Adult attachment and emotional responses to traumatic memories among Palestinian former political prisoners

Katri Kanninen[1], Raija-Leena Punamäki[2], and Samir Qouta[3]

The association between attachment styles and emotional responses to traumatic memories was examined among 153 Palestinian former political prisoners. Self-report tools revealing adult attachment and intensity and valence of emotional responses were applied. As hypothesized, a high intensity of cognitive appraisal and a low intensity of affective responses characterized the emotional profile of insecure-dismissing men. By contrast, the emotional profile of insecure-preoccupied men was characterized by low cognitive and high affective responses, and intensive behavioral urge to act. Secure men in turn had a moderate and balanced emotional profile involving both cognitive and affective responses. In accordance with the activation hypothesis, when exposed to a high level of torture and ill-treatment, the insecure-preoccupied men showed especially intensive affective and behavioral responses. Contrary to the hypothesis, the insecure-dismissing men showed high-intensive cognitive and low-intensive affective responses independently of the severity of the trauma exposure.

Key Words: adult attachment, emotions, torture

People display great individual differences in behavioral and emotional adjustment to traumatic stress. One way of understanding these differences is through the attachment paradigm, according to which secure and insecure individuals have unique ways of regulating and expressing emotions and distress. According to Bowlby (1973), early emotional experiences are evolutionarily adaptive in that children learn to organize their behavior effectively in potentially dangerous circumstances such as separations and facing a stranger. The attachment-related mental working models guide the development of feelings, cognitions (e.g., thinking, perceiving and remembering) and behaviour, and they are especially activated in stressful and dangerous situations (Bowlby, 1980).

There is evidence that adult attachment style determines the vulnerability to posttraumatic distress among victims of childhood abuse (Alexander, Anderson, Brand, Schaefer, Grelling, & Kretz, 1998; Muller, Sicoli, & Lemieux, 2000), rape (Thelen, Sherman, & Borst, 1998) and military violence (Kanninen, Qouta, & Punamäki, in press; Mikulincer, Florian, & Weller, 1993; Mikulincer, Horesh, Eilati, & Kotler, 1999). Individuals with a secure attachment style are found to be protected from serious mental health problems when exposed to traumatic stress, while insecure persons are vulnerable. Attachment-specific emotional responses may partly explain the differences between the

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victims with secure and insecure attachment styles. Accordingly, we studied how secure and insecure individuals differ in their emotional responses to trauma-related memories in a sample of Palestinian men imprisoned in a military context.

Learning of emotions in early attachment

According to attachment theory, the childhood interactions with a caregiver, usually mother, form the underlying mechanisms for unique emotional and cognitive processing in adulthood. In the early interactions children learn the most adaptive ways of seeking shelter, regulating and expressing feelings, and trusting vs. distrusting in themselves and others (Baldwin, 1992, Oatley & Jenkins, 1996; Sroufe, 1979). In attachment terms, children learn how to deal with and make use of affective and cognitive information from their surroundings (Crittenden, 1994). Children differ in their ability and willingness to explore the environment and to rely on caregivers when feeling threatened. These differences form a basis for secure, insecure-dismissing and insecure-preoccupied attachment styles.

When caregivers respond to the infants' reflexive, conditioned, and affective behavior in sensitive and comforting ways, children learn the predictable and communicative meaning of others' behavior (Stern, 1991; Winnicott, 1960/1985). This provides conditions for secure attachment characterized by the ability to combine both affective and cognitive information and benefit from both. Subsequently secure children remain relatively organized in stressful situations (Sroufe, 1979; Fonagy, Leigh, Steele, Steele, Kennedy, & Mattoon, 1996). In adulthood secure individuals have access to both negative and positive memories, and are capable of integrating affective and cognitive processes and using them in balanced ways (Crittenden, 1997), even when exposed to traumatic stress (Florian & Mikulincer, 1998).

When the infants' behavior and signals result in caregivers' misinterpretation and rejection, they learn to over-regulate their affect and steer away from situations that are likely to be emotionally arousing (Crittenden, 1995). Such insecure-dismissing children have to learn to inhibit negative affect and signs of dependency that the caregivers do not tolerate. Subsequently they do not learn to communicate their real feelings, but seek parental acceptance through falsified positive affect that caregivers approve of. In other words, insecure-dismissing individuals have learned to distrust emotions, and their early emotional schema becomes segregated from verbalizable semantic knowledge (Liotti, 1991/1995). In adulthood insecure-dismissing individuals are expected to emphasize cognitive processing (e.g., analyzing and verbal controlling), and to avoid awareness and expression of affects (Crittenden, 1997).

Insecure-preoccupied individuals have often experienced inconsistent caregivers, who can be comforting at one moment, and neglecting in the next. This unpredictability evokes intensive rage and anxiety, and children face difficulties in regulating their emotions. They learn rather to heighten the expression of their distress in an effort to elicit the hoped-for response of the caregiver (Crittenden, 1995). In other words,

insecure-preoccupied persons have learned to distrust cognitive information, and their segregated emotional schema becomes unrelated to the attributional processes of causality and semantic meaning (Liotti, 1991/1995). In adulthood insecure-preoccupied individuals show predominantly affective responses and tend to minimize cognitive processing and framing of their experiences (Crittenden, 1997).

Attachment, trauma and emotional responses

Research is scarce on the associations between adult attachment style and emotional responses among trauma victims. We, therefore, first review general research on attachment-specific emotional responses, and then formulate our trauma-specific hypotheses based on these studies.

Emotions typically have causes and consequences, run through a process and are manifested on multiple levels as cognitive appraisals, behavioral (or action) readiness, affective responses (or subjective feeling states) and physiological arousals (Frijda, 1986; Lazarus, 1991; Scherer, 1984; Smith, 1991). Further, in meta-evaluation people estimate how acceptable, typical and clear their emotions are (Mayer & Stevens, 1994; Salovey & Mayer, 1990). Emotions differ in their intensity, i.e., how strong the emotional experience is, and in their valence, i.e., how positive or negative the emotions are (Larsen & Diener, 1992; Russell, 1980). Research has shown differences among adult attachment styles in almost all levels and dimensions of emotional experience.

First, attachment style is associated with individuals' cognitive appraisals of themselves, the world and other people. Secure individuals provide more positive attributions about human nature in comparison to insecure individuals, who typically mistrust others. Secure individuals show high self-confidence, while insecure-preoccupied persons typically hold negative self-views (Collins & Read, 1990; Feeney & Noller, 1990; Mikulincer, 1998a). Insecure-dismissing adults in turn provide both negative and positive appraisals of themselves, but are more mistrusting of others (Collins, 1996, Collins & Read, 1990; Feeney & Noller, 1990; Mikulincer, 1998a; Simpson, Rhodes, & Nelligan, 1992). The self-structure of secure persons is also more balanced, complex and coherent in comparison to that of both insecure attachment styles (Mikulincer, 1995).

Second, individuals with secure and insecure attachment styles differ in their behavioral level of emotional expression, and employ specific ways of regulating emotions, especially angry feelings. Secure individuals deal constructively with feelings of anger, in contrast to insecure-preoccupied persons, who typically lack anger-control (Mikulincer, 1998b). Insecure-preoccupied individuals also tend to engage in behavior that is likely to lead to conflicts (Collins, 1996; Collins & Read, 1990; Simpson, Rholes & Phillips, 1996). Their overwhelming emotionality may result in an intensive urge to act and impulsiveness.

Third, concerning the valence of emotions, a secure attachment style is assumed to be associated with more positive, and insecure styles, with negative feelings states (Feeney, Noller, & Hanrahan, 1994). However, insecure-dismissing individuals are found to report the fewest feelings of anxiety and distress (Pianta, Egeland & Adam, 1996; Collins, 1996; Mikulincer & Orbach, 1995), which is interpreted by their typical use of strategies that minimize distressing thoughts and affects (Rosenstein & Horowitz, 1996). Insecure-preoccupied individuals express intense negative feelings and report the most distressing emotions (Collins, 1996; Pianta, et al., 1996; Salzman, 1996).

Research suggests that many trauma survivors suffer from distorted and biased emotional processing, resulting in both escalating expression and numbing of feelings (Ehlers, Maerker, & Boos, 2000; Horowitz, 1979; Litz, 1992; Litz, Orsillo, Kaloupek, & Weathers, 2000).). Trauma victims are also characterized by discrepancies among cognitive, affective, behavioral, and physiological manifestations of emotions. A study among Palestinian trauma survivors showed that behavioral action readiness dominated a maladaptive emotional pattern. The emotional processing of survivors with PTSD was typically in control of behavior, at the expense of the more reflective, manifold and modulating aspects of emotions (Näätänen, Kanninen, Qouta, & Punamäki, 2002).

Mikulincer (1998b) found an attachment-specific discrepancy between subjective feeling states and physiological levels of emotional experience. Although insecure-dismissing individuals reported low intensity of feelings and distress, they responded with intensive physiological activation to anger arousing situations. The result concurs with findings among insecure-dismissing (avoidant) children who showed similar discrepant patterns between subjectively reported and physiologically measured emotional expression (Dozier & Kodak, 1992).

Attachment behavior is assumed to be activated in dangerous and threatening situations (Bowlby, 1973; Crittenden, 1997; Mikulincer et al., 1993). The activation of attachment-specific responses to trauma may explain why some victims deactivate and others over-activate their distress. The research by Mikulincer and his team (Mikulincer et al., 1993; Mikulincer, Orbach, & Iavnieli, 1998) is informative in showing that individuals with secure and insecure attachment styles differ in their access to negative memories and in their ways of regulating painful emotions.

Both secure and insecure-preoccupied individuals have easy access to negative memories, but they differ in the regulation of their negative affect. Secure individuals are not overwhelmed by negative emotions, whereas insecure-preoccupied individuals are typically unable to control and regulate their intense negative feelings. As children they fail to soothe themselves and as adults fail to frame cognitively their overwhelming emotions. Insecure-dismissing individuals in turn have low access to negative memories and tend to repress both negative and positive emotions (Mikulincer & Orbach, 1995;

Florian & Mikulincer, 1998). In other words, among insecure-dismissing trauma victims, the emotional repertoire is biased towards cognitive, rational and deactivated emotional responses, whereas among insecure-preoccupied victims, the biases are towards intensive emotionality and over-activated emotional responses when facing trauma.

Study hypotheses

We tested the saliency of the attachment-specific emotional response profiles among Palestinian former political prisoners who differed in the severity of their traumatic experiences. We hypothesized, first, that insecure-dismissing men would show high intensity of cognitive and low intensity of affective responses to traumatic memories, whereas insecure-preoccupied men would show low intensity of cognitive and high intensity of affective and behavioral responses. By contrast, men with a secure attachment style would balance between cognitive and affective responses. One may also expect that secure individuals would show high levels of positive meta-evaluation of their emotions. Second, as exposure to trauma activates attachment-specific responses, we assumed that insecure-dismissing individuals would show especially intense cognitive responses, and insecure-preoccupied individuals especially intense affective and behavioral responses when exposed to high levels of traumatic experiences.

Method

Participants

The participants were 153 Palestinian male ex-prisoners from the Gaza Strip. Of these 103 were randomly sampled from a list of ex-prisoners in a local human rights organization (every tenth from a list of 1000 ex-prisoners) and 50 men from local rehabilitation programs participated as a convenience sample. All of them had been imprisoned during the First Intifada, the national uprising for independence 1987-1993. Most of them were freed according to the Oslo peace agreement between Israel and the Palestinian Liberation Organization (PLO) signed in Washington in September 1993. The men participated in the study in 1997, which was a relatively stable and peaceful time in the Gaza Strip.

They were 19-51 years of age (mean = 29.9, standard deviation = 6.2). Seventy-five percent were married and 25% were unmarried. Sixty-five percent had children, and eight of them had more than ten children. Forty-six percent of the participants lived in refugee camps, 15% in villages, 36% in urban areas/towns and 3% in resettled areas. The educational level of the participants varied from primary school (7%) to university (29%): 10% had attended secondary school, 37% had graduated from high school, and 16% had some vocational education. When asked about their profession, 7% indicated that they were working at universities or were high ranking professionals, 25% were professionals, 25% were workers, 21% were entrepreneurs, 5% were policemen and 7% worked in other security services and 10% were students. At the time, 55% were unemployed. The sample characteristics correspond to the general statistics of

Palestinian former political prisoners in that they are relatively well-educated, young and often unemployed (El Sarraj, Punamäki, Salmi, & Summerfield, 1996; Punamäki, Qouta, Komproe, El-Masri, & de Jong, submitted).

Data collection

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). The study is a part of a larger project aiming at evaluating and improving therapy practises among trauma victims. The participation of the ex-prisoners was voluntary and they did not receive any rewards for it.

A male field worker who was trained by the researchers collected the data. He approached the ex-prisoners personally in their homes and explained the study aims to them: The researchers wanted to learn about their well-being and prison experiences. The interview contained highly personal issues and it was of utmost importance that the interviewer created an atmosphere of trust and empathy. The anonymity of the participation was emphasized. 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.

All the participants except one completed the questionnaires themselves. The total interview lasted about one and half hours and visits to hospitable homes much longer. The refusal rate was zero, apparently because the assessments were conducted in private homes and the participants were recruited through locally trusted men. GCMHP therapists and social workers provided mental health consultations for the participants if they so wished during and after the fieldwork.

Measures

Adult attachment styles

A paper-and-pencil measure was applied to assess the adult attachment styles. Participants completed a 5-page booklet containing open-ended questions based on the Adult Attachment Interview (AAI; George, Kaplan & Main, 1985[)]. The questions aimed at eliciting individuals' current working models or representations of their own childhood attachment histories. The first task indicates the quality of childhood relationships and the balance between semantic and episodic memory modalities. The participants were asked to describe their childhood relationships with their mother and father, separately, by giving five adjectives and five illustrative examples and stories for each adjective. Second, they were asked to describe what 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 about possible parental loss and their responses at the time. Third,

they were asked how they thought their upbringing had affected their adult personality, and why they thought their parents had behaved as they had. These tasks depicted the ability to integrate childhood experiences as a part of their current life histories.

The Main and Goldwyn (1991) scoring system was applied to code and quantify the written reports. It provides continuous estimations of the main domains of adult information processing of attachment experiences: i.e., what the subjects remember (Childhood Memories and Dealing with Stress) and how they process their memories (Coherence of Answers and Memory Modalities). The units of analysis in scoring the Childhood Memories and the Coherence of Answers were the whole reports and in scoring the Memory Modalities the descriptions of mother and father relationships. In scoring the Dealing with Distress, the unit of analysis was the answers to the specific questions. The scoring system results in 30 continuous variables with the following contents.

(1) <u>Childhood Memories</u> includes ten separate scores for mother and father, depicting parental love, rejection, overinvolvement, neglect and pressure to achieve. Values ranged from 1(very low) to 9 (very high).

(2) <u>Dealing with Distress</u> <u>in Childhood.</u> Scores were formed on the basis of participants' responses about what they did when they were upset and ill, felt rejected and distressed in childhood. Sum variables captured <u>aggression</u>, <u>self-reliance</u>, <u>attention seeking,</u> <u>seeking family support</u>, <u>seeking support from outside the family</u>, and <u>withdrawal,</u> and <u>denying ever being distressed</u>. The coding accounts for the occurrence of each of the responses in the text.

(3) <u>Coherence of the Answers</u> involves the following: (a) An o<u>verall incoherence</u> score was formed by summing up six different violations of coherence. Four of them follow 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). Two other forms of incoherence include mixing temporal order and mixing childhood and adulthood information. (b) <u>Current Anger.</u> The score includes blaming parents, listing of accusations, and exaggerating small parental offenses. (c) <u>Idealization </u>is a sum score of exaggerating parental qualities in the face of evidence of parental cruelty and idealizing parental responsibilities. (d) The <u>Derogation </u>score consists of devaluating childhood experiences and belittling or humiliating parents. The scores are the simple sums of the occurrences of violation of coherence and temporal incoherence.

(4) <u>Memory Modalities</u> depict semantic, episodic, and sensory memories, and narrative quality and feelings. Semantic memories accounts for the number of adjectives provided to describe the parent (range 0-5) and episodic memories, the number of illustrative examples and stories in the parent descriptions (range 0-5). Sensory Quality of Descriptions refers to the sum of memories incorporating the senses of touching,

smelling, and tasting. Narrative Quality refers to the fragmentation versus comprehensiveness of stories (range 0-5) and Feelings are accounted for by the number of emotions described in the stories.

Reliability and validity of the attachment instrument

The interrater reliability of the attachment variables is based on a sample of 50 reports using kappa and Pearson correlation statistics. The raters were the first author and a psychologist who are both reliable coders of the Main and Goldwyn (1991) system. The results show that the coefficients were acceptable (.70 - 1.00; Fleiss, 1981) for the variables of Childhood Memories, Dealing with Distress and Memory Modalities, whereas only half of the coherence variables were reliable in the preliminary scoring. In the case of discrepancies between the two coders a third trained rater in AAI was consulted in order to resolve the differences and establish practical criteria for scoring. The coding examples of the Palestinian and Finnish data are available from the authors.

The validity of the adult attachment procedure has been established in the Middle Eastern context by Israeli and Palestinian researchers. The results based on AAI have shown attachment-specific response patterns among Holocaust survivors and their offspring (Sagi, Van IJzendoorn, Joels, & Scharf, 2002) and among kibbutz parents (Aviezer, Sagi, Joels, & Ziv, 1999). Results based on self-report questionnaires have also revealed the phenomenon of attachment-specific psychological distress, stress appraisal and coping strategies among Israeli students (Mikulincer et al., 1993; Mikulincer, 1998b) and mental health problems among Israeli settlers (Mikulincer et al., 1999). Among Palestinians, research has shown that secure and insecure individuals were differently vulnerable to mental health problems when facing trauma (Kanninen, et al, in press, formed attachment-specific therapy alliances and benefit from different therapies (Kanninen, Salo, & Punamäki, 2000).

The forming of secure, insecure-dismissing and insecure-preoccupied attachment styles is based on cluster analysis (Ward's method and Euclidian distance; for details, see Kanninen et al., in press). The final clustering solution is based on 27 standardized sum scores of these attachment variables which were adequately discriminating the styles. Men who gave too little information about their attachment history (n=20) were omitted from the analyses. The three clusters of *secure, insecure-dismissing and insecure-preoccupied* attachment styles differed from each other in accordance with the theoretical characteristics (e.g., quality of childhood relationships, balance vs. imbalance between semantic and episodic memories, current anger, derogativeness, withdrawal, and integrative capacity) (Crittenden, 2000; Main, 1996).

The secure men (n=66; 49.3%) described their mothers as more loving, and less rejecting and less overinvolving than men in other attachment clusters. They reported both more semantic and episodic memories of the mother. They also showed less overall violence of coherence than men with both insecure attachment styles, less current anger than insecure-preoccupied, and less derogativeness towards parents than insecure-

dismissing men. They differed from insecure-preoccupied men in seeking more familiar and less extra-familiar support when distressed, and from insecure-dismissing men in showing less denial and withdrawal.

The insecure-dismissing men (n=45;34.3%) described their mothers as somewhat unloving and neutral. Their characteristic way of dealing with distress was denial and withdrawal and, compared to insecure-preoccupied men, they sought little parental attention and consolation. They typically showed derogative attitude towards their parents and childhood experiences, and showed overall incoherencies. Finally, their memories showed less narrative quality and feelings, and they had fewest episodic memories from both parents.

The insecure-preoccupied men (n=22; 16.4%) differed from both the secure and insecure-dismissing men in that they experienced both parents as non-loving, overinvolving and neglecting, and mother as rejecting. Their highly negative childhood memories involved rich narrative qualities, but showed poor overall coherence. They typically sought attention and consolation and extra-familiar support when distressed. They also expressed intense current anger towards their parents.

<u>Intensity and valence of emotional responses</u>.

The measurement is based on the multilevel theory of emotional experience, involving cognitive appraisal, behavioral urge to act, subjective feeling states, and meta-evaluation (Frijda, 1986; Lazarus, 1991; Smith, 1991). The Category-Ratio-10 scale by Borg (1982) was used to measure the intensity of emotions. The range of the scale varies from 0 ("nothing at all") to 10 ("extremely strong"). The scaling is based on the perceptual rule according to which it is easier to differentiate one's emotions in low intensity levels (detailed scaling), whereas differentiation becomes less easy when intensity of emotions increases (general scaling). The measurement has been applied earlier in Middle Eastern and European samples, and it has been found to be reliable and precise in both interindividual and intraindividual comparisons of emotional intensity and valence (Näätänen et al., 2002; Salmela-Aro, Näätänen, & Nurmi, 2002).

Cognitive appraisal

The participants were asked to recall their prison experiences according to the following instruction "When I think about my prison experience, I feel that …". Then they were presented with 30 descriptions and asked to estimate the intensity of their thinking that way.

The items illustrating cognitive appraisal were drawn from Frijda, Kuipers and ter Schure (1989) and Smith (1991). As our focus was to study the intensity and valence rather than the content of cognitive appraisal, two averaged sum variables were constructed indicating negative and positive valence. The first variable consists of 15

items involving negative emotional experience (e.g., It affects me negatively), urgency (It affects me deeply), unpredictability (It was something unexpected), and controllability (I am helpless). The second variable consists of 15 items involving positive emotional experience (It affects me positively), lack of saliency (It affects me superficially), predictability (It was something I had expected) and control (I am powerful). The reliability (Cronbach's alpha) values were .79 and .71 respectively.

Affective responses (subjective feeling states)

The participants were asked to recall their prison experiences according to the following instruction: "When I remember my prison experience, I feel…". Then they were presented with a list of 28 feeling states and asked to estimate the intensity of their feelings. The feeling items were drawn from the circumplex model of emotions (Larsen and Diener, 1992; Russell, 1980). It comprises eight feeling dimensions with 3-4 items: pleasant affect (such as happy), activated pleasant affect (such as excited), inactivated pleasant affect (such as calm), unpleasant affect (such as sad), activated unpleasant affect (such as afraid or angry), inactivated unpleasant affect (such as exhausted), high activation (such as aroused), and low activation affect (such as tranquil).

For the purposes of the present study two averaged sum variables were constructed indicating negative and positive valence. The first (11 items) combines activated, inactivated and 'general' pleasant feelings. The second (11 items) combines activated, inactivated and 'general' unpleasant feelings. The reliability (Cronbach's alpha) values were .71 and .79 respectively.

Behavioral urge to act

The 15 items are from Frijda et al. (1989), and describe action readiness such as restlessness, urges to hurt or insult somebody, rumination, fight against and avoid danger. The participants were instructed to recall their prison experiences as follows: "When I remember my prison experience, I have the urge to l…". An averaged sum variable was constructed and the reliability (Cronbach's alpha) of the scale was .88.

Meta-evaluation

This was measured using three positive items from the Meta-evaluation Scale (Mayer & Stevens, 1994), i.e. clarity (I know exactly how I'm feeling), typicality (The feeling is familiar to me) and acceptability (There is nothing wrong in my feeling like that). A three-item sum variable indicating positive meta-evaluation was constructed, and it reached only a reasonable reliability of .66 (Cronbach's alpha).

Traumatic experiences

The participants were asked about their traumatic experiences using a questionnaire based on the Amnesty International Report (1984) and earlier studies (Allodi & Cowgill, 1982) among political prisoners. Of the 30 items eleven refer to physical torture (e.g., crucifixion, hooding and severe beating), eleven to psychological ill-treatment (e.g., humiliation of a family member or sham execution), four to sexual abuse (e.g., rape or attempted rape), and four to either food or sensory deprivation, and overexposure to light and heat. The participants were asked whether they had been exposed to any of these methods during interrogation: (1) never, (2) sometimes or (3) very often. A sum score of total amount of torture and ill-treatment was formed. It was normally distributed, and was further dichotomized to indicate low (ranging 30-59; n=78) and high (ranging 60-90; n=73) exposure to trauma. In our analyses they are called low-trauma and high-trauma groups.

Concerning the validity of the instrument assessing exposure to torture and ill-treatment, epidemiological research among the Palestinian political prisoners showed it to be able to discriminate the occurrence of PTSD, anxiety and somatic symptoms (El Sarraj et al., 1996; Punamäki, Qouta & El Sarraj, 1997). Other research showed that the severity of exposure was associated with the nature of coping strategies and defence mechanisms among former political prisoners (Kanninen, Punamäki, & Qouta, 2002; Punamäki, Kanninen, Qouta, & El Sarraj, 2002).

Translation of measures

The tools measuring adult attachment and emotional responses were translated into Arabic from English by a bilingual psychologist and independently back-translated by a bilingual socialworker. Both English and Arabic measures were then checked by the research group in the Gaza Community Mental Health Programme. A pilot study (ten former prisoners) was conducted to test the clarity and conceptual meaning of the questions. The Arab-language reports of attachment histories were likewise translated and back-translated into English, which was the common language of the research team as well as the trainer's language. The scale of torture and ill-treatment has been translated for the purposes of epidemiological study in Gaza (El Sarraj et al., 1996).

Results

Attachment-specific emotional response profiles

To test the hypotheses about the attachment-specific emotional profiles and their activation in exposure to high level of trauma, we applied 3 (attachment styles) X 2 (high-trauma and low-trauma groups) within-subject MANOVA's using the intensity and valence of emotions as dependent variables (GLM-Repeated Measures MANOVA in

SPSS7.5 programme). The dependent variables were standardized (M=0 and SD=1) in order to allow comparisons between them when using Simple Contrasts. A within-subject profile analysis was chosen, because the hypotheses focus on the predominance of either cognitive or affective intensity <u>within</u> an attachment group, and not on group differences in single variables (Hair, Anderson, & Tatham, 1995; Rosenthal, Rosnow, & Rubin, 2000).

Because the attachment styles differ in their emotional valence, separate sets of within-subject measures were constructed for negative and positive emotional responses. The first, negative emotional response profile was indicated by three sum variables: negative cognitive appraisals, negative affective responses (unpleasant feeling states), and negative behavioral urges to act. The results revealed a significant main effect of the attachment style on negative emotional responses (Wilks' Lambda, $\underline{F}$ (4,226)= 2.89, p<.02; Huynh-Felt F (188.94, 3.31)=3.44, p<.01), indicating that the emotional response profiles differed among secure, insecure-dismissing and insecure-preoccupied men.

The result, illustrated in Figure 1, supports the first hypothesis: The insecure-dismissing men showed a high intensity of negative cognitive appraisal and a low intensity of negative affective responses. By contrast, insecure-preoccupied men showed a low negative cognitive appraisal and a high intensity of negative affective responses. [Simple contrast between negative cognitive and affective responses: $\underline{F}$(2,114)= 2.97, p<.05)]. Furthermore, a behavioral urge to act predominated the emotional response profile among insecure-preoccupied men [(Simple contrasts between negative behavioral and cognitive responses: $\underline{F}$(2,114)= 4.96, p<.01)]. As hypothesized, among secure men, neither cognitive appraisal nor affective responses dominated the emotional response profile: it was moderate and balanced.
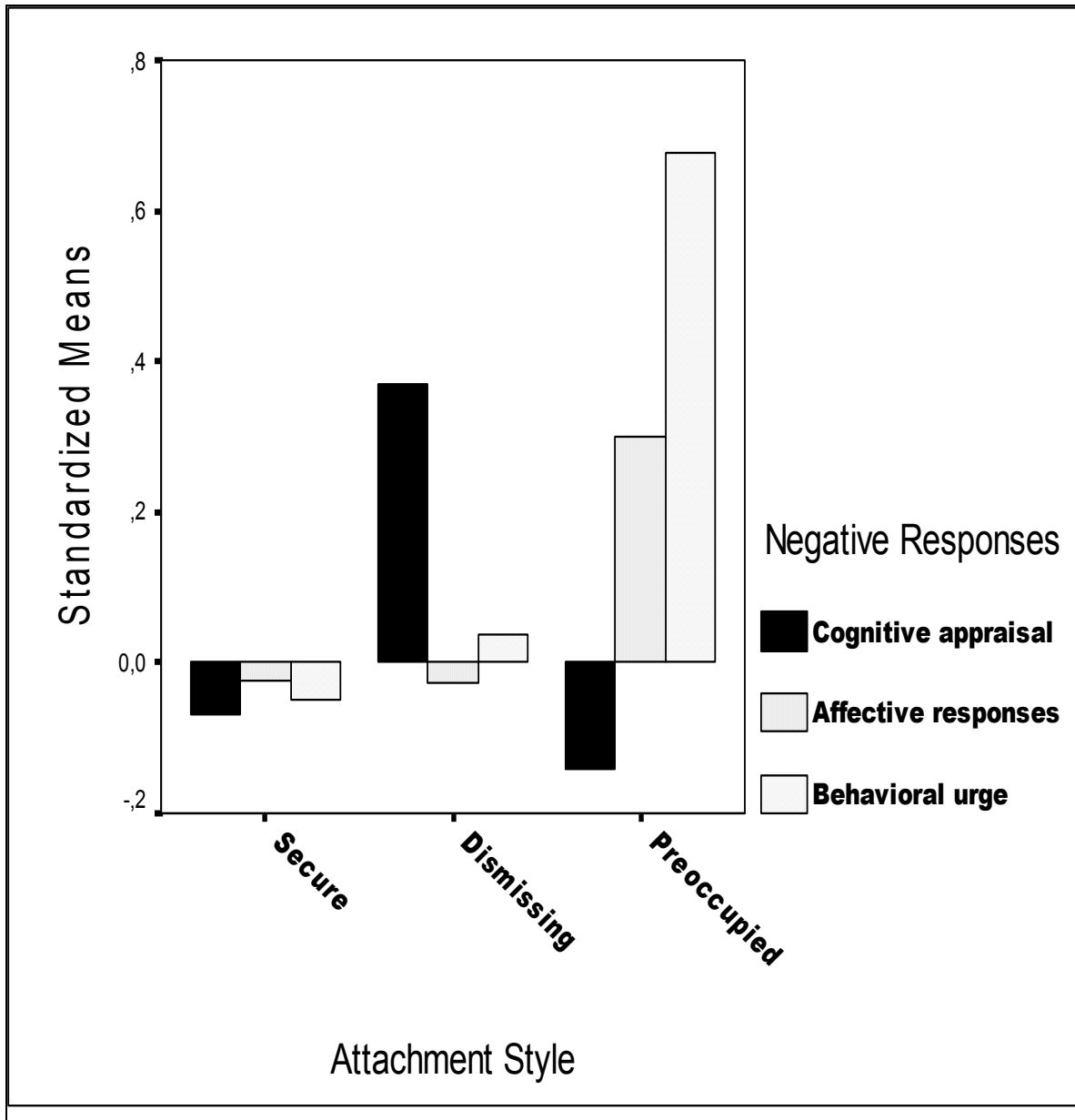
Figure 1. Association between Attachment Styles and Negative Emotional Response Profile

The second, positive emotional response profile involves a within-subject measure factor with three standardized sum variables: positive cognitive appraisal, positive affective responses (pleasant feelings states), and positive meta-evaluation.

A significant main effect of attachment style on positive emotional response [Roy's largest root, $F(2,112)= 4.15$, $p<.02$; Huynh-Felt, $F(228.00, 4.00)=2.20$, $p<.07$] indicates that the emotional response profiles differed among secure, insecure-dismissing and insecure-preoccupied men. The result, illustrated in Figure 2 also supports to some extent the first hypothesis that the emotional response profile of insecure-preoccupied men was characterized by highly intensive affective responses (here low pleasant feeling states) and low intensity of positive cognitive appraisal and meta-evaluation. By contrast, the emotional response profile of insecure-dismissing men was characterized by high intensities of positive cognitive appraisal and meta-evaluation, and a low intensity of positive affective responses [Simple contrast between positive affective and cognitive responses, $F(2,114)= 2.11$, $p<.09$; Simple contrast between positive affective responses and meta-evaluation, $F(2,114)= 4.14$, $p<.05$)]. Again, the emotional response profile among secure men showed moderate intensity and balance between positive cognitive appraisal and affective responses to traumatic memories.
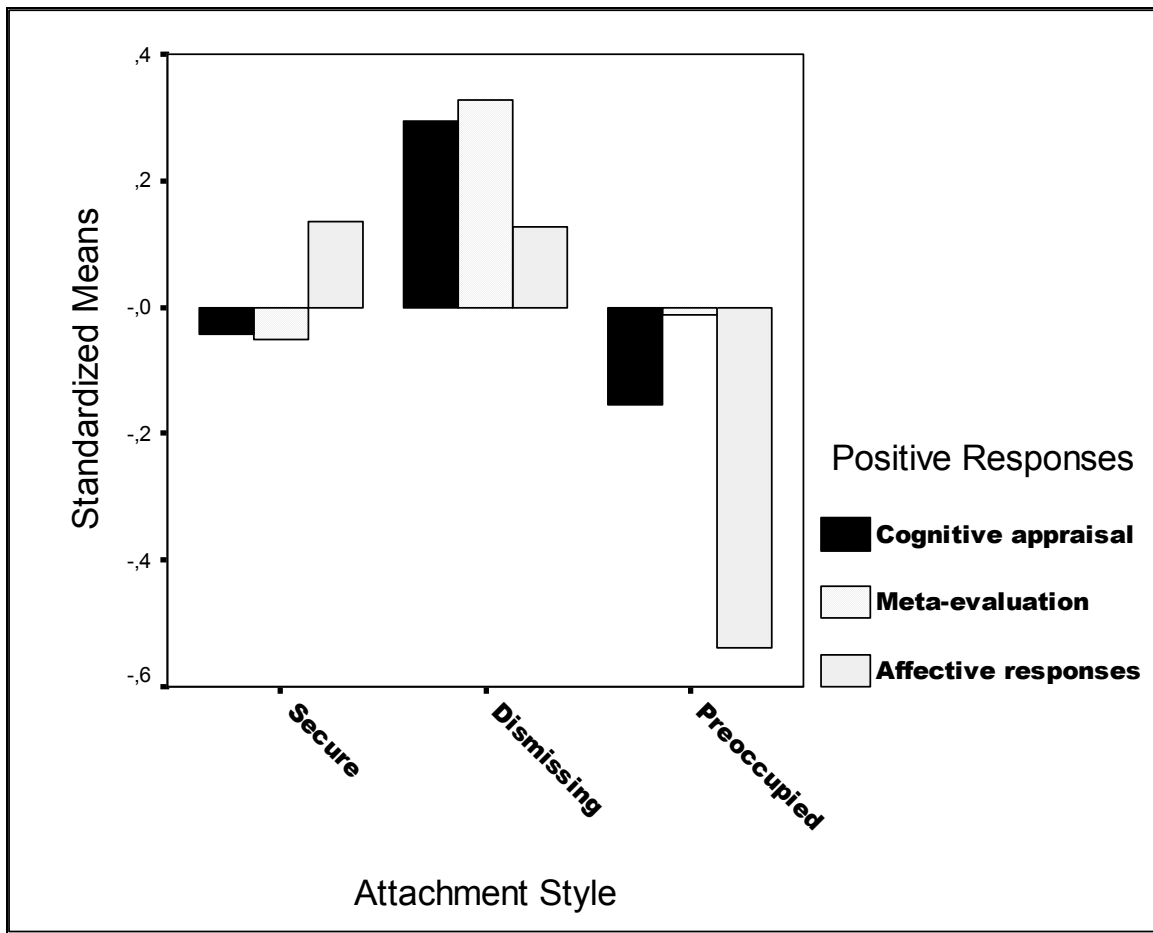
Figure 2. **Associations between Attachment Styles and Positive Emotional Responses Profle**
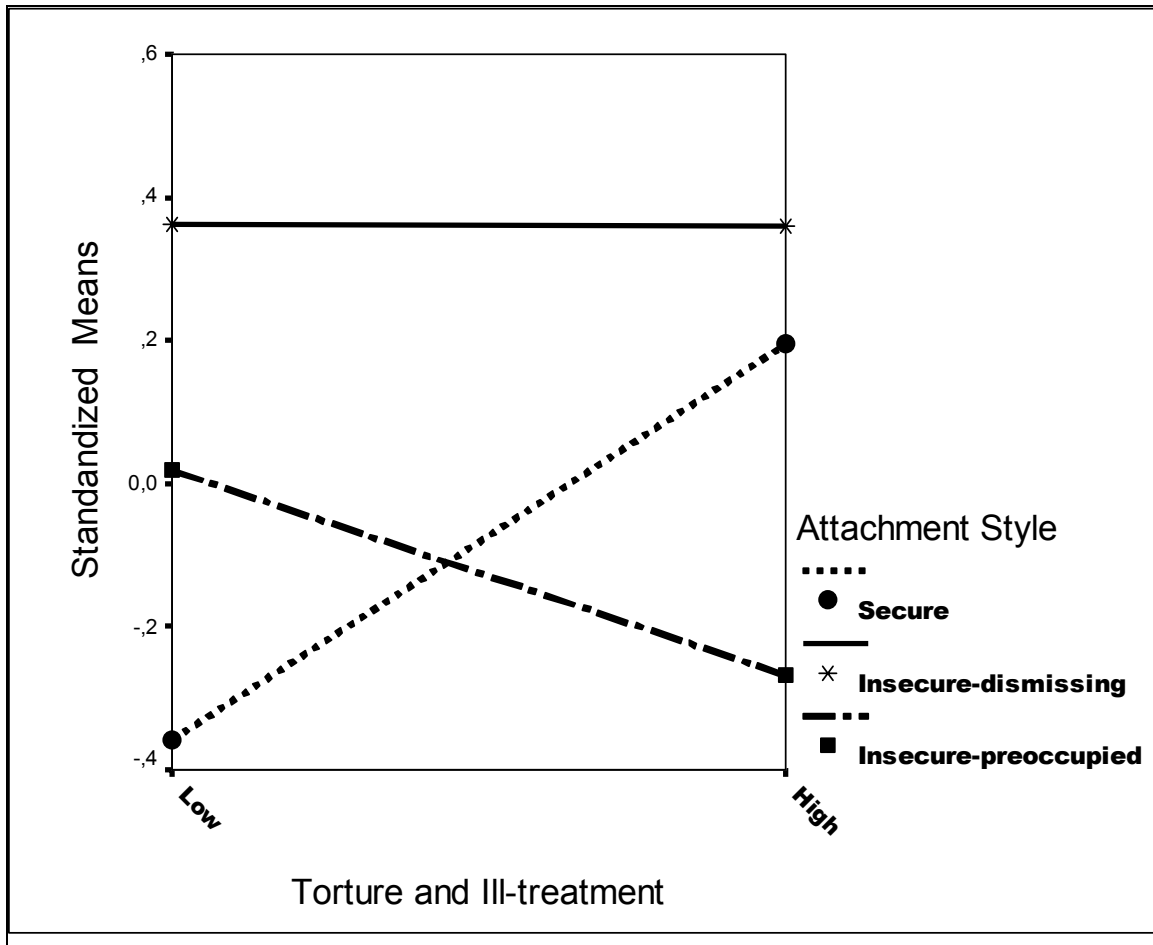
The attachment style X trauma exposure-interaction effects on emotional responses reveals whether attachment-specific responses were activated in the high-trauma group. The interaction effect was significant on negative affective responses [Roy's largest root, $\underline{F}(2,114)= 4.22$, $\underline{p}<.02$; Huynh-Feldt $F(188.94, 3.31)=3.01$, $p<.03$)]. The results confirmed the activation hypothesis concerning the insecure-preoccupied but not insecure-dismissing men. <u>Figure 3</u> reveals that, when exposed to a high level of trauma, the insecure-preoccupied men predominantly relied on negative affective responses [Simple contrasts: between cognitive appraisal and affective responses, $\underline{F}(2,114)= 2.86$, $p<.06$)]. Similarly, when exposed to a high level of trauma, the insecure-preoccupied men showed especially intensive behavioral urges to act [Simple contrasts, and between negative cognitive appraisal and behavioral urge to act, $\underline{F}(2,114)=4.96$, $p<.01$)].

Contrary to the activation hypothesis, the insecure-dismissing men generally showed intensive negative cognitive appraisal, independent of whether they were exposed to low or high levels of trauma. This is illustrated in Figure 4. The figure also shows that insecure-dismissing men used more negative cognitive appraisals than both secure and insecure-preoccupied men. However, they differed significantly from secure men only in the low-trauma group, and from insecure-preoccupied men only in the high-trauma group (Tukey's-b post-hoc values <.05).
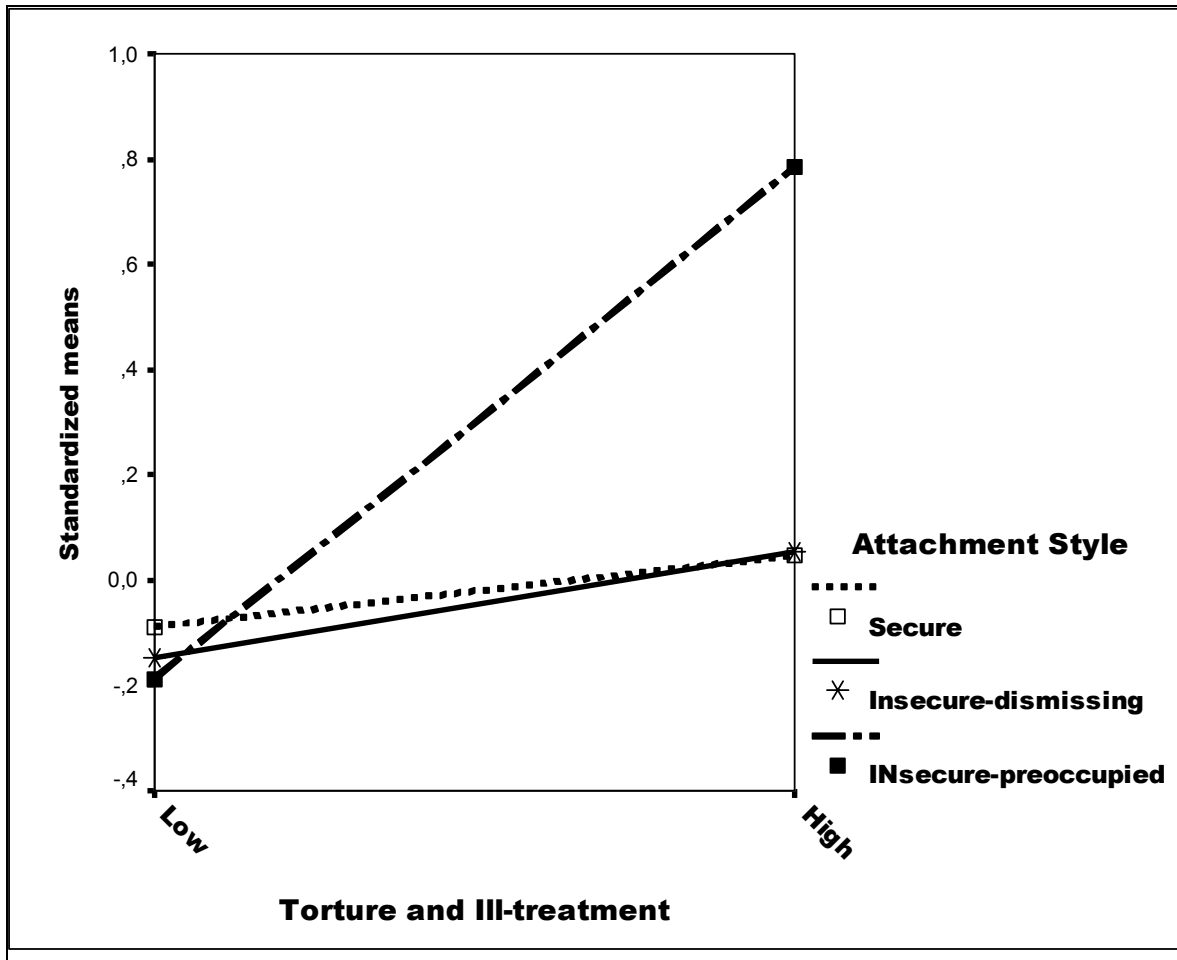
Figure 3. **Attachment Style and Exposure to Trauma Interaction Effect on Negative Affective Responses**

Figure 4. **Attachment Style and Exposure to Trauma Interaction Effect on Negative Cognitive Appraisal**

The attachment X trauma -interaction effect on positive emotional response profile was non-significant. In other words, exposure to a high level of trauma did not activate the attachment-specific positive emotional responses.

Discussion

Our results provide evidence that individuals with different attachment styles respond in unique ways to their trauma-related memories. The emotional profile of insecure-dismissing men was characterized by a high intensity of cognitive and meta-evaluation responses and by a low intensity of affective responses. This indicates that they over-regulated their affective, and over-relied upon cognitive domains of emotions. In Crittenden's (1997) terms, insecure- dismissing men trusted cognitions and distrusted emotions, or according to Liotti (1991/1995), their affective and episodic schemas were segregated from cognitive and semantic ones, possibly forming a risk for non-communication and fragmentation between these psychological domains of experience.

The emotional response profile of insecure-preoccupied men provides, to a great extent, a mirror image. The high intensity of affective and low intensity of cognitive and meta-evaluation responses indicate that they under-regulated cognitive responses and heightened affective distress. In other words, they distrusted cognitive information, and relied predominantly on affective responses. Interestingly enough, insecure-preoccupied men also responded to traumatic memories by an intensive behavioral urge to act, which may indicate their dependency upon procedural rather than upon semantic models to regulate emotions.

The secure men differed decisively from those with insecure attachment styles in their ability to combine both cognitive and affective responses. Their stable, moderate and comprehensive emotional response profiles indicate a capability to integrate the painful memories without being either overwhelmed or numbed by them. Contrary to expectation, secure men did not show a high level of meta-evaluation. This was rather typical for insecure-dismissing men, which apparently concurs with their exaggerated cognitive efforts to analyze and control painful emotions.

<u>Activation of attachment</u>

As hypothesized, exposure to severe trauma activated attachment-specific emotional responses among insecure-preoccupied and secure men. Insecure-preoccupied men showed especially intensive affective responses and a behavioral urge to act when exposed to a high level of torture and ill-treatment. The result concurs with the observation that the insecure-preoccupied attachment style seems to be 'transparent' and easily provoked by traumatic stress. Insecure-preoccupied individuals easily "go with the flow" and "get flooded' with negative memories (Miller & Noirot, 1999), and they may therefore be especially vulnerable to overwhelming emotions and distress.

Secure men typically showed moderate levels of affective and cognitive responses despite exposure to severe trauma. Their balanced emotional processing in the face of traumatic stress may be due to their stable, complex and coherent self-structure (Mikulincer, 1995) that makes them more settled in an unsettled environment. Contrary to the attachment-specific activation hypothesis, the insecure dismissing men were biased towards intensive cognitive responses "whatever happened in their lives".

In the same vein, Simpson and his team (Simpson, 1990; Simpson et al, 1996) found in their research on attachment and romantic relationships that the attachment system of insecure-preoccupied individuals gets easily activated because they are constantly preoccupied with problems in early attachments. The attachment system of insecure-dismissing individuals is more difficult to activate because they repress, deny and belittle the significance of their attachment experiences. It is noteworthy that the findings confirm the same rule in very different contexts: that of forming loving and intimate human relationships and that of being systematically ill-treated by fellow-humans. We may suggest that the over- and under-regulation of emotions that characterize the two insecure attachment styles are salient both in positive developmental transitions and negative experiences.

Practical and methodological considerations

Our study aimed for its part at evaluating and improving interventions with victims of human rights abuse in Gaza. We have learned from therapy and the literature that inadequate, narrowed and biased emotional-cognitive processing of painful experiences often lay behind pathological responses such as PTSD. Intrusive symptoms of flashbacks and nightmares, and dissociative states of mind are common among victims of human rights abuse (Basoglu & Mineka, 1992; De Jong et al., 2001). The symptoms indicate lack of integration and working through traumatic memories, and therefore cognitive therapies typically aim at facilitating the integrative processes among trauma victims (Foa, 2000). Our results suggest that trauma therapy should encompass both cognitive and emotional processes and that healing should be tailored to fit the victim's personality.

There is criticism of this kind of psychological and 'individualist' approach to healing trauma survivors in the context of the collective and severe trauma of war and military violence. Critics demand material and economic help and emphasize the resiliency and resourcefulness of trauma survivors (Summerfield, 1997). The argument is implicitly based on an idea that the more severe the trauma (such as systematic torture) and the more ideologically committed the victims (as in the fight for national independence), the less room there is for individual differences in responding to and recovering from atrocities.

Our observations suggest the opposite: people respond in a diversity of ways in extremely life-threatening situations. Personality with its strengths and vulnerabilities, and pre-existing schemas of oneself, others and the world even tends to activate and crystallize in situations of danger and life-threat, while it is more dormant in safe and neutral life

situations. Some personality structures are especially salient because they serve human survival by defending personal integrity. Attachment-specific cognitive-emotional processing, coping strategies and defense mechanisms are good examples of this psychological functioning. They must be addressed and respected when healing people with severe trauma, also in a collective context. Our experience in Gaza is that the more severe the trauma is and the poorer the resources are, the more carefully tailored, theoretically sophisticated and evidence-based interventions are needed.

Attachment theory provides insights to grasp how differently and uniquely victims and survivors perceive, regulate, conceptualize and cope with collective trauma, and why they benefit from different treatments. Applying attachment theory in tailoring interventions can contribute to two considerations for successful treatment. The first approach aims at inviting compensatory responses and widening emotional and cognitive repertoires for each attachment style. For instance, emotional expressions and ventilation are encouraged among insecure-dismissing clients who habitually distrust and control emotions. Whereas insecure-preoccupied clients, who are easily enmeshed in painful memories and incapable of controlling emotions, should benefit from cognitive framing and emotion regulation. The second approach aims at tuning and matching therapeutic interventions with the familiar and characteristic ways of emotional-cognitive processing of each attachment style. Tuning requires interventions which respect the patients' ways of expressing emotions, relating to others, and defending themselves. For instance, insecure-dismissing patients could benefit from a cognitive approach, because it matches their habitual working models.

Our measurement tools of both adult attachment style and emotional responses deserve criticism. The paper-and-pencil method of discerning adult attachment is rather robust, and we were able to identify only the three main patterns, but not the subpatterns, as suggested by Crittenden (1995). Naturally application of the original Adult Attachment Interview (AAI) and its updated scoring procedure (Main & Goldwyn, 1998) could have provided more dynamic information. However, an applied verbal method to approach adult attachment was the only option in our field work conditions. Nevertheless, we have chosen to score the reports of childhood memories, dealing with distress, coherence of answers, and memory modalities by using Main and Goldwyn (1991; Main, 1996) coding system, because it is based on an information processing approach to adult attachment. According to our clinical experiences among trauma victims the information processing approach to memories is informative. It is revealing and reflective to share not only the content of clients' experiences but also to learn about the ways that they process them.

Cross-cultural studies on childhood attachment are emerging, and they suggest a balance between universal trends and contextual determinants (Van Ijzendoorn & Sagi, 1999). Less research is available on the organization of adult attachment styles in different cultures. The AAI approach emphasizes the semantic and episodic quality of human memory, which may be universal. The content and meaning of child-parent relationships in turn vary according to cultural values (like collective and individual values), historical situation (war and national survival) and family structure (nuclear

families and extended families). The cross-cultural research on childhood attachment has shown the universality of three basic attachment patterns. Similarly we may tentatively suggest that in adult populations, as well, the <u>secure</u>, <u>insecure-dismissing</u> and <u>insecure-preoccupied</u> styles can be found universally, but their distribution and experiential contents may vary (Van IJzendoorn, 1995).

We conceptualized and measured emotional responses according to the intensity and valence of cognitive, behavioral, affective and meta-evaluative responses. The choice disregarded the contents and personal meaning of trauma-related memories. It would, however, have been informative to learn how trauma survivors with secure and insecure attachment styles possibly differ in their actual memories and in how they construct the meaning of their experiences. It could have contributed to the important research on the autobiographic memory of trauma victims (McNally, Lasko, Macklin, & Pitman , 1995).

Finally, our instrument of emotional responses focuses solely on traumatic experience, and does not provide information about less provocative or neutral memories. This is a theoretical limitation, because research shows that trauma survivors (PTSD patients) show biased and deficient processing of trauma-related, but not of neutral, information (Litz et al., 2000). Accordingly, we may hypothesize that insecure trauma survivors are uniquely vulnerable to trauma-related cues in their environment, whereas their processing of neutral memories would be intact. However, the multilevel assessment of emotional responses involving cognitive, affective, behavioral, meta- and physiological levels can provide a dynamic tool to study why and how people show different ways of suffering and recovering from trauma.

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