Reflective Self Function in Early Attachment and Borderline States.

27 Mar 93


Speeches/Conference Papers (150) -- Reports - Descriptive (141)

Affective Behavior; *Attachment Behavior; *Child Abuse; *Developmental Psychology; Emotional Development; Emotional Response; Foreign Countries; Individual Development; Infants; Mental Disorders; *Metacognition; *Parent Child Relationship; Personality Problems; *Self Concept

Adult Attachment Interview; *Borderline Personality Disorder; Intergenerational Analysis; Mental Representation; Self Awareness

Work in developmental psychiatry and psychology has increasingly focused on how internal representations of early experiences with primary figures of childhood affect relationship formation in later childhood and adulthood. Investigations of the reflective self function, which involves mental states in which individuals become the subject of their own thought, have demonstrated that individuals' capacity for using mental state constructs in discussing attachment relationships in Adult Attachment Interview protocols captures differences in individuals' sensitivity. Ratings of the reflective self function of parents before the birth of their child have predicted the nature of the later relationship between infant and parent. This predictive ability may be of practical use. Severe borderline states may be understood as involving dysfunctions of reflective self processes. In an ongoing study, interviews with borderline patients suggest that individuals who respond to childhood experiences of maltreatment by an inhibition of reflective self function are less likely to resolve this abuse, and are more likely to manifest borderline psychopathology than individuals who respond in other ways. The importance of reflective self function for attachment is greatest when the hardship suffered by individuals places them, when they become parents, at risk of recreating these negative experiences in their children. A list of 71 references is included. (MM)
REFLECTIVE SELF FUNCTION IN EARLY ATTACHMENT
AND BORDERLINE STATES

Peter Fonagy PhD, DipPsycy
Freud Memorial Professor,
University College London
Research Co-ordinator, Anna Freud Centre

Address for correspondence:
Psychoanalysis Unit
University College London
Gower Street
London WC1E 6BT

Paper presented at Lawrence K. Frank Memorial Symposium on
Psychoanalysis and Child Development at the SRCD Biennial
Modern psychoanalysis and the emerging field of developmental psychopathology (Cicchetti, 1990a) have in common a commitment to uncover the developmental course of psychological disorders of childhood and adulthood. Increasingly, work in developmental psychiatry and psychology is focusing on the traditional domain of psychoanalysis, namely on the pathways through which internal representations of early experiences with the primary figures of childhood come to have an impact upon the formation of relationships in later childhood and adulthood, and culminate in the types of relationship disorders and psychopathological conditions that appear across the lifespan (Emde, 1988a,b; Cicchetti, 1990b). In this paper I hope to review our work in two related areas: 1) the effect of the parent’s representation of interpersonal relationships on the child’s attachment and 2) the intergenerational effects of maltreatment and abuse on these representational systems.

Using John Bowlby’s (1973) notion of "internal working models", research on the development and influence of attachment patterns has now moved quite close to psychoanalytic object relations theory, particularly as formulated by British theorists (see, for example, Bretherton, 1987, 1990, 1992). Attachment researchers assume that children develop expectations regarding the nature of interactions between themselves and the attachment figure, embodied in mental representations (IWM) which, like neural nets, have the capacity to aggregate past experience (Bowlby, 1980). Integrated with these expectations are emotional experiences associated with past interactions. Out of such affect laden expectations, mental models of the self and caregivers cohere. Internal working models are assumed to regulate children’s behaviour with the attachment figure and in due course come to organise their behaviour in all significant relationships, including, eventually, their relationship with their own child.

Psychoanalytic models and practice also suggest that parents respond to children’s behaviour and characteristics with expectations based upon past experiences with their own primary care-giving figures (Freud, 1940; Fraiberg, 1980; Fraiberg, Adelson & Shapiro, 1975). "Internal working models", as elaborated by attachment theorists, correspond closely to certain psychoanalytic formulations of self and object representations, but these place the repetition of experience within a motivational framework. Sandler’s ego psychological model of the representational world, for example, also assumes that others are represented in terms of the nature of their relationship to the self. Sandler suggests that internal representations of external figures evolve cognitively with development whilst preserving their core affective components. Early emotional experiences with the caregiver represent familiarity and safety and continue to be externalised in adult relationships (e.g. Sandler, 1960, 1990, 1992). Psychoanalytic and modern attachment theories differ in terms of the respective role given to fantasy and drives which have centre place in all psychoanalytic formulation but are relatively neglected by attachment theory. The framework
proposed by Sandler (1960, 1985) places the inborn wish to maintain safety at the centre of the infant’s motivational field. Thus in Sandler’s terms an individual may feel safest when recreating an early but familiar experience of being neglected and overlooked and manipulate inter-personal situations to achieve this. The subjective experience of safety provided by such familiarity, has much in common with the desire for reunion with the caregiver described in John Bowlby’s work. Individuals may commonly use strategies such as avoidance to achieve a sense of safety, but may also use provocative or sado-masochistic strategy with the goal of maintaining a sense of familiarity through which a subjective closeness to the caregiver may, in fantasy, be achieved. Without such assumptions the stability and specificity of patterns of relationships suggesting a so called disorganized IWM may be hard to explain. Critically, in both theoretical fields, (the attachment and the modern analytic) the cognitive-affective structures of self and other representation are assumed to regulate children’s behaviour with the caregiver, and in due course behaviour in all important relationships.

This framework provides the background for the transgenerational studies which demonstrated a strong association between the child’s security of attachment and an assessment of the caregiver’s internal working model. These studies used Mary Main’s structured assessment, the Adult Attachment Interview (George, Kaplan & Main, 1985), as an indicator of the functioning of the internal working model. The interview, as you know, is designed to elicit the individual’s account of his or her childhood attachment experiences and evaluations of the effects of those experiences on present functioning. Ratings of emotional and cognitive features of the individual’s representational world as revealed in the transcripts constitute the basis of a four-way classification scheme (Main and Goldwyn, 1991; Bakerman-Kranenburg and Van IJzendoorn, in press). In analytic terms, broadly speaking, security is indicated by ‘undistorted’ free/autonomous cognitive and emotional processes, insecurity by significant interference with cognitive or affective aspects of mental representations of self and other (splitting, derogation and denial). Unresolved mourning is indicated by interviews where signs of continuing disorganisation appear when the attachment figure is discussed (inappropriate guilt, continued fear of the abusive parent), indicating a breakdown of psychic defences.

Studies at many Centres have taken as their focus the transgenerational link highlighted by AAI assessments of the caregiver and Strange Situation assessment of the child (see Figure 1). For example, in the London Parent-Child Project (Fonagy, Steele and Steele, 1991a; Fonagy, Steele, Moran, Steele and Higgitt, 1991b, in press a; Steele, Steele and Fonagy, in press a,b) we have found that even expectant parents’ mental models of attachment predicted subsequent patterns of attachment between infant and mother (75% concordance at 12 months) and infant and father (72% concordance at 18 months). A hierarchical loglinear analysis of the father and mother data confirmed the parent specific character of the inter generational links of
IWM's. For example, the security of the mother's internal working model apparently does not influence the child's security of attachment to the father at 18 months. Only the father's internal working model will have an association with this. Miriam Steele already described this work brilliantly at another symposium at this Conference, so I will avoid the possibility of unfavourable comparisons and urge you to ask her for a copy of her paper.

These results indicated that the adult's internal working model appears to identify the propensity to form secure as opposed to insecure relationships and that children develop distinguishable sets of mental representations of relationships with each of their caregivers, for at least the first 18 months of life. The insulation of the internal working models of young children allows for the creation of a secure internal working model even alongside one or more highly insecure ones. Children who develop normally, despite generally adverse circumstances, frequently have in their interpersonal world a stable and responsive, even if relatively remote figure (Werner, 1989).

Developmental psychology provides a heuristic model of the transgenerational process taking place in three stages: (1) the parent's attachment related experiences in childhood are embodied within a working model which (2) is thought to affect the development of the mental representation of the child as well as the parenting function underlying sensitive care-giving behaviour which, in its turn (3) is the primary determinant of the child's quality of attachment to the parent (see Bretherton, Biringen, Ridgeway, Maslin and Sherman, 1989).

Despite experimental support, this heuristic model may be criticised on a number of grounds. Firstly, the predictive power of maternal sensitivity, operationalised in these ways, is relatively weak (Field, 1987). Secondly, the observations upon which ratings of maternal behaviour are made usually include the infant and therefore cannot be considered logically independent of the infant's characteristics (Kagan, 1987). Thirdly, according to the model, as representations of past attachment experiences are likely to be fairly stable, all children of the same parent might be expected to manifest the same pattern of attachment -- a prediction which is not supported by empirical evidence (Main and Weston, 1981).

From the psychoanalytic standpoint the heuristic model of transgenerational transmission of attachment based on sensitivity in mother-infant interaction is clearly inadequate. This is because operationalisation in terms of maternal behaviour confounds two independent mental processes related to the development of the attachment relationship considered critical by some psychoanalysts. The first pertains to the mother's attitude and behaviour independent of the child's mental state. The second is the mother's capacity to envisage the infant as a mental entity, a human being with intentions, feelings and desires. This can form the basis of her ability to mentally contain the baby, (as conceived Wilfred Bion (1962) and Donald
Winnicott (1965) to correctly understand and appropriately react to her infant’s need in vocal or gestural communication, as well as in the provision of physical care in a manner that acknowledges the child’s 'intentional stance' (Dennett, 1983). This latter capacity calls upon mental processes of a different order from the first; it requires the mother to reflect upon the mental state of another human being, and in this way goes beyond the demonstration of affection and concern. This is why we believe ratings of observable maternal sensitivity and caregiving are unreliable predictors of the quality of subsequent parent-child relationships and this belief led us to search elsewhere for the mechanisms of the transgenerational link.

Our investigations of the influence of what we termed reflective self function1 (Fonagy et al., 1991b) have demonstrated that the capacity for making use of mental state constructs in discussing attachment relationships in AAI protocols seemed to capture individual differences in parental sensitivity.

When reflective function is poor, reference is made to others’ affects and cognitions but this is grounded in the immediate reactions of others to external circumstances. (‘They were constantly tired because there was a war on at that time’); (‘Everyone then had rather Victorian attitudes’). Reference to subject’s own mental states are rare. If an account is given in terms of affects and cognitions, it is blatantly inadequate.

Q. Was there anything that you would consider a setback in your development?

A. (sighing) Well, interesting that you should ask that... I mean, ever since the concept of maturity, you know, formed in my consciousness I have always been aware of being some distance from it. It’s easy to rationalize, you come out with trite... er... er... half-baked... er... psychological interpretations.

At mid-point reflective self function is generalized or inaccurate. Here the interviewee indicates a general understanding of the way mental states determine behaviour but either fails to apply this to his or her own experiences or draws

1The notion of reflective self originates from William James (1890). He used the term ‘reflective’ in his description of the evolution of a self structure when the mental state of the individual becomes a subject of his own thought ("to think of ourselves as thinkers"p.296). Freud (1900) discusses a similar idea in chapter 7 in the Interpretation of Dreams, (pp 101-2) as does David Rapaport (1951) in his Theory of Thinking chapter in The Organisation and Pathology of Thought (p. 724). Ed Joseph (Joseph, 1987) in his paper 'The consciousness of being conscious' also uses the concept. Mary Main, in her formulation of a metacognitive capacity, provided an empirically better substantiated formulation of this concept.
conclusions which are implausible or superficial, self serving or self deceiving. They take simplified, usually singular aspects of mental states and appear to ignore the interaction between diverse cognitions and affects.

Q. How would you describe your relationship to your parents during your childhood?

A. I am the apple of my father’s eye and come first and he absolutely, I mean he does absolutely idolize me... and I think it’s amazing that my mother has never been remotely jealous of me in any way at all!... and she’s just genuinely never held that against me at all and is fantastic!

At the high end, reflective self function is accurate, even if incomplete. Here the interviewee shows a clear ability to contemplate multiple beliefs and affects. Mental states are frequently seen in interaction. For example, ‘My parents didn’t like each other very much, so it was important for them to make good friends with us.’ The willingness to contemplate the mental state of the other extends to malevolent behaviour of the parents and the response of the self. For example:

She (my mother) was quite abusive to me, both verbally and physically aggressive - an abusive sort of character....I mean when I was small I didn’t stand up to her because I was frightened and she had the power; but I stood up to her in my wilfulness, there was a part of me determined to hold on. I kept plugging in there sort of thing so there was aggression on both sides....

Reflective self ratings provided a powerful prediction of the nature of the evolving relationship between infant and parent (Fonagy et al., 1991b; Fonagy, Steele, Steele, Higgitt & Target, in press c). Parents who were rated, on the basis of their AAI narratives collected before the birth of the child, to be high in this capacity were three or four times as likely to have secure children than parents whose reflective capacity was rated as poor (see Figures 2 and 3). This difference was not markedly affected when verbal ability and social class were statistically controlled for.

Internal working models which contain within them the representation of the mental states of self and other may be considered as ‘meta-models’ (Main, 1991) which have the potential to activate representations of interpersonal relationships not containing a reflective component. Assuming the parallel presence of alternative models of interpersonal relationships, a reflective process may play a central role in determining which of the alternatives will be the working model in a particular relationship. The capacity to reflect upon human experience and take a mentalistic or "intentional" (Dennett, 1978) stance may therefore be crucial in forestalling the repetition of negative attachment experiences.
In the London Parent-Child Project, mothers who had experienced deprivation and neglect as defined by scores on a demographic questionnaire (see Figure 4) were significantly less likely to have insecurely attached children if the narrative of their childhood experiences indicated high reflective self capacity (Fonagy et al., in press c). This implies that reflective capacity is a protective factor linked to resilience. Mothers who scored high on the deprivation index, yet had secure children, tended to have higher ratings on the reflective scale than mothers who had insecure children or those who suffered little deprivation (see Figure 5).

**A transgenerational model of borderline pathology**
These findings have implications for the considerable body of research and theory which points to the intergenerational origins and pathological sequelae of child maltreatment. Mothers’ descriptions of physical abuse and rejection by their parents during childhood have been related to mothers’ reenactment of maltreatment with their own children. Kaufman and Zigler (1989), in their comprehensive review, estimate the risk of transgenerational transmission of abuse to be at least 30%, three times the risk of transgenerational concordance faced by the child of a schizophrenic parent. Research has documented a specific link between the history of abuse and borderline personality disorder (Herman 1986), specifically sexual abuse (e.g. Westen, Ludolph, Nisle, Ruffins & Block, 1990).

In our psychoanalytic formulation severe narcissistic and borderline states may be understood as involving dysfunctions of reflective self processes (Fonagy, 1989, 1991; Fonagy and Higgitt, 1989; Fonagy and Moran 1991; Higgitt and Fonagy, 1992). We have proposed and now have some preliminary data to support the contention that an extreme defensive stance may be adopted by some individuals exposed to early trauma. They cope with the intolerable prospect of conceiving of the mental state of their tormentors by refusing to recognize this, through a defensive disruption of the process of depicting feelings and thoughts. Consequently, their representations of themselves and others will lack accurate and detailed impressions of cognitive and affective content. This seems to us to be a crucial aspect of the clinical picture frequently referred to in the psychiatric literature as ‘borderline personality disorder’.

**Borderline states and the reflective self**
Our initial explorations in this area were inspired by Inge Bretherton’s pioneering work on the development of mental representations of mental states (Bretherton, McNew and Beeghley-Smith, 1981) as well as that of a number of British developmentalists on the so called "theory of mind" (see Morton and Frith, in press; Baron-Cohen, 1992; Hobson, 1990a,b). Whilst I do not favour the term "theory of mind" (Whiten, 1991) to address evident individual differences in the capacity to use mental state concepts in social understanding because of its cognitive, non-affective biological connotations. There is sufficient common ground between recent progress in cognitive developmental psychology and traditional psychoanalytic ideas,
to pursue the issue of individual differences in reflective self capacity. We believe that taking an intentional stance towards one's own and other minds is an intrapsychic and interpersonal developmental achievement which is subject to the vicissitudes of conflict and anxiety as are all other psychological processes.

More specifically, we are proposing that a partial and dynamic inhibition of this aspect of mental functioning is a core feature of severe personality disturbance. Several aspects of pathological functioning characteristic of borderline organisation noted by psychoanalytic clinicians suggests such a deficit. The commonly noted difficulty in following the associations of borderline personality disordered (BPD) patients (e.g. Bion, 1957; Segal, 1975) may be understood as an external manifestation of a flawed representation of the mental state of the other. The failure to take into consideration the listener's current mental state may account for some of the phenomena previously described in the psychoanalytic literature in terms of "excessive projective identification" (Bion, 1957) pushing one's own subjective experience into the other. Clinicians may also find themselves internalising the lack of mental functioning of their patients, involuntarily abandoning the capacity to attribute emotion through imagination, and reverting to an understanding of affect through affective resonance.

Secondly, numerous authors have noted that a difficulty in communicating emotional experience or subtle differences between inner sensations represents a hallmark of borderline functioning (e.g. Giovacchini, 1979). These observations seem consistent with the view that language functions entailing the capacity to represent mental processes are disturbed.

One aspect of the desperate dependence borderline patients manifest in therapeutic relationships (Searles, 1987) may well concern their difficulty in consistently maintaining the image of the analyst as a functioning mental entity (rather than, as is sometimes thought, the physical presence of the analyst). The analyst is desperately needed because the representation of the analyst who understands has little permanence.

This view has implications for interpretive work. Patients with limited reflective function may be able to think about mental processes as long as their primary representation of them is vivid, i.e. they are currently undergoing the experience referred to in an interpretation. Extra-transference interpretations, particularly during the early stages of their treatment, may not be understood, can be experienced as an assault and are probably of only very limited value to these patients.

There is an often-noted absence of concern for the other which may manifest as remarkable cruelty (e.g. Kernberg, 1975). Although this may frequently be part of a disposition to excessive destructiveness (Kernberg, 1975), This may, in part, be an indication that borderline mental functioning contains no compelling representation of pain in the other's mind. A critical source of moderation of the affective response is
therefore absent.

The representation of one's own ideas and desires forms the core of a coherent and mature identity. The relinquishing of the capacity to consider mental states thus probably inevitably brings with it a fear of disintegration, a fragile sense of self. Aggression is often called upon to protect the fragile self. In individuals with BPD it fuses with the non-reflective partial sense of identity and is called forth on most occasions when that self is threatened. If the therapist's reflective capacity is used by the patient to support and maintain his identity, the patient will be absolutely dependent upon the therapist in maintaining a relatively stable mental representation of himself. Consequently, there will be an adhesive quality to the attachment to the therapist (Bick, 1968).

Sixthly, a poorly functioning set of mental representations of mental functioning must interfere with social functioning. When unstructured social situations call upon his deficient capacity to predict the behaviour of others on the basis of his model of their mental world the patient may become extremely anxious and confused. The borderline personality disordered patient's mental image of the other remains at the immediate context-dependent level of primary representation. It should not surprise us therefore that he manifests little capacity to mourn for absent or lost figures (Searles, 1986).

Those working with such individuals frequently note the absence of the 'as if' nature of the patient's attitude to therapy. With borderline individuals, the projection of the internal world onto the analyst is 'for real' (e.g. Masterson, 1981). Winnicott (1971) eloquently described the stage of child development when feelings, thoughts and objects may be played with, when pretend worlds may be created and inhabited. As Alan Leslie shows (1987) pretence and an even earlier 'mucking around and teasing' both have reflective components that imply the need to be able to entertain a belief whilst at the same time knowing this to be false (see Fonagy and Fonagy, 1992). Psychotherapy is a further context which requires the entertaining of such dual realities. The absence of reflective self function in borderline personality leads to a tendency to 'act out' the transference because the ability to decouple mental representation from reality is vulnerable or absent.

Attachment status in borderline states

In an ongoing study with my colleagues Tom Leigh, Roger Kennedy, Gretta Mattoon and Miriam and Howard Steele, we administered AAI's to a sample of 85 non-psychotic inpatients admitted to a London Psychiatric Hospital run along psychoanalytic principles (see Figure 6). About 40% of the patients met DSM III criteria for borderline PD on the basis of SKID II interviews. 33% met Gundersen's BPD criteria on the bases of DIBS assessments (see Figure 7).

The distribution of AAI classifications did not distinguish borderline PD from other Axis II diagnoses although the number
of entangled (particularly E3) classifications were above the number which would be expected (see Figure 8).

Borderline patients interviews differentiated by a combination of 3 characteristics:
(1) significantly lower ratings on the reflective self-function scale (see Figure 9).
(2) By the higher prevalence of sexual abuse reported in the AAI narratives (see Figure 10) and
(3) by a significantly higher rating on the lack of resolution of abuse (but not loss) scale of the AAI (see Figure 11).

On the bases of these findings we suggest that individuals with experience of severe maltreatment in childhood who respond to this experience by an inhibition of reflective self function are less likely to resolve this abuse, and are more likely to manifest borderline psychopathology (see Figure 12).

Borderline and normal development
We assume that, in borderline individuals, there is a dynamic inhibition of reflective self function and a constriction of the representation of all intense relationship experiences to pragmatic forms. Individual differences in reflective self capacity emerge even within the normal range of parent-child relationships. The reflective self function is a particular type of IWM where expectations of other’s are constructed predominantly in terms of their mental states. We assume these are less likely to develop if the caregiver’s own experiences of having been understood or reflected upon by an adult mind were limited or flawed. Conversely, theory of mind is more likely to emerge rapidly in the context of a relationship where the caregiver’s mind is sensitive to shifts in the child’s intentional stance. Thus IWM’s where mental states predominate might be better established in individuals whose attachment experiences were positive i.e. we would expect individual differences in social understanding to relate to security of early attachment. Preliminary findings from the pilot studies of the 5 year follow-up of the London Parent-Child sample indicate that narratives jointly created by mother and child contain more elaborations of mental states in the case of secure child-mother pairs than in the case of insecure diads.

The importance of reflective self function for attachment is greatest when the hardship suffered by the parent places him/her at risk of recreating these negative experiences in the child. If the deprived caregiver’s ability to create in her mind the infant’s mental state of intent (wish, belief or want) falters, the infant may well find himself confronted by quite a malevolent set of expectations encoded within the caregiver’s internal working model ("So you don’t want to be nice to Mummy" when the infant turns towards a new object of interest). Thus we see the parent’s reflective self function as having the potential to prevent negative experiences from her past influencing her relationship with the child. This is the resilience process which we assume underlies the significant interactions observed in the London Parent-Child studies.
The concept may be helpful in considering aspects of resilience beyond the transgenerational process. The capacity to suspend the demands of immediate physical reality and contemplate alternative perceptions (yet retaining the distinction between what is fantasised and what is real) must offer a tremendous advantage in dealing with life's adversities. The willingness and capacity to plan and project alternative realities (Quinton and Rutter, 1988), to play and to amuse (Masten, 1982), are all rooted in reflective self function. They depend upon decoupling immediate physical reality from an equally real internal state. A reliable capacity to reflect upon mental states enables the child to make optimal use of the individuals available to him, both through family (Quinton, Rutter & Liddle, 1984) and informal (Braithwaite and Gordon, 1991) relationships. Reflective self function is a critical component of autonomy (O'Grady and Metz, 1987) and a coherent sense of identity.

Reflective self function allows for the modification of unhelpful internal working models of relationships through encounters with new significant figures. It equips the individual with a sort of ballast, a self-righting capacity where working models may become the object of review and change. Such gradual and constant adjustments give rise to an internal world where the behaviour of others can be experienced as predictable and stable, where the need for splitting of incoherent mental representations of the other is minimized and new experiences can be readily integrated with past internal representations.

The seeds for such a capacity probably date from before verbalized narratives, and are implied by the psychoanalytic notion of the infant's mental containment by the mother (Bion, 1962, 1967). In receiving the child's primitive projections, and converting these to comprehensible mental states, the mother creates a frame for human understanding which later interactions can build upon and elaborate.

Clinical psychoanalysis commonly, and inevitably, deals with individuals whose past experience has left them particularly vulnerable to the repetition of past relationship experiences. Their difficulties are normally addressed in two ways: firstly in terms of identifying the defensive distortions in their internal working models, and bringing about schematic revisions, and secondly by imposing a non-pragmatic, elaborative, mentalistic stance which enhances the psychic resilience of the individual in a generic way, and thus making the entire attachment system available for adaptation.
Acknowledgments

The author would like to acknowledge his indebtedness to George Moran, the late Director of the Anna Freud Centre, whose work has inspired many of the ideas presented in this paper. The work reported was carried out in collaboration with Dr Miriam Steele at the Anna Freud Centre, Dr Howard Steele at University College London and Drs Tom Leigh and Roger Kennedy at the Cassel Hospital. Mary Target at the Anna Freud Centre and Dr Elizabeth Spillius of The British Psycho-Analytical Society have made essential suggestions to the theoretical framework proposed. The author is also grateful to Dr Robert Emde and Dr Ted Shapiro for extremely valuable comments on an earlier draft of this manuscript.
REFERENCES


rearing, parenting difficulties, and marital support. *Psychological Medicine, 14*, 107-124.


Blackwell.


### FIGURE 1

<table>
<thead>
<tr>
<th>Parent</th>
<th>Child at one year</th>
<th>Child at 3-6 years</th>
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<td>Entangled</td>
<td>Resistant</td>
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<tr>
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<td>or punitive</td>
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**Mother’s Reflective Self Function by Infant Classification**

![Bar chart showing frequency of Reflective self function ratings for different infant classifications.]

- Reflective self function ratings:
  - ■ Avoidant
  - ■ Resistant
  - ■ Secure

P < .0001
FIGURE 3

Father’s Reflective Self Function by Infant Classification

Reflective self function ratings

- Avoidant
- Resistant
- Secure

P < .0001

FIGURE 4

ITEMS OF THE HARDSHIP INDEX

- Low SES Father (Mother)
- Father Unemployed > 3 Months
- Father/Mother Single Parents
- Chronic or Acute Life-Threatening Illness of Father/Mother
- Psychiatric Illness of Father/Mother
- Separation/Divorce Under 11 > 3 Months
- Major Illness in Childhood
- Boarding School < 11

Cronbach's Alpha = .64
Grouped as: High=4+  Medium= 1-3  Low=0
MOTHER'S REFLECTIVE SELF FUNCTION GROUPED BY HARDSHIP AND INFANT SECURITY

Mean reflective self function

Main effects: Security F=46.5, DF=1,80, p<.001
Interaction F=15.1, DF=2,80, p<.001

SAMPLE DESCRIPTION (N=85)

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Diagnostic Criteria for Borderline (Gunderson, 1984)

- Low achievement
- Impulsivity
- Manipulative suicide attempts
- Heightened affectivity
- Mild psychotic experiences
- High socialisation
- Disturbed close relations

DISTRIBUTION OF AAI CLASSIFICATION IN BORDERLINES AND CONTROLS

Chi Square = 3.3, DF = 2, NS
FIGURE 9
RATING OF AAI INTERVIEWS OF HOSPITAL SAMPLE:

Mean Ratings

Recall (N.S.)
Coherence (N.S.)
Reflective Self (N.S.)
Passivity

Hotelling T=.34, DF=4,32, p<.05

FIGURE 10
PREVALENCE OF ABUSE IN HOSPITAL GROUP

Physical Abuse 8%
Sexual & Phys Abuse 92%

Borderlines (Gunderson)

Sexual & Phys Abuse 40%
No Abuse 48%
Physical Abuse 12%

Other Axis II Diagnosis

Chi Square=9.67, df=2, p<.008
FIGURE 11  LACK OF RESOLUTION OF ABUSE AND LOSS IN DIAGNOSTIC GROUPS

Mean resolution rating

![Bar chart showing resolution ratings for Borderlines and Other Axis II groups.]

- LRM Abuse
- LRM Loss

LRM Abuse $t=4.31$, df=35, $p<.0001$
LRM Loss $t<1$, N.S.

FIGURE 12  Childhood Maltreatment and Borderline Stats

- High RSF
- Low RSF

- High LR of Abuse
- Low LR of Abuse

- Axis I Diagnoses
- Borderline States

High RSF leads to Low LR of Abuse, which leads to Axis I Diagnoses.
Low RSF leads to High LR of Abuse, which leads to Borderline States.

Childhood Maltreatment