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Raija-Leena Punamäki

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The Uninvited Guest of War Enters Childhood: Developmental and Personality Aspects of War and Military Violence

Raija-Leena Punamäki[1]

Children show great differences in their ways of appraising threat, seeking help, and expressing emotions when facing traumatic events. This chapter focuses on developmental and personality aspects of trauma responses. It is hypothesized that each developmental age provides children unique protecting resources, on one hand, and makes them vulnerable, on the other. These protecting and risk dynamics are analysed among infants, toddlers, school-age children and adolescents. Concerning the link between personality and trauma, attachment theory and temperament research are viewed. The argument is that insecure-avoidant children are vulnerable due to their tendency to deny dangers, distrust others' help and cope by distraction and withdrawal. Insecure-ambivalent children are at risk due to their exaggeration of danger and overactivation of negative emotions. Secure children in their part, accurately perceive the trauma, trust in their own resources and others' ability to help, and show balanced emotional, cognitive and behavioural responses. The implications for helping children cope with war and military violence are discussed.

KEY WORDS: War, Childhood, Child Development, Personality, Military violence, Attachment, Infancy, Toddler age, Middle childhood, Adolescence and Youth

Introduction

At this very moment, war and military conflict are going on in Afghanistan, the Middle East, Chechnya and Northern Ireland. Low intensity war with its sporadic violence and constant danger is reality in many countries in Africa (Angola, Congo), South America (Colombia) and Asia (East Timor, Sri Lanka, Myanmar), and in the Kurdish area in South East Turkey. A considerable number of children thus witness violence and horrors, experience loss of family members, and face a life of danger and threat. In scientific terms they are exposed to traumatic stress.

When trying to understand how war and horrors enter a child's life, we have to ask how old is the child. His/her developmental stage determines what the child is doing, thinking and feeling when facing danger and threat. Activity, coping strategies, understanding of traumatic events, and delineating one's own and others' emotions follow specific developmental paths.

Children show great personal differences in their responses to traumatic stress. Theories of attachment and emotional-cognitive working models and research on temperament, the semi-inherited personality structure, may be informative in understanding these differences. They provide underlying

[1] Professor, Department of Psychology
33014 University of Tampere, Finland
Email: Raija-leena.punamaki@uta.fi

mechanisms for children's unique ways of appraising threat, seeking help, and showing emotions and activity. Accordingly, this article focuses on developmental and personality aspects of traumatic stress among children, and the implications for helping children cope with war and military violence.

Trauma Impact on Developmental Tasks

War and violence compromise child development by interfering with the smooth transition from an earlier developmental stage to the next. Literature presents, however, opposing views about the direction of the impact. On the one hand, according to the classic observation by Freud and Burlingham (1943) children are at risk of losing previously acquired developmental skills, and regressing to less mature behavioural modes. For instance, traumatized adolescents may excessively cling to their parents and preschoolers lose newly acquired speech abilities. On the other hand, 'war children' are described as growing up too fast and losing childhood too early. War conditions forces them to protect their family members and to solve serious moral and emotional conflicts before their ample maturation.

The age of the child has been considered a risk versus protective factor in traumatic stress. There is a strong argument that the earlier in life a trauma occurs, the more severe the psychiatric consequences (Breslau, 1998). Evidence is available on victims of sexual abuse and parental violence (Higgins & McCabe, 2001), and military violence (Jensen & Shaw, 994). Young children are assumed to be more vulnerable due to their magic thinking and ineffective coping mechanisms and less developed cognitive capacity to remember, understand and process the trauma (Fivush, 1998; Schneider, 2000). On the other hand, there is also a strong belief that because young children do not understand the severity of trauma, they would be protected from its negative consequences. However, a meta-analysis by Fletcher (1996) showed no differences in the risk of PTSD across developmental stages.

It might be more informative to argue that each developmental age provides children unique protecting resources, on one hand, and makes them vulnerable, on the other (Punamäki, 1999; Pynoos, Steinberg, & Goenjian, 1996). Experiences of war and violence are especially harmful when they infer with the normative developmental tasks, such as emotional regulation in toddler years, controlling aggressive behaviour in middle childhood or forming intimate bonds in adolescence. The impact of traumatic experiences on behavioural, cognitive and emotional development according to the developmental age is analysed in Table 1.

Infancy

Security and protection from danger are fundamental for human survival in infancy (0-18 months). The attachment relationship between the infant and caregiver forms a basis for that: A secure attachment relationship with a sensitively available adult provides the infant with a safe base from which to explore the environment. An insecure attachment relationship in turn forces infants to seek protection elsewhere. In an insecure attachment relationship, children respond either by dismissing their emotional needs and avoiding closeness (insecure-avoidant), or by being flooded by distressing emotions and clinging to attachment figures (insecure-ambivalent) (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973, Bretherton, 1996; Crittenden, 1997). In an extremely deprived,

inconsistent and fear-evoking relationship the child may fail in forming organized attachment patterns (disorganised attachment; George & Solomon, 1999).

We lack research about attachment development in conditions of war and military violence, where mothers have to protect infants from external dangers and life threat. However, research on mother-child dyads in other adversities is informative here (Scheering & Zeanah, 2001). There are increasing evidence that traumatic childhood experiences such as sexual and violent abuse, maternal depression and deprivation of care and economic adversities (Crittenden, 1985; Greenberg, 1999; Howe, Brandon, Hinings, & Schofield, 1999; Zenah, Boris, & Larrieu, 1997) form risks for insecure and disorganized attachment pattern. The underlying mechanism for insecure attachment is insensitive, unpredictable or intrusively overprotective parental care (Crittenden, 1999; Carlson, 1998). Research shows that depression and poverty may strip parental resources and distract their attention from the child. Emotional deprivation, for instance among orphans, is traditionally considered highly risky for insecure and disorganised attachment patterns (Bowlby, 1973; Carlson, 1998). Recent systematic study of the extremely deprived Romanian orphans partly supports that view, but provides some more elaborated analysis of timing of attachment, and resiliency (Carlson, 1998; Rutter & Era-team, 1998). Research also shows further that early traumatization modifies brain functions (Pynoos, Steinberg, Ornitz, & Goenjian, 1998), which influence later development and ways of appraising, evaluating and coping with future traumatic stress.

Table 1: Traumatic impact on emotional, cognitive and behavioural development according to the developmental stage

Trauma impact on developmental domains			
Developmental stage & salient tasks	Emotional: valence, regulation, recognition & expression	Cognitive: attention, thinking reasoning, memory	Behavioral
Infancy • Establishing security & thrust in care relationship • Exploring environment	• Negative emotionality • Difficulty to be soothe • Distrust in available care • Intensive fearful	• Vigilance to dangerous cues • Distrust in predictability of events	• Inadequate clinging • Irregularities in sleeping and eating
Toddler age • Role taking and social participation • Differentiation between imagination and reality	• Difficulty in emotional regulation • Difficulty in empathy development • Escalation of intensive fear and hatred	• Vigilance to dangerous cues • Difficulties in separating between reality and fantasy • Negative expectations about human virtue	• Attention disorders • Aggressive or uncontrollable behaviour • Regressive clinging to others • Excessive daydreaming
Middle childhood • Being aware of own and other's complex motives and emotions • Learning sophisticated reasoning & achievements	• Narrow or biased emotional repertoire • Selective empathy • Difficulty in aggression regulation	• Splitting between good and bad • Fear shadows reasoning capacity	• Concentration problems • Adult like commitment to war
Adolescence • Hypothetical & abstract thinking • Future planning • Intimate relationships	• Appraisal of own future narrowed and unrealistically pessimistic • Traumatic memories interfere with intimate relationship • Distrust in others • Strong oscillations of mood	•Difficulty in making decisions •Splitting between good and bad •Unrealistic appraisal of dangers •Distorted belief in one's invulnerability	• Acting out behaviour • Disregard for dangers • Impulsive behaviour

War, dangers and life-threat infer with the basic parental activities of feeding, protecting, sheltering and teaching thrust in human virtues. Middle Eastern parents showed severe concerns about the safety, survival and developmental prospects of their children. The also expressed deep despair and feelings of guilt when not being able to fulfil the objectively impossible task of providing security for their offsprings (Punamäki, 1986). The infants' core developmental task of seeking security and satisfying curiosity may subsequently be seriously handicapped in a war situation.

Toddler Age

During the toddler years (3-5) the child learns to regulate and adequately express emotions, and becomes an active member of sibling and peer groups. The basic emotions of joy, sadness, disgust, anger and fear become organized into a more comprehensive and complex emotions. The higher-order emotions such as shame, guilt and jealousy involve specific appraisals, behavioral and feeling states (Power & Dalgleish, 1999; Saarni, 2000). Children develop their own 'theory of mind' as they become more aware of their own and others' inner world, beliefs and emotions, and perceive causality between thinking and behaving (Carpoendale & Chandler, 1996). The emotional-cognitive sophistication forms in turn preconditions for prosocial and empathetic behavior (Eisenberg, Fabes, Bernzweig, Karbon, Poulin, & Hanish, 1993; Zahn-Waxler & Radke-Yarrow, 1990). During toddler years, children also learn to separate fantasy from reality by intensively practicing imagination, symbolic play and other as-if –activities.

Adaptive cognitive-emotional development is possible in interaction with caring parents and a stimulating but safe environment. War and military violence infer with these conditions. While there is abundant research on trauma impacting adults' emotional processing, we lack knowledge about how it affects emotions and feelings among toddlers to whom the regulation of emotions is a salient developmental challenge. Trauma victims' emotional processing involves distortions and biases, and may result in escalating and overwhelming expression, or numbing of feelings (Ehlers, Maercker, & Boos, 2000; Näätänen, Kanninen, Qouta, & Punamäki, 2002).

Most interventions with traumatized pre-school children involve playing, drawing and other symbolic activities. They base on assumptions that play allows children to divide their excessive and painful experiences into small quantities, work through them, and assimilate them into to their existing schemas (Bevin, 1991). In play children can also process the trauma by symbolizing it and modifying its consequences (Horowitz, 1999). There are observations that children tend intensively to incorporate their traumatic experiences into their play (Freud & Burlinham, 1943; Terr, 1991; Yule, 2001). Most play researchers agree that symbolic and social play has beneficial influences on cognitive, emotional (Johnsen, 1991; Russ, 1993), and social (Rubin, Hastings, Chen, Stewart, & McNichol, 1998) development. Research is scarce, however, on a possible mental health function of incorporating traumatic events in play.

Play and fantasy in toddler years provide an example of psychic processes that can both protect and make children more vulnerable in traumatic stress. On the positive end, play allows ventilation of feelings and reconstructing the unsafe and dangerous world. We observed Palestinian children using play as a means to engage in the roles of the victims and the persecutor (prison-play, enemy-play, war-games), to create consoling as-if realities and replaying feelings of fear and courage (funeral play,

freedom-fighter play) (Punamäki, 1997). On the negative end, pre-school children are vulnerable because traumatic events distort the border between their fantasies and the actual reality. Some preschool children were frightened of the enemy soldiers, because they attributed them magical and omnipotent powers, in addition to the real danger. Intrusive posttraumatic symptoms and nightmares are especially horrifying to preschool children because they may experience that the trauma scene happens again 'in their head', and was not an external event. However, the most vulnerable children seem to be those who are too afraid to engage in any symbolic activity due to the vivid horrifying images.

Middle Childhood

"Are you my buddy" is one of the core questions during the school years, and "How do I succeed in my examinations", another. Social position and school performance contribute to the well-being and self-esteem of school age child (Durkin, 1995). Being victim of war atrocities negatively interfere with both. Peer popularity is dependent on social competence that in turn consists of dimensions of prosocial orientation and social imitativeness (Rydel, Hagekull & Bohlin 1997). Prosocial child is helpful and empathetic, and actively suggests games and plays, and finds friends easily. The opposite of social competence is aggressive and hostile, or withdrawal and non-communicative, behaviour.

There is evidence that learning and concentration problems are frequent among traumatized children (Roussau, Drapeu, & Corin, 1996; Qouta, Punamäki, & El Sarraj, 1995). School performance as an important competence domain is thus in a special risk at this age. Dealing with aggressive impulses that is a precondition for successful peer relationships also seem to be in danger. Follow-up research shows that children's aggressive behavior decreases with age. Simultaneously their social skills and comprehensive understanding, recognition and expression of emotions increase. The peak of aggressive behavior is in early adolescence (11-13), and for instance fighting decreases considerably between 14 - 16 years of age (Loeber and Hay, 1997; Tremblay, 2000).

The transition from early adolescence to adolescence is a critical period for aggressive behavior. Research evidences that if the normative decrease of violent and aggressive behavior does not occur, it is probable that a severe aggression, often leading to criminality, increases (Lobber & Hay, 1997). A stable violent and aggressive behavior pattern, together with a belief system supporting the legitimacy of violent behavior, forms an especially severe risk for further criminality in adulthood. It has been shown that high levels of aggression-related hormonal changes associate with severely violent behavior, only if the person's belief system concurs with it. For instance, high testosterone is associated with the crime of raping (convicted) in the group of men who maintained derogative attitudes towards women (e.g., acceptance of interpersonal violence and sex domination)(Aromäki, Hoeb, & Lindman, submitted). The research suggests that maladaptive cognitive attributions together with other developmental risk factors may lead to pathological aggression.

There seems to be a strong belief that 'war children' develop aggressive personality. We speak about 'lost generations' in Mosambik and Angola, and aggressive youth in Palestine and Northern Ireland. We believe that as societies at war enhance fighting, aggression and dehumanizing of the enemy, their children's development follows similar paths. It is implicitly assumed that a belligerent atmosphere and the morality of emergency situations become a part of children's inner cognitive-emotional schema, personality development and human relationships. It is surprising, however, that we

lack systematic developmental analysis of the prevalence of prosocial and aggressive behavior among children in war zones. We do not know whether there is a normative decrease in aggression in early adolescence also in violent societies. Nevertheless, from an intervention perspective, while conflict resolution and peace education are important at every age, they might be especially decisive in middle childhood and in the transition to adolescence.

Adolescence and Youth

In adolescence, planning for the future, creating intimate relationships and committing to one's worldview are important developmental tasks. Young people seek for their own identity and psychosocial resources outside the family. They typically show a strong belief in their own invulnerability and capability to abolish injustice and to change the world and. Their abstract thinking is increasingly sophisticated, and they able to solve conflicting moral and human problems and analyze complex cause-effect considerations. On the other hand, emotionally and socially young people tend to experience themselves as insure and their emotions oscillate intensively, partly due to hormonal changes (Booth, 1997; Davison & Susman, 2001). War, fighting and belligerent atmosphere are salient for young people, who feel strongly that it is their duty to save their people and create a more just society. Their feelings of invulnerability and omnipotence further contribute to their self-sacrificing attitudes and active participation in military and political conflicts. They can cognitively understand the severity of dangers, but may be emotionally incapable of realizing that they can die like others.

Traumatization in adolescence forms especially a risk for the creating lasting human relationships and for future planning. Both developmental tasks demand thrust in other humans and their benevolence, which is often badly shattered when one falls victim to atrocities (Janoff-Bulman, 1985). Intrusive and horrific memories can be activated in intimate encounters, and subsequently the victim withdraws from closeness with others. Clinical observations reveal that some Palestinian victims of human rights abuse (detained at 13-15 years of age) felt isolated and lonely, and experienced that their peers could not understand and share their feelings (Punamäki, 2000).

Young people are interested in ideological issues and are reconstructing their world views. Secure life history and safe environment provide them opportunity to try different roles, learn a repertoire of emotional expression and train sophisticated problem solving skills. On the contrary, the emergency needs in wartime create an atmosphere in which complex moral dilemmas are simplified and people are split as good and bad. Yet, the questions of life and death, justice and injustice, peace and war, killing or mercy, forgiveness or revenge, bravery or cowardliness, fear or confidence are salient. War thus places great burden on youth and adolescent cognitive-emotional development: social, moral and ideological questions are highly complex, but opportunities for their solutions are narrowed. The successful solution of these dilemmas can lead to strengthened psychological integrity, high moral status and healthy ideological commitment. The unsuccessful solution, in turn, leads to fragmented thinking, immature moral reasoning and extreme views. (Van Ijzendoorn & Zwart-Woudstra, 1995).

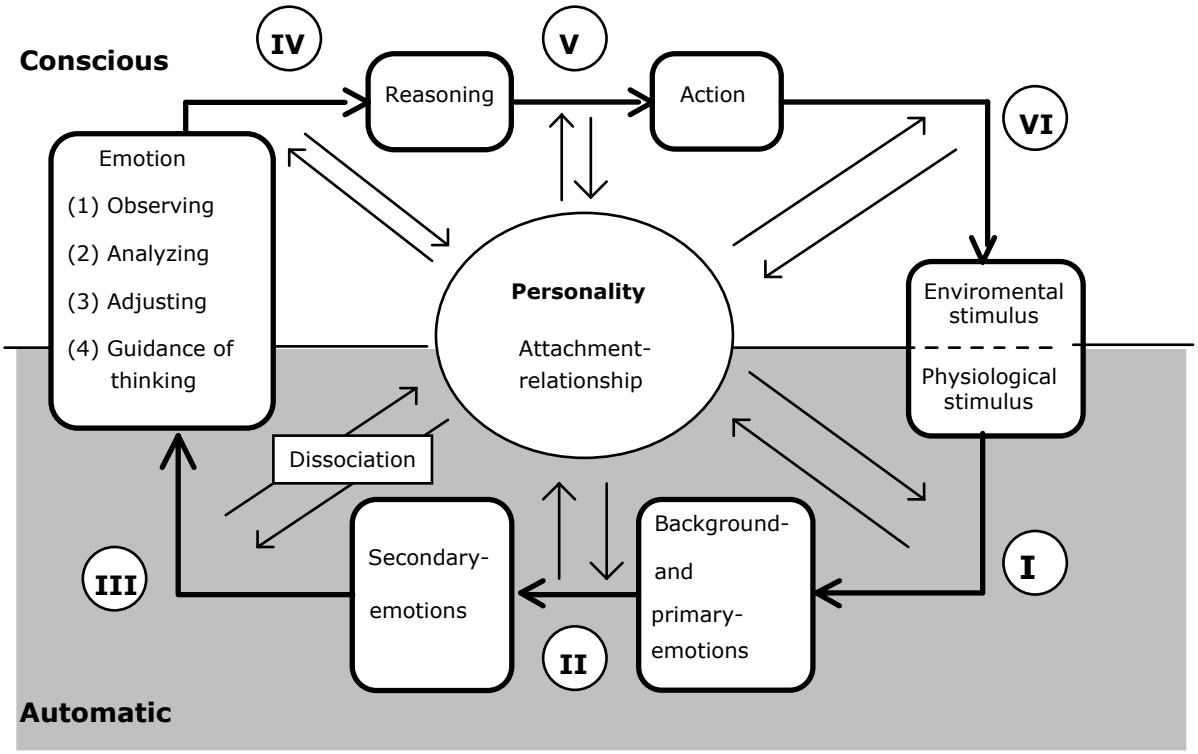
Personality and Trauma: Contribution of Attachment Theory

Consistent with other observations, our research among Palestinians has revealed that an objectively similar trauma experience brings subjectively different messages to victims and survivors and causes different mental health consequences (Punamäki, 1986; 1999; Punamäki, Qouta, & El-

Sarraj, 1996). For instance, a torture survivor interpreted his experience as 'a possibility of deepening my spiritual understanding, and enhancing of psychological insight and religious commitment", while another perceived imprisonment as "endless humiliation and loss of human dignity". A mother of six perceived air raids and curfews as "a proof that our justified struggle makes the occupier to shiver and that is why they try to treat us like non-humans in a big prison camp". An another mother reported that "curfew brings me the feelings of horror and fear of death, and I see the faces of soldiers wherever I turn my face", and the third had a "feeling as if this is happening at the evening in 1948-home, and soon they will expel us again, my news are like strings, and I fear for an other transfer". Finally, we found a great variability in children memories of recent night raids and curfews. One wrote that a worst thing was ' that my newly planted flowers in the garden died because I was too afraid to go out to water them", while another reported that ' the best thing was the excitement', and a third child was afraid of what happened to her father.

Attachment paradigm may explain the trauma victims' unique ways of interpreting threatening cues, regulating emotions, and responding to danger and threat. They may also provide underlying mechanisms for the differences in children's symptom severity and explain why some children deactivate, and others over activate their distress. Figure 1 is an information processing model based on Crick and Dodge (1994) and Damasio (1999), and adapted by Taxell (2000). It illustrates how the personality structure influences the appraisal, activation of psychosocial resources and coping strategies in the face of traumatic stress.

Figure 1. Information Processing model



According to Bowlby (1973), in the early caring relationship children learn to organize their behavior effectively in potentially dangerous circumstances such as separations and encountering a stranger. The preconditions for secure attachment are that the child can rely on the parents' capability and sensitivity to provide a 'secure base' from which to explore and which to seek safety. Insecure-avoidant child in turn experiences that parents do not respond his/her distress, and learns to rely only his/her own strength, distrusts emotions and focus attention to non-human environment. An insecure-ambivalent child also experiences insensitive and often unpredictable parenting, but develops a strategy to deal with distress by heightened emotional expression and vigilange for parental attention. Ample evidence shows that early attachment style associates with cognitive-emotional development: for instance, secure children show less aggressive and more empathetic and prosocial behavior (Greenberg, 1999;Rubin, Hastings, Chen, Stewart, & McNichol, 1998). The mental working models, characteristic of each attachment style, are expected to be activated and guide feelings and behaviors in stress and trauma later in life (Bowlby, 1980). There is some evidence that insecure adult attachment styles associates with vulnerability to posttraumatic distress among victims of childhood abuse (Alexander, Anderson, Brand, Schaefer, Grelling, & & Kretz, 1998; Muller, Sicoli, & Lemieux, 2000). Less is known, however, about how children with different attachment styles process traumatic experiences appraise threat and cope with stress.

Table 2 presents hypothetical attachment-related responses to trauma. They proceed according to the Transactional Stress –model by Lazarus and Folkman (1984). Trauma exposure associates with psychological distress through stages of perceiving and appraising the threat and danger (primary appraisal), and evaluating one's own resources to deal with them, weighing the available support and threat to one's safety (secondary appraisal). Next, coping strategies are applied to protect one's psychological integrity by managing emotions, restructuring meanings, and employing behavioral attempts to change or adapt to the stress. Finally, posttraumatic symptoms and behavioral and mood disorders occur depending on the mediation process of the appraisals and coping strategies.

Exposure to trauma and danger activates the attachment-related working models that were originally learned to guarantee the child's safety and survival (Bowlby, 1980). Subsequently securely and insecurely attached children show unique ways of interpreting and evaluating the danger and coping with it. The Secure children's observations are realistic and they are able adequately to estimate the severity of danger and their own resources to deal with it. The secure children have learned to trust adults' ability to protect them, and are capable to integrate intensive negative emotions and positive cognitive reframing of the painful experience. Apparently the secure children choose coping strategies that fit with the demands of the stressful encounter (Mikulincer & Florian 1998;Brenner & Shaver, 1998). The Insecure-avoidant children tend to deny and underestimate the severity of danger, and often distort and narrow their perceptions of traumatic reality. They numb their negative feelings and employ avoidant and passive coping strategies. The Insecure-avoidant children have learned to thrust only themselves and may distrust adults' capability and willingness to help them. They instead obsessively thrust in their own strength and overestimate their resources in traumatic stress. Insecure-ambivalent children in turn get easily emotionally overexcited, and are intensively involved in traumatic scenes. They cling to adults at every age, and are highly worried about their parents' well-being. They rely on emotional coping (Mikulincer & Florian, 1998) and fail to distinguish between their own fear-loaded and uncontrollable inner schema and the outer reality scene. They overestimate the severity of dangers and underestimate their own resources. Parents of ambivalent children find it difficult to soothe them after frightening events. Exposure to trauma thus evokes unique mental working models characteristic of each attachment style.

Table 2. Traumatic Stress process According to the Child Attachment Style

Attachment Style	Traumatic Stress			
	Recognition of Threat	**Appraisal of Resources**	**Coping Strategies**	**Psychological Symptoms**
Secure	*Realistic interpretation of danger *Balance between inner schemas and environmental cues	*Seeking social support *Thrusting one's own capability * Thrusting others' benevolence	*Wide repertoire and situation-adequate *Both active and passive *Both behavioral and mental strategies *Both emotion- and problem-focused	*Posttraumatic symptoms in acute stress * Less risk for chronic PTSD
Insecure-avoidance	*Denial of danger *Inner threatening schemas activate	*Thrusting own strength *Distrust others' willingness and ability to help	*Withdrawal & avoidant modes * Behavioral models dominate *Problem-focused strategies	*Possible a-symptomatic in acute trauma *Avoidance PTSD symptoms dominate
Insecure-ambivalent	*Exaggeration of threat and danger *Inner threatening schemas dominate interpretation	*Despair and disbelief in available resources *Easily disappointed to the received help	*Emotion-focused strategies *Clinging to others	*Both acute and cronic PTSD symptoms *Intrusive symptoms dominate
Disorganized	*Panicking and distraction * Catastrophizing appraisal	*Impulsive and disorganized activity * Conflicting & victimizing interpretations	*Coping mismatch the trauma demands * Disorganized and oscillating attempts to cope	*Risks for mental health disorders * Risk for chronic TSD

Personality and Posttraumatic Distress: Contribution of Temperment Research

Research on temperament may also contribute to understanding why children differ in their distress and vulnerability to psychopathology after traumatic experiences. Although almost all children respond with excessive fear, sleeping difficulties and clinging to parents in acute trauma, only a minority develop posttraumatic disorders. Yet, the PTSD level among war victims is generally higher than in victims of natural disaster (Yule, 2001). Among war-traumatized children, the percentages of PTSD diagnosis vary from 22 % among Israeli (Laor, Wolmer, Mayers, Gershon, Weizman, & Cohen, 1997) and 27% among Lebanese (Saigh, 1991) children exposed to shelling to 52 % among South American (Cervantes, Salgado de Snyder, Padilla, 1989) and 48% among Cambodian (Kinzie, Sack, Angell, Manson, & Rath, 1986) political refugees escaping military atrocities. Research further shows that once the fighting and danger are over the posttraumatic symptoms decrease considerable (Laor et al., 1997; Punamäki, Qouta, & El Sarraj, 2001). Epidemiological data among adults show that in the course of about six months symptoms disappear in about two-thirds of the cases (Kessler, Sonnega, & Bromet, 1995). Yet, research is still lacking about the course of PTSD among children.

In a follow-up of adolescent disaster victims showed that 52% developed acute PTSD, and one third recovered during one year. Yet a third had developed chronic PTSD after 5-8 years (Yule & Udwin, 1991; Yule, Bolton, Unwin, Boyle, O'Ryan, & Nurrish, 2000). It is evident that although being distressed might be a normal reaction to horrors and dangers, being overwhelmed by fear can incite psycho- and neuropathological paths resulting in chronic PTSD.

Traditionally, PTSD has been considered a normal response to an abnormal experience (Herman, 1993). Current research shows, however, that PTSD occurs also in non-extreme situations, and that not all severely exposed victims suffer from PTSD (Shalev, 1996). There must thus be social, personality and biological vulnerabilities that explain the risks for the disorder. It might also be that different factors predict symptoms in an acute trauma and chronic PTSD (Shalev, 1996; Shalev & Yehuda, 1998). Child temperament that combines biological resilience and vulnerability factors with developmental interactions may explain some of the differences in the course of posttraumatic reactions.

Children differ from a very early age in valence and intensity of mood and emotional expression, threshold for pain, need for rhythm and regularity and tolerance for excitement, as well as distractibility, activity and novelty seeking (Thomas & Chess, 1977; Rothbart & Bates, 1998). Temperament involves behavioral and emotional characteristics that are constitutional and stable over time, have neuropsychological underpinnings, and are to some degree inherited (Goldsmith, 1993; Katainen, 1999; Keltikangas, Räikkönen, & Lehtimäki, 1993). There is abundant research on how temperamental dimensions such as emotionality, activity and sociability associate with child development and mental health (for review, Rothbart & Bates, 1998).

We lack, however, research on whether, and how, temperament style would protect or increase the vulnerability of children's mental health in traumatic stress. Research on resiliency has revealed some temperamental and other personality characteristic that may explain why

some children blossom despite adversities and trauma. The protective characteristics include activity, curiosity (involving novelty seeking) and intelligence (Apfel & Simon, 1996; Rutter, 2000), creativity and mental flexibility (Qouta, Punamäki, & El Sarraj, 2000). Sociability, involving cooperativeness, extraversion and need for affiliation, may also be protective because it facilitates social support that is crucial in traumatic stress (Punamäki, Qouta, Komproe, Masri, & De Jong, submitted).

We may hypothesize that some temperamental dimensions are especially salient in the course of posttraumatic distress: threshold for pain and pleasure, valence and intensity of fear, sadness and anger, emotional arousal and regulation, and novelty seeking behavior. Our observations among the Middle Eastern mother-child dyads in dangerous situations such as night raids and curfew indicate that small children differed greatly in the speed and acceleration of emotional arousal, the intensity of fear, and how easily mothers can calm them down and soothe their distress. It seems that children who show curiosity, activity and novelty seeking tendency tolerate more stress, compared to children who need regularity and show a low threshold for stimuli. The goodness-of-fit between personality and environment seem to be decisive for child endurance even in a highly traumatic situation.

The underlying mechanisms of temperament differences reflect a child's capacity for self-modulation, general arousal of the motor and emotional system, attention persistency, recovery time from distress, and ability to tolerate and deal with negative emotions (Katainen, 1999; Rothbart & Bates, 1998). These mechanisms contribute to the different ways children perceive and evaluate danger, and process emotions and cope with losses and violence. Some mechanism are constitutional, others children learn during their early attachment relationships. Nevertheless, they are further interwoven in children's developmental trajectories and shaped in the context of family and society atmosphere (Belsky, Fish, & Isabella, 1991). It is essential to know about the ways by which a belligerent society filled with fear and danger influences personality development, including temperament.

Helping Children to Cope with War and Violence

Intervention projects among militarily traumatised children generally aim at enhancing effective coping abilities, promote resiliency and provide social support. Few, however, explicitly analyse how, why and when specific intervention strategies are applied. There seems to be an implicit assumption that traumatization makes people alike and that interindividual differences play lesser role in victimization. According to the attachment theory (Bowlby, 1980), the opposite happens: early learned personality schemas of dealing with danger and threat activate in a new life danger of war. Subsequently persons with different attachment styles vary in their recognizing, managing and recovering from traumatic experiences. They also respond differently to help, develop different therapeutic alliances and process traumatic memories differently (Kanninen, Punamäki, & Salo, 1999; Näätänen et al., 2002).

Interventions should thus be tailored to meet the vulnerabilities and strength of secure and insecure children, and consider the goodness of fit between environment and temperament. In war, conditions where thousands of children are in need for psychosocial first aid and

enhancement of self help, consideration of personality factors may sound superfluous. Yet, knowledge about them is essential in tailoring effective interventions. For instance, it is not meaningful to encourage behaviorally active coping strategies or feeling ventilation among insecure-ambivalent children, who rather, would benefit from cognitive reframing and regulating of emotions.

It is generally stated that trauma exposure dramatically shatters the victims' fundamental assumptions and representations about themselves, other people, and the world (Horowitz, 1999; Janoff-Bulman, 1985). Attachment theory contributes to trauma research by specifying the contents and dynamics of this 'shattering' process. The representations of the benevolence versus malevolence of other people are shaped in the early maternal relationship. They will be gradually generalized to guide thinking, feeling and remembering in other relationships, and will be activated especially in danger. Our research on political prisoners evidenced that the dynamics of the 'shattering' of earlier assumptions differed for men with secure and insecure attachment styles. Securely attached were more vulnerable to human-induced maltreatment than preoccupied insecure (ambivalent in childhood), apparently because their inner working models mismatched with the new inhuman and cruel experince. Preoccupied men in turn expected people to be malevolent and their inner working models thus matched with the inhuman and cruel interaction (Kanninen, Punamäki, & Qouta, submitted).

Coping strategies are crucial determinants of child well being vs. pathology in traumatic stress. Children aim at protecting their well-being either by altering the painful situation or by manipulating their own thinking and feelings (Rutter, 2000). In many war situations, children of all ages have commit themselves to defend and fight for their country, which indicates active and problem-focused coping modes. Their motive is to protect their own and their families' security (Netland , 2001; Punamäki & Puhakka, 1997). They may also protect their well-being by denying the painful situation and numbing feelings of fear and despair (Almqvist, 2000; Punamäki & Puhakka, 1997). Sometimes they flee the unbearable reality into their fantasy world and distract attention to less provocative activities. In an extreme case, the mental withdrawal and distraction may result in dissociative states of mind. Children learn to 'hypnotize' themselves as-if outsiders, and experience the violence as happening to somebody other than themselves (Hornstein, 1996).

Coping serves an enormous task of psychological, and sometimes physical, survival in war situation. The general assumption that active and problem-focused coping strategies are effective, and passive and emotion-focused ineffective (Alwin, 1994) seem to not to apply to war-related traumatic stress. The question of effectiveness is more complex, and should be considered in terms of personality differences and goodness of fit with the challenges that war and military violence place on children. Some Middle Eastern research shows that although some coping strategies such as denial and avoidance are theoretically maladaptive, they were the last resort for traumatized children, and thus effective (Punamäki & Suleiman, 1989; Punamäki, Mohammad, & Abdulrahman, (submitted); Weisenberg, Schwarzwald, Waysman, Solomon, & Klingman, 1993. According to an alternative view, avoidant coping strategies are typical for insecure-avoidant children, and may be effective for them, whereas active and problem solving strategies suit to secure children, and explain their good adjustment after trauma. When tailoring

effective interventions, it is important first to become familiar with children's characteristic ways of coping. Children should not be stripped of their personal ways of responding trauma, but they can be guided to create new and more repertories strategies. The insightful work on the development of emotional competence and emotion-regulation (Saarni, 1999; Shields & Cicchetti, 1997; Davies & Cummings, 1995) may contribute to understanding personality differences in children coping with war atrocities. The idea that emotion-focused coping is considered maladaptive and ineffective in trauma encounter, is based on outdated view of feelings as something irrational and thus disturbing. According to current research, emotions serve an adaptive function by reorganizing behaviour into purposeful action. Emotions are an integral part of person-environment transactions that contribute to psychological adaptation (Lazarus, 1991; Frijda, 1986). One's emotional repertoire, measured by emotional recognition, expression and regulation, is an integral part of one's coping with dangers.

Further, research on symbolic and imagery processes (Bretherton, 1984; Singer & Singer, 1981) can contribute to enhancing effective coping in war conditions. Effective coping requires an ability to shift and manipulate mental images, rely on soothing and consoling memories, construct new metaphors and create comprehensive narratives to replace fragmented horror pictures (Garbarino, 2001; Punamäki, 1997; Qouta, Punamäki, & El Sarraj, 1997).

Researchers agree that a wide repertoire of coping modes and their situation-sensitive, flexible and adequate employment is effective, and should thus facilitate recovery and good mental health (Rutter, 2000). Yet, war and military violence form a trap or vicious circle for child development: the more the victims are in need of a wide repertoire of coping strategies, the less capable they are in realizing it and the more they rely narrow range of coping strategies (Punamäki, et al., submitted). This discrepancy urges adults to help children to employ multiple and productive coping modes despite traumatization. Enhancing effective coping is important, because successful coping with traumatic stress promotes high self-esteem, meaningfulness and positive affect, all cornerstones of mental health (Folkman & Moskowitz, 2000; Garbarino, 2001).

Conclusion

War experiences dramatically impact children's minds and behavior, involving changes in their thinking, remembering, problem solving, moral reasoning, as well as feelings and emotional expressions. The presence of life threat, aggression, and the enemy forms a complex childhood environment, and poses unique developmental tasks for children. War and violence is constantly present in family communication, identity formation and moral reasoning, and in formation of friendship and intimacy. Interventions even in a mass scale should be tailored to meet the individual's unique ways of understanding, experiencing, appraising and coping with trauma.

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Table 2. Traumatic Stress process According to the Child Attachment Style

	Traumatic Stress			
Attachment Style	Recognition of threat	Appraisal of resources	Coping Strategies	Psychological symptoms
Secure	*Realistic interpretation of danger *Balance between inner schemas and environmental cues	*Seeking social support *Thrusting one's own capability * Thrusting others' benevolence	*Wide repertoire and situation-adequate *Both active and passive *Both behavioral and mental strategies *Both emotion- and problem-focused	*Posttraumatic symptoms in acute stress * Less risk for chronic PTSD
Insecure-avoidance	*Denial of danger *Inner threatening schemas activate	*Thrusting own strength *Distrust others' willingness and ability to help	*Withdrawal & avoidant modes * Behavioral models dominate *Problem-focused strategies	*Possible a-symptomatic in acute trauma *Avoidance PTSD symptoms dominate
Insecure-ambivalent	*Exaggeration of threat and danger *Inner threatening schemas dominate interpretation	*Despair and disbelief in available resources *Easily disappointed to the received help	*Emotion-focused strategies *Clinging to others	*Both acute and cronic PTSD symptoms *Intrusive symptoms dominate
Disorganized	*Panicking and distraction * Catastrohizing appraisal	*Impulsive and disorganized activity * Conflicting & victimizing interpretations	*Coping mismatch the trauma demands * Disorganized and oscillating attempts to cope	*Risks for mental health disorders * Risk for chronic TSD