment pattern protects individuals from PTSD and somatic symptoms when exposed to physical torture and ill-treatment. Both insecure-dismissing and insecure-preoccupied men would, in turn, be vulnerable to PTSD and somatic symptoms when exposed to physical torture and ill-treatment due to their generally weaker resources in dealing with danger and threat. On the other hand, secure-autonomous men would be more vulnerable to PTSD and somatic symptoms when exposed to psychological torture and ill-treatment, because the experience of interpersonal cruelty mismatches their expectations of other humans as benevolent and themselves as valuable persons. Preoccupied men would show low levels of symptoms when facing psychological torture, because they have learned to expect bad deeds from other humans and to deal with cruelties. Finally, insecure-dismissing men would show low levels of PTSD and somatic symptoms in exposure to psychological torture due to their numbing strategies and minimized emotional involvement.

METHOD

Participants and Procedure

The participants were 176 Palestinian men from the Gaza Strip, of whom 103 were randomly sampled from a human rights organization of former political prisoners, 50 were participants in rehabilitation programs for former political prisoners, and 23 who were detained but not imprisoned. All had been detained or imprisoned during the Intifada, the national uprising for independence in 1987–1993. Most were freed according to the Oslo peace agreement between Israel and the Palestinian Liberation Organization (PLO), signed in Washington in September 1993.¹ They participated in the study in January 1997.

¹International (Amnesty International, 1989; Middle East Watch, 1990), Israeli (B'Tselem, 1994; Cohen & Colan, 1991a, 1991b), and Palestinian (Al Haq, 1988) human rights organizations have documented that ill-treatment, abuse, and torture were commonly used in interrogating Palestinian prisoners during the Intifada.

They were 19 to 51 years of age ($M = 29.6$, $SD = 5.7$). Seventy-five percent were married and 22% were unmarried. Sixty-five percent had children. Forty-two percent of the participants lived in refugee camps, 40% in urban areas, 15% in villages, and 3% in resettled areas.

The educational level of the participants varied from primary school (6.3%) to university (34.1%): 9.1% had attended secondary school, 34.7% had graduated from high school, and 15.9% had some vocational or other education. When asked about their profession, 7.4% indicated that they were working at universities or were high professionals, 23.5% were professionals, 24.7% were workers, 17.9% were entrepreneurs, 14.2% worked as police or in other security jobs, and 12.3% were students. At the time, 55% were unemployed. All participants were Muslims; a third (29.7%) reported being somewhat religious, and half (51.4%) were practicing their faith regularly, and 16% daily.

The fieldwork was conducted in cooperation with the Palestinian ex-detainees' rehabilitation programs and local mental health clinics (the Gaza Community Mental Health Programme [GCMHP]). Verbal consent was obtained because the suspicion caused by the special socio-political situation in Gaza precluded the use of written consent. The interview forms and questionnaires did not include the names of the participants. The GCMHP therapists and social workers provided mental health consultation to the participants if they so wished during and after the fieldwork. A male field worker, blind to the hypotheses of the study, was trained to collect the data. He approached the ex-prisoners personally in their homes and explained the aims of the study to them. The visits lasted about 1.5 hr. All the participants, except one, filled out the questionnaire themselves. The refusal rate was zero, apparently because the assessment was done in the participants' homes and the field worker was a trusted person in the community.

MEASURES

Attachment Measures

A paper-and-pencil measure, based on the AAI (George et al., 1985), was applied in the study. The participants were given a five-page booklet with instructions, first, to describe in their own words their childhood relationship with their mother, and then with their father, by giving five adjectives and five illustrative examples and stories using each adjective. On the following pages, they were asked to describe, again in their own words, what had happened when they were upset, ill, or felt rejected as children, and what they did when they experienced distress and separation. They were also asked how they thought their upbringing had affected their adult personality, and why they thought their parents had behaved in the way they had.

We wanted to examine the attachment patterns from an empirical and quantitative perspective, and therefore we used cluster analysis to identify groups of participants with similar combinations of attachment-related experiences, working models, and states of mind. The participants' descriptions of their childhood relationships, responses to distress and losses, and their understanding of their upbringing and parents' behavior served as the coding material. We formed 30 categories (variables) based on the coding system by Main and Goldwyn (1991). On the one hand, they reveal the content of attachment experiences through childhood memories and ways of dealing with distress (*What is remembered*). On the other hand, the categories describe the characteristics and quality of the processing of childhood memories by evaluating the coherence of answers and memory modalities (*How the experiences are remembered*). The variables are the following:

1. Childhood memories include 10 separate scores for mother and father, depicting parental love, rejection, neglect, role reversal, and pressure to achieve. The values ranged from 1 (*very low*) to 9 (*very high*).

2. Dealing with distress: The following 7 categories were formed based on the participants' reported responses about what they did when they experienced distress, rejection, and separation, and were upset. They involved denial of ever being distressed, withdrawal, aggression, self-reliance, seeking attention and consoling, seeking support from the family, and seeking support from outside the family. Aggression combined attacks on animate and inanimate objects. Self-reliance combined active problem-solving, stressing one's own strength, and image control.

3. Coherence of the answers indicates how succinctly, truthfully, clearly, and logically participants describe their attachment relationships and behaviors. Four categories of lack of coherence were evaluated:

- a. An overall violence of coherence score was formed by summing up six different violations of coherence. Four of them derive from Grice's (1975) maxims: quality (being truthful and giving evidence), quantity (being succinct and yet complete), relation (being relevant and perspicacious), and manner (being clear and orderly). Other forms of incoherence include mixing temporal order (e.g., writing in present form about past events) and mixing childhood and adulthood information (e.g., telling about one's own parenthood when meaning one's own childhood).

- b. Current anger involves eruption of feelings of anger and disappointment toward the parents. The score was formed by summing up three response categories: blaming the parents, listing accusations, and exaggerating small parental offenses.

- c. Idealization disrupts the coherence of the answer by providing untrue and illogical information. The score was found by summing two categories: exaggerating good parental qualities in the face of evidence of parental cruelty, and idealizing parental behavior that is a part of their normal responsibilities, such as providing food.

d. Derogation scores consist of devaluing childhood experiences and belittling or humiliating parents.

4. Memory modalities are depicted by five variables: semantic, episodic, and sensory memories, and narrative quality and feeling states. Semantic memory is determined by the number of adjectives provided to describe the parent (range 0–5), and episodic memory by the number of illustrative examples and stories of the parent descriptions (range 0–5). Sensory quality of descriptions refers to the sum of memories incorporating the senses of touching, smelling, tasting, and hearing. Narrative quality reveals how comprehensive or fragmented the stories were, evaluated on a 0–5 scale. Feeling states is determined by the number of emotions described in the stories.

If participants had lost one parent through either divorce or death ($n = 16$), the missing information was compensated for by calculating the means derived from the existing parents' descriptions and using them in the attachment analyses. Furthermore, 23 participants gave too little information about their attachment history to be classified. This "unclassifiable" category was left out of the content analyses. The number of the scored participants was thus 153.

Scoring and Reliability of Attachment Variables

The attachment reports were first translated from Arabic to English by a professional translator. For interrater reliability, two independent coders (the first author and a clinician, who were both reliable coders of AAI) scored the random sample of 50 cases. The two raters were unaware of the demographic and trauma-related characteristics of the respondents at that stage. Table 1a and Table 1b present the results of the preliminary interrater Pearson correlations and kappa statistics. The results show that coefficients were acceptable (0.70–1.00) for most of the responses to distress and memory modalities, whereas only half of the coherence variables were reliable in the preliminary scoring. Both kappa values and correlations of childhood memories only approached acceptable range (Fleiss, 1981). In case of discrepancies between the two coders, a third trained rater in AAI was consulted in order to negotiate the differences and establish practical criteria for scoring. A complete rating agreement was required for the scoring criteria. Finally, the first author scored the whole sample.

Trauma and Mental-Health Measures

The torture and ill-treatment check-list includes a total of 30 items drawn from an Amnesty International report (1984), earlier studies (Allodi & Cowgill, 1982), and testimony of other Palestinian prisoners (Al-Haq, 1988). They involve 11 experiences of physical torture, such as crucifixion, falanga, and harsh beating, 11 experi-

TABLE 1a
 Interrater Zero-Order Correlations and Kappa Values
 for the Categories of Childhood Memories

<i>Categories</i>	<i>Kappa</i> ^a	<i>r</i>
Childhood memories		
Loving mother	.40	.39
Loving father	.63	.32
Rejecting mother	.45	.20
Rejecting father	.53	.27
Neglecting mother	.59	.14
Neglecting father	.68	.08
Overinvolving mother	.68	.34
Overinvolving father	.67	.15
Mother's pressure to achieve	.80	.30
Father's pressure to achieve	.79	.32

Note. $N = 50$. Kappa values and correlations $> .70$ are considered acceptable.

^aKappa values are counted for median-split variables.

ences of psychological torture, such as the humiliation of a family member, sham execution, and being forced to witness torture of others, 4 methods of sexual ill-treatment, and 4 methods of sensory over- and underexposure. (For a complete list of torture and ill-treatment, see Appendix) The participants were asked whether they had been exposed to each of the methods during interrogation, either 0 (*never*), 1 (*sometimes*), or 2 (*very often*). Sum scores were separately formed for *psychological* and *physical* torture and ill-treatment. Sexual ill-treatment, isolation, and overexposure to light were considered psychological, and deprivation of food and water physical torture methods. Both scores were normally distributed, and they were categorized to indicate none or low ($n = 20$), moderate ($n = 70$), and high ($n = 63$) levels of psychological and low ($n = 20$), moderate ($n = 78$), and high ($n = 55$) levels of physical torture and ill-treatment.

PTSD symptoms were assessed using the Harvard Trauma Questionnaire (HTQ; Mollica & Caspi-Yavin, 1991). The 30-item list consists of 16 symptoms derived from the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R)* criteria for PTSD (American Psychiatric Association, 1994) and 14 derived from clinical experience with trauma survivors. Examples of the latter category include feelings of shame, guilt, and being betrayed. The participants were asked to indicate to what extent they suffered from each of the 30 symptoms. The scale was a 4-point Likert scale: 0 (*not at all*), 1 (*a little*), 2 (*quite a bit*), and 3 (*extremely*).

Averaged sumscores for *intrusion*, *avoidance*, and *vigilance* were formed, as suggested (McNally, 1992; Mollica & Caspi-Yavin, 1991). Intrusion included items such as recurrent thoughts or memories of terrifying events, recurrent nightmares, and feeling that the event is happening again. Avoidance consisted of items

TABLE 1b
Interrater Zero-Order Correlations for Categories of Dealing With Distress,
Coherence of Answers and Memory Modalities

<i>Categories</i>	<i>r</i>
Dealing with distress	
Denying ever been distressed	1.00
Withdrawal	0.74
Aggression	0.68
Self-reliance	0.65
Seeking attention and consolation	1.00
Seeking support from the support	0.89
Seeking support outside the family	0.88
Coherence	
Overall coherence	0.54
Violations of quality	0.79
Violations of quantity	0.47
Violations of relation	0.37
Violations of manner	0.79
Mixing Information	0.55
Idealization	0.72
Derogation	0.70
Current anger	0.56
Idealization	0.72
Memory modalities	
Semantic memories of the mother	0.76
Episodic memories of the mother	0.92
Semantic memories of the the father	0.88
Episodic memories of the father	0.91
Narrative quality	0.80
Feeling states	0.54

Note. $N = 50$. Kappa values and correlations $> .70$ are considered acceptable.

like being unable to feel emotions, avoiding activities that remind one of the traumatic event, and feeling detached or withdrawn from other people. Vigilance, in turn, included items such as feeling jumpy and easily startled, feeling on guard, and having difficulty concentrating. The symptom scale has demonstrated adequate levels of reliability and criterion validity among Arab populations (Staehr, Staehr, Behbehani, & Bojholm, 1993). Mollica et al. (1992) have shown sufficient criterion validity of HTQ in differentiating between PTSD patients and nonpatients. In this study, the reliabilities for these scales were .72 (intrusion), .73 (avoidance), and .88 (vigilance). A dimensional (and not categorical) approach to PTSD was chosen to facilitate the statistical analyses (e.g., Multivariate Analysis of Variance with Covariates [MANCOVA]) and because there was no agreed threshold score for diagnosing PTSD among Palestinian men.

Somatic symptoms were assessed by a list of 31 complaints that are characteristic to torture victims (Allodi, 1985). The participants were asked to indicate on a 3-point scale to what extent they suffered from each of the symptoms: 1 (*not at all*), 2 (*sometimes*), 3 (*frequently*). Averaged sumscores were formed based on symptom contents. *General symptoms* referred to various complaints such as breathing difficulties, high blood pressure, and nausea. *Psychosomatic symptoms* consisted of symptoms such as lack of appetite, loss of weight, fatigue, and feeling hot or cold. *Diversified aches and pains* included items such as back pain, toothaches, and heart pains. *Stomach problems* consisted of items such as stomach pains, diarrhea, and abdominal pains. The reliability (Cronbach's α values were .70 general symptoms, .72 for psychosomatic symptoms, .67 for diversified aches and pains, and .78 for stomach problems.

Translation of Measures

The HTQ has been translated to Arabic by a research group from the Rehabilitation Center for Torture Victims in Copenhagen. The Torture and Ill-treatment Checklist and the Somatic Symptoms Scales have been translated for the purpose of an epidemiological study in Gaza (El Sarraj, Punamäki, Salmi, & Summerfield, 1996). The attachment measure was translated into Arabic from English by a bilingual psychologist and independently back-translated by a bilingual social worker. Both English and Arabic measures were then checked by the research group in the GCMHP. A pilot study with 10 former political prisoners was conducted to learn about the appropriateness and clarity of the measurements.

RESULTS

Attachment Patterns

Our choice of analyzing and reporting the attachment patterns differed from earlier adult attachment research based on the AAI procedure. Usually two reliable coders who have been trained in the Main and Goldwyn (1991) system classify the data. Research reports give information about the final attachment distribution and interrater reliabilities concerning the final classification (e.g., Fonagy et al., 1996; Sagi et al., 1994). They do not reveal information about ranges and contents of coding categories of childhood experiences, responses to distress, coherence, and memory modalities. Our approach was more transparent and quantitative (although two of the authors are reliable coders of AAI).

We formed 30 sum variables comprising the quality of childhood experiences and information processing of these memories, as described in the Method section. Cluster analysis was used to identify subgroups of participants showing distinct re-

sponse profiles that are typical for secure–autonomous, insecure–dismissing, and insecure–preoccupied patterns. It is a person-centered statistical approach to data classification, and thus corresponds with the conceptualization of adult attachment as a dynamic personality structure *within* the individual's relational, cognitive, and emotional systems (Crittenden, 2000; Main, 1996).

Clustering was then run with the standardized sum scores of the attachment items to minimize bias caused by differences in scale measurement. We used Ward's method, which is an agglomerative hierarchical clustering technique, and Euclidian distance. Ward's method was chosen because it has received considerable empirical support for its clustering accuracy (Borgen & Barnett, 1987) and because Euclidean distance takes into account both the form and the level of the profile (Hair, Anderson, Tatham, & Lack, 1995).

The results of the cluster analysis substantiated the existence of a three-cluster solution both contextually (see Table 2) and technically (dendrogram, Analyses of Variance [ANOVAs] with post-hoc tests, and internal validity check of the cluster solution). First, Ward's method provides a dendrogram, a "tree diagram," based on the distances between the clustering variables (Hair et al., 1995). A visual inspection of the dendrogram suggested that there are three naturally occurring distinct clusters in the sample. The clustering coefficients also showed that there was a rather large decrease in going from three to four clusters, thus supporting the three-cluster solution.

Second, ANOVAs with Tukey-*b* post-hoc tests ($p < .05$) showed that most of the theoretically selected variables depicting childhood memories, responses to distress, coherence of answers, and memory modalities significantly differentiate the three clusters. Although the results indicate that the three-cluster solution achieved a good separation between the variables, there were six variables that did not significantly differentiate between the clusters. Specifically, no differences between the clusters were found in parental pressure to achievement (a childhood memory variable), in aggression and self-sufficiency (dealing with distress variables), in idealization (a coherence of answers variable), and in sensory quality of memories (a memory modalities variable). These variables were dropped from the analyses, and clustering was repeated on the remaining 24 items in order to prevent distortion of the cluster analysis, which can be dramatically affected by undifferentiated variables (Hair et al., 1995).

Third, as an internal validity check of the cluster solution, a multinomial logistic regression analysis was performed to see how the independent variables used in the clustering predicted the group membership. It was considered a suitable method because it does not require the strict assumptions of multivariate normality and equal variance-covariance matrices across groups in comparison to discriminant analysis (Hair et al., 1995). The model fit was significant, $\chi^2(86, N = 143) = 292.61, p < .0001$, and the Cox and Snell pseudo R-square was 0.87, indicating that 87% of the clustering variables predicted the correct group membership.

TABLE 2
Cluster Means and Standard Deviations of the Variables in
the Cluster Analysis for Adult Attachment Patterns

Variable	Cluster 1: "Autonomous" ^a		Cluster 2: "Dismissing" ^b		Cluster 3: "Preoccupied" ^c		F
	M	SD	M	SD	M	SD	
Childhood memories							
Loving mother	6.32 ^a	1.44	5.51 ^b	1.35	4.56 ^c	1.57	14.78***
Loving father	4.62 ^a	1.95	4.33 ^a	0.99	3.28 ^b	1.67	6.11**
Rejecting mother	2.21 ^a	1.40	2.95 ^b	1.39	4.34 ^c	1.86	19.21***
Rejecting father	4.14 ^a	2.31	4.51 ^{ab}	1.31	5.44 ^b	1.87	4.06*
Neglecting mother	1.34 ^a	0.74	1.45 ^a	1.11	4.10 ^b	2.25	49.66***
Neglecting father	2.55 ^a	2.06	2.17 ^a	1.08	4.48 ^b	2.58	12.81***
Overinvolved mother	1.42 ^a	0.85	2.01 ^b	1.11	4.09 ^c	2.07	43.96***
Overinvolved father	1.49 ^a	1.17	1.65 ^a	0.96	2.84 ^b	2.42	8.75***
Dealing with distress							
Denying ever been distressed	0.00 ^a	0.00	0.09 ^b	0.32	0.00 ^a	0.00	3.21*
Withdrawal	0.86 ^a	0.89	1.28 ^b	0.84	0.60 ^a	0.68	3.45*
Seeking support from the family	0.71 ^a	0.87	0.54 ^a	0.75	0.20 ^b	0.41	4.12*
Seeking support outside the family	0.55 ^a	0.67	0.53 ^a	0.60	1.20 ^b	0.84	4.59**
Seeking attention and consoling	0.22 ^a	0.48	0.04 ^a	0.18	0.36 ^b	0.70	5.32**
Coherence of the answers							
Overall violence of coherence	1.56 ^a	2.04	3.05 ^b	4.49	3.01 ^b	5.11	3.12*
Current anger	0.56 ^{abc}	1.69	0.00 ^b	0.00	1.08 ^c	1.95	5.71**
Derogativeness	1.54 ^a	1.16	2.87 ^b	1.85	1.87 ^a	2.55	5.72**
Memory modalities							
Narrative quality	1.62 ^a	2.02	0.63 ^b	1.22	1.52 ^a	2.10	5.26**
Feeling states	0.40 ^{abc}	0.79	0.19 ^b	0.54	0.72 ^c	0.97	4.36**
Semantic memory of the mother	4.92 ^a	0.36	3.65 ^b	2.01	3.96 ^b	1.72	13.57***
Episodic memory of the mother	4.71 ^a	0.95	2.61 ^b	2.33	3.56 ^c	2.04 ^a	22.94***
Semantic memory of the father	4.73 ^a	0.85	2.21 ^b	2.16	4.16 ^a	1.16	42.09***
Episodic memory of the father	4.41 ^a	1.27	1.44 ^b	1.88	3.84 ^a	1.79	57.14***

Note. $N = 153$. Means within rows not sharing the same subscript were significantly different at $p < .05$ in Tukey-b tests.

^a $n = 72$. ^b $n = 56$. ^c $n = 25$.

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

Cluster 1 participants ($n = 72$; 47.1% of the participants) represent the *Secure–Autonomous Attachment Pattern*. They significantly differed from the men in both Clusters 2 and 3 in describing more loving, and less rejecting and less overinvolving mothers, having more both semantic and episodic memories of the mother, and describing parent–child relationships through the child’s feelings.

Their responses were characterized by high levels of overall coherence and by lack of current anger and derogation. They differed from men in Cluster 3 in seeking more familial and less extra-familial support, and from men in Cluster 2 in showing less denial of distress and withdrawal in responding to rejection, separation, and upsets.

Cluster 2 participants ($n = 56$; 36.6% of the participants) represent the *Insecure–Dismissing Attachment Pattern*. These men differed from men in both Clusters 1 and 3 in describing their mothers as somewhat unloving, rejecting, overinvolving, or neutral. Their characteristic way of dealing with distress was denial and withdrawal and, as compared to men in Cluster 3, they sought little parental attention and consolation. They typically were derogatory and devalued the importance of their childhood attachment experiences, and their descriptions had overall incoherence. Furthermore, their memories showed less narrative quality and feeling states, and they had fewer episodic memories from both parents than men in the other two attachment clusters. Compared to men in Cluster 3, they described their parental relationships as less mutual and less involving of their own feelings.

Cluster 3 participants ($n = 25$; 16.3% of the participants) represent the *Insecure–Preoccupied Attachment Pattern*. These men differed from the men in both Clusters 1 and 2 in experiencing both parents as unloving, overinvolving, and neglecting, and mother as rejecting. They typically sought attention, support, and consoling from extra-familial sources when distressed, yet their highly negative childhood memories showed a rich narrative quality. Their descriptions had overall incoherence, and they showed high current anger toward their parents. They described their parental relationship as mutual, and illustrated vividly their childhood feelings toward the parents.

Consistent with adult attachment theory (Crittenden, 2000; Main, 1996) the clustering results showed that both the quality of childhood parental relations (*What is remembered*) and the ways of processing emotional information (*How experiences are remembered*) significantly contributed to the organization of adult attachment patterns. The distinctions between the secure and insecure, and between the insecure dismissing and preoccupied patterns, are informative. For instance, both secure–autonomous and insecure–preoccupied men provided vivid narratives, but they differed in the level of coherence of their reports: secure–autonomous men were highly coherent, whereas preoccupied men were highly incoherent. Further, both insecure attachment types provided incoherent narratives, but among dismissing men the incoherence was due to their tendency to derogate their parents and devalue the importance of their childhood attachment relationships and their own feelings. The reports of preoccupied men were incoherent because their logic was disrupted by their intensive current anger toward their parents. The quality of childhood memories of parental relationships distinguished the three attachment groups as expected, that is, secure men remembered their mothers as highly loving, whereas preoccupied men

remembered their mothers as highly rejecting and both parents as highly unloving, and both overinvolved and neglecting. Dismissing men remembered their parents as rather neutral, showing minimal love and rejection.

We examined how the demographic trauma-related characteristics were associated with the participants' attachment patterns using chi-square statistics and analyses of variances. The three attachment pattern groups did not differ significantly on the demographic variables of age, marital status, number of children, economic standing, employment, and education. Adult attachment patterns were not significantly associated with trauma characteristics or length of imprisonment, nor levels of psychological and physical torture and ill-treatment.

Only religious commitment differed according to the attachment patterns, insecure–dismissing men being less religious than secure–autonomous, $\chi^2(6, N = 153) = 15.60, p < .002$. For instance, 63% of the secure–autonomous and 39% of insecure–dismissing men regularly practiced their faith (e.g., honoring holy days and praying), whereas 46% of dismissing and 25% of autonomous men were somewhat or not at all religious. The proportion of very religious persons (e.g., daily prayer and pilgrimages) was, however, highest (32%) among the preoccupied, as compared to autonomous (11%) and dismissing (15%) men.

Attachment Pattern, Physical Torture, and Symptoms

To test the hypotheses regarding a general attachment-specific vulnerability to symptoms (main effects) and trauma-specific vulnerability of secure and insecure attachment patterns to symptoms (interaction effects), two 3 (attachment pattern: autonomous, dismissing, preoccupied) \times 3 (physical torture and ill-treatment: low, moderate, high) MANCOVAs were performed, using the psychological torture and ill-treatment as a covariate. The dependent variables in the first model were PTSD symptoms (intrusion, avoidance, and vigilance) and in the second model, somatic symptoms (general and psychosomatic symptoms, diversified pains and aches, and stomach problems).

Results showed a marginally significant Attachment \times Physical Torture interaction effect, (Roy's Largest Root; $F[4, 134] = 2.16, p < .07$), but nonsignificant main effect of attachment pattern on PTSD symptoms. Further, a significant main effect of physical torture and ill-treatment was found on PTSD symptoms (Wilks' λ ; $F[6, 264] = 2.62, p < .02$). The covariate was nonsignificant.

Further ANCOVAs revealed a marginally significant Attachment \times Physical Torture and Ill-Treatment interaction effect on intrusive symptoms ($F[4, 134] = 2.00, p < .09$) that is illustrated in Figure 1. The findings substantiate the hypothesis concerning the attachment-specific vulnerability to symptoms on the moderate and high levels of physical torture and ill-treatment: Insecure attachment patterns (both dismissing and preoccupied) were associated with an increased level of intrusive symptoms, whereas among secure–autonomous men exposure to a high

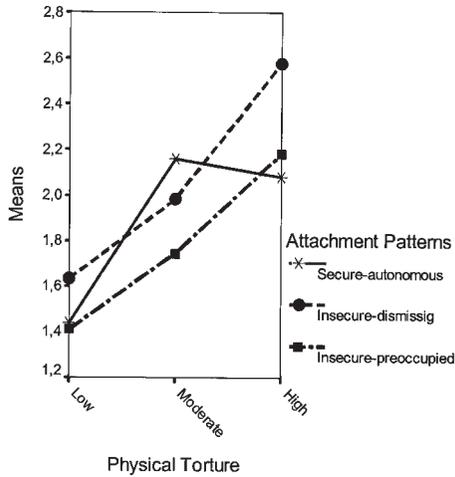


FIGURE 1 Attachment patterns × Physical Torture interaction effect on intrusion symptoms.

level of physical torture was not associated with an increased level of intrusive symptoms. However, when exposed to low level or no physical torture and ill-treatment, no differences were found among attachment patterns, which indicates that the activation of attachment-specific responses occurs only when exposed to severe physical trauma.

Main effect ANCOVAs showed that physical torture and ill-treatment were associated with increased levels of intrusion ($F[2, 134] = 6.68, p < .002$), avoidance ($F[2, 134] = 4.29, p < .02$), and vigilance ($F[2, 134] = 6.71, p < .002$) symptoms.

MANCOVAs on somatic symptoms yielded significant main effects for attachment patterns (Roy's Largest Root; $F[4, 141] = 2.85, p < .03$), for physical torture and ill-treatment (Wilks' λ ; $F[8, 280] = 2.89, p < .004$), and for their significant interaction effect (Roy's Largest Root; $F[4, 143] = 3.34, p < .01$). The covariate was nonsignificant.

Further ANCOVAs specified that insecure–dismissing men had a higher level of psychosomatic symptoms ($M = 1.69, SD = .07$) than secure–autonomous ($M = 1.50, SD = .07$) and insecure–preoccupied ($M = 1.58, SD = .10; F[2, 143] = 2.67, p < .07$) men.

The Attachment × Physical Torture interaction effect on psychosomatic symptoms ($F[2, 143] = 2.20, p < .07$) is illustrated in Figure 2. The findings substantiate the hypothesis about attachment-specific vulnerability to somatic symptoms. The insecure–dismissing attachment pattern was associated with higher levels of psychosomatic symptoms than the secure–autonomous pattern when exposed to a high level of physical torture. However, when exposed to a moderate level of physical torture and ill-treatment, no differences were found between attachment pat-

terns. It again indicates the activation of attachment-specific responses when exposed to severe physical trauma.

The significant main effects of physical torture and ill-treatment on somatic symptoms revealed that the exposure was associated with increased levels of general complaints ($F[2, 143] = 6.16, p < .003$), psychosomatic symptoms ($F[2, 143] = 4.52, p < .01$), diversified aches and pains ($F[2, 143] = 8.60, p < .0001$), and stomach problems ($F[2, 143] = 8.23, p < .0001$).

Attachment Pattern, Psychological Torture, and Symptoms

Similarly, to analyze the main and interaction effects of attachment patterns and psychological torture on symptoms, two 3 (attachment pattern: autonomous, dismissing, preoccupied) \times 3 (psychological torture and ill-treatment: low, moderate, high) MANCOVAs were performed using physical and ill-treatment as a covariate. The dependent variables were PTSD symptoms in the first model, and somatic symptoms in the second model.

Results showed a significant Attachment \times Psychological Torture interaction effect (Roy's Largest Root; $F[4, 134] = 3.86, p < .005$) on PTSD symptoms, but nonsignificant main effects for attachment patterns and psychological torture and ill-treatment. The covariate was nonsignificant.

Further ANCOVAs revealed increased levels of avoidance symptoms both among secure-autonomous and insecure-dismissing men when exposed to a high

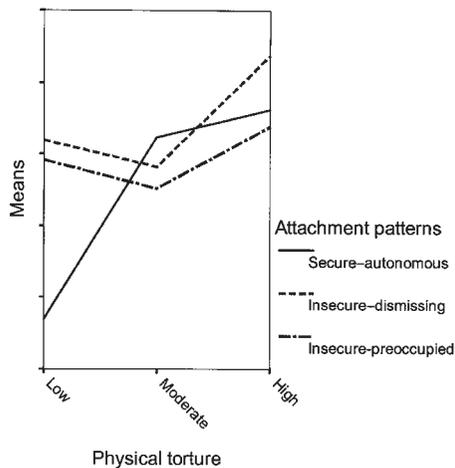


FIGURE 2 Attachment patterns \times Physical Torture interaction effect on psychosomatic symptoms.

level of psychological torture, but not among preoccupied men ($F[4, 134] = 4.11, p < .02$). The interaction is illustrated in Figure 3. The results thus substantiate the hypothesis that individuals with secure–autonomous attachment style are vulnerable to PTSD symptoms when exposed to a high level of psychological torture and ill-treatment, whereas preoccupied men show fewer symptoms when exposed to a high level of psychological trauma. Yet, contrary to the hypothesis, dismissing men were also vulnerable to PTSD symptoms when exposed to high levels of psychological torture and ill-treatment.

Concerning somatic symptoms, MANCOVA yielded significant main effects for attachment patterns (Roy's Largest Root; $F[4, 141] = 2.39, p < .05$) for psychological torture and ill-treatment (Wilks' λ ; $F[8, 280] = 2.00, p < .05$), and their interaction effect (Roy's Largest Root; $F[4, 143] = 2.96, p < .02$). The covariate was nonsignificant.

The main effect ANCOVAs of attachment style on somatic symptoms did not reach significance, but the trends substantiated the hypothesis that insecure–dismissing men reported a higher level of psychosomatic symptoms than insecure–preoccupied men. The Attachment \times Psychological Torture interaction effect on psychosomatic symptoms ($F[2, 143] = 2.47, p < .04$) is illustrated in Figure 4. The finding substantiates the hypothesis that secure–autonomous men were more vulnerable to psychosomatic symptoms than insecure men when exposed to psychological torture. The high level of psychological torture was associated with psychosomatic symptoms only among men with secure–autonomous attachment style.

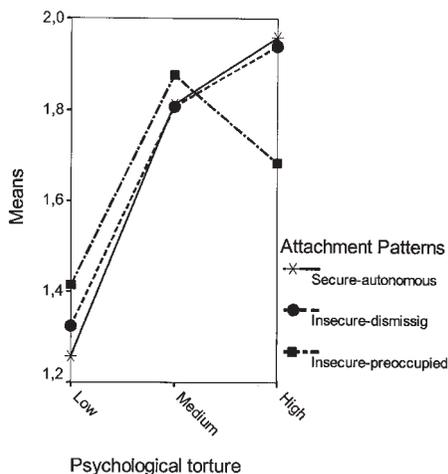


FIGURE 3 Attachment patterns \times Psychological Torture interaction effect on avoidance symptoms.

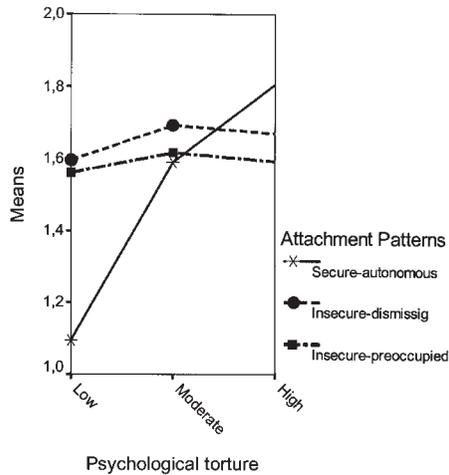


FIGURE 4 Attachment patterns × Psychological Torture interaction effect on psychosomatic symptoms.

Further main effect ANCOVAs specified that exposure to psychological torture and ill-treatment was associated with an increased level of general complaints ($F[2, 143] = 3.41, p < .04$), diversified aches and pains ($F[2, 143] = 4.05, p < .02$), and stomach problems ($F[2, 143] = 6.45, p < .002$).

DISCUSSION

Our study presents empirical evidence of how danger triggers different physical and psychological reactions in people, depending on their personality structure and the nature of the traumatic stress, thus enhancing both attachment and trauma theories. The results show that the secure and insecure men differed in their strengths and vulnerabilities depending on whether they had been exposed to psychological and interpersonal or physical adversities. Therefore, both personality and the meaning of the trauma should be taken into consideration when planning interventions that acknowledge victims' subjective and unique realities.

Attachment-Specific Vulnerability to Trauma

As hypothesized, secure–autonomous men showed fewer somatic symptoms than insecure men, and insecure–dismissing men reported especially high levels of somatic symptoms. Dismissing men characteristically cope by distancing themselves from painful feelings and denying their own and others' suffering. According to the

repression model (Horowitz et al., 1993), individuals with this kind of coping have to express their distress somehow, one way being somatization.

However, our hypothesis of secure men showing fewer overall symptoms than insecure men was not substantiated regarding PTSD symptoms of intrusion, avoidance, and vigilance. The attachment-specific posttraumatic responses were activated *only* when men were exposed to severe torture and ill-treatment. Thus, similar to the results by Mikulincer and his group (1993, 1998), the attachment-specific vulnerability was triggered and crystallized in life-endangering experiences of torture, whereas in less traumatic conditions the differences between attachment styles were less evident.

As hypothesized, when men were exposed to severe *physical* trauma, the secure–autonomous attachment pattern was protective, whereas the insecure attachment pattern was not. However, when exposed to severe *psychological* trauma, the secure–autonomous men were more vulnerable to PTSD and somatic symptoms, whereas the insecure–preoccupied men were not.

Psychological and physical torture apparently communicate a different meaning to secure and insecure survivors. Researchers suggest that severe trauma requires victims to fundamentally revise their working models of themselves, reality, and other people (Horowitz, 1990; Janoff-Bulman, 1985). This revision process is apparently unique for each attachment style, and the match or mismatch between the attachment-specific working models and current reality can explain the mental health consequences of traumatic experiences.

Psychological torture typically involves emotionally loaded interpersonal elements, and the prisoner and his family members are routinely humiliated in the course of interrogation. It seems likely that securely attached torture victims experience a dramatic mismatch between the current abuse by their fellow men (albeit the enemy) and their habitual view of other humans as trustworthy, the world as benevolent, and themselves as worthy persons. The realization of the cruelty that humans inflict on each other shatters their working models and contributes to their distress. The securely attached men could deal more successfully when facing physical torture that is of a less interpersonal nature. The results also concur with Crittenden (1997), who describes autonomous individuals as “naively secure” in that they cope well with dangers and threats that do not originate with human relationships.

The finding that psychological torture was not associated with symptoms among preoccupied men is also in line with Crittenden (1997), who argues that deceptiveness of an ordeal matches the lessons that preoccupied persons have learned early in life: people cannot be trusted. Psychological pressure and ill-treatment may have provided them with proof of *homo homini lupus*, that human beings behave like beasts toward each other. Their working models of other people as bad and the world as unpredictable matched well with the current abuse by their fellow men and may have provided them protective armor in this cruel interper-

sonal situation. On the other hand, when exposed to physical torture, the preoccupied men were vulnerable to PTSD and somatic symptoms. Their childhood experiences involved punitive and neglecting parents, and the painful memories still evoked overwhelming anger. The highly provocative beating, falanging, and hooding they experienced in torture may have activated intrusive memories of childhood cruelties and their own vigilant responses to them.

Both insecure–dismissing and insecure–preoccupied attachment patterns are characterized by negative interpretations of human relationships and the world (Cummings & Cicchetti, 1990). Yet, even if both insecure men “managed well” in facing psychological torture (using somatic symptoms as criteria), the underlying dynamics may be different among dismissing and preoccupied men. Numbing of true affect to facilitate rational thought is a characteristic defensive strategy of dismissing men. According to Crittenden (1997), this strategy serves them well in traumatic experiences that involve emotionally loaded interpersonal elements. Our results confirm that dismissing men’s characteristic ways of belittling their own and others’ suffering and ignoring the interpersonal threat was successful in facing psychological torture. They were, however, vulnerable to symptoms when exposed to physical torture. This kind of torture involved fewer interpersonal aspects, and the dismissing men’s attempts to ignore pain failed, leading to subsequent PTSD and somatic symptoms.

Exposure to physical, but not psychological, torture and ill-treatment was directly associated with high levels of posttraumatic symptoms. Concerning somatic symptoms, both psychological and physical torture formed a risk for somatic symptoms, such as diversified aches and pains, stomach pains, and general complaints. This accords with results suggesting that torture experience produces the risk of somatic illness (Hougen et al., 1988). Clinical experiences reveal that although torture survivors may not disclose their memories, their body “remembers” overwhelming and shameful scenes, which may result in psychosomatic and somatic symptoms (Kirmayer, Robbins, & Paris, 1994). Our results contribute to that view by specifying that this dynamic is especially salient for torture survivors with insecure–dismissing attachment patterns.

Adult Attachment and Trauma

The insecure–dismissing attachment pattern was overrepresented in this study, in comparison with both Western and Middle Eastern studies. In our sample, 37% had the insecure–dismissing attachment pattern, 47% were secure–autonomous, and 16% preoccupied, whereas the attachment distribution in Western countries involves 24% dismissing, 58% autonomous, and 18% preoccupied styles (van IJzendoorn & Bakermans-Kranenburg, 1997). Sagi et al. (1994) found the distribution among Israeli university students to be 24% dismissing, 69% autonomous, and only 7% preoccupied attachment patterns.

The relatively high rates of dismissing attachment pattern may be explained by the fact that our participants were detainees and former political prisoners. Researchers suggest a generally strong (about 70%) continuation of attachment patterns across life span, but admit that it may be interfered with by stressful life events (Waters, Hamilton, & Weinfield, 2000). Trauma victims have been found to use excessive affect regulation characterized by repression, emotional numbing, and denial (Horowitz et al., 1993), which is reminiscent of dismissing individuals' response styles and emotional processing. Systematic torture is an experience that can change a secure person's core beliefs, affects, and behavior, and through them, possibly, the attachment patterns as well. Both attachment (Bowlby, 1973) and trauma (Saporta & van der Kolk, 1992) theorists acknowledge that traumatic experiences in adulthood may alter victims' attachment patterns and make them more insecure. We lack, however, empirical research to state whether and how attachment changes as the result of extreme experiences in adulthood. Nevertheless, we suggest, first, that the alteration depends on the degree of mismatch between a victim's basic working models and the trauma characteristics, and, second, that the underlying mechanisms of the alterations are specific to each attachment pattern.

Our cross-sectional research cannot answer the question about the continuation versus alteration of adult attachment. Our results show, however, that neither the length of imprisonment nor the severity of torture experiences was associated with the attachment pattern. Likewise, socioeconomic difficulties, which have been found in earlier studies to be associated with more dismissing and unresolved attachment style (van IJzendoorn, 1995), cannot be the explanatory factor, because none of the socioeconomic factors (economic status, education, employment, and profession) were associated with attachment patterns in our study.

Interestingly, religious commitment was associated with attachment pattern, the insecure–dismissing men being less religious. The majority of secure–autonomous men practiced their Muslim faith regularly. There is no earlier research or theory linking adult attachment and religiousness. Religious characteristics, such as trust in a supreme being, perceiving the world as meaningful, and other people as “children of God,” are inconsistent with experiences of insecure–dismissing persons, but fit well with secure–autonomous persons' core beliefs. Certainly, more research is needed to understand the behavioral, emotional, and ideological correlations of adult attachment patterns.

ETHICAL AND CRITICAL REMARKS

Researchers working with victims of torture and human rights abuse must be aware of the possibility that their findings could be useful for interrogators who aim at maximizing their impact. Psychological torture became more frequent after Red Cross officials were allowed to see political prisoners shortly after inter-

rogations. This is because it does not leave visible marks as does physical torture. Yet, family experiences and clinical observations reveal that the mental marks are as serious as the physical. In accordance with the World Medical Association (1975), medical doctors are monitored internationally so that their professional knowledge is not used for assisting torture and ill-treatment or covering their consequences. A similar consciousness-rising, monitoring, and sanctioning system should also apply to psychologists and counselors working in security, military, and public sectors.

The findings of this study must be considered within the context of its limitations. First, interrater reliability and validity of the quality of childhood memories can be improved. The validity of the empirically derived adult attachment working models should be examined among other trauma groups, such as survivors of natural and human-made disasters. Also, it would be informative to study the association between traumatic experiences and adult attachment by using both questionnaires focusing on current relationships and the semi-structured AAI method focusing on developmental aspects and information processing of emotional issues. Second, the sample consisted only of men and cannot, therefore, be generalized to female victims of human rights abuse. Third, there is emerging knowledge about differences in the attachment experiences in different cultures. Cultural differences have been reported in the proportion of children classified secure versus insecure when applying the Strange Situation scoring system (Waters et al., 2000). The English syntactic, semantic, and pragmatic cues used to score the AAI may not directly apply to the Semitic language structure of Arabic. The results must therefore be validated in other Middle Eastern samples, and cultural comparisons would be important concerning the role of adult attachment in trauma exposure. Finally, in an ideal research design, the attachment patterns would have been assessed before the traumatic events took place. Therefore, the findings on the interplay between attachment patterns and trauma on PTSD and somatic symptoms should be interpreted with caution. More research in follow-up settings is necessary to learn about the role of traumatic experiences in the stability of attachment style across the lifespan.

BIOGRAPHICAL NOTES

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APPENDIX

Measurement of Experiences of Torture and Ill-Treatment¹

Physical torture and ill-treatment

- Beating hands and legs
- Beating by gun button
- Jumping on the body
- Torture by application of electricity
- Burning with cigarettes
- Spilling over hot oil, corrosive acid or chemical substances
- Breaking bones
- “Crucifixion” (hanging from hands)
- “Falanga” (beating on feet bottom)
- Suffocating
- Torture by water, drowning (“Bath”)

Psychological torture and ill-treatment

- Personal humiliation (e.g. spitting)
- Humiliation directed towards the family
- Humiliation of the religious feelings
- Humiliation of national feelings
- Threats towards family members
- Threats to cause infertility
- Confronted by false accusations
- Sham execution
- Forced confession or “singing” of the co-patriots
- Forced to witness torture of others
- Forced to listen to torture of others

Sexual ill-treatment

- Sexual harassment
- Beating on the sexual organs
- Attempted rape
- Threatening to rape wife or sister

Sensory over- and underexposure

- Exposure to strong light
- Isolation and solitary confinement
- Hooding or eye blinding
- Deprivation of food or water

¹Instruction: Were you exposed to any of the following hardships during interrogation either while being imprisoned or detained? Please mark how often (*Never* = 0, *Sometimes* = 1, *Often* = 2).

