

ATTACHMENT

from
INFANCY to ADULTHOOD

The Major Longitudinal Studies



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Understanding and Resolving Emotional Conflict: Findings from the London Parent-Child Project

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In this chapter we review what strikes us as the common thread in our findings from 12 years of longitudinal attachment research, i.e. the enormous value for parents, and in turn children, to understand and resolve emotional conflict within and between themselves. This common theme can be identified in the way that we understand the research methods we use, including the Adult Attachment Interview, the Strange Situation and emotion narrative tasks we have relied on with older children. As we see it, the power of these methods lies in their ability to capture individual differences in the ways parents and children approach, understand and try to resolve the inevitable emotional conflicts that lie at the heart of family life. Thus, the chapter takes this theme as its title, and we re-visit it throughout as we work our way through summarising what we observed earliest in our research through to what we have found most recently, in our 11-year follow-up.

Context

We came to attachment theory and research through our interest in psychoanalysis, firmly rooted in the context of our experience as graduate students at Hebrew University in Jerusalem in 1983/1984.

There we had the good fortune of studying with Professors Joseph and Anne-Marie Sandler who were on an extended sabbatical leave from London. From the Sandlers we soaked up a range of psychoanalytic thinking, including their object relational assumption that every wish arising in the mind involves a mental model of the self and the other, and a wished-for interaction (e.g. Sandler & Sandler, 1998). We learned, as well, about the powerful role assigned to early experiences as an organizer of later development via psychological structures, including defensive processes, that are resistant to change.

We left Jerusalem in 1984 nourished by the invitation Anne-Marie Sandler had extended when Miriam professed her interest to train as a child psychotherapist -- very plainly, Anne-Marie said 'come to Hampstead'. We would do so, but not before spending a year in our home town, Vancouver (1984/85), working as research assistants on developmental and clinical psychology research projects at the University of British Columbia (Miriam with Tannis Macbeth and Howard with Peter Suedfeld), and a subsequent year (1985/86) in New York at Teachers College where each of us completed an M.A. degree in Develop-

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mental Psychology. In New York, Larry Aber made us familiar with how certain core psychoanalytic ideas about the significance of early experience were supremely well articulated in John Bowlby's attachment theory, and well validated by Mary Ainsworth's observational research. At first, we were not deeply enthused by an approach which placed all children in one of three attachment categories – didn't this approach deny the individuality of the child better appreciated by more traditional psychoanalytic authors like Anna Freud or Donald Winnicott? Persuaded that a fuller set of psychoanalytic training opportunities were available in London, we began PhD studies in 1986 at University College London where Howard was to work with Joe Sandler on psychoanalytic theories of conflict and defense, and Miriam was to work with Peter Fonagy, who agreed to supervise her intended work on the transition to parenthood, though Peter was wary of hinging the research on Donald Winnicott's (1965) idea of the good enough mother. How would one operationalize this construct?

We returned to the 1985 SRCD monograph we had brought from New York on 'recent advances in attachment theory and research' concentrating on Main, Kaplan & Cassidy's 'move to the level of representation' and their seminal report on intergenerational links between infant-parent attachment and attachment interviews collected 5 years later. This work provided the rubric under which we could work together on a study of the transition to parenthood, taking a systematic account of the expectant parents' psychological conflicts, anxieties and defensive strategies stemming from their own childhood experiences. We were soon launched on the longitudinal attachment study we named the London Parent-Child Project, which we pursued from our institutional 'secure' bases in London, namely the Psychology Department at University College London, and the Anna Freud Centre. In the summer of 2004, we bid farewell to London and returned to New York, in order to accept academic posts in the Graduate Faculty of New School University, where our theoretical orientation, i.e. exploring the psychoanalytic roots and applications of attachment theory, had been warmly welcomed.

Our luck in beginning our longitudinal attachment work in London was greatly augmented by the experience of receiving advice on a regular basis, during the early stages (1986-1990), from John Bowlby. In the late 1980s, he still maintained his office at the Tavistock Clinic where he had been based for more than 40 years. His office served as a central clear-

inghouse for all matters to do with attachment manuscripts in preparation, in press, and published. Bowlby facilitated our attendance at the 1987 Adult Attachment Interview Institute, convened by John Byng-Hall, and taught by Mary Main and Erik Hesse, in London at the Tavistock Clinic. This valuable training enabled us to reliably rate and classify the 200 AAIs we collected from 100 expectant mothers and their partners, the expectant fathers.

When we asked John Bowlby where we should go to learn about the Ainsworth Strange Situation, he said 'go to Regensburg' – and so we did! In the summer of 1988, we observed the intricately organized hierarchy of 'working models,' including co-teaching, co-working, co-supervising and remarkable cooperation, within the diverse research team of undergraduates, graduates, post-doctoral researchers – directed by Karin and Klaus Grossmann. We shared stories about how best to cultivate the interest and commitment of participants in longitudinal attachment research. Such things as sending birthday cards can consolidate participant-researcher relationships, and help researchers track addresses of participating families. With respect to how to administer the Strange Situation, the Grossmanns helpfully pointed out: 'Go by the child, not by the clock.' A 12-month old need not be left distressed in a separation for 3 minutes -- 15-30 seconds of distress is ample evidence of the attachment system being activated. We went on to collect 96 Strange Situation observations of 12-month old infants with their mothers, and 90 observations of 18-month old infants with their fathers. Following formal training from the expert teaching of Mary Jo Ward (in 1989) concerning the rating of Strange Situation tapes, we arrived at reliable classifications and ratings, first of the infant-mother, and later the infant-father tapes.

Ours was the first report of a prospective link between pregnant women's responses to the AAI and their infants' attachment to them at one year, exciting findings that we rushed to report (Fonagy, Steele & Steele, 1991). Later we provided the first report of an independent link between AAI responses of expectant fathers and their infants' attachments to them at 18-months of age (Steele, Steele, & Fonagy, 1996). While there had been previous reports of such intergenerational links, these prior studies had been based on interviews collected from parents 6 years after the transition to parenthood (Main, Kaplan & Cassidy, 1985; Grossmann, Fremmer-Bombik, Rudolph & Grossmann, 1988). Hence, with respect to this pioneering work with the AAI, it could be claimed that the levels of coherence and valuing of

relationships observed in the attachment interviews from these parents may have resulted, in part, from *becoming and being a parent* (i.e. an influence of the child upon the parent). Our early work sought to show that intergenerational patterns of attachment could be demonstrated even when the AAI was administered *before* there was any child on the scene. Indeed, we found that the cross-generational link was similarly, and distinctively, evident for both mothers and fathers (Steele et al, 1996).

Implications of Intergenerational Patterns of Attachment: Social or Genetic Transmission Processes?

Our powerful cross-generational evidence bolstered the understanding of the nature and determinants of attachment security during infancy. While the pioneering studies including assessments of infant-mother and infant-father attachment had demonstrated statistical independence of these relationships (Grossmann, Grossmann, Huber, & Wartner, 1981; Main & Weston, 1981), controversy has endured over the extent to which attachments to parents are learned or somehow given at birth by our genetically-based emotional predispositions (See Fox, Kimmerly & Schafer, 1991). We have sought to understand this link across generations between attachment narratives of the parents and their infants' attachments in terms of psychoanalytic ideas about emotion-regulation and the social influences of parents upon their children. Bowlby (1973) had drawn attention to this intergenerational phenomenon, highlighting how social influences may be as important, if not more so, than genetic influences. However, it was a long time before this assumption was systematically investigated (See O'Connor, Croft & Steele, 2000). Recent twin studies have addressed this question for the first time. These studies underline highly probable social origins of infant-mother patterns of attachment. Namely, shared environmental effects, not heritability, account for the vast majority of variance in concordance of child-mother attachments among a large number of monozygotic and dizygotic twins studied in independent laboratories (Bokhorst, Bakermans-Kranenburg, Fearon et al, 2003; O'Connor & Croft, 2001). This work gives considerable additional weight to claims that attachment during early childhood is a relationship-specific construct. But what in the parent is being transmitted to what in the child? To fill in the canvas, we have found it useful to draw widely from psychoanalytic theories of object relations (e.g. Bowlby, 1979; Sandler, 1987; Sandler & Sandler, 1998; Winnicott, 1965)

and convergent theories of emotional development (Gottman, Katz & Hooven, 1997; Tomkins, 1963).

Object Relations Theories & Emotion Regulation

Object relations theories share the assumption that the principal emotional motivation in human life is the wish to form and maintain relationships to others, for the survival value and satisfaction provided by significant enduring relationships. In the first place, it is typically mothers who are this 'other' but, in time, fathers, grandparents and indeed anyone able and willing to play an ongoing caregiving role toward the child is likely to be the intense focus of the child's relationship needs. Bowlby documented how early child-caregiver relationships reflect the environment in which we evolved, seeing the newborns' gestures, and hearing the newborn's cries as component instincts of the attachment behavioural system. Bowlby jettisoned Freudian instinct theory in favour of this more contemporary ethological, cognitive yet also psychoanalytic theory of child development. We have discussed in detail the sense in which, for his psychoanalytic colleagues in the early 1960s, this was a step too far and Bowlby was widely shunned by other psychoanalysts including other object relations theorists, especially the group who followed the thinking of Melanie Klein (For a full discussion see Steele & Steele, 1998, 1999). Nonetheless, Bowlby remained a psychoanalyst all his long professional life and continued to regard attachment theory as an object relations theory (See Bretherton, 1998). He desisted from talking about the child's 'internal world', abandoning this term to the Kleinians who he perceived as giving far too little attention to external 'lived' reality. In the service of his evolutionary perspective, Bowlby (1969) incorporated from cognitive psychology the term 'internal working model' to refer to the process by which children arrive at (in the best of circumstances) 'tolerably accurate' internal representations of their relationship experiences. The internal working model concept, and its meaning-making capacities, has been most thoroughly excavated and extended (See, Bretherton & Munholland, 1999) to show that 'lived' experiences are represented at various levels of specificity within the mind, serving as guides to perception of the self and others, including strategies for how to interpret negative emotions and engage in behavioural strategies for managing these.

The relationship-specificity of this process during infancy is nothing less than remarkable. Against this background, the behaviour displayed by young children in the Ainsworth Strange Situation, particularly

upon reunion, reflects internalised rules they have learned, *from the specific caregiver they are being observed with*, for displaying and sharing negative affect or psychic conflict. Infants with an avoidant attachment to mother have learned to reveal as little as possible about their inner experiences of negative affect, which makes sense against the background of their mothers who have been observed to be singularly non-responsive to negative affect (Grossmann, Grossmann & Schwan, 1984). Infants with avoidant attachments have learned that it doesn't pay to acknowledge conflict, better to pretend all is well even when deep down (at identifiable psychophysiological levels) pronounced and enduring distress can be discerned (Spangler & Grossmann, 1993). The infant with a resistant attachment has been taught to overtly display what are often intense negative emotions, doing so in a petulant/fighting or passive/withdrawn manner without any clear expectation of their needs being met, which in fact go unmet over the 20 minute observation (See Cassidy & Berlin, 1984). For these infants, they cannot help from showing themselves to be in an acute emotional conflict, conveying a sense of confusion as to from where, and from whom, a strategy out of their painful circumstances may come. This is consistent with the observational work of Haft & Slade (1989) who posit that such resistant babies are likely to have been cared for by parents who ignore or misconstrue their emotional signals. In contrast to these insecure (avoidant or resistant) patterns, the infant with a secure attachment is often joyful in the presence of the parent, openly displays negative emotion and shows confidence in their needs being met by the caregiver. Securely attached infants have been repeatedly shown to have parents who have helped them to achieve an emerging sense of balance and control with respect to the management of negative and positive emotions. In other words, these securely attached infants appear to have learned that unmanageable feelings of distress can be resolved by turning to the mother, father or other caregiver. Finally, infants who show disorganization at one year of age with the parent are shot through with either hopelessness or helplessness (Lyons-Ruth & Jacobvitz, 1999), even as they also give evidence of a more organized avoidant, resistant or secure strategy. We know from the Spangler & Grossmann (1993) report that this disorganized group is also likely to be distressed long after the 20 minute observation is over. In our longitudinal work, we predicted that AAIs obtained from parents prior to their children's birth would correlate with their infant patterns of attachment to mother (at 12 months) and to father (at 18

months). Notably, no infant we observed, of 96 infants seen with their mothers, and 90 seen with their fathers, was disorganized in their attachments to *both* parents. Hence, all four infant patterns of attachment are arguably social in origin, relationship-specific, and stemming from messages internalised by the child concerning how to regulate emotional conflict. This interpretation of infant-parent attachment patterns has been bolstered by recent evidence (Bakermans-Kranenburg, & van IJzendoorn, 2004) of a failure to replicate the claim that there is a genetic underpinning to infant disorganization (Lakatos, Toth, Nemoda, Ney, Sasvari-Szekely, & Gervai, J. (2000). Further debate and research around this topic is to be expected in the years to come (See Gervai & Lakatos, 2004).

Before Bowlby had fully launched himself toward attachment theory, with its own distinctive model of human motivation including aggression as essentially a reaction to frustrated unmet attachment needs, he wrote vividly about the inevitable daily presence in children's lives of intense 'libidinal' and 'aggressive' feelings, love and hate (Bowlby, 1956/1979). While he would later drop all reference to libido, he did retain this lecture, delivered on the anniversary of Freud's birth, in his 1979 collection of lectures, titled the 'The making and breaking of affectional bonds'. He placed the 1956 lecture, titled 'Psychoanalysis and child care' at the front of this slim accessible volume, which merits much reading and re-reading. In this lead chapter, he credits Freud (as expected for the occasion) with drawing our attention to the inevitability of ambivalence in human life: "there is nothing unhealthy about conflict. Quite the contrary: conflict is the normal state of affairs in all of us. Every day of our lives we discover afresh that if we follow one course of action we have to forgo others which are also desired" (Bowlby, 1979, p. 6). He also cites Konrad Lorenz, noting that in this respect humans are not unique, "all animals are constantly beset by impulses which are incompatible with one another, such as attack, flight and sexual approach" (Bowlby, 1979, p. 7). What distinguishes healthy from unhealthy individuals is the extent to which the inevitable conflict between feelings of love and hate, often directed toward the same person, are controlled, regulated and so, resolved. For children, Bowlby tells us this will develop naturally if young children have the loving company of their parents who put up with outbursts of hostility by showing they are not afraid of hatred and conveying a belief that it can be contained and controlled. Such is "the tolerant atmosphere in which self-control can grow" (Bowlby, 1979, p. 12). Bowlby maintained then, and through-

out his later writings, that a child's need for love and care is paramount and "provided these needs are met, frustrations of other kinds will be met with well" (Bowlby, 1979, p. 13). Fellow-psychoanalysts, Dorothy Burlingham and Anna Freud (1944) made a related observation when they remarked on how the positive appraisals made by new mothers about their babies was out of all proportion to reality, adding that this is well and good because soon after, in the toddler years, these healthy mothers will be relentlessly nagging their young children in order to instil a moral sensibility. Against the bedrock of early experiences of having one's needs for care and love met, later limit-setting responses from one's parents are frustrations that can be easily accommodated, and are indeed sought after so that the natural wish to explore may be pursued within an environment felt to be safe. Recent attachment research, including our own longitudinal study, strongly suggests that parents capable of mentally and emotionally exploring -- *with balance and coherence* -- the meaning of their attachment histories are best able to meet their children's emotional needs.

The Power of the Adult Attachment Interview

Meeting the child's needs for love and care in the first year requires a leap of faith on the caregiver's part as babies are inevitably experienced, at least at times, as taking more than they are giving (Hrdy, 1999). We investigated this evolutionary-based social and psychic conflict by asking mothers and fathers of the one-year olds in our longitudinal study to describe what they liked best, and what they liked least, about becoming parents and about their baby. We posed these questions in the context of a 20-minute audio-recorded interview. We transcribed the maternal responses verbatim before training a group of graduate students to rate the transcriptions on a series of scales pertaining to the mothers' attitudes toward their babies, and with respect to the experience of becoming parents. The students were kept blind to the Strange Situation data and the parents' AAI data. They independently and reliably arrived at ratings of how loving, rejecting, ambivalent, and coherent the mother was when speaking about her baby. Interestingly, when these ratings were correlated with our observations of infant-mother attachment security, there were modestly significant correlations in predicted directions with mothers of securely attached infants being more loving and coherent and less rejecting and ambivalent. *But* these interviews, collected concurrently with the Strange

Situation, did not enhance the more robust prediction of infant-mother attachment security we could make from the AAIs collected *before* the babies were born (Steele, Steele & Fonagy, 1992).

Time and again in our research we have been sent back to consider the significance of parents' responses to the Adult Attachment Interview, as it frequently correlates better with later child outcomes than any other parent measure of interest we have obtained from a wide list, including the above mentioned interview, and questionnaire measures of marital satisfaction, parents' self-esteem, or parents' neuroticism or extroversion (See Table 1 for a full list of constructs we have aimed to assess in the context of our longitudinal work). In addition, the AAI has also often proved a much better predictor of longer-term child emotion variables than the infant-mother or infant-father Strange Situation data we have collected (e.g. Steele, Steele & Johansson, 2002).

What Does the AAI Measure?

At the earliest stages of our research, we systematically investigated the psychometric properties of the Adult Attachment Interview, which have been the subject of a number of empirical reports (Bakersman-Kranenburg & van IJzendoorn, 1993; Crowell, Waters, & Treboux, 1996; Sagi, van IJzendoorn, & Scharf, 1994; Steele & Steele, 1994). Our own efforts in this direction corroborate the conclusion that the AAI is a uniquely valid measure of competence in the parenting role, i.e. pointing to the adult who will or will not be likely to meet the child's needs for care and love in the first year, and manage effectively most if not all later parenting tasks appropriate to each developmental stage in the child's life. Moreover, the parent who does well on the AAI, i.e. the adult who is highly coherent regarding their attachment experiences (whether favourable or adverse), and credibly valuing of attachment, is not necessarily more verbally intelligent, nor less neurotic, nor more likely to be in a good mood before being interviewed (Steele, 1991). The latter finding is worthy of brief elaboration, as it gives further clues as to the emotional profile linked with providing an autonomous-secure as opposed to insecure (dismissing, preoccupied or unresolved) response to the AAI. We began our work at a time when effects of mood on memory were popular (e.g. Natale, & Hantas, 1982), such that it may have been the case, we posited, that adults who are judged to tell a 'good' or 'coherent' attachment story were perhaps in a better mood *before* the interview.

Phase 1: Infancy Assessments

3rd trimester of first pregnancy and 12-18 months later
(1987 - 1989)

Expectant parents: AAI, with mood assessed before and after interview.

Strange Situation: Each infant with Mother at 12 mo. And father at 18 mo.

Phase 2: Early Childhood

5 and 6 year laboratory assessments
(1992 - 1994)

MacArthur Story Stem Battery (5 years)
Theory of Mind (5 years)
Affect Task (6 years)
Other measures: Verbal IQ, Life Events, Repeat Parent AAIs.

Phase 3: Middle/Late Childhood

11-12 year home visits
(1999 - 2001)

Friends and Family Interview (FFI)
Developed, administered, validated.
Modified/extended Affect Task, treated as a clue to social cognition.
Verbal IQ, Strengths and Difficulties Questionnaire, Life Events

Phase 4: Long term follow-up

16 year assessments
(2004 - 2006) *in progress*

AAIs to 16 year-olds
FFIs to next born siblings
Questionnaires assessing quality of Sibling relationships and Mental Health

We investigated this possibility by asking the pregnant women and their male partners to complete a single-item mood grid with 64 squares illustrating various shadings of mood arrived at by cross-tabulating arousal level and hedonic tone (Russell, Weiss, & Mendelsohn, 1989). Prior to being interviewed with the AAI, the expectant parents we were about to interview had a wide range of mood states, from moderately miserable (low on arousal and low on pleasure) through to moderately positive (high on arousal and high on pleasure). We observed no relation between mood prior to being interviewed and whether or not the AAI that would follow was judged autonomous-secure or insecure. The significant effect we did observe concerned the greater than

chance probability that someone who provided a coherent, autonomous-secure, interview was more likely to be in a good mood *after* the interview. Hence, it seems, *being able to reflect in a coherent manner* upon childhood experiences of being upset, ill, separated from caregivers, rejected and possibly having suffered loss or abuse – all *contributes to a positive emotional state*.

In other words, it feels good to have discussed openly and in an organized manner how one has managed and resolved emotional conflicts in one's attachment history. This may be the single defining feature of AAIs judged high on coherence and classified autonomous-secure. These interviews show a spontaneous capacity to acknowledge distress in

one's past attachment experiences, and show a range of strategies, both interpersonal and intrapersonal, for managing and resolving negative emotions. By contrast, the speaker who provides an interview classified insecure-dismissing may give a positive picture of their attachment history that lacks credibility (Ds1), or perhaps a highly derogating response with respect one or both parents (Ds2), or perhaps a cognitive retelling of difficulties that lacks emotional engagement (Ds3). These are the 3 main sub-types of insecure dismissing responses, and all tend to leave the speaker feeling exhausted and in a correspondingly negative mood. In ego psychological terms, when there is an over-reliance on defensive strategies of denial, isolation of affect, projection, and intellectualisation (A. Freud, 1936), the person concerned is likely to be aware of the emotional strain via symptoms (impoverished mood) without being able to make the connections to the underlying emotional conflicts causing the symptoms. In the contemporary language of interpersonal strategies for emotion-regulation, these dismissing speakers show their tendency to rely on avoidance, contempt or turning away (Gottman, Katz & Hooven, 1997), and feel the worse for it. The insecure-preoccupied pattern of response to the AAI suggests a different yet also restricted and burdensome strategy of dealing with negative emotion, namely one of escalation (the E2 angry stance), or quiet despair (the E3 passive stance). These speakers too were in a much less positive mood after the interview, according to their own report and presumably, this was also manifestly clear to the interviewer.

The coherence of the autonomous-secure speaker, as indicated above, is most evident in terms of the concordance between judgements made by speaker and listener (qua rater) as to the nature of childhood attachment experiences and their influence upon the speaker. Both the coherent speaker and the interviewer/listener are likely to be in a favourable mood when the interview is over. Coherence, then, exists across a number of dimensions both interpersonal and intrapersonal. When we consider the nature of incoherence in dismissing or preoccupied interviews, here too, we see it existing along a number of dimensions, interpersonal and intrapersonal. Interpersonally, the skilled interviewer (and later the rater of the transcription) does not believe the dismissing speaker's account, and is overwhelmed by the demands made by the preoccupied speaker for support or agreement with their often angry view of troubled attachment relationships. Just as the speaker is likely to be in a deflated or negative mood after the

interview, so too is the interviewer (and later rater). In addition, there may be a palpable sense of relief that the unpleasant experience is over, sensed by both interviewee and interviewer.

Implications of Parents' AAI Responses for Their Children's Development

Mothers

Though an interview with an expectant parent, or actual parent, comes to an end after 45-75 minutes, the responsibility of the parent to the child, and the child's need for the parent, is ongoing. In our follow-up research beyond the assessments of attachment to mother and father in infancy, we have concentrated on obtaining as far as possible the child's view of family life, and matters to do with the resolution of those inevitable emotional conflicts inherent to family life. At 5-years of age, we found that a most fruitful strategy for accessing the inner world of the child was via presentation of story stems, depicting a domestic emotional conflict via the use of dolls and story-beginnings where the child was asked to 'show me and tell me what happens next'. These emotion narrative stems came from the battery of stories known as the MacArthur Story Stem Battery (Emde, Wolf & Oppenheim, 2003). We administered 11 different stems to 86 children, tape-recorded and video-filmed their 956 story-completions and successfully reduced their responses through data reduction techniques to 3 internally consistent emotional themes: (i) limit-setting (ii) pro-social and (iii) anti-social (Steele, Steele, Woolgar et al., 2003). The most powerful finding to emerge from the statistical analyses was the significantly elevated levels of limit-setting responses, e.g. most commonly evident when children depicted a parent who exercised authority with verbal discipline, among children whose mothers had provided autonomous-secure AAIs more than 5 years previously, before the birth of the children whose story-completions we were studying.

This was the first report demonstrating that maternal attachment interviews identified as coherent and secure predict a central organizing feature of five-year olds' child narratives, i.e. the extent to which they resolve social and emotional dilemmas by referencing an authoritative parent (after Baumrind, 1967). Where maternal interviews were observed to be insecure, either dismissing or preoccupied regarding attachment, their children were much less likely to depict their mothers (in story stem doll play responses) as possessing this authoritative characteristic long recognised as an attribute of effective parenting.

Interestingly, it appears that the concept of parental authority was systematically reviewed from an attachment perspective for the first time only in the 1990s (See Bretherton, Golby & Cho, 1997; Richters & Waters, 1992) despite much previous attention given to parental authority and warmth in the broader literature on child-rearing and socialization (e.g. Baumrind, 1967). As Bretherton et al (1997) point out, Bowlby (1973) himself noted that aspects of the parenting style described as *authoritative* in the socialization literature (e.g. Baumrind 1967, 1971) are compatible with the sensitive, accepting and cooperative parenting behaviors held up as optimal by attachment theory and research. Authoritative parents resembled responsive attachment figures in paying attention to their children's needs and point of view, and tended to use persuasion, negotiation and reasoning to engage their children's cooperation. In addition, authoritative parents were firm, self-confident, and did not allow themselves to be coerced by their children. As Bretherton et al.(1997) put it, authoritative parents are leaders not dictators. The current results confirm and extend this line of thinking in showing that children's narratives depicting mothers with authoritative characteristics were most likely to come from children whose mothers provided (some five plus years previously) an attachment interview likely to be called autonomous-secure, organized, balanced and coherent.

There is, of course, a deep psychological meaning to *limit setting* in a context of social and emotional arousal and uncertainty, such as is created by the presentation to children of the MacArthur Story Stem Battery. The wider psychoanalytic literature from which attachment theory arose provides some clues. For example, limit setting has much to do with normal development conceived in terms of ego skills including frustration tolerance, delay of gratification, and impulse control (A. Freud, 1965). Further, the normative development of these affect-regulatory and cognitive skills may be seen to depend upon the bedrock provided by a consistent and caring adult (normally mother) who provides the growing child with a background sense of safety (Sandler, 1958). Interestingly, the title of Joseph Sandler's (1987) collection of his published papers dating from this early paper through the mid-1980s bears the title 'from safety to superego' suggesting that moral development depends on a sufficient amount of early attachment experiences that provide an enduring sense of safety. The child whose aggression is not safely limited will be vulnerable to unlimited aggressive impulses.

Understanding Mixed Emotions

One of our most consistent findings over the years of our longitudinal research has been our findings related to the influence of the early mother-child relationship, indexed by the AAI from -- or Strange Situation with -- mother, upon the child's later ability to imaginatively and resourcefully describe and explain the emotional reactions of others. In our research, these 'others' have typically been doll figures, puppets, or characters presented in cartoons. For example, when the children in our study were aged 6, we presented them with a series of cartoons depicting social interactions that involved an emotional dilemma or conflict. In the final panel of each cartoon set (there were 12 in total) the characters were drawn without any facial expression. We would then ask the children to assign a face to the characters. We provide below an example of one of the cartoon sets and the emotion faces we supplied to the children in transparency form so that they could place them on top of the cartoon drawings. See Figure 1: Illustration of the Affect Task (Steele, Steele, Croft & Fonagy, 1999).

We would probe for a narrative about why the character(s) were feeling in the manner suggested by the child, inviting consideration of whether more than one feeling might be relevant for any character, and we would also probe for information about whether anyone's feelings might change soon. One child presented with the school block building drama (See Figure 1) described how the successful builder felt 'happy' but also 'sad' for the friend who was not doing so well. Further, this child suggested the unsuccessful builder felt 'sad' and the teacher felt 'happy' for the child who was doing well but 'worried' for the other child. Accordingly, the teacher was depicted as praising the child who was doing well, and offering help to the child having trouble. When asked if anyone's feelings might change soon, it was suggested that the 'sad' unsuccessful builder would become 'happy' as she would soon 'get the hang of it'. This sensitive and hopeful response would score well on our scale indexing 'understanding of mixed emotions' which we consider to be closely linked to interpersonal and intrapersonal conflict-resolution skills. Notably the extant literature at the time of undertaking this work suggested that an understanding of mixed emotions was normally obtained at around 11 years of age (Harter and Buddin, 1987). Yet, among the group of 63 children aged 6 years who were administered our cartoon-based Affect Task, 40% achieved moderate to high scores for mixed emotion understanding,

Figure 6.2 Illustrations from the Affect Task

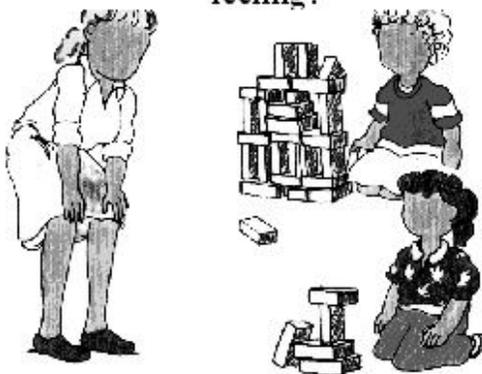
Teacher: "See what you two can do with these blocks"



One girl is having an easier time than the other



Whoever drew these pictures forgot to put faces on. What do you think they are feeling?



Emotions children were asked to attribute to cartoon drawings in Affect Task, Steele et al, 1999

- Fear
- Anger
- Sadness
- Disgust (protruding tongue)
- Angry eyes & sad mouth = mischief
- Surprised eyes & sad mouth = disappointment
- Neutral
- Happy
- Surprised



providing at least one response that resembled the emotionally complex one given above (Steele et al, 1999). This group was significantly more likely to have been securely attached to mother at one year, and significantly more likely to have a mother whose AAI had been classified autonomous-secure prior to the child's birth. Taken together with convergent evidence from Judy Dunn and her colleagues, these longitudinal findings suggest that the pregnancy AAIs we administered to the mothers and, our subsequent observations of infant-mother attachment at one year, were each markers of the kinds of mother-child relationships that would be typified by open and flexible conversations about emotion in the self and others over the early childhood years.

The AAIs we had collected from the fathers, and the infant-father attachments observed at 18-months, did not enhance our prediction of mixed emotion understanding at 6-years. Hence we were led to conclude that children's understanding of emotion may be specifically linked to the history and current status of the mother-child relationship. This was a perspective underscored by our 11-year follow-up when we re-administered a version of the Affect Task (Steele, Steele, & Johansson, 2002) in the home setting, and also collected interviews probing for negative and positive feelings about self and relationships to parents, siblings and best friend (Steele & Steele, in press). When the Affect Task responses at 11 years were coded for evidence of an ability to acknowledge

the distress of the central character, and propose a resourceful coping strategy, it was the early mother-child relationship (indexed by autonomous-secure responses to the pregnancy AAIs) which alone (from our early attachment measures) predicted this emotion understanding outcome which we deemed to be a core feature of social cognition. Concurrent maternal warmth, indexed by a self-report questionnaire completed by the mothers, also correlated with this 11-year child outcome. Notably, however, in the regression analysis (See Steele et al, 2002), the pregnancy AAI made a significant and independent contribution to the model even after taking into account the current level of warmth mothers expressed. Thus, the power of longitudinal attachment research, and in particular of responses to the AAI obtained during pregnancy, was plainly evident in the domain of children's coping with emotional conflict at the cusp of adolescence.

Fathers

Having included fathers, as much as mothers, in the early stages of our research we have watched carefully for any distinctive results linking fathers' AAI responses to their children's social and emotional development. With the single very important exception of individual differences in fathers' AAI responses being significantly and uniquely associated with individual differences in their 18-month old children's attachments to them, we had a long wait of 10 years before we would observe further distinctive father-related results.

It was in the context of our 11-year follow-up research that we came across powerful and unique results concerning the early and probably ongoing father-child relationship upon their children's mental health (Steele & Steele, 2001) and social conflict-resolution strategies involving siblings and peers. In the context of home-visits, we interviewed 11-year olds about their most favourite and least favourite aspects of themselves, and their relationships to mother, father, sibling(s) and best friends. We called this 30 minute audio- and film-recorded task 'The Friends and Family Interview' (Steele & Steele, 2004).

The preamble to the interview declared to the young people "something we have learned from studying children and families over time is that some of the strongest feelings we have, good and bad ones, arise in the context of our family relationships." We further added that "there are ways in which we like things the way they are, and ways in which we would like things to change," suggesting

"we will be asking you about these things as concerns yourself, your family and your best friend." In the usual way, we assured the young people of confidentiality and advised them of their ethical right not to answer any questions or indeed to withdraw at any time if they wished. In fact, each of the more than 50 young people we interviewed answered all the questions. Their responses were coded in terms of six global categories:

- (1) coherence
- (2) understanding of self and others
- (3) secure base availability of parents
- (4) peer relations and social skills
- (5) pride in school achievement
- (6) anxiety and defense

These scoring categories were chosen because of their relevance to normative social and emotional development at the transition between middle childhood and early adolescence. While we looked for evidence of the young person's ability to provide a coherent narrative, and also evidence of each parent's emotional availability, we did not score 'attachment security'. This is significant as we have routinely believed that the point of longitudinal attachment research should be to study attachment during infancy, when this is the most important developmental task, and in later childhood, to then focus on the most relevant developmental task, whether this be the understanding of emotion, peer relationships, self-esteem and indeed other considerations concerning optimal adaptation.

With respect to the construct of coherence, we were particularly interested in the extent to which these young peoples' narratives would show evidence of being linked to the early mother-child as well as father-child attachment relationships. Interestingly, the correlations that appeared significant over the 12-year interval pertained to links between the parents' AAIs and the children's own attachment narratives, with the earlier Strange Situation assessments not figuring prominently in these results. The aspect of the 11-year olds' coherence that was most strongly related to their parents' AAIs was truthfulness or credibility. Truthfulness has recently been highlighted as a core aspect of attachment security across the lifespan (Cassidy, 2001). Those young people who told the most convincing or 'truthful' accounts of the positive and negative aspects of their views of self and others were likely to have had mothers whose pregnancy AAIs had been judged autonomous-secure. Additionally, for boys only, they

were also likely to have had fathers whose AAIs were judged autonomous-secure. Hierarchical regression results suggested that both parents' early AAIs were relevant to the levels of truthfulness in the sons' interviews at age 11, but this was not evident for the interviews from the daughters where the significant correlation with their mothers' AAIs appeared unique. We interpreted this (Steele & Steele, 2004) in terms of the sociological and psychoanalytic account of development provided by Chodorow (1978). It is Chodorow's claim that the developmental task for boys requires immediate involvement of father as well as mother (who they must separate from) in order to achieve a coherent self-identity. For girls and daughters, by contrast, fathers may be less relevant to their self-understanding as identity involves defining themselves in relation to their gender-mate – mother, from whom they never separate in the early and deep sense that is required of sons.

We did observe long-term connections between the AAIs collected from expectant fathers and their daughters' and sons' interviews at age 11, but these were interestingly in the domains of relations to siblings and friends. In other words, when it came to discussion of social concerns and conflicts with age mates (within and beyond the family), links to the early (and ongoing?) father-child relationship became evident. The most coherent and resourceful accounts of how social disagreements are negotiated and resolved came from those young people whose fathers had provided autonomous-secure AAIs many years before. We inferred that these fathers had helped their children across the early childhood years to think and feel resourcefully about how to manage the emotions that arise in close relations with siblings and peers, the world beyond the intimate mother-child sphere.

Our speculations about the distinctive influence of fathers upon children's development, from our interviews with the 11-year olds, were further supported by our findings when we asked the 11-year olds to complete a standard mental health screening tool (Goodman, 1997). Some of our young participants were experiencing strain in the domains of peer relations, conduct problems and hyperactivity. Notably, higher scores on these indices of behavioral perturbation (if not disturbance) were reported by those young people whose fathers had provided AAIs many years before judged insecure (either dismissing or preoccupied). This influence of fathers' AAIs held even after we statistically controlled for the influence of recent life events (young person's response), and the influence of reported behavioural

problems (by mother) at age 5 (Steele & Steele, 2001). Interestingly, when we recently re-examined this data we found that included in the archive of longitudinal information we hold is a brief self-report measure of marital satisfaction administered to the parents during the initial pregnancy phase. We have noticed that the link between fathers' AAI security and children's self-reported mental health is mediated by mothers' (pregnancy) report of 'current' marital satisfaction. The power and dynamics of longitudinal attachment research appear to be an open-ended process of discovery!

Time and again we have observed and reported how our longitudinal research underlines distinctive long-term contributions made by mother and father to their first-born child's social and emotional adaptation. It may be that the inner world of emotion understanding, and the capacity to speak freely and openly about negative and positive feelings, is uniquely related to the mother-child relationship. By contrast, the father-child relationship may be more relevant to the negotiation of social interactions with siblings, peers and the maintenance of emotionally and socially appropriate behaviour. Children need to learn (from mothers perhaps) to appreciate the intentions of others and negotiate inner emotional conflicts while also learning (from fathers perhaps) how to achieve and maintain conventionally appropriate behaviour that enables one to feel successful in negotiating interactions with siblings, peers and others.

The Therapeutic Power of Attachment Theory and Research

The power of longitudinal attachment research ultimately lies in the positive consequences it may have for our understanding of well being within individuals and relationships. Not surprisingly, many developmental attachment researchers (ourselves included) are either clinicians or consult with, mentor, or facilitate the work of therapists working with individuals, couples and families (Dozier, Albus, Stovall & Bates, 2001; Slade, 1999; Steele & Baradon, 2004; Steele & Steele, 2003). This work is intrinsic to attachment theory, formulated by a clinician aiming to improve his understanding, and potential to help, individuals and families with severe emotional disturbances (Bowlby, 1988). Attachment research, certainly in the fashion we have pursued it, has aimed to understand patterns and individual differences in how children and parents regulate emotional conflict as each of us negotiates the essential human needs to both explore (be autonomous) and remain in intimate contact with significant others (be related). Maintaining

a sense of cohesion, within ourselves and between people, as we pursue these potentially competing tasks is a lifelong challenge.

One of the conundrums in clinical work has been, and will remain, the question of how best to turn things around for a child, adolescent or adult who has suffered loss or trauma. We have branched out to study these questions in our work with mentally disturbed adolescent in-patients (Wallis & Steele, 2001), with daughter caregivers of mothers with dementia (Steele, Woods, & Phibbs, in press) as well as with 'hard-to-place' late-adopted children (Steele, Hodges, Kaniuk et al, 2003). But, interestingly, there was robust evidence of how people turn things around for the better, following loss or trauma, within the non-clinical sample on which our longitudinal findings are based. They do so via new relationships that move them toward a renewed belief in the usefulness of depending on others, and a lively interest in social exploration. How does this happen? We stumbled on this conclusion from reviewing carefully the Adult Attachment Interviews we collected from the pregnant women and their partners, and then comparing these afresh to our observations of the infant-parent relationship.

In many cases the baby appeared securely attached to the parent and the parent appeared to have been well loved during his or her own childhood. But in other cases, a significant minority, the baby was securely attached but the parent's early attachment experiences included significant adversities, including loss or trauma. The Main & Goldwyn (1998) scoring system permits one to give high scores for coherence to such interviews and call them autonomous-secure, the much admired 'earned' secure group. We sought to understand this group further by perusing how they used language in the AAI. We noticed that a defining feature of their narratives was the way they relied on language as a tool for giving meaning to experience, including the attribution of mental states (beliefs and desires) to attachment figures whose behaviour they did not fully understand, and were threatened by, as children but had come to understand (if not forgive) as adults. Initially, we referred to this phenomenon as evidence of the 'internal observer' as we thought this term captured the sense in which adult speakers could observe how family life was when they were children, and distinguish this from the understanding they gained through later relationships across development. Evidence of the 'internal observer' in maternal AAIs was indeed a powerful correlate of infant-mother attachment security (See Fonagy, Steele,

Steele, Moran & Higgitt, 1991). We had arrived at the term 'internal observer' by way of extending, and elaborating upon the scale termed metacognition in the classic Main & Goldwyn rating and classification system introduced to us in 1987. In our subsequent writings we referred to this phenomenon as self-reflection and then reflective functioning as we were describing a capacity to monitor thought processes and motivations *in others* as well as the self. Reflective functioning, we showed, was especially important for parents to achieve, if there was significant adversity in their past. Without it, there appeared to be little or no chance of having a securely attached infant; by contrast, where reflective functioning was present, the toxic cross-generational effect of emotional conflicts, past trauma or loss, was almost completely eliminated (Fonagy, Steele, Steele, Higgitt and Target, 1994).

For those people who have had the luxury or good fortune of having a stable childhood, relatively free of life events or difficulties, the demand for developing a reflective capacity is lessened. This pattern of functioning works well, so long as experience confirms the good expectations of the individual. However, when a major life event occurs, the fragility implicit in this 'secure' mode of functioning may be suddenly revealed. We found this perspective helpful in explaining the apparent mismatch in our early findings between some 'autonomous-secure' mothers who surprisingly had insecurely attached infants (See Fonagy, Steele & Steele, 1991). This group of 14 mother-child pairs shared an AAI profile of elevated levels of idealization (usually more indicative of dismissal) and apparently *more* positive childhood experiences, compared to the autonomous-secure group who successfully passed on security to their infants. Correspondingly, this group of mothers who appeared especially vulnerable to the challenges of becoming a mother led us to think of them as the 'fragile secure' group. This finding urges caution toward those who present overly rosy descriptions of childhood experiences, even if they are supported up by plausible memories of intimacy and warmth with attachment figures during childhood. These convincing positive narratives appear truthful yet often include a dearth of character building realism that inevitably involves reference to difficulties or less than perfect interpersonal scenarios. Good clinicians are wisely suspicious of a story that sounds too good to be true.

By contrast, in response to an environment consistently placing enormous stress and challenges on the attachment system, the individual may urgently need

to reflect upon the minds of sometimes -- or frequently-- malevolent caregivers, and challenging sibling relationships. Being able to predict forthcoming hostility directed at the self, i.e. to have a theory of the malevolent other's mind, may prove essential to survival.

Attachment and Theory of Mind

Further to the importance of predicting potential attacks upon the self, our longitudinal research has shown advanced theory of mind skills in 5-year old children with a previously observed highly anxious/fearful, disorganized attachment to mother, as well as among those children with a history of a secure attachment (Fonagy, Steele, Steele & Holder, 1997; Steele, 2004). Notably, these successful predictions from infant-mother attachment security at one year to theory of mind performance at age 5 were in respect of belief-desire reasoning skills, i.e. where the child was required to guess correctly the disappointed *feeling state* of a deceived puppet. Attachment security did not predict belief-belief reasoning, i.e. where the child was required to guess correctly the misguided search *behavior* of a doll acting on information that is no longer valid. Thus the relations between infants' social experiences and the evolution of their theory of mind skills are likely to depend on the extent to which the context loads more on the social-emotional register as opposed to the cognitive-behavioural one. Also, given the similar performance we have observed for children with organized-secure and disorganized early attachments, we must not assume that similar phenotypic outcomes share the same type of social determinants. In one case a child may be advanced in theorising about emotion because one or both parents have provided much helpful talk about emotion and mind (after Dunn, Brown & Beardsall, 1991). In another case, the child may be advanced because the parent was liable to unpredictable and frightening behaviour such that the child needed to know when to run or hide. The value of quickly detecting (on the caregiver's face) the imminent rise of anger *before* it reaches its full-blown potential (when this has previously led to abusive behaviour from the caregiver) cannot be underestimated (See Pollak & Sinha, 2002).

Conclusion

Our own longitudinal work on first-born children living in traditional mother-father-child homes, points to possibly distinctive contributions made by mothers, as opposed to fathers, in respect of their

children's social and emotional development. Our data suggests that children's understanding and resolution of emotional conflict *within themselves* is perhaps uniquely influenced by the mother-child relationship, while understanding and resolving emotional conflict in the *outer world* of human interaction, e.g. with siblings and peers, is perhaps uniquely influenced by the father-child relationship. Yet there can be no simple division between inner and outer conflicts. There is a dynamic interplay between these domains that longitudinal research can at times successfully map.

Inevitably threats to our own health and safety, or to our loved ones, give rise to acute and possibly ongoing concern. To cope with our worries, we may need help in the struggle to organize thoughts, feelings and behavior in personally satisfying and socially constructive ways. The source of assistance, whether it be from mother, father or another, may be less important than the quality of that support. Longitudinal attachment research is well equipped to specify the nature of the support young children need, and all of us require in differing amounts, across the lifespan. Interviews of parents about their own attachment histories, and observations of parent-child interactions, amply demonstrate that a parent wishing to promote a secure attachment, and in the longer term a coherent, stable and healthy sense of self, must reflect upon the probable emotional states of his or her infant, 'hold' the infant in mind, so as to guide the child toward ownership of his or her feelings, and the related capacity of more autonomous affect regulation. Bowlby, Anna Freud, Winnicott, and other object relations theorists have said and written as much, many times, over the last half-century or more. The power of longitudinal attachment research, as we regard it, has been demonstrated in the empirical support attachment research findings have provided for so many vital psychodynamic ideas concerning the social and psychological processes underpinning affect regulation, the facilitating 'good enough' environment, and the development of a balanced sense of self.

Not surprisingly, the students who have been attracted to working with us over the years were either concurrently pursuing (as Miriam herself did while working on her Ph.D.) a clinical training, or did so subsequent to completing their doctoral research. We were personally helped, as have been our students over the years, by the UK context of graduate, or as it is called postgraduate studies, which requires of PhD students relatively little in the way of course work (one year), and very much in the way of em-

pirically collected data (2-3 years or more). The UK context also presented us, and our students, with a richness of psychoanalytic training opportunities, together with an academic environment representing the best of British empiricism. Thus the word 'London' in the London Parent-Child Project represents much concerning the opportunities seized by the dedicated graduate research students (initially ourselves) who collected the valuable data on which the power and dynamics of our findings rest.

Currently, with the help of a talented team of doctoral research students we are conducting 16-year follow-up data from the sample. When it came to deciding what methods to include, foremost among those we are employing is, not surprisingly, the Adult Attachment Interview. The AAI responses from these first-born children should give us fresh and vital information about the range of individual differences in understanding and resolving emotional conflicts during the mid-adolescent years, the ways in which representations of mother and father are distinct yet integrated, and how these aspects of psychological development may be related to mental health, as well as to earlier attachment experiences in the family, both in the current, and previous generation.

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