An integration of theory, science and reflective clinical practice in the care and management of attachment-disordered children: A Triple-A approach

Colby Pearce

The formation of functional attachments is a critical developmental task of infancy and early childhood. Attachments play a significant role in the development of a child's enduring beliefs about self, other and world (Attachment Representations). Infants become attached to the people who provide physical and emotional care on a continuous and consistent basis. Quality of care and the infant's early experiences influence the type of attachment the infant develops. When care is grossly deficient and early experiences are characterised by physical and emotional distress, the infant's attachment to its caregiver is also disturbed. Children who display markedly disturbed and developmentally inappropriate social relatedness in most contexts, and who have experienced grossly deficient care, might accurately be diagnosed with Reactive Attachment Disorder (RAD) or Disinhibited Attachment Disorder (DAD). Attachment-disordered children pose a substantial care and management challenge to all who care for and work with them in the home and educational contexts. Successful management of these children and the remediation of their attachment difficulties are predicated on understanding what function their apparently antisocial and defensive tendencies serve and approaches that support the development of functional attachments. Key roles are attributed to cortical arousal, attachment representations and beliefs about accessibility to needs provision in the diagnosis and remediation of attachment disorders. Drawing from observations of caregiving practices that promote functional attachments in infancy, strategies are presented for the home and classroom that address elevated cortical arousal levels, promote secure attachment representations and reassure the child regarding accessibility to needs provision.

ATTACHMENT is a term used to describe the dependency relationship an infant develops towards his or her primary caregivers. Attachment is recognised in behaviours that serve to keep caregivers physically (my caregiver is nearby), emotionally (my caregiver understands my feelings) and cognitively (my caregiver is aware of me) connected to the infant and that facilitate the provision of a caregiving response. Through its role in facilitating a caregiving response, attachment is considered to have aided in the survival of the species and, hence, to have been selected through evolutionary processes as a universal aspect of human activity (Bowlby, 1969, 1973, 1982).

Infants are not born attached to their parents. Attachment relationships emerge over time and in association with interactions between the infant and his or her primary caregiver(s). From birth to three months the infant orients to the sound of the caregiver's voice and tracks the caregiver visually, but smiling and reaching to be held are considered to be reflexive and indiscriminate (Ainsworth et al., 1978; Bowlby, 1969, 1973). Between three and eight months of age the infant begins to recognise their primary caregivers and discriminate them from other adults. By eight months of age the infant demonstrates a clear preference for their primary caregivers and a corresponding wariness towards strangers. Thereafter, the infant selectively orients to their primary

caregivers for a response to their dependency needs. That is, in ordinary circumstances the infant shows clear evidence of having learnt that they can selectively trust and depend on their primary caregivers by eight months of age. Given that the infant is preverbal at this time, the formation of attachment relationships is based on their *experiences* of relatedness to others.

So what does an infant *experience* in the context of their relationship with their primary caregiver that facilitates the development of attachment? The first aspect of their experience is that their caregiver is a recurring and proximate feature of their day-to-day life. Hence, by one means or another the caregiver is *accessible* to the infant (Bowlby, 1969). Even when they are not actually physically present, the caregiver repeatedly returns to the infant. A second aspect of the infant's experience is that their primary caregiver feeds them when they are hungry, burps them when they have stomach pain, changes their nappy when it is dirty and uncomfortable, soothes them when they are distressed and engages with them when they are seeking interaction. That is, the infant experiences their caregiver as *understanding* and *responsive* (Bowlby, 1969). In association with this the infant learns that they can trust and depend on their caregivers. A third aspect of the infant's experience, related to the last, is that when they are distressed their caregiver is distressed too. The infant notices this in the facial expressions and movements of their caregiver. As the caregiver soothes the infant the caregiver also soothes themself. Their face and body relaxes and they become smooth and co-ordinated in their motor movements, including their rocking of the infant. Similarly, when the infant smiles and laughs in association with feelings of pleasure their caregiver also smiles and laughs. At other times the caregiver smiles at the infant, engendering feelings of pleasure in the infant. In this way, the infant begins to feel emotionally connected to their caregiver. Support for this process is reflected in research that shows that heart rate curves (an indicator of arousal, and hence, emotion) of infants and mothers parallel each other during play (Reite & Field, 1985). Importantly, through this process of *attunement* to the emotional state of the infant, the caregiver regulates the infant's emotional experience, ensuring that the infant does not suffer aversive experiences in association with prolonged exposure to intense emotion. Given that emotions are represented in the dimensions of arousal and valence (Livingstone & Thompson, 2009), in regulating their infant's emotional experience the caregiver is also regulating the infant's autonomic (cortical) *arousal*. In time, and in association with the caregiver consistently and effectively regulating the infant's emotional states, the infant develops the capacity to regulate their own emotions (Crittenden, 1992; Schore, 1994), and hence, their arousal.

Infants form attachments to those who provide physical and emotional care on a continuous basis (Howes, 1999). This typically includes, but is not limited to, the infant/child's mother and father. An individual towards whom an infant forms an attachment is referred to as an 'attachment figure'. In the context of their day-to-day interactions with their attachment figures, infants form enduring beliefs or 'working models' about self, other and world *(Attachment Representations)* (Bowlby, 1973, 1980; Main et al., 1985). Where attachment figures are consistently *accessible* to the infant, consistently demonstrate *understanding* of the infant's signals regarding their needs and *responsiveness* to these needs, and where attachment figures are consistently *attuned* to the infant's emotional state and regulate the infant's emotional experience, the infant typically forms positive attachment representations regarding self, other and world. Where attachment figures are inconsistently accessible, understanding, responsive, and attuned, or where there is inconsistency across attachment figures, the infant is likely to be unsure about what to expect of themselves, others and their world, resulting in anxiety and compulsive attempts to reassure

themselves regarding caregiver accessibility, understanding and responsiveness. Infants whose attachment figures are *consistently* accessible, understanding, responsive, and attuned are typically found to exhibit *secure* attachments (Ainsworth et al., 1978). Infants whose attachment figures provide inconsistent care are typically found to exhibit *insecure* attachments (Egeland & Farber, 1984; Kinniburgh et al., 2005).

When care is grossly deficient and early experiences are *characterised* by physical and emotional distress, the infant's attachment to its caregiver is also disturbed (Cook et al., 2005; Kinniburgh et al., 2005; Schwartz & Davis, 2006). Children who display markedly disturbed and developmentally inappropriate social relatedness in most contexts, and who have experienced grossly deficient care, might accurately be diagnosed with Reactive Attachment Disorder (RAD – DSM-IV-TR) or Disinhibited Attachment Disorder (DAD – ICD-10). Attachment-disordered children pose a substantial care and management challenge to those who care for and work with them in the home and educational contexts (Kobak et al., 2001; Richie, 1996; Schwartz & Davis, 2006; Shonk & Cicchetti, 2001). Successful management of these children and the remediation of their attachment difficulties are predicated on having a good understanding of what function their apparently antisocial and defensive tendencies serve, and approaches that support the development of functional attachments and self-regulatory capacities (Kinniburgh et al., 2005; Schwartz & Davis, 2006).

Attachment-disordered children typically display disturbed relatedness to others and maladaptive behaviour and affective displays. What distinguishes attachment disorder from other mental disorders of childhood and adolescence is that their presentation stems from a combination of prescribed historical, biological, developmental, and attitudinal factors (Pearce, 2009). Attachment-disordered children typically have experienced abusive or neglectful care, or the sudden loss of a parent or parents (Main, 1996). In association with their history of inconsistent and neglectful care they are inordinately preoccupied with accessibility to needs provision (Pearce, 2009). Similarly, as a result of their early experience of emotional trauma (anxiety) and inconsistent soothing, they manifest signs and symptoms of chronically-elevated cortical arousal (Perry et al., 1995) and poor ability to regulate their arousal levels and emotional states (Cook et al., 2005; Crittenden, 1992; Kinniburgh et al., 2005; Schore, 1994; Van Der Kolk, 2006). On the basis of their experience of inconsistent, abusive, frightening and disinterested care they typically report maladaptive beliefs about self, other and world. Table 1 provides a list of commonly reported signs of attachment disorder, and their relationship to the essential clinical features of maladaptive *attachment* representations, hyper*arousal*, and excessive preoccupation with *accessibility* to needs provision. Hereafter, these essential clinical features of attachment disorder are described in more detail.

Attachment Representations

Attachment Representations is a term used in reference to the verbalised and apparent (unconscious) *attitudes* and *beliefs* a child holds regarding self, other and their social world (Bowlby, 1969, 1973, 1980; Crowell et al., 2002). Also referred to as 'attachment working models' (Bowlby, 1980; Bretherton, 1985), attachment representations develop in the context of the infant's early attachment relationships and reflect the infant's experience of parental accessibility, understanding, responsiveness, and attunement (Bowlby, 1969). Attachment representations remain relatively stable over time in the absence of sustained change in the child's experience of the aforementioned aspects of caregiving (Belsky et al., 1996; Vaughn et al., 1979; Waters, 1978). Along with temperament and environmental factors, attachment representations are considered to exert a direct influence over the child's behaviour and responsiveness in all settings (Bowlby, 1969, 1973).

Table 1: Behavioural manifestations of key clinical features of attachment disorders.

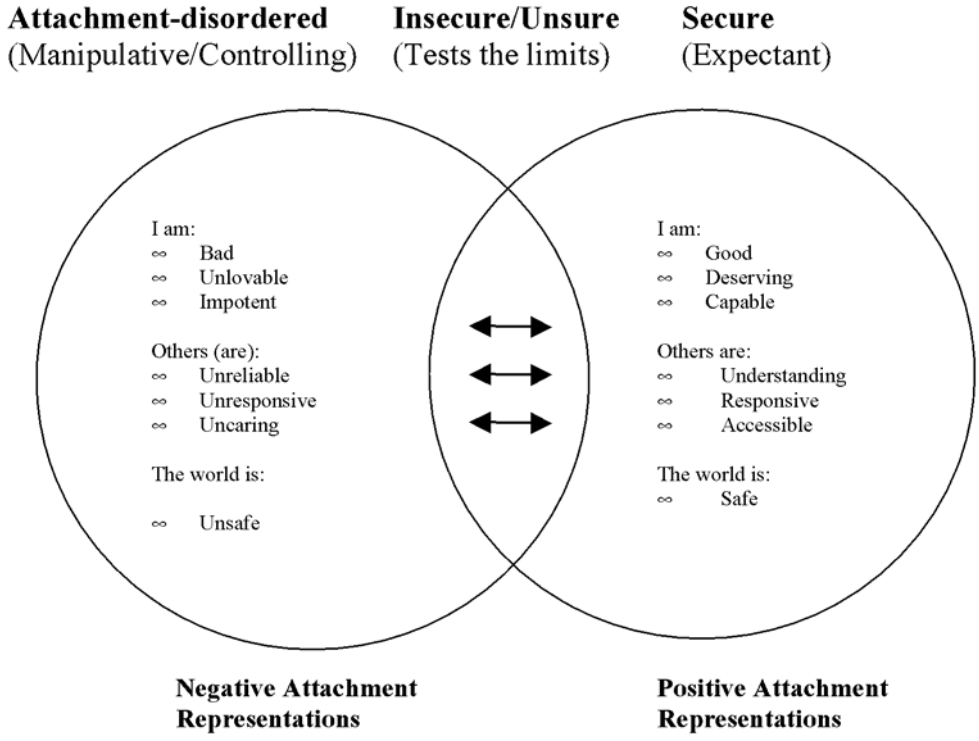
Characteristic	Manifestations
Maladaptive Perception of Self	Poor Self-Concept Poor Self-Care Bodily Function Disturbances (e.g. wetting, soiling) Low Expectations of Deservedness
Maladaptive Perception of Other	Avoidance of Engagement/Intimacy Lack of Empathy Habitual Mistrust Superficial Charm
Maladaptive Perception of the Social World	Pre-occupation with Safety Pre-occupation with Fairness Pre-occupation with Rules Pre-occupation with Consistency Pre-occupation with Knowing
Hyperarousal (Anxiety)	Aggression Hyperactivity Destructiveness Inattention Dissociation Emotional Lability (Instability) Developmental/Learning Problems/Delays Watchfulness/Hypervigilance
Pre-occupation with Accessibility to Needs Provision	Controlling Demanding Manipulative Charming Deceitful

Source: Pearce, C. (2009). *A short introduction to attachment and attachment disorder.* London: Jessica Kingsley.

Figure 1 illustrates attachment representations associated with attachment security/disorder. In contrast to those of the securely attachment child, the attachment representations of attachment-disordered children are essentially negative. In association with rejecting, frightening, abusive or disinterested care, these children view themselves as worthless ('I am bad and unlovable'), unsafe ('My caregiver will not protect me from traumatic experiences') and impotent ('It is impossible to get my caregiver to respond consistently to my needs') (Bretherton et al., 1990; Cook et al., 2005; Delaney, 1994; Speltz, 1990). They view their caregivers as unreliable, unresponsive, rejecting and threatening (Aber et al., 1989). They use manipulation as a means to make their caregivers and others (e.g. teachers) behave in predictable ways in order to promote feelings of security. Though elements of positive attachment representations are sometimes in evidence, negative attachment representations predominate.

Negative attachment representations are thought to develop when normal attachment behaviours fail to consistently elicit sensitive responsiveness from the caregiver, as may occur where there is limited accessibility to a consistent caring adult (e.g. orphanage), where the caregiver lacks basic parenting skills and knowledge, or in cases of parental

Figure 1: Attachment security and representations regarding self, other and world.
(Adapted from Pearce, 2009.)



mental disorder, substance abuse or domestic violence (Main, 1996). Under these circumstances the infant experiences heightened states of fear and distress, for which they are inconsistently soothed, relaxed or comforted. This frightening state is psychologically unsustainable and young children have to introduce some control into their unpredictable, threatening and uncaring world. They develop the view that the only reliable element is themself, and that the only way to feel remotely safe and to get ones needs met is to take control.

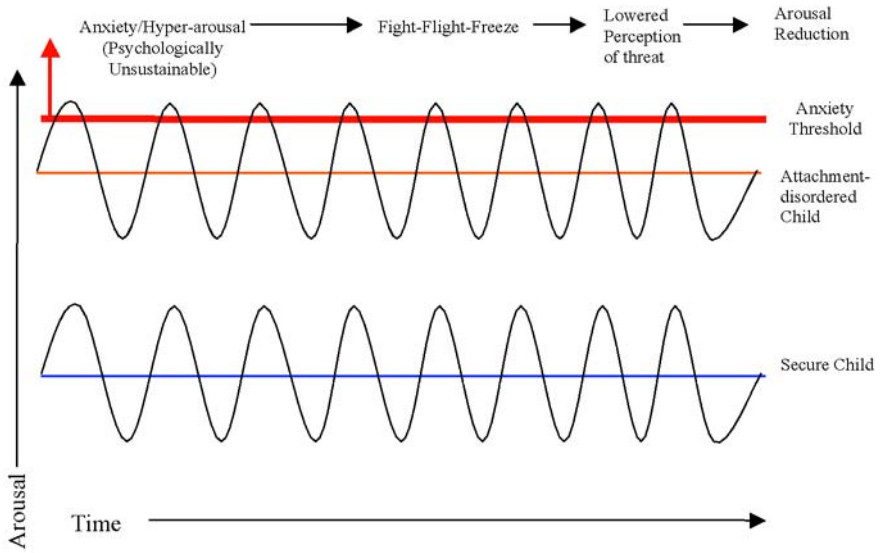
Arousal

In contrast to securely-attached children, the behaviour of attachment-disordered children suggests that they are inordinately hyper-aroused in association with their historical experience of having been traumatised and inconsistently soothed during infancy and early childhood, and their contemporary experience of people responding to them in a harsh, uncaring and rejecting manner by virtue of the attachment-disordered child's antisocial and defensive tendencies. This appears to leave the historically traumatised, attachment-disordered child chronically susceptible to anxiety and prone to exhibiting behaviours associated with the fight-flight-freeze response (Cook et al., 2005; Kinniburgh et al., 2005; Van Der Kolk, 2006). These behaviours, which include controlling, aggressive and destructive behaviour (Fight), running, hiding and hyperactivity (Flight), and decreased responsiveness to the environment (Freeze), are considered to be an automatic response to anxiety and represent the organism's corrective measures to address the aversive physical and emotional symptoms of anxiety. Their function is to lower cortical arousal and engender feelings of physical and

emotional well-being. However, the behavioural manifestations of the fight-flight-freeze response are rarely seen as such and are typically responded to with anger and discipline, with the result that the attachment-disordered child's hyper-aroused state is likely to be maintained, or even exacerbated.

Figure 2 illustrates how the chronically over-aroused state experienced by attachment-disordered children might be considered to impact adversely on their behaviour and emotions. In contrast to securely attached children, whose normal states of arousal rarely reach the 'anxiety threshold', beyond which the organism has to release pent-up cortical arousal or suffer negative physical and emotional consequences, clinical experience and research raises the possibility that the chronically over-aroused, historically traumatised, attachment-disordered child exists much closer to this threshold, and regularly crosses it (Kinniburgh et al., 2005; Perry et al., 1995; Schore, 2002; Van Der Kolk, 2006). Observation of attachment-disordered children suggests that stimuli and events that have a comparatively minor impact on the secure child can much more readily push the historically traumatised, attachment-disordered child past the anxiety threshold, whereupon they seek to reduce cortical arousal through the flight-fight-freeze response (Kinniburgh et al., 2005; Van Der Kolk, 2006). The flight-fight-freeze response to heightened levels of anxiety/over-arousal is considered to have been naturally selected through evolution in order to achieve feelings of safety and well-being in the face of threats to the organism, much as attachment is thought to have developed through evolutionary processes (Bowlby, 1969, 1982). Seen in this way, aggressive, destructive, hyperactive and disengaged behaviours exhibited by attachment-disordered children are a necessary response to hyper-arousal as their purpose is to neutralise the perception of threat. They should be met with understanding, empathy and other measures to assist the child to reduce arousal, rather than with anger and discipline alone, the latter only serving to perpetuate the child's unsustainable levels of hyper-arousal and associated fight-flight-freeze response.

Figure 2: Autonomic arousal and the behaviour of attachment-disordered children.
(Adapted from Pearce, 2009.)



Accessibility

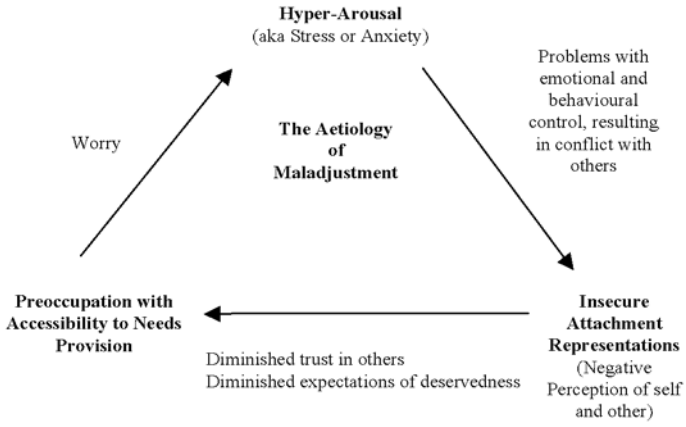
In the 1930s, B.F. Skinner developed an apparatus to study learning behaviour in laboratory animals. Referred to as the *Skinner Box*, this box-like apparatus incorporated a lever or bar, and a food shute. Rats were placed in the Skinner Box and exposed to three learning conditions. In the first condition, a pellet of food was delivered via the shute each time the rat pressed the bar or lever. This condition was referred to as *continuous reinforcement*. The rats quickly learnt that by pressing the bar or lever they would receive food. In the second condition, a food pellet was delivered intermittently, such as on the first, third or fourth press of the bar or lever. This condition was referred to as *intermittent reinforcement*. The rats learnt more slowly that by pressing the bar food would be delivered. In the third condition no food was delivered through the shute, no matter how many times the rat pressed the bar or lever. The rats in the first condition appeared to press the bar or lever when they required food. The rats in the third condition soon stopped pressing the bar. The rats in the second condition pressed the bar persistently, even after food was no longer delivered in association with presses of the bar or lever.

Clinical experience with attachment-disordered children suggests that their condition arises in the context of parental care that reflects conditions two and three of Skinner's experiments; that is, parental care that involves inconsistent needs provision or a persistent failure to offer needs provision. As a result, attachment-disordered children become inordinately preoccupied with accessibility to their caregivers and with those caregivers' responsiveness to their perceived needs and wishes at any given time. This manifests in persistent (or compulsive) requests of their caregivers with respect to perceived needs arising under conditions akin to condition two, and coercive attempts to draw attention to needs (i.e. manipulation) and acts of deceit (e.g. stealing) to secure access to needs arising under conditions akin to condition three. This preoccupation with needs and associated persistent and compulsive attempts to secure needs provision represent the attachment-disordered child's attempts to reassure themself that they can access needs provision. It reflects anxiety associated with the child's experience of inconsistent provision of such basic human needs as feeling safe, loved, and physically nourished during infancy and early childhood.

A Triple-A approach

The ability to gain access to needs provision is a source of comfort for most people. As discussed, attachment-disordered children have typically experienced inconsistent accessibility to needs provision, such that they become preoccupied with it. For these children the inability to consistently access needs provision is a source of significant worry, further elevating their already chronically high levels of cortical arousal. Chronically high levels of arousal make attachment-disordered children prone to problems of emotional and behavioural control associated with the fight-flight-freeze response. In turn, problems of emotional and behavioural control bring attachment-disordered children into conflict with others, thereby reinforcing their perception of themselves as bad and others as uncaring (negative attachment representations). Negative attachment representations undermine trust in others and result in diminished expectations of deservedness in the attachment-disordered child. A lack of trust in others and low expectations of deservedness result in increased preoccupation with accessibility to needs provision and worry about it, such that the cycle is perpetuated, as is represented in Figure 3. Although systems theory tells us that it is sufficient to intervene at one point in the system in order to achieve systemic change, hereafter will be presented an approach to the management of attachment-disordered children that targets *Accessibility*, *Arousal* and *Attachment Representations*.

Figure 3: The cycle of maladjustment in attachment-disordered children.



Changing Attachment Representations

The Looking Glass Self

In his 1902 publication, *Human Nature and the Social Order*, Charles Horton Cooley introduced the concept of the *Looking Glass Self* to portray his idea that an individual's perception of themself develops in association with how they perceive others to see them. Using naturalistic observation as his primary research methodology, including observation of his own children, Cooley proposed that ideas of self incorporate: (1) our thoughts about how we must appear to others; (2) our thoughts about the judgement of others of this appearance; and (3) our feelings associated with the imagined judgements of others. Empirical research has shown that how adolescents and young adults think of themselves is correlated with how they think they are perceived by their parents (Cook & Douglas, 1998). Though there is an emerging acknowledgement that, as they get older, individuals actively seek to influence the judgements of others, contemporary sociological research (Yeung & Martin, 2003) lends support to the idea that '… self-conceptions are instilled through interaction with high-status alters' (p.843). It follows that an individual's thoughts of how they must appear to others, their thoughts about the judgements of others of this appearance and the resultant feelings associated with the imagined judgements of others are likely to stem from the individual's experience of relatedness to others. Though not the sole determinant of self-concept, it is conceivable that if a child predominantly experiences significant others to be friendly and interested in them, understanding of them and accepting of who they are from an early age, the child will think of themself as interesting, competent and approved of. In contrast, if a child predominantly experiences significant others to be inaccessible, frightening, rejecting or disinterested, they will think of themselves as bad, undeserving and unsafe. When one considers the historical experiences of the attachment-disordered child, their maladjusted behaviour and the associated rejecting and punitive responses of adults in a caregiving role, it should be of no surprise that negative attachment representations are maintained and strengthened.

In caring for attachment-disordered children it is important to maintain a positive attitude and disposition toward them and to not be drawn into a perception of them as fundamentally bad because their behaviour is bad. To do so would only serve to confirm their belief that they are inherently bad. In order to be successful in this endeavour it is potentially of benefit to consider the child's behaviour as a natural

consequence of inconsistent, insensitive and/or abusive caregiving and as representative of the child's efforts to feel safe and reassured about accessibility to needs provision. That is, it is important to respond with acceptance and understanding of their reasons and intentions, and to respond to their needs as well as their behaviours/signals (Pearce, 2009; Schwartz & Davis, 2006). In doing so, the possibility emerges for the attachment-disordered child to develop an alternative conception of self that incorporates the ideas that their fears and preoccupations are acknowledged and understood, thereby nurturing new perceptions of caring others, a deserving self, and a non-threatening social world.

Verbalising Understanding

Further to the above discussion of the *Looking Glass Self*, it is useful to look at attachment representations from a cognitive-behavioural point of view. Implicit in cognitive-behavioural formulations is the idea that the way an individual thinks about or appraises themself, others and their social world influences how they feel. Their feelings, in turn, influence how they behave. Their behaviour plays a key role in how others respond to them. The response of others is typically consistent with the original thought, thus confirming in the mind of the individual the validity of that thought. A conventional term that might be seen as reflecting this process is self-fulfilling prophesies (Figure 4).

A self-fulfilling prophesy common to the experience of attachment-disordered children is represented in Figure 5. By virtue of their history of inconsistency in parental accessibility, understanding, responsiveness, and affective attunement, it occurs to the attachment-disordered child that they are bad. The thought that they are bad precipitates feelings of anger. In association with their anger, the child yells, hits or breaks objects. The adult present reprimands and disciplines the child for yelling, hitting or breaking objects, thus confirming for the child the original thought that they are bad. As this process is repeated over time, the original thought becomes a belief. Attachment representations are beliefs about self, other and world.

In order to promote and support more positive beliefs about self, other and world, adults who interact with attachment-disordered children in a caregiving role need to circumvent this process of confirming and reinforcing maladaptive thoughts and beliefs. While some intervention methodologies advocate intervening in the area of the child's thoughts, feelings and/or behaviours, a Triple-A approach to caregiving advocates intervening in the area of the response of the adult to the behaviours of the attachment-

Figure 4: Self-fulfilling prophesies.

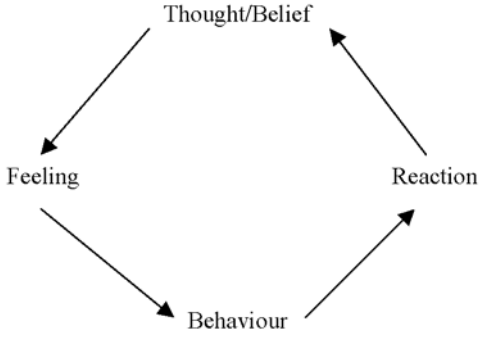
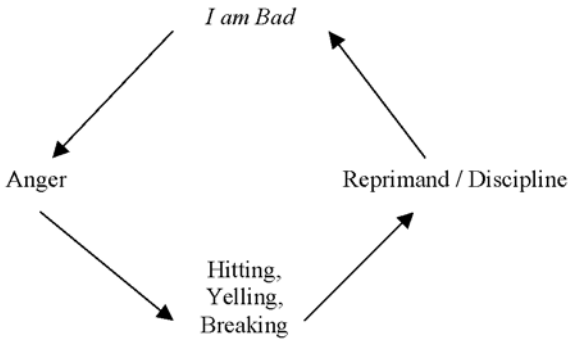


Figure 5: Self-fulfilling prophesy of the attachment-disordered child.



disordered child. In view of the crucial part it plays in soothing the infant and encouraging trusting dependency on adults in a caregiving role, a Triple-A approach to caregiving advocates responding with *understanding* (Figure 6). Responding to the need as well as the behaviour, as referred to above, is one method by which an adult in a caregiving role can respond with understanding. Another, powerful way to create an experience of understanding is to verbalise understanding of the child's thoughts, feelings and intentions, for there is always a reason why the child has acted in the way that they have. For example, if an attachment-disordered child strikes out at another child in the classroom, it is useful to pause and consider that the child may well have done so because they were angry at something the other child did and that they did not think that the teacher would notice or care enough to intervene. In contrast to simply disciplining the child who hit out, thereby confirming their belief that they are bad and unsafe and adults are uncaring, verbalising understanding circumvents this process by providing the attachment-disordered child with the experience that their feelings and intentions are understood and important. Analogous to the validation methods utilised in Dialectical Behaviour Therapy (DBT; Woodberry et al., 2008) with adults diagnosed with Borderline Personality Disorder (BPD), this is soothing to the attachment-disordered child and lays the foundations for a relationship based on trust and secure dependency (Cook et al., 2005), just as occurs in infant-caregiver interactions. When used routinely it also facilitates opportunities to discipline effectively.

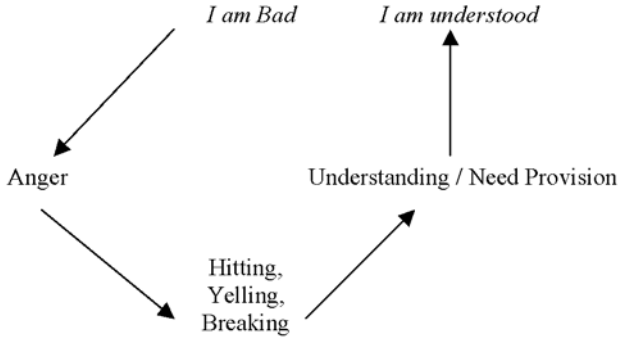
Addressing accessibility preoccupations

In addition to circumventing the process of perpetuating maladaptive attachment representations, verbalising understanding regarding accessibility to needs provision reassures the attachment-disordered child that the adult in a caregiving role is aware of them and understands their needs and wishes. It provides an experience that is similar to that which an infant experiences when their caregiver notices when they are hungry and feeds them. Statements that communicate understanding of accessibility preoccupations include the following (Pearce, 2009):

- *I think that you believe that I will forget about you if we are not always together.*
- *I think that you believe I won't notice or understand when you really need me/ something.*
- *You believe that if I don't do it [get it for you] now I will forget.*
- *You worry that I won't come back for you.*
- *You worry that I don't like you anymore.*
- *You know you have done something wrong and you worry that I won't like/love you anymore.*

Clinical experience has shown that such statements reduce the attachment-disordered child's anxiety and associated preoccupations and compulsive attempts to

Figure 6: Circumventing self-fulfilling prophecies.



reassure themself about accessibility to need provision.

Another method by which adults in a caregiving role reassure the attachment-disordered child about accessibility to needs provision is drawn from the infant's experience of the accessibility of their caregivers. From approximately eight months of age the infant develops the capacity to move about their environment. Once they can do so, secure infants will begin to explore their environment while also seeking temporary reunions with their preferred caregivers for *emotional refuelling*. Emotional refuelling involves the caregiver attending to the infant, thereby alleviating the infant's emerging anxiety at having been separated from them. At other times the caregiver checks in on the infant before the infant does something to make it so. In association with repeated experiences of temporary separations, reunions and emotional refuelling, secure infants develop an appreciation of the fact that their caregivers are aware of them, accessible and responsive, without the requirement of the infant being with their caregiver all of the time. Applied to the older, attachment-disordered child, adults in a caregiving role would seek out the child to physically and emotionally touch base before the child seeks out the caregiver or otherwise takes some action to command the caregiver's attention. Referred to as *emotional refuelling in reverse* (Pearce, 2009), this strategy enables the attachment-disordered child to have experiences of adults in a caregiving role being aware of them and responding to them without the child having to do something to make it so, thereby eroding the child's maladaptive belief that the only way to ensure needs provision is to control everyone and everything in their environment.

Managing Arousal

Managing cortical arousal and facilitating the capacity to self-soothe are also key components of a Triple-A approach to the care and management of an attachment-disordered child. Providing regular and repeated experiences of understanding, accessibility and responsiveness is soothing to historically traumatised, attachment-disordered children (Cook et al., 2005; Van Der Kolk, 2006); just as it is for the infant in the throes of developing their first attachment. Applying routines and boundaries and consistently adhering to them facilitates experiences of predictability that attachment-disordered children crave. Strengthening the position of adults in the relationship dynamic is critical to facilitating dependency and the attachment-disordered child's likelihood of letting adults solve some of their problems for them (Pearce, 2009). Meditation, relaxation, mindfulness and yoga are all of conceivable benefit to historically traumatised individuals (Van Der Kolk, 2006), if one can motivate the attachment-disordered child to participate. However,

perhaps the most simple and, in the author's experience, effective method for reducing cortical arousal and likelihood that the attachment-disordered child will reach the anxiety threshold on a regular and repeated basis is to play soothing classical music quietly in the child's bedroom all night, every night. Music has been shown to influence emotional states (Livingstone & Thompson, 2009; Schellenberg et al., 2007). Emotion is represented in two dimensions: arousal and valence (Livingstone & Thompson, 2009). Through its emotion-influencing properties, music can be used to induce desired states of emotion and arousal. Clinical experience has shown that playing soothing classical music throughout the night induces feelings of emotional well-being and associated physiological relaxation, such that the attachment-disordered child sleeps more soundly and is more tolerant of stimulation in the day ahead. The apparent reduction in cortical arousal reduces the likelihood of the attachment-disordered child engaging in behaviour associated with the fight-flight-freeze response and coming into conflict with others. In addition, playing music while the attachment-disordered child sleeps might also be considered to provide a focus of attention for the sleeping child's brain, such as occurs with mindfulness and meditation practices.

Finally, engaging with the attachment-disordered child one-to-one in mutually enjoyable activities, commonly referred to as 'special time', is an important component in the remediation of attachment difficulties. Mimicking the playful and loving interactions between mother/father and infant, special time facilitates experiences of emotional connectedness and opportunities for the adult in a caregiving role to shape and manage the child's affective experience, such as is apparent during the playful encounters of mother and infant (Reite & Field, 1985). When scheduled on a regular and predictable basis it reassures the child regarding the accessibility of adults in a caregiving role. It reassures the child that they are important and delighted in, thereby promoting positive representations regarding self and other. Applied in the education context using an approach such as *Theraplay* (Jernberg & Booth, 2001), it is possible that it promotes positive engagement with all aspects of the school experience, raising hope for enhanced educational outcomes for difficult to engage, maladjusted children.

Concluding comment

This article represents an attempt by a clinician with 15 years' experience working with attachment-disordered children to integrate ideas sourced from theory, science and reflective clinical practice into a pragmatic approach to the care and management of attachment-disordered children. Negative attachment representations, elevated cortical arousal and preoccupations regarding accessibility to needs provision are proposed as being key components of attachment disorders, and their remediation. Intervention approaches based on observations of the experiences of infants who are in the throes of developing their first attachments are presented, with a particular focus on strategies that recreate the infant's experiences of parental accessibility, understanding, responsiveness and affective attunement. Whereas many aspects of attachment theory described herein are empirically supported, greater research effort is required into exploring and demonstrating the effectiveness of integrative clinical approaches to the remediation of attachment disorders developed from theory, science and reflective clinical practice.

Address for correspondence

Colby Pearce
64 Melbourne Street,
North Adelaide,
South Australia 5006.
E-mail: colby@securestart.com.au

References

Aber, J.L., Allen, J.P., Carlson, V. & Cicchetti, D. (1989). The effects of maltreatment on development during early childhood: Recent studies and their theoretical, clinical, and policy implications. In V. Carlson & D. Cicchetti (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp.579–619). New York: Cambridge University Press.

Ainsworth, M, Blehar, M, Waters, E & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. New Jersey: Laurence Erlbaum and Associates.

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders – Fourth edition – Text revision (DSM-IV-TR).*

Belsky, J., Campbell, S.B., Cohn, J.F., & Moore, G. (1996). Instability of infant-parent attachment security. *Developmental Psychology, 32*, 921–924.

Bowlby, J. (1969). *Attachment and loss, Volume I: Attachment*. New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss, Volume II: Separation: Anger and anxiety*. New York: Basic Books.

Bowlby, J. (1980). *Attachment and loss, Volume III: Loss: Sadness and depression*. New York: Basic Books.

Bowlby, J. (1982). *Attachment and loss, Volume I: Attachment* (2nd ed.). New York: Basic Books.

Bretherton, I. (1985). Attachment theory: Retrospect and prospect. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. *Monographs of the Society for Research in Child Development, 50* (1–2, Serial No. 209), 3–35.

Bretherton, I., Ridgeway, D. & Cassidy, J. (1990). Assessing internal working models of the attachment relationship: An attachment story completion task for 3-year-olds. In M. Greenberg, D. Cichetti, & E. Cummings (Eds.), *Attachment in the pre-school years: Theory, research and intervention* (pp.273–310). Chicago: University of Chicago Press.

Cook, W.C. & Douglas, E.M. (1998), The looking glass self in family context: A social relations analysis. *Journal of Family Psychology, 12*(3), 299–309.

Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M.DeRosa, R., Hubbard, R., Kagan, R., Liautaud, J., Mallah, K., Olafson, E. & Van Der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals, 35*(5), 390–398.

Cooley, C.H. (1902). *Human nature and the social order*. New York: Scribners.

Crittenden, P.M. (1992). Quality of attachment in the pre-school years. *Development and Psychopathology, 4*, 209–241.

Crowell, J.A., Treboux, D. & Waters, E (2002). Stability of attachment representations: The transition to marriage. *Developmental Psychology, 38*(4), 467–479.

Delaney, R.J. (1994). *Fostering changes: Treating attachment-disordered foster children*. Colorado: Corbett.

Egeland, B. & Farber, E.A. (1984). Infant-Mother attachment: Factors related to its development and changes over time. *Child Development, 55*, 753–771.

Howes, C. (1999). Attachment relationships in the context of multiple caregivers. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp.671–687). New York: Guilford Press.

Jernberg, A.M. & Booth, P.B. (2001). *Theraplay: Helping parents and children build better relationships through attachment-based play* (2nd ed.). San Francisco: Jossey Bass.

Kobak, R., Little, M., Race, E. & Acosta, M.C. (2001). Attachment disruptions in seriously emotionally disturbed children: Implications for treatment. *Attachment and Human Development, 3*, 243–258.

Kinniburgh, K.J., Blaustein, M., Spinazzola, J. & Van Der Kolk, B.A. (2005). Attachment, self-regulation and competency: A comprehensive intervention framework for children with complex trauma. *Psychiatric Annals, 35*(5), 424–430.

Livingstone, S.R. & Thompson, W.F. (2009). The emergence of music from theory of mind. *Musicae Scientae*, Special Issue 2009–2010, 83–115.

Main, M. (1996). Introduction to the special section on attachment and psychopathology: 2. Overview of the field of attachment. *Journal of Consulting and Clinical Psychology, 64* (2), 237–243.

Main, M., Kaplan, N. & Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to level of representation. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. *Monographs of the Society for Research in Child Development, 50*, 66–104.

Pearce, C. (2009). *A short introduction to attachment and attachment disorder*. London: Jessica Kingsley.

Perry, B.D., Pollard, R.A., Blakley, T.L., Baker, W.L. & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and 'use-dependent' development of the brain: How 'states' become 'traits'. *Infant Mental Health Journal, 16*(4), 271–289.

Reite, M., & Field, T (1985). *The psychobiology of attachment and separation*. Orlando: Academic Press.

Ritchie, S.A. (1996). Attachment relationships of substance-exposed children with their caregivers and their teachers. *Dissertation Abstracts International, 56* (10-A), 3892A.

Schore, A. (1994). *Affect regulation and the origin of self: The neurobiology of emotional development*. New Jersey: Laurence Earlbaum.

Schore, A. (2002). Dysregulation of the right brain: a fundamental mechanism of traumatic attachment and the psychopathogenesis of post-traumatic stress disorder. *Australian and New Zealand Journal of Psychiatry, 36*, 9–30.

Shonk, S.M. & Cicchetti, D. (2001). Maltreatment, competency deficits, and risk for academic and behavioural maladjustment. *Developmental Psychology, 37*, 3–17.

Speltz, M. (1990). The treatment of pre-school conduct problems: An integration of behavioural and attachment concepts. In M. Greenberg, D. Cicchetti & E. Cummings (Eds.), *Attachment in the pre-school years: Theory, research and intervention* (pp.273–310). Chicago: University of Chicago Press.

Schwartz, E. & Davis, A.S. (2006). Reactive attachment disorder: Implications for school readiness and school functioning. *Psychology in the Schools, 43*(4), 471-479.

Van Der Kolk, B. (2006). Clinical implications of neuroscience research in PTSD. *Annals of the New York Academy of Sciences*, 1–17.

Vaughn, B.E., Egeland, B., Sroufe, L.A. & Waters, E. (1979). Individual differences in infant-mother attachment at 12 and 18 months: Stability and change in families under stress. *Child Development, 50*, 971–975.

Waters, E. (1978). The reliability and stability of individual differences in infant-mother attachment. *Child Development, 49*, 483–494.

Woodberry, K.A., Roy, R. & Indik, J. (2008). Dialectical behaviour therapy for adolescents with borderline features. In L.A. Greco & S.C. Hayes (Eds.), *Acceptance and mindfulness treatments for children and adolescents: A practitioners guide*. Oakland: New Harbinger.

World Health Organisation (1992). *International classification of diseases and related health problems – 10th edition (ICD-10)*.

Yeung, K.T. & Martin, J.L. (2003). The looking glass self: An empirical test and elaboration. *Social Forces, 81*(3), 843–879.