The Heritage of Disorganised Attachment

Stephen Appel and Catherine Healy

Abstract

Clients who characteristically relate in a disorganised way present particular clinical difficulties. A better understanding of what might be going on for the client is helpful to the therapist in the face of the client's erratic responses. To that end we offer this article which provides a description of disorganised attachment and reviews a selection of recent studies in several fields in order to better comprehend the heritage of disorganised/disoriented attachment behaviour, its precursors and outcomes. We include a heuristic framework of the emotional socialization of attachment. The article ends with some thoughts on psychotherapy with disorganised clients attachment and proposes a story-reclaiming framework.

Introduction

The client does not just speak to the therapist about his or her life, but shows the ways in which he or she creates experience. The client "contributes to an intersubjective construction within the analytic setting that incorporates *in its shape and design* the nature of the psychic space within which the patient lives (or fails to come to life)" (Ogden: 1991: 604, his emphasis). Sometimes this psychic space seems shapeless and without design: now *this* intense emotion, now *that*, now dissociation; now *this* focus of attention, now *that*; now *this* mood, now *that*—simultaneously or in quick succession. Consider Sarah:

Sarah would enter our office appearing bright and cheery, plop herself down in the chair, and position herself at an angle facing away from me toward the wall. She would sigh, and almost immediately start complaining about someone's (boss, teacher, friend, boyfriend) insensitivity to her or demandingness, telling me how exhausted she was. Then, another shift in her affect would occur. After the initial cheer and then rage, she would move to depression and despair and would blame herself for being disorganised, miserly, ungrateful, and in a word that she often used to describe herself, a malingerer. There were few, if any, pauses in her speech. Sometimes, just as I took a breath to start, she raised her hand much like a traffic director to stop me from saying anything.... When I did have the opportunity to say something, I was usually wrong. When Sarah did allow me to recognize her emotional needs, she quickly retreated into a hopeless state....She exhibited contradictory behaviours, e.g. asking to increase the frequency of sessions about a month before she was leaving for a long summer break. (Gubman: 2004: 164)

This is the *hard-to-treat* client. What the clinician faces is the bewildering changeability of the client who has the attachment style known as disorganised. A more famous example: Bobby Fischer, the notoriously difficult chess player, has been called a *mimophant*. Half mimosa, half elephant, a mimophant is extremely sensitive to his or her own hurt feelings and very thick-skinned when it comes to trampling over the feelings of others (Edmonds and Eidinow: 2004).

When working with such a client the therapeutic relationship, Giovanni Liotti says, "may become unbearably dramatic, changeable, and complex for both partners" (2004: 485). Identified only two decades ago, the study of disorganised attachment has become "the most promising current area of attachment research" (Fonagy and Target: 2003: 245). This article is not in the first instance about how to do therapy with the disorganised client. Instead it covers a selection of recent research from a variety of disciplines in an effort to better understand the development and inner world of disorganised attachment. To the extent that this is accomplished, it is our hope that readers who are clinicians may find the article of some help in the difficult process of holding these clients who are both in considerable distress and sorely trying to be with.

Disorganised attachment and its sequelae

Let us begin with a short introduction to attachment theory and the variant known as disorganised attachment. The theory of attachment founded by John Bowlby derived from concepts of evolution, communication and control systems theory, ethology, and the cognitive sciences. Expanding on Harlow's theory of discrete affectional systems or bonds (those of mother/caregiverinfant; parental complementary caregiving; the sexual pair; sibling/kinship; and friendship) Bowlby elaborated on this to include the behavioural systems underlying these bonds (Cassidy and Shaver: 1999). Attachment theory focuses on the attachment, exploration, and fear/wariness systems. Interacting with the attachment behavioural system are, among others, the feeding, reproduction, caregiving, and sociability systems. These systems function to "control input from the environment in a manner that keeps these essential variables within the limits required for survival" (Cassidy and Shaver: 1999: 46). For example, the attachment behaviour system of fear/wariness protects from danger; the exploratory and sociable behaviours serve the biological function of learning individual and social group skills, and so on.

Attachment theory proposes "the propensity to make intimate emotional bonds to particular individuals as a basic component of human nature, already present in germinal form in the neonate and continuing through adult life into old age" (Bowlby: 1988: 120-121). The developing infant has the potential to form several attachment bonds and orders them hierarchically, Bowlby said. Primary among these is the mother/caregiver-infant bond: "a relatively long-enduring tie in which the partner is important as a unique, non-interchangeable individual" (Cassidy and Shaver: 1999: 46).

Accompanying the attachment bond are attachment behaviours (crying, sucking, following, clinging, and smiling) designed to monitor proximity to the primary attachment figure to achieve security and safety (Bowlby: 1958). The adult reciprocates the infant's attachment behaviours with his or her own-touching, holding, and soothing-which serve to strengthen the infant-caregiver bond (Bowlby: 1958; Fonagy: 1999a). Attachment behaviours in the first five years are most readily activated by "strangeness, fatigue, anything frightening and unavailability or unresponsiveness of the attachment figure" (Bowlby: 1973: 40). Activation of the infant's attachment behaviour signals the need for a soothing response from the caregiver so that equilibrium, safety, and security are restored. Once terminated, arousal of these behaviours ceases, the secure base is re-established, and the infant can return to exploring the environment (Bowlby: 1988: 11). Containment of the infant's mental state assists the infant to represent itself as an intentional being, as eventually able to think flexibly and make meaning of its own and others' behaviours (Fonagy: 1999b). This reflexive function is fundamental to self organization (Fonagy: 1999a).

In the absence of soothing, especially if chronic, the infant remains hyperaroused. To deal with this overwhelming emotional state the individual may resort to excluding of attachment-related information that in turn thwarts affective development, increasing the risk of later psychopathology. For example, it is thought that individuals with attachment disorganization survive by blocking out their attachment figures' wishes to harm them. This leads to splitting of the representation "primarily into an idealized and persecutory identity" (Fonagy: 1999c: 9) and taking into oneself the caregiver's feelings of fear, rage etc. as well as the caregiver's image of the infant as "frightening or unmanageable" (Fonagy: 1999a: 3). It is these attributions of self-other mental states that become incorporated in another of attachment theory's fundamental tenets,

the Internal Working Model (IWM) which is constructed from the process of repeated activation of attachment behaviours and caregiver interaction. The model created forms the blueprint for future styles of relating.

The infant's attachment construct becomes incorporated—it becomes a *within-child* phenomenon—and it endures; the IWMs are models of expectations of future interpersonal interactions: of self and of attachment figure, their accessibility or inaccessibility (Bowlby: 1982). These early models are remarkably constant over time. There appears to be a biological aspect to the ingraining of attachment style. Alan Schore (1996) and others speculate that, as in animals, the way the caregiver responds to the infant changes the neural structure of the infant brain.

Whenever in life we face traumatic stress we want help and comfort and our attachment system is called upon. If attachment is an enduring affectional bond that one develops with another, one of the hallmarks of secure attachment is that the dyad is effective in the regulation of emotions. Disorganised attachment represents the failure or absence of a strategy of the infant to enlist caregiver support in stressful situations, the infant thus becoming overwhelmed by negative emotions. Identified by Main and Solomon (1986), disorganised attachment is a later addition to the three primary attachment styles classified in Mary Ainsworth's famous Strange Situation experiments designed to test the hypothesis that separation from the attachment figure activates the infant's attachment behavioural system (Ainsworth et al.: 1971).

In this experiment one-year old children were placed in an unfamiliar laboratory setting for a period of twenty minutes, where they were twice briefly separated from their mothers (for up to three minutes). Initially the child stayed with the mother, then with a stranger, and then was left totally alone. Their responses on reunion with the mothers were assessed. Three classifications of infant attachment were discerned: insecure-avoidant, secure, and insecure-resistant/ ambivalent. Securely attached children sought their mothers for comfort and were indeed able to be comforted. Avoidant children did not seek comfort from their mothers, instead they were thought to withhold expression of attachment needs. Resistant/ambivalent children became distressed on separation, and angry and clingy on reunion, unable to feel soothed by their mothers.

Subsequent research based on the Adult Attachment Interview devised by George, Kaplan and Main (1985) found that each of these types of childhood responses correlates with a matching style of attachment later in life: dismissing (insecureavoidant), autonomous (secure), preoccupied (insecure-ambivalent/resistant). But it was found that there are anomalies in the ways infants attach: "Some infants are not able to organize their attachment behaviour according to any unitary or coherent pattern" (Liotti: 2004: 472). In the Strange Situation such infants show contradictory approach-avoidant behaviour when re-encountering the parent (Main and Solomon; 1990). And these contradictory behaviours occur simultaneously or one after another. Their responses in the strange situation are erratic and confused, e.g. becoming immobile (freezing, stilling behaviour) for thirty seconds or more mid-approach to the parent, not responding to the parent's call, looking dazed/in a trance. They may be frenetically active, or have mistimed or stereotyped movements. The behaviours seem to signify the infant's distress and disorientation: quickly alternating aggressive/affectionate gestures, unusual facial expressions, sobbing, gaze aversion, and falling huddled to the floor (Hesse and Main: 1999). Overtly dissimilar, what the behaviours share is that the infant experiences severe negative emotion which it is unable to regulate through the relationship with the caregiver. And so the category 'disorganised attachment' was devised, although it can be thought of as not a new form of organization, but as an interruption in organized behaviour. Disorganised attachment represents "a fundamental dysregulation of emotion" (DeOliveira, et al.: 2004: 438).

A distinction has been made within the new classification, namely secure/ disorganised and insecure/disorganised. Secure-disorganised mothers tended to behave in a more inhibited and fearful way compared to insecure-disorganised mothers who displayed more frequent frightening behaviours (Steele: 2004). But nothing is straightforward in this field; in some people disorganization is so predominant that a secondary category could not be applied. They were designated "cannot classify" (Main: 1993: 220). An example of this is a subject who in the first part of the attachment interview is very dismissing and in the second part is preoccupied, without any obvious conscious awareness of this change.

So, what is going on internally for a client like Sarah, introduced above? The IWM of disorganised attachment is very different from that of stable attachment where there is a sense of the legitimacy of emotions and of the possibility of getting help and comfort during distress. The IWMs of the insecure attachments (avoidant, ambivalent and disorganised) all expect that help will not be available or that requests for help and comfort will be met with negative consequences. In particular, the IWM of disorganised attachment anticipates negative consequences of asking for help and comfort, and it also brings on a non-integrated array of dramatic and contradictory expectations. This is the consequence of a lack of consistency and predictability by the caregiver in

response to attachment behaviour. Subsequently the disorganized person can have two or more simultaneously operating working models both of self and other (Bowlby: 1973) that are segregated from each other (multiple models) (Lyons-Ruth & Jacobitz: 1999). This accounts for the confusing display of behaviour and affect. Bowlby referred to this as "emotional detachment" because of the individual's inability to maintain a stable affectional bond. These individuals, in contrast to those with other insecure attachment styles, have more thoroughly excluded attachment feelings and memories from consciousness so that "there is such a fear of getting close to others that persons in this category act removed and distrustful, and may become severely anxious, depressed, and/or angry if pushed into relating" (Sable; 2000: 64). Clinically, even a therapist's expression of warmth, interest, and care may frighten the client (Cassidy & Mohr: 2001). A simpler way of explicating this is via the drama triangle of persecutor, victim, and rescuer. The disorganised child simultaneously or in quick succession construes both the caretaker and the self according to all three basic positions. So, for instance, the other is seen negatively as the cause of the self's ever-growing fear, but also positively as rescuer; the self is seen as the other's victim and also its caregiver; and so on. This is most useful in coming to terms with the surprising changes experienced when working with a client with whom the establishment of better attachment may be the central goal of therapy (D'Elia: 2001). As Sarah's therapist Nancy Gubman says, having the model of disorganised attachment is "extremely helpful....It places the confusing behaviour in a comprehensible framework" (2004: 168).

Maltreatment

What are the child's reasons for constructing this IWM amalgam? This article will point to several strands in recent research which taken together give a sense of the aetiology of disorganised attachment.

In the first place, attachment disorganization has been strongly correlated with maltreatment in infancy (as high as 80 per cent in some populations) (van Ijzendoorn, et al.: 1999). Dante Cicchetti argues that maltreatment cannot be reduced to a single risk factor; nor is there a specific lifelong outcome of maltreatment in childhood. His ecological-transactional model suggests that it is the balance among risk factors and processes both determining the likelihood of maltreatment occurring and influencing the course of subsequent development. So, "negative developmental consequences occur when an individual's vulnerabilities outweigh his or her protective factors. In contrast,

resilient outcomes eventuate when protective factors outnumber vulnerability factors" (2004: 732). Indeed, the existence of "one understanding secure relationship can 'save' the child from severe dissociative personality disorders" (Bernardi: 1998: 799).

But maltreatment is hard to pin down because what counts as maltreatment varies, its occurrences are not constant, and the developmental timing of maltreatment matters. Another factor is the existence of multiple attachment relationships. An infant who is disorganised with respect to an unresolved mother, may concurrently be avoidant towards a dismissing father, and secure in relationship to another person. In light of this, attachment disorganization "seems to reflect an intersubjective reality rather than a property of the individual child's mind" (Liotti: 2004: 475).

A recent review on child maltreatment identifies the following: sexual abuse, physical abuse, neglect (emotional, physical, and supervisory), and emotional abuse (rejecting, isolating, terrorizing, ignoring, corrupting, verbally assaulting and over-pressuring) (MacMillan and Munn: 2004). Cicchetti and his colleagues have developed a Maltreatment Classification System which delineates maltreatment by using operational criteria with which independent raters can determine subtypes, severity, frequency, developmental timing, and perpetrators of maltreatment. Following on from this grim work the researchers have been able to establish links between childhood maltreatment and all manner of biological and psychological sequelae.

Cognitive, linguistic, social emotional, and representational development all suffers, and there is an increased risk of developing behaviour problems, major mental disorders, and personality disorders.

Child maltreatment has consistently been shown to exert negative influences on development over and above the effects of poverty---physiological and affective regulation, the development of a secure attachment relationship with the primary caregiver, the emergence of an autonomous and coherent self-system, the formation of effective peer relations, and successful adaptation to the school environment all pose serious problems for maltreated children. (Cicchetti: 2004: 734-735)

What is the link between early trauma, disorganised attachment, and later emotional disorders? Liotti (2004) makes a subtle point. It is not that trauma leads to disorganised attachment which then in adult life is manifested as emotional disorder, but rather that insecure IWMs increase the vulnerability to trauma-related emotional disorders. The IWM of secure attachment, on the other hand, is a protective factor. The IWM of early disorganised attachment tends towards disorderly reactions to later trauma. In this way trauma, disorganised attachment, and non-integrated symptoms are "three strands of a single braid".

Let us take this a step further by considering Isla Lonie's argument for an equivalence between borderline disorders and post-traumatic stress disorder. These disorders share many features, but the difference is that in the case of borderline personality disorder, she says, the trauma has either been repressed or, or if it occurred before speech, has not been registered linguistically. Lonie presents the criteria of BPD as "symptoms of failed attachment consistent with early trauma" (1993: 233). From a neurobiological perspective, the link between attachment deficits and emotional regulation is supported by F. Amini and colleagues (1996). The outcome is "disorganized neurobehavioural repertoires and organisms that are incapable of optimal internal self-regulation" (Sable: 2000: 226). In short, childhood abuse greatly increases one's vulnerability to serious emotional disorders in the face of later life trauma.

The link between abusive caregiver and abused child and the consequent disorganised attachment might seem so obvious as to not warrant much further thought here—it is no great mystery why one would be both repelled by and needful of an abusive caregiver. Perhaps so, but not every caregiver of a disorganizedly attached child violently or sexually assaults or neglects or emotionally abuses the child. It is more complex than that. A study of anxiety-disordered mothers, for instance, found that 65 per cent of their infants had disorganised attachment styles (Hesse & Main: 1999). It is also suggested that where an attachment figure has not protected the child from abuse by another family member, the memory of this betrayal of trust may be more wounding that the actual abuse itself (Liotti: 2004: 475). Louise Emanuel (2004) has written about the complex impact of domestic violence on young children. Confronted by a frightening or frightened caregiver the infant is stuck before several closed doors: it cannot approach the caregiver, it cannot shift its attention from the caregiver, nor can it flee (Main: 1995).

Non-maltreatment (or Maltreatment II)

A meta analysis by van Ijzendoorn et al. (1999) of eighty studies concludes that the rate of disorganised attachment in low risk families is 15 per cent, but much higher in high-risk and clinical groups (as high as 80 per cent in samples with parental maltreatment or drug abuse). How is one to account for that 15 per cent?

This leads us to a consideration of non-abusive parenting which nonetheless predisposes the infant to disorganised attachment. Preliminary research has produced evidence of a link between historical maternal abuse and impaired attachment abilities. Where there was familial sexual abuse, mothers tend to be self-focused rather than child-focused and they use their children for emotional support (Burkett: 1991). While mothers who have been sexually abused are less involved with their child, those who have suffered physical rather than sexual abuse demonstrate more hostile-intrusive behaviours (Lyons-Ruth & Block: 1996).

There is growing understanding that disorganised attachment typically stems from psychological and behavioural problems in the caregiver/s such as "maltreatment, unresolved loss or trauma, depression and marital discord" (van Ijzendoorn et al.: 1999: 227). A longitudinal study correlated such "environmental antecedents" with later dissociation and psychopathology (Carlson: 1998: 1107).

Disorganisation of attachment does not only arise in maltreated infants. Or rather, maltreatment should be seen more widely than as gross abuse or neglect of the child by the caregiver. It is easy, we have suggested, to see how living in a frightening environment might produce a disorganised pattern of attachment; it is as though the child knows not whether to engage in fight, flight, or freezing and so does all three. However, it is less obvious how a frightened environment can have the same effects.

A vicious cycle results from a fundamental misalignment between caregiver and infant. When the caregiver's attachment system is activated while attending to the infant's attachment needs, it is thought that early traumatic memories emerge disrupting soothing, containing care of the infant, and thus "frightening or frightened" caregiver behaviour results (Main and Hesse: 1990). Such mothers would seem to be helpless to control their own feelings and to respond to those of their children. Themes of inadequacy, helplessness and losing control are present in their self-reports about their ability to handle caregiving situations (George and Solomon: 1999). The traumatized adult's state of fear manifests itself both in her facial expressions and in her frightened and/or frightening interactions with the infant. The child, wanting closeness and comfort from the caregiver, experiences instead either further threat or sees frightened preoccupation and unavailability. The caregiver's unresolved trauma can manifest as dissociation, leading to dissociative responses in the infant due to the caregiver's frightened appearance, or to behaviours inducing intense fear. For instance, the caregiver may freeze with a dead unblinking stare in the face of the infant's attachment cues, or may simultaneously attempt to soothe then grab the infant in an abrupt

and frightening manner. "Even in the absence of abuse, then, this strange, unpredictable, and potentially threatening behaviour stands to frighten the infant, creating the approach/avoidance conflict in stressful situations" (DeOliveira et al.: 2004: 440).

This dysfunctional attachment relationship is characterized by a noxious combination of fear, sadness, and anger, together with a sense of helplessness. As a consequence the infant experiences a paradox: "fear without solution" (Cassidy & Mohr: 2001: 15). Suffering from chronic activation of the attachment system and/because of the mother's inability to stop this activation through providing security and reduction of arousal, the infant is unable to find a consistent and coherent behavioural strategy "to interrupt the loop of increasing fear and contradictory intentions (approach and avoidance)" (Liotti: 2004: 478). This thwarts the infant's development of a coherent attachment style (Carlson: 1998) and increases the risk of non-abused infants developing disorganised attachment. In the absence of abuse or neglect, but where the infant's attachment system is highly affected by affective dysynchrony as described above, Schore (2001) ascribes the term *early relational trauma*. This, he contends, affects brain development and, says Liotti (2004), may be the basis for susceptibility to dissociative responses when faced with future trauma.

Perhaps matters can be clarified somewhat. If trauma was absolutely consistent it makes more sense that the child would become, say, avoidantly attached: a stable solution to a consistent problem. What it is about frightened/frightening caregiver behaviour which produces disorganization may indeed not simply be the presence or severity of such behaviours, but their inconsistency (Schuengel et al.: 1999); an unstable solution to an inconsistent problem. As security is the goal of the attachment system which is essentially the regulator of emotional experience, optimal receptivity to the infant's attachment behaviour serves to augment positive affect, and modulate negative affect providing security (Siegel: 1999).

Lyons-Ruth and colleagues (1999) observed that the level of breakdown in affective caregiver communication, independent of the influence of discrete observations of frightened or frightening behaviour, does predict disorganised attachment. Maladaptive behaviour must be chronic and/or severe for the child to be left with disorganised attachment as its only option. Not only that, there is a *dosage effect*: seriously hostile and frightening parenting is associated with disorganised/*insecure* attachment, and more subtly abnormal parenting is associated with with disorganised/secure attachment (van Ijzendoorn et al.; 1999). So, while the severity of the symptoms of the affective mal-communication certainly push matters past the tipping point, it not the severity per se but the

breakdown which is the active ingredient. As Jeremy Holmes (1993) puts it, it is the quality of the reciprocal infant-caregiver interaction more than the quantity that is decisive. He says that although many infants frequently spend less time with their fathers, they are strongly attached to them.

Consider the study conducted by Mladen Kneževič and Milivoj Jovančevič (2004) of the maternal attachment of 185 Croatian women in refugee camps who had had several traumatic war-time experiences. (The sample excluded mothers whose babies had serious diseases or malformations, or who were born prematurely, there being evidence that such mothers interpret the children's emotions differently.) The IFEEL instrument for interpreting emotions developed by Emde and colleagues (1993) was used. The test has thirty photographs of the everyday facial expressions one-year-old children. The subject looks at an album of the photographs which have been arranged in particular order and then writes one word that expresses the strongest and most distinct feeling of the child in each photograph. These answers are categorised as passivity, interest, joy, surprise, pain, anger, sadness, fear, shame, shyness, disgust, guilt, or other. The results of this study were compared with other studies including a study of Croatian women conducted in 1993, in other words before the war.

Here are just some of the findings. The mothers who assess anger and interest on a lower level and were more likely to interpret the child's expression as fear were also those mothers who had been wounded or had serious war-related illness. The mothers who tend to assess passivity less than other mothers are those who experienced imprisonment or who witnessed violence towards other people. Mothers who recognised pain, surprise and pleasure are those who did not experience direct enemy attacks, separations from husbands and other family members. The mothers who assess the child's emotion as surprise and pain were those mothers who had been separated from their children and at the same time exposed to extreme hunger for a long time. There is a striking correlation between personal endangerment of the mother and her perception of fear in the child. This link, the authors note, presents a serious developmental difficulty as it puts mother and child in heavy dependence. Further, there is a correlation of maternal psychotic behaviour and PTSD with the recognition of fear as the dominant emotion on a baby's face. As in studies done of high-risk populations, the mothers tended to choose the energetic emotions (joy, sadness, anger, fear) and notice to a lesser degree the emotions with *intellectual* contents (interest, caution, shyness). All in all, "the situation after a dramatic, traumatizing experience leads mothers to the state in which they notice and interpret their children's facial expressions in a different way" (144).

Interestingly, studies using the IFEEL pictures with physically abused children as the subjects showed a significant investment by the child in deciphering facial displays of anger, compared to happiness, fear, and sadness (Pollak et.al.: 1998). Survival of course is highly dependent on the child's heightened ability to detect anger and so avoid abuse.

Such affective misattunements predict attachment problems for mother and child. For example, Lynn Murray (1988, 1992) has shown the deleterious effects of postnatal depression on mother-infant interaction and then on infant development. She and Trevarthen (1986) have demonstrated the infant's immediate awareness of when the mother is not attuned with its affects. They devised an experiment where mother and two-month-old infant were placed in different rooms but able to communicate via television screens. Then the screens were set to run recordings of previous positive interactions rather than the current live displays. As a consequence of this contrived misattunement both mother and infant altered their behaviour, thereby demonstrating how keenly susceptible they were to the other's responses. The infants looked away, became distressed, cried; the mothers saw the infants as not paying attention and instead of their normal baby-talk took to giving directives. As Lonie reminds us, these infant behaviours were very much like those of the infants in Main and Solomon's (1986) study of disorganised attachment. In the post-natal depression study Murray found an immediate worsening of the baby's mental state when what appeared on the screen was the mother's blank face. "What is missing in this blank faced image that can lead to such rapid deterioration in a baby's emotional state?" asks Emanuel (2004: 50). What is missing is whatever it is that is present in that process of accurate attunement and matched interaction Winnicott called the primary maternal preoccupation of the ordinary devoted or good-enough mother where baby is not traumatized by mother's infrequent failures. "Trauma means the breaking of continuity of the line of an individual's existence. It is only on a continuity of existing that the sense of self, of feeling real, and of being, can eventually be established as a feature of the individual personality" (Winnicott: 1967: 22).

Affect attunement is of great importance for attachment and later development and psychic health, or to put it conversely, affect misattunement is of great importance for attachment difficulties and later developmental problems and psychopathology. Might caregiver misattunement not profitably be considered a form of the child maltreatment? This not to attach blame, but rather to understand the nature of the attachment. The prefix mal- has two meanings: bad and faulty. While the intention to harm may or may not be present in child maltreatment, the interactions can be seen as faulty and the consequences are often bad. So, one might think of frank abuse or neglect as Maltreatment I. And rather than talk about "non-maltreating parents" as do Hesse and Main (1999), dissociated, frightened and threatening parental behaviour—the second-generation effects of unresolved trauma—might be better referred to as Maltreatment II.

Can one be even more specific about the precise nature of caregiver-child misalignment which predisposes the infant to disorganised attachment and all its attendant problems? Disorganised attachment, as we are beginning to see, is not straightforwardly a consequence of maltreatment. It seems as though there is something about the nature of the caregiver-infant attunement that goes awry. In a study by Jacobovitz and colleagues mothers of disorganised infants did not differ from other mothers in the sample in terms of other parenting measures like sensitivity and warmth (cited in Fonagy and Target; 2003: 245). Rather, attachment disorganisation is the product of specific forms of distorted parenting associated with unresolved loss or trauma in the caregiver. We have had the latter painfully demonstrated by Knežević and Jovančević 's study with Croatian mothers traumatised by war. Jonathon Green and Ruth Goldwyn outline with some specificity what it might be about the caregivers which contributes to disorganisation, and so the "frightening or frightened" caregiver model proposed by Main and Hesse must, it seems, be refined. Stronger associations are found with a broader definition of abnormal parental behaviour which includes severely disrupted affective communication, hostile/intrusive parental behaviours, and the parent's "role confusions" with the infant (Lyons-Ruth et al.: 1999a).

The point that Green and Goldwyn make is that these correlations are specific. To repeat, it is not simply a matter of general parental insensitivity. Take the matter of mothers with unresolved loss and trauma. It has been shown that they show high frequencies of unusual voice patterns, grimaces (like teethbaring), intrusive invasions of the child's space (like the sudden placing a hand on the infant's throat), or long periods of dissociation. But this seems only to be the case with mothers who themselves were insecurely attached. Securely attached mothers with unresolved trauma and loss show little of these behaviours (Schuengel et al: 1999). Attachment disorganisation has a correlation with high parental expressed emotion (Jacobsen et al.: 2000). As the intensity and inconsistency of this malparenting become chronic, so does the likelihood of disorganised attachment grow.

The infant's part

But disorganised attachment is not simply the imposition on the infant of these specific forms of distorted parenting. Green and Goldwyn (2002) show that the infant also introduces something into the mix; in particular, there are correlations with neurodevelopmental vulnerability in the child. There has been evidence of a genetic link. Lakatos and colleagues (2000, 2002) have found a strong association between attachment disorganisation and a polymorphism on the DRD4 gene. Having noticed that a genetic factor is at play in disorganised attachment, it is necessary to emphasise that biological heredity does not determine attachment. Fewer than 40 per cent of people carrying this polymorphism develop disorganised attachment; "this genetic factor is, therefore, insufficient to yield attachment disorganization by itself" (Liotti: 2004: 476). The genetic factor is neither necessary nor sufficient, and yet it is beginning to appear that the infant can have a biological propensity with regard to developing disorganised attachment. Green and Goldberg put the matter judiciously: there is no gene for attachment, but rather a variation in temperament and arousal modulation which, in association with specific forms of distorted parenting, is a risk factor.

To throw a corrective light on the matter the case of adopted children and their biologically unrelated parents is instructive. A longitudinal study of internationally adopted children by Geert-Jan Stams and colleagues (2002) followed children from infancy to age seven. It was found that even without genetic relatedness, cultural or ethnic similarity, the characteristics of the early child-caregiver relationships and attachment security played a significant role in shaping children's adjustment in middle childhood. Contra ideas that genes drive experience, we see here that parenting is decisive even when genetic commonalities do not exist. The parent-infant relationship predicts socioemotional and cognitive adjustment in middle childhood even beyond biological, cultural, and ethnic identity, infant temperament and gender, and parents' socioeconomic status.

The interaction between parenting and the infant's biology is also shown by Spangler and Grossman (1999) who demonstrate that low parent-infant interaction produces high autonomic arousal and adrenocortical response, and disorganised attachment. *Relational and developmental* factors may combine in an *additive interactional* way whereby intrinsic developmental vulnerability increases susceptibility to disorganisation by lowering the infant's resilience to distortions in parenting (Barnett et al.: 1999). One can extrapolate this unhappy cycle by suggesting that a mother whose child demonstrates the behaviours associated with this intrinsic vulnerability would find it even harder to empathise with and relate to the child, thereby exacerbating the situation, and so on. A particularly potent negative combination was children with difficult temperaments whose attachment to their mothers was disorganised. One is faced, though, with a chicken-and-egg dilemma: which comes first? Regardless, it is not difficult to imagine that they will reinforce each other: the mother is out of sync with the child, the child reacts adversely to lack of attunement, the mother finds the child more difficult, the child feels even further away from the mother, and so on in a spiral of increasing mutual alienation.

So, where have we come to? Disorganised attachment is a strong predictor of later developmental and relational problems and psychopathology. The principal origins of disorganised attachment are instability of caregiving—1. actual abuse, and/or 2. maternal factors—in the context of which there may be 3. infant genetic predisposition. As for the nature of the parent-infant relationship, we have seen that it is specific forms of distorted parenting and not just general parental insensitivity that matters. There are many variables at work. Whether the child has other positive (secure) relational experiences, whether the caregivers' disorganization stems from a base of secure or insecure attachment, the severity of the inconsistency, and the level of affective caregiver breakdown, other hereditary factors contributing to disorganization of attachment such as a family history of mental illness; these are all factors worthy of ongoing and further study.

The socialization of emotion

We said earlier that attachment becomes a within-child phenomenon. This presupposes a prior stage when the attachment is not yet an incorporated style, a stage when these interactions are still in formation. This is the interpersonal or social phase of caregiver-infant interaction. A further part that the infant plays is its effects on the caregiver. Much of human emotion is social in nature, and the development of emotion develops in its social context (Sroufe: 1996). A relationship, after all, develops through feedback loops.

Now, what more can be said about the actual working of the emotion-based mechanism at work? We consider here a heuristic device which captures well the essence of what is at stake in the caregiver-infant interactions which produce disorganised attachment and its devastating sequelae. Carey DeOliveira and colleagues (2004) have come up with a promising model in an attempt to conceptualise the processes at work in the development of disorganised attachment. The authors base their idea on the understanding that what we are talking about when we talk about attachment is the socialization of the emotions. This seems like an obvious but neglected point to make; caregiver-child social

interactions mediate the infant's *biological* predispositions and *psychological* formation. "Emotional communication is at the heart of attachment" (Siegel: 2001: 80) and "many of the most intense emotions arise during the formation, the maintenance, the disruption and the renewal of attachment relationships" (Bowlby: 1980; 40).

In Figure 1 we present a simplified version of their model. The heavier the arrows, the stronger the effect. Arrows running both ways indicate that the factors interact in a two-way and cumulative way.

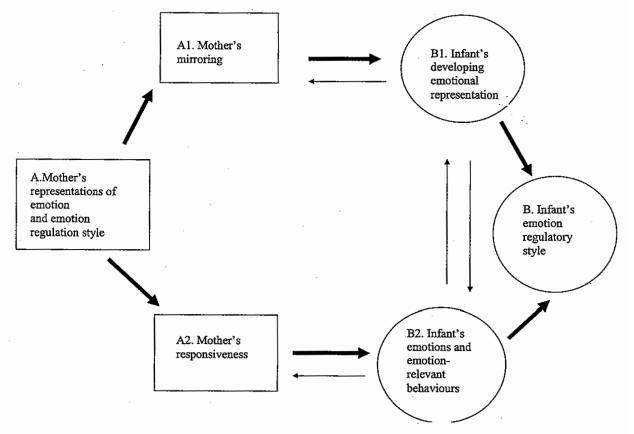


Figure 1. Emotional socialisation (adapted from DeOliveira, et al: 2004:452

The mother's own representations of emotion together with her style of emotional regulation (A) have a strong bearing on both her ways of mirroring (A1) and her responses (A2) to the infant. The infant with its own temperament and biological factors, meanwhile, attempts to receive security and comfort from the mother. Mother's mirroring strongly influences the infant's developing internal emotional representations (B1), and her responsiveness strongly influences the infant's emotions and emotion-relevant behaviours (B2) as displayed in the interaction. These two processes (B1 and B2) occur simultaneously and dialectically. Not only that, they have a reciprocal and reinforcing effect on the mother's socialization practices (A1 and A2). Occurring regularly over the first year the emotions of the infant are likely to be socialized in a particular emotion regulatory or attachment style (B).

In the case of disorganised attachment it is easy to see how chronic emotional mismatching can, through a process of feedback, become exacerbated as increasing emotional distress and mutual emotional alienation. This constant looking for, looking away, and shying away then become entrenched for the infant as a set, though disorganised, style of attachment.

One particular virtue in this model is that it captures the fact that attachment occurs via complementary, overlapping processes of emotional socialization. Readers who are clinicians will immediately grasp that an additional benefit of this heuristic is the thought that perhaps therapeutic interventions can be made at any of Figure 1's sites.

Some thoughts on treatment

Many issues for client treatment suggest themselves. For one, therapist constancy is clearly vital as the disorganised client is easily thrown into disorganization, extreme distress, or acting out by any perceived misattunement suggested by the therapist's conduct. Having said that, these clients, because they are so needy and also because they routinely push the edges, tend to produce very strong countertransference responses to act, to do something. In Sandler's (1976) terms, in response to unconscious pressure from the client the therapist easily finds him/herself in the role of rescuer (or persecutor or, indeed, victim). The impulse to give the client more (or less) time, telephone-calls, advice, etc. must be resisted and the therapeutic frame maintained (Luca: 2004). This conundrum—how to satisfy this insatiable need enough and maintain boundaries—needs to be contained by the therapist. Perhaps the dimensions of the frame can be adapted for the particular client, but then that frame should be adhered to as much as is possible.

Another difficult issue in the countertransference is the issue of distrust and anger. Through their hostile reactivity disorganised clients notoriously provoke angry interchanges with their therapists and the question is how to work with this. On the one hand trying to hold it within oneself and not to show anger is likely to be futile as these clients are hyper-sensitive to the responses of others. On the other hand, to show anger is likely to be traumatizing for these sensitive clients. In both cases anything from the full range of disorganised client response may result—impasse, rage, devastation, suicidality, breaking off treatment, etc. If one is neither to show anger nor to hide it, what is one to do? Constance Dalenberg (2004) asked clients what they thought on this matter and, while client feedback should not be taken as gospel, their responses are worth noting. Clients preferred therapists who disclosed their emotions after angry episodes and who took some responsibility for disagreements; this as opposed to therapists whom the clients experienced as blank-screening anger.

In the treatment of disorganised clients it does seem obvious that, certainly at first, insight-oriented psychotherapy is contra-indicated. In a review of the literature on working with disorganised clients Catherine Healy (2003) found that an attachment-based treatment model specific to the disorganised client is lacking. She found instead that treatment suggestions for the disorganised client were often gleaned from interrelated disorders and their treatment models, e.g. PTSD, trauma, dissociation. The question of safety arises when this kind of haphazard choosing of ideas occurs. For instance, Liotti makes the point that trauma-based therapies which work well for simple PTSD "can exacerbate rather than resolve the patients' difficulties" in complex PTSD (2004: 484).

Holmes devised a Brief-Attachment-Based-Intervention (BABI) which, while it is not aimed at disorganised attachment, is of note in that he recommended "post-BABI therapy" for the disorganized client and referred to Linehan's emotional regulation therapy (Holmes: 2001). Healy has accepted this invitation and added to an extended metaphor in the work of Holmes which highlights how the client's manner of speaking about their difficulties provides vital clues about their internal working model and attachment style. Holmes (1999: 2004b) who has written extensively on narrative, attachment, and psychotherapy purports that the way we tell our stories reflects our view of the world. Narrative "is the raw material of therapy and provides clues to the interactional matrix out of which it emerged" (Holmes: 1994: 70). When, in the initial encounter, the therapist asks the client about how it all began (history taking), the process of the client claiming authorship of their story begins, i.e. thinking and talking about what has happened, one's feelings and reactions. Difficulties begin to get placed into a more meaningful context (Holmes: 2000b). (Psychoanalysis can be seen as being about narrative; telling a story is referred to by Winnicott as "an extended form of history-taking", Holmes: 2000b: 97).

Holmes coined the terms *story breaking* and *story making*. Story breaking refers to "those clients who have little to say and speak dismissively of experiences and events, i.e. avoidantly attached clients" (Healy: 2003; 48)—hence the need to assist them to break open their story. As children of avoidant caregivers they frequently experienced rejecting or overly intrusive responses resulting in misattunement. These clients learned to withhold expression of attachment needs that is reflected in their often limited and dismissive story telling. "Conversely, the ambivalent/preoccupied client, who is overwhelmed and often flooded with emotion, needs help to give form and containment to their story" (Healy: 2003:

48). This is story making. Inconsistent, unreliable and insensitive responses to attachment needs as an infant lead to an overdevelopment of affect due to its incomplete reinforcement. Stories lack coherence, are preoccupied by past attachment experiences, and are associated with angry, fearful and passive affect (Holmes: 2001).

Even despite a traumatic childhood, Holmes believes thinking and talking about the pain is a protective factor leading to secure attachment (2000a). He thinks it is possible that this acts as a kind of surrogate relationship that helps to build an internal secure base (Holmes: 2000b: 98). Secure attachment denotes the ability to coherently articulate feelings, to separate self and other experiences, and to deconstruct and reconstruct stories according to new experiences. That is, to fluently negotiate the dialectic between story making and story breaking (Holmes: 2001).

Conversely the disorganized client's story is broken and incoherent, remembering is disorganized and is characterized by "incomplete, idealized, and/or inconsistent descriptions of their past experiences" (Sable: 2000: 44). This is indicative of gaps in the early holding environment, the secure base.

With the disorganized client the therapist responds to inconsistencies, gaps, and discontinuities by exploring with the client when a story does not seem to hang together. As the therapist expands and reflects, the client considers if this fits, learns to put words to feelings, and a narrative and mental representation is forged. Eventually a more fluent, coherent, affectively charged and meaningful narrative emerges (Healy: 2003). Healy contends that the disorganized client needs help with both story making (to access split off memories/emotions) and story breaking (to contain and shape their story). She proposes a third narrative task to capture the unstoried nature of the disorganised client, namely *story reclaiming*, which she incorporates in a treatment guide: a beginning *foundation* phase, a middle *re-creation* phase, and a late *integration* phase. These clients, frequently traumatized and dissociative, need help to unearth and reclaim their story as gradually split off memories and emotions emerge.

At the core of the client with disorganized attachment is an almost entirely obliterated self. The fundamental lack of a trusting relationship, of the ability to understand one's own mind and that of others results in relationships fraught with mistrust, fear, terror, projection, pain, illusion, despair, and a lack of intimacy and autonomy, i.e. core sense of self. To unearth and reclaim this split-off self/selves is at the heart of the therapist-client work (2003: 53).

Conclusion

The study of disorganised attachment behaviour is undoubtedly already both rich and large. Typing disorgani\$ AND attach\$ in the PsychINFO database produces 392 references. In the face of being overwhelmed by information it is helpful now and then to attempt to be frugal in one's thinking. To synthesise, then, abuse, maternal dissociation, or frightened/frightening behaviour all predict some form of attachment disorder. But what is particular with regards to disorganised attachment is when mother strongly and chronically misinterprets baby's attachment cues, and when mother gives conflicting messages that both elicit and reject attachment. Reading the recent literature we come to the following: chronic caretaker-infant affective misattunement is likely to produce disorganised attachment. Infant abuse or neglect, unresolved maternal trauma, loss, or depression, and infant genetic predisposition all act as risk-factors. It is the predictability of the unpredictability of response rather than trauma per se which, it seems, tips the scales towards infant disorganisation. Conceiving of the development of attachment as emotional socialization is, we suggest, a useful heuristic framework, as is thinking of treatment in terms of story-reclaiming.

References

- Ainsworth, M.D.S., Bell, S.M. and Stayton, D.J. (1971) Individual differences in strange situation behaviour of one-year-olds. In H.R. Schaffer (ed.) *The origins of human social relations (London: Academic Press).*
- Amini, F. Lewis, T., Lannon, R., Baumbacher, G., McGuinness, T. and and Schiff, E.Z. (1996) Affect, attachment, memory: Contributions toward psychobiollogic integration. *Psychiatry*, 59, 213-239.
- Barnett, D., Ganiban, J. and Cicchetti, D. (1999) Maltreatment, emotional reactivity and the development of Type D attachments from 12 to 24 months of age. *Monographs of the Society for Research in Child Development*.
- Bernardi, R. (1998) Attachment representations in adult years: Implications for psychoanalysis, *International Journal of Psychoanalysis*, 79, 798-801.
- Bowlby, J. (1958) The nature of the child's tie to the mother. International Journal of Psychoanalysis, 39, 350-373.
- Bowlby, J. (1973) Attachment and loss, Vol. 2: Separation, anxiety and anger (London: Hogarth).
- Bowlby, J. (1980) Attachment and loss, Vol. 3: Loss, sadness and depression (London:Hogarth).
- Bowlby, J. (1982) Attachment and loss, Vol. : 1 Attachment (2nd ed.) (London: Hogarth).
- Bowlby, J. (1988) Clinical applications of attachment theory: A secure base (London: Routledge).

- Burkett, L.P. (1991) Parenting behaviors of women who were sexually abused as children in their families of origin, *Family Processes*, 30, 421-434.
- Carlson, E.A. (1998) A Prospective longitudinal study of disorganized/disoriented attachment, *Child Development*, 69, 1970-1979.
- Cassidy, J. and Mohr, J. (2001) Unsolvable fear, trauma, and psychopathology: Normal development of psychic reality, *International Journal of Psychoanalysis*, 82, 217-233.
- Cassidy, J. and Shaver, P.R. (1999) Handbook of attachment: *Theory, research, and clinical applications* (New York: Guilford).
- Cicchetti, D. (2004) An odyssey of discovery: Lessons learned through three decades of research on child maltreatment, *American Psychologist*, November, 731-741.
- Dalenberg, C.J. (2004) Maintaining the safe and effective therapeutic relationship in the context of distrust and anger: Countertransference an complex trauma, *Psychotherapy*. Theory, Research, Practice, Training, 41(4), 438-447.
- D'Elia, G. (2001) Attachment: A biological basis for the therapeutic relationship? Nordic Journal of Psychiatry, 55(5), 329-336.
- DeOliveira, C.A., Neufeld, B., Moran, G. and Pederson, D.R. (2004) Emotion socialization as a framework for understanding the development of disorganized attachment, *Social Development*, 13(3), 437-467.
- Edmonds, D. and Eidinow, J. (2004) Bobby Fischer goes to war (London: Faber & Faber).
- Emanuel, L. (2004) Some thoughts about the impact of domestic violence on infants and young children, *Journal of Child and Adolescent Mental health*, 16(1), 49-53.
- Emde, R.D., Osofsky, J.D., Butterfield, P.M. (eds.) (1993) The IFEEL pictures: A new instrument for interpreting emotions (Madison, WI: International Universities Press).
- Fonagy, P. (1999a) Pathological attachments and therapeutic action. Available: http://psychematters.com/papers/fonagy3htm [2002,28/4/02].
- Fonagy, P. (1999b) Transgenerational consistencies of attachment: A new theory. Available: http://psychematters.com/papers/fonagy2htm [2002, 12/4/02].
- Fonagy, P. (1999c) The process of change and the change of processes: What can change in good analysis. Available: http://psychematters.com/papers/fonagy.htm [2002, 28/4/02].
- Fonagy, P. and Target, M. (2003) *Psychoanalytic theories: Perspectives from developmental psychopathology* (London and Philadelphia: Whurr).
- George, C, Kaplan, N. and Main, M. (1985). The adult attachment interview. Unpublished manuscript, Department of psychology, University of California at Berkeley.
- George, C. and Solomon, J. (1999) Attachment and caregiving: The caregiving behavioral system. In Cassidy, J. and Shaver, P.R. (eds.) *Handbook of attachment: Theory, research, and clinical applications* (New York: Guilford Press).
- Green, J. and Goldwyn, R. (2002) Annotation: Attachment disorganisation and psychopathology: New findings in attachment research and their potential implications for developmental psychopathology in childhood, *Journal of Child Psychology and Psychiatry*, 43(7), 835-846.

- Gubman, N. (2004) Disorganised attachment: A compass for navigating the confusing behavior of the 'difficult-to-treat' patient, *Clinical Social Work Journal*, 32(2), 159-169.
- Healy, C. (2003) Disorganised attachment: Reclaiming a buried self, Auckland University of Technology dissertation.
- Hesse, E. and Main, M. (1999) Second-generation effects of unresolved trauma as observed in non-maltreating parents: Dissociated, frightened and threatening parental behavior, *Psychoanalytic Inquiry*, 19, 481-540.
- Holmes, J. (1993) John Bowlby and attachment theory (New York: Routledge).
- Holmes, J., (1999) Narrative attachment and the therapeutic process. In Mace, C. (Ed.), Heart and soul: The therapeutic face of philosophy (London and New York: Routledge, 146-161).
- Holmes, J., (2000a) Attachment theory and psychoanalysis: A rapprochement, *British Journal* of *Psychotherapy*, 17(2), 157-180.
- Holmes, J. (2000b) Narrative in psychiatry and psychotherapy: The evidence? *Journal of Medical Ethics*, 26(6), 92-105.
- Holmes, J., (2001) The search for a secure base (Philadelphia: Brunner-Routledge).
- Jacobsen, T., Hibbs, E., and Ziegenheim, U. (2000) Maternal expressed emotion related to attachment disorganisation in early childhood: A preliminary report, *Journal of Child Psychology and Psychiatry*, 41, 899-890.
- Knežević, M. and Jovančević, M. (2004) The IFEEL pictures: Psychological trauma and perception, and interpretation of child's emotions, *Nordic Journal of Psychiatry*, 58, 139-145.
- Lakatos, K., Toth, I., Nemoda, Z., Ney, K. Sasvari Szekely, M. and Gervai, J. (2002) Dopamine D4 receptor (DRD4) gene polymorphism is associated with attachment disorganisation in infants, *Molecular Psychiatry*, 5, 633-637.
- Lakatos, K., Nemoda, Z., Toth, I., Ronai, Z., Ney, K. Sasvari Szekely, M. and Gervai, J. (2002) Further evidence of the role of the dopamine, DRD4 gene in attchment disorganisation. Interaction of the exon 111 bp 48b repeat and the -521 C/T promoter polymorphisms, *Molecular Psychiatry*, 7, 27-31.
- Liotti, G. (2004) Trauma, dissociation, and Disorganised attachment: Three strands of a single braid, *Psychotherapy: Theory, Research, Practice, Training*, 41(4), 472-486.
- Lonie, I. (1993) Borderline disorder and post-traumatic stress disorder: An equivalence?, Australian and New Zealand Journal of Psychiatry, 27, 233-245.
- Luca, Maria (ed.) (2004) The therapeutic frame in the clinical context: Integrative perspectives (Hove and New York: Brunner-Routledge).
- Lyons-Ruth, K. and Block, D. (1996) The disturbed caregiving system: Relations among childhood trauma, maternal caregiving, and infant affect and attachment, *Infant Mental Health Journal*, 17, 257-275.

- Lyons-Ruth, K., Bronfman, E. and Parsons, E. (1999) Maternal disrupted affective communication, maternal frightened or frightening behaviour, and disorganised infant attachment strategies. In J.I. Vondra and D. Barnett (eds.) Atypical attachment in infancy and early childhood among children at developmental risk, Monographs of the Society for Research in Child Development, 64.
- Lyons-Ruth, K., and Jacobvitz, D. (1999) Attachment disorganization: Unresolved loss relational violence and lapses in behavioural and attentional strategies. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory research and clinical applications* (New York: Guilford, 520-524).
- MacMillan, H.L. and Munn, C. (2004) The sequelae of child maltreatment, *Current Opinion in Psychiatry*, 14(4), 325-331.
- Main, M. (1995) Discourse, prediction, and recent studies in attachment: Implications for psychoanalysis, in T. Shapiro and R. Emde (eds.) *Research in Psychoanalysis: Process, Development, Outcome* (Madison, CT: International Universities Press).
- Main, M. and Hesse, E. (1990) Parent's unresolved traumatic experiences are related to infant disorganized attachment status: Is frightened and/or frightening paternal behaviour the linking mechanism? In M.T. Greenberg, D. Cicchetti and E.M. Cummings (eds.) *Attachment in the pre-school years: Theory, research and intervention* (Chicago: University of Chicago Press).
- Main, M. and Solomon, J. (1986) Discovery of an insecure-disorganized/disoriented attachment pattern. In T.B. Brazelton and M.W. Yogman (eds.) Affective development in infancy (Norwood, NJ: Ablex).
- Main, M. and Solomon, J. (1990) Procedures for identifying infants as disorganized/disoriented during the Aisnsworth Strange Situation. In M.T. Greenberg, D. Cicchetti and E.M. Cummings (eds.) Attachment in the preschool years: Theory, research, and intervention (Chicago, IL: University of Chicago Press).
- Murray, L. (1988) Effects of postnatal depression on infant development: Direct studies of early mother-infant interaction. In K. Kumar and I. Brockington (eds.) *Motherhood and mental illness, Vol. 2* (London: Wrigh).
- Murray, L. (1992) The impact of post natal depression on infant development, *Journal of Child Psychology and Psychiatry*, 33, 543-561.
- Murray, L. and Trevarthen, C. (1986) The infant's role in mother-infant communications, Journal of Child Language, 13, 15-29.
- Ogden, T.H. (1991) Analyzing the matrix of transference, International Journal of Psychoanalysis, 72, 593-605.
- Pollack, S., Cicchetti, D. and Klorman, R. (1998) Stress, memory, and emotion: Developmental considerations from the study of child maltreatment, *Development and Psychopathology*, 10, 811-828.

Sable, P. (2000) Attachment and adult psychotherapy (Northvale, NJ: Jason Aronson).

- Sandler, J. (1976) Countertransference and role-responsiveness, International Review of Psycho-Analysis, 3, 43-47.
- Schore, A.N. (1996) The experience-dependant maturation of a regulatory system in the orbital prefrontal cortex and the origin of developmental psychopathology, *Development and Psychopathology*, 8, 59-87.
- Schore, A.N. (2001) The effects of early relational trauma on right brain development, affect regulation and infant mental health, *Infant Mental Health Journal*, 22, 201-269.
- Schuengel, C., Bakerman-Kranenburg, M.J., van Ijzendoorn, M.H., and Blom, M. (1999) Unresolved loss and infant disorganization: Links to frigtening materaal behavior. In George, C. and Solomon, J. (eds.) Attachment disorganization (New York: Guilford Press).
- Schuengel, C., van Ijzendoorn, M.H. and Bakerman-Kranenburg, M.J. (1999) Frightening maternal behaviour linking unresolved loss and disorganised infant attachment, *Journal* of Consulting and Clinical Psychology, 67, 54-63.
- Siegel, D.J. (1999) Toward an interpersonal neurobiology of the developing mind: Attachment relationships, mindsight and neural integration, *Infant Mental Health Journal*, 22, 67-94.
- Spangler, G. and Grossman, K. (1999) Individual and psychological correlates of attachment disorganisation in infancy. In Solomon, J. and George, C. (eds.) *Attachment disorganisation* (New York: The Guilford Press).
- Sroufe, L.A. (1996) Emotional development: *The organization of emotional life in the early years* (Cambridge: Cambridge University Press).
- Stams, G.-J., Juffer, F. and van Ijzendoorn, M.H. (2002) Maternal sensitivity, infant attachment, and temperament in early childhood predict adjustment in middle childhood: The case of adopted children and their biologically unrelated parents, *Developmental Psychology*, 38(5), 806-821.
- Steele, M. (2004) Fitting the puzzle pieces together: The complexities of infant-mother interaction and disorganized attachment patterns, *Social Development*, 13(3), 479-488.
- van Ijzendoorn, M.H., Schuengel, C., and Bakermans-Kranenburg, M.J. (1999) Disorganised attachment in early childhood: Meta-analysis of precursors, concomitants and sequelae, *Development and Psychopathology*, 11, 225-249.
- Winnicott, D.W. (1967) The concept of the healthy individual. In *Home is where we start* from: Essays by a psychoanalyst (New York and London: Norton, 1986).