ATTACHMENT AND OBJECT-RELATIONS THEORY

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ABSTRACT

This thesis investigates associations between Attachment Theory and Psychoanalytic Object-Relations Theory.

Major psychoanalytic theories are reviewed (Feud, Klein, Fairbairn, Winnicott, Kohut, Kernberg). Theoretical links are made with Attachment Theory (Bowlby, Ainsworth, Main, Bretherton).

The empirical part of the project concerns the comparison of the attachment-based classification created by Main & Goldwyn with an object-relations theory-based instrument ("SCORS") originating in the work of Westen & colleagues. Both classification systems were applied to the Adult Attachment Interview ("AAI") transcripts of a sample of 100 mothers and 100 fathers expecting their first child.

The reliability of both sets of ratings was examined on a sub-set of those interviews. Principal-component analysis of the object-relations measure revealed that a single-factor solution was most applicable to SCORS ratings. Univariate analyses demonstrated that two aspects of SCORS (Affect-Tone and Capacity for Emotional Investment) were most strongly related to the adult-attachment classification. Overall, there was a very

significant commonality between object-relations ratings and the Main & Goldwyn scoring system. Canonical analyses revealed that probable-experience and current-state-of-mind with regard to attachment were linked with distinct aspects of object-relationships.

Object-relations ratings were then used in the prediction of Strange-Situation classification when the child was 1 to 1½ years old. Object-relations ratings were found only weakly to predict Strange-Situation classification and this could be accounted for by the Main & Goldwyn system of classifying Adult Attachment Interviews.

The two systems were further compared on a sample of psychiatric in-patients and normal controls. In this group, the scoring system was found to distinguish patients with borderline and non-borderline AXIS II diagnoses better than the Adult-Attachment classification system but correspondence between the two systems remained high.

The results are consistent with considering attachment a specific elaboration of object-relations approaches, at least as far as the latter is reflected in the Adult Attachment Interview.

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CHAPTER ONE

ATTACHMENT THEORY

CHAPTER ONE

ATTACHMENT THEORY

The work of Bowlby, from the 1950s until his death in 1990, has bequeathed an impressive model for emotional development in childhood, based on the bond which he claims is genetically programmed to develop between a child and its principal caregiver, usually the mother, in order to afford protection during infancy (Bowlby, 1958, 1969, 1983). That bond is termed attachment and it is the degree of security of that attachment which is claimed to lie at the heart of emotional stability, both in childhood and adulthood: infants securely attached to their mothers are likely to develop healthily in emotional terms, while those insecurely attached are less likely to do so.

Bowlby was a psychoanalyst who, though supervised in his early clinical work by Klein, was very resistant to the Kleinian perspective and became far more influenced by the views of the Independent British School of Object-Relations. He was, however, troubled by lack of concern among his psychoanalytic colleagues for the scientific-testing of their theories and set out in a theoretical search of his own which could stand up to the rigours of empirical investigation. In the course of this work, he has

established a theory of child development which, although it is, at the very least, closely related to psychoanalysis, is also quite distinct, in that it appears to deal with only one narrow aspect of infantile development, albeit a crucial one, namely the precise basis for and nature of the close biological and emotional bond between a mother and her infant.

Bowlby was very much influenced by the work of ethologists with animals: Lorenz and his impressive work on the bonding of newly-born goslings with whatever moving-object first seen in the environment most closely approximated a mother goose; and the perhaps more relevant work of the Harlows (1959) with infant monkeys where, in the absence of an adult monkey, the emotional warmth provided by a towel-covered model "mother", which delivered no nourishment, was preferred to a much starker wire-constructed model "mother" which was also present and designed to dispense food.

At the human level, Bowlby was also greatly influenced by the now widely-acknowledged work of the Robertsons (1953, 1971) who were able to demonstrate the acute distress suffered by young children separated from their parents through hospitalisation or in orphanages. They were able to demonstrate a common progression of emotional states in such children which have many parallels

with what is now known about the process of mourning, following bereavement (Robertson & Bowlby 1952).

It is from this base that Bowlby developed his theory of attachment: a primary biologically-programmed need in the newly-born infant to seek out the warmth and protection provided by another human being, usually the natural mother. According to Bowlby, this need is so fundamental to survival that it surpasses even the need for nourishment itself, which becomes satisfied only through the more primary need to form the bond of attachment. There is here a clear parallel with the debate within psychoanalytic theory. Just as Bowlby sees the need to relate as primary to everything, and the need to satisfy the biological requirement for nourishment following from this rather than dictating it, so object-relations theorists within psychoanalysis see the need to relate as primary, with satisfaction of other drives following therefrom rather than promoting primary relationships.

Bowlby wrote extensively but his theory is set out in its greatest detail in his well-known trilogy "Attachment and Loss" (1969, 1973, 1980) where his three volumes deal respectively with the themes of attachment, separation and loss. It is a theory that provides a biological setting for human emotional development and links in well with the genetic origins of the human species. Freud was very

determined to demonstrate that link in his biologically-oriented theory of emotional development. The relational theorists, in contrast, seem not to have felt such a pressing need and often jump straight to the relational needs of the infant, without considering how these arise and the nature of the stimulus involved in the process. Bowlby has striven to put this right but the price he has paid is that he has been obliged to examine the nature of the primary relationship from a very narrowly-defined point of view, namely the biological nature of the primary bond between mother and child, initially at least, from a behavioural point of view. This has led to his theory being largely ignored by psychoanalytic theorists and often misunderstood as having far more to do with behavioural systems than motivation arising from internalised representations of primary relationships.

Although Bowlby's theory of attachment is based on this narrowly-defined aspect of the nature of the infant-mother bond, it is nevertheless the setting within which, according to Bowlby, all other emotional development takes place. The securely-attached child is the one to develop with the least pathology. It is the insecurely-attached child who will encounter severe neurosis and other forms of psychopathology.

Central to Bowlby's theory is his notion of the internal working-model of attachment. Presumably he sought to avoid the inevitable criticism of his empirically-based theory that would probably have ensued if he had used terms such as the representations of the internal world, as understood by psychoanalysis. Instead he based his ideas in this regard on the early cognitive work of Craik (1943) who first postulated an internal working model of the world as an internalised representation of the environment, which can be used as a template to influence behaviour. The notion is perhaps similar to the Piagetian idea of the schema which becomes internalised so as to influence specific aspects and types of behaviour (Piaget, 1952).

The concept of the internal working-model of self and of parents is considered by Bowlby to be the mechanism through which the quality of a person's attachment experience and behaviour operate, both in infancy and throughout adult life. Such a model, based on the child's experiences and feelings with regard to attachment, is built during the first few years of life in relation to mother, father, siblings and others and soon becomes established as an influential cognitive and affective structure (Main, Kaplan & Cassidy, 1985). The model is based on early reality-experiences. As a result, it reflects the images the child's parents have of him, based on how they behave towards him and what they say to him.

Such a model governs how he feels about his parents and about himself and enables him to plan his own behaviour towards them. The model also powerfully governs how he feels about and behaves towards others. Since it operates at an unconscious level, it tends to persist. The capacity to up-date the model is dependent on the freedom of communication between mother and child (Bretherton, 1987). If this is impaired, the result may be that the child's future relationships as an adult, interacting with others, become governed by an unsatisfactory internal working-model acquired during childhood which he is unable to up-date, in order to cope with what would normally be the different circumstances of adulthood.

One of the principal features of attachment theory is that it has been formulated to explain certain patterns of behaviour which are characteristic, not only of infants and young children, but also of adolescents and adults. According to Bowlby, the propensity to make intimate emotional bonds with particular individuals is a basic component of human nature which is already present, in germinal form, in the neonate and continues through adult life into old age (Wartner, 1986). He regards the capacity to make intimate emotional bonds with other individuals, sometimes in the care-giving role and sometimes in the care-seeking role, as a principal feature of effective personality-functioning and mental health. He argues that

the nature of a child's attachment to its primary caregiver in infancy is likely to determine that individual's personal relationship to others for the rest of the individual's life via the operation of the internal working model of attachment relationships (Bowlby, 1988).

Maturation with age is said to bring an up-dating of the model in a securely-attached child as he grows older whereas, in an insecurely-attached child, such up-dating is said to be inhibited: discrepant experiences and information is defensively ignored and long-term patterns of interaction persist unchanged, even when, in later life, the individual is dealing with persons who treat him in ways totally unlike those in which his parents treated him.

The maturational process whereby a securely-attached child develops into a secure adult is claimed to be mediated by a mother who, typically, continuously monitors her infant's state and, as and when he signals a need for attention, registers those signals and acts according to his needs. The mother of an insecurely-attached child, on the other hand, is likely to monitor her infant's state only sporadically and, when she does respond, to do so inappropriately and untimely (Grossmann et al., 1986). Thus, when a mother responds favourably to only certain of her child's emotional communications and ignores or actively discourages others, a pattern is set, in

behavioural terms, for the child to identify with the favoured responses and to pay no heed to the others. It is in this way that attachment theory explains the differential development of resilient and mentally healthy persons and those prone to anxiety, depression and other pathological features.

Another important characteristic of attachment theory is that the pattern of attachment is likely to transfer from one generation to the next. Main, Kaplan & Cassidy (1985), in a longitudinal study, found a strong correlation between how a mother describes her relationships with her parents during her childhood and the pattern of attachment her child has with her: while the mother of a securely-attached infant is able to talk freely and with feeling about her childhood, the mother of an insecurely-attached infant cannot. Mothers of secure infants are likely to report having had a reasonably happy childhood and to be able to talk about it readily and in detail. On the other hand, the mother of an anxious-resistant infant is likely to respond by describing an unhappy relationship with her own mother with whom she is likely still to be unhappily entangled; the mother of an anxious-avoidant infant is likely to claim a happy childhood without being able to provide any supporting details and may even relate incidents which would suggest unhappiness, though she is more likely to claim that she cannot recall her childhood.

Both types of insecurely-attached mother are likely to describe themselves with a marked degree of incoherence and lack of fluency.

There are, nevertheless, exceptions to the above patterns. Some mothers who describe a very unhappy childhood do have securely-attached children. A characteristic of such mothers is that, despite describing childhood unhappiness, often tearfully, they are usually able to give a coherent account in which such positive experiences as occurred are recognised and integrated with all the negative ones. Such mothers are thought to have been able to reflect on their earlier unhappy experiences and on why they may have been treated as they were, enabling them to come to terms with their experiences, much as they might do after intensive long-term psychotherapy.

ATTACHMENT THEORY AND PSYCHOANALYSIS

Superficially, attachment theory and psychoanalysis are very different. The former is derived entirely from empirical investigation; the latter largely from clinical observation. Arguably, however, it is Bowlby's background as a psychoanalyst that drove him to investigate, through empirical means, the different patterns of behaviour he observed in children when separated from their parents. He

was able to clearly link issues of separation and loss with intrapsychic processes of mourning which alone gave meaning to the different behavioural patterns observed. Psychoanalysts repeatedly come into contact with the same issues and processes during the course of their encounters with their patients. The approach of attachment theory in relation to these issues is to give meaning to the observed behaviour. The approach of psychoanalysis is to give meaning to internalised representations of experience and motivation which are claimed to underlie and drive the behaviour, rather than to give meaning to the behaviour itself.

Although the roots of attachment theory lie in the investigation of patterns of behaviour in infants and, as such, the theory has much in common with behaviourism, attachment theory has nevertheless been able to advance to a level which much more closely resembles psychoanalysis. This has been achieved through Bowlby's concept of the internal working model of attachment which, he claims, mediates all early attachment relationships, as well as all other close relationships throughout the life-cycle. It is this aspect of the theory which lies at its heart, rather than the observation of behavioural patterns or even the attachment classification system. Seen in this light, the concept of the internal working model is the driving force of attachment theory. The model is said to function at a

largely unconscious level and to dynamically govern patterns of relationships, not only in children but also in adults.

It is via the concept of the internal working model that attachment theory was able to move beyond the patterns of behaviour, in respect of attachment-behaviour observed in infants, to a level of internalised representations of attachment relationships which has now brought about the possibility of assessing how such relationships are represented and operate in adults, through the Adult Attachment Interview (George, Kaplan & Main, 1985). Its significance is that, for the first time in respect of attachment, it has made it possible to look beyond patterns of behaviour in children and to investigate how the meaning of attachment-behaviour and experiences are represented in the adult mind, so that those early attachment-experiences with a principal caregiver come to influence subsequent relationships throughout the life-cycle.

In order to assess adult representations of attachment using the Adult Attachment Interview, there is an attempt to assess the probable nature of childhood attachment-experiences, as well as current feelings about those experiences. Considerable reliance is also placed on a number of behavioural indices and particularly coherence of the manner in which the subject responds to the

questions posed. It would be wrong, however, to assume that such factors would have no place in psychoanalytic enquiry, where observation of non-verbal behaviour, such as coherence, plays a very important role in what is conveyed and its meaning.

In the light of what has been said above, it is argued that attachment theory and psychoanalysis have many features in common. Both set out a theory of development which is relevant, not only to infancy, but to the entire life-cycle. Each provides an account of how infants emerge from a fused state of identity with mother and acquire a sense of their own identity based on the emergence of an awareness of self that is distinct and separate; each is based on the primary relationship with a principal caregiver; the influence of that relationship continues to operate in some measure on all subsequent relationships; internalised representations of primary relationships lead to the formation of an unconscious dynamic psychic construct which mediates how relationships with others will operate; defensive strategies may affect how this dynamic construct operates and may, in order to reduce psychic pain and discomfort, distort the manner in which the individual concerned experiences reality.

With so many features in common, the question necessarily arises as to the extent to which they may

coincide or even be largely identical. In order to investigate this question, however, it is first necessary to arrive at some means of investigating psychoanalysis at an empirical level and in a way which is as closely related as possible to the manner in which attachment-relationships are investigated.

There are two principal research protocols so far devised for investigating attachment relationships: the Strange Situation Procedure (Ainsworth, 1971) for assessing attachment-relationships of children with their parents during infancy and the Adult Attachment Interview (George, Kaplan & Main, 1985) for assessing current state of mind in adults with regard to attachment-experiences. Each will be described in more detail in a later chapter. The question then arises whether there is a psychoanalytic construct comparable to the construct of attachment and whether there any comparable protocols for investigating and assessing that psychoanalytic construct

A major difference between psychoanalysis and attachment theory is that the former might be said to constitute a paradigm rather than a theory: a whole area of theories with considerable and significant variations between them. It is possible to break these divisions within psychoanalysis into two very broad categories, Firstly, there are those based on Freud's concept of

primary instinctual drives, the insistent satisfaction of which alone results in the formation of relationships. These are known as drive theories. Secondly, there are those based on some variant of the concept of an inborn need to enter into a primary relationship which is internalised at a level of mental representation which is such that it becomes, to varying degrees, the blueprint for the individual's concept of self and of all subsequent relationships. The constellation that comprises these internalised representations of self and others is termed object-relations and the relational theories associated with that construct are usually known as object-relations theories. While the hallmark of optimal adaptive functioning, according to attachment theory, is termed secure attachment, the equivalent hallmark for object-relations theory within psychoanalysis is usually termed the state of being well object-related. In both cases, there is maximal congruence between the internalised representations of significant relationships and reality, with a marked absence of any distortion thereof.

The features of object-relations theory will be much more fully explained in a subsequent chapter.

There is a marked distinction between psychoanalytic drive-theory and attachment theory. The nature of the drives postulated by the former (Freud, 1905) are entirely

intrapsychic e.g. the libido: relationships with others become necessary only for the satisfaction of those drives. In attachment theory, however, there is a primary biological need to relate to the principal caregiver, which is itself the drive towards the containment and awareness of self and of socialisation. This may itself amount to a drive but if it does, the "other" is already built into the drive in a manner which is entirely absent from drive theory. When we come to the relational (object-relations) theories, however, that important distinction disappears. We then find a relational developmental framework which, in its essentials, differs little from that postulated by attachment theory.

We have, therefore, arrived at the point where there appear to be marked similarities between attachment theory and object-relations theory within psychoanalysis. Reference has already been made to valid research instruments which measure security of attachment. The last question to be answered, before any reasonable enquiry can be pursued, is whether there are research instruments which measure comparable aspects of object-relatedness in what might be considered an investigation into aspects of psychoanalysis.

A subsequent chapter will review recently devised instruments for investigating aspects of object-

relatedness. There is, however, one which stands out as preeminently suitable for pursuing the questions that have been raised here as to the associations between attachment theory and object-relations theory. That instrument is the Social Cognition and Object-Relations Scales ("SCORS") devised by Westen (1989, 1990). SCORS in fact comprises four separate scales. Two measure constructs wholly associated with object-relatedness. The other two measure constructs that might be said to be associated with object-relatedness, but oriented far more towards a social-cognitive level of representation. This bi-focal approach fits in well with the behavioural elements adopted in order to assess security of attachment in adults via the Adult Attachment Interview. Perhaps the most useful aspect of SCORS from the point of view of these investigations, however, is that these scales can be applied to transcripts of interviews which contain information about interpersonal relationships. This means that SCORS ratings can be applied to manuscripts of Adult Attachment interviews so that the same material can be used for assessing both security of attachment and object-relatedness in adults.

It is against this background that empirical enquiries will take place in order to determine what the associations are between attachment theory and object-relations theory and to investigate whether they are essentially identical in what they postulate and determine.

SUMMARY

Attachment theory appears to differ radically from psychoanalytic drive-theory. It is rich in empirical data when compared with the latter. It also embraces some of the concepts of cognitive psychology, particularly in relation to the idea of internal working-models. It is not a theory of stages at which the individual can become fixated or to which he can regress. Bowlby sees it rather as a model in which the individual can progress along one or another of an array of developmental pathways. Some of these are compatible with healthy development, while others deviate in directions which are incompatible with psychological integration and mental health. It is a theory which draws on what might be considered as areas of research which are worlds apart: ethology and psychoanalysis. Perhaps this diversity gives it a certain robustness. It is a field in which research continues apace, particularly in the useful area of the consequences, only fairly recently being taken more seriously, of the long-term effects of separation of infants from their permanent caregivers.

Thus, Bowlby's theory of attachment sees human infants as socially responsive from birth onwards, each faced with an array of pathways potentially open. The one down which the infant must travel through life is, however, dictated by interaction with the environment and

particularly by the manner in which the child's principal caregivers, normally his mother and to a lesser extent his father, relate to and treat him. Those who have sensitive and responsive parents have the potential to follow the healthy pathway, while those who have parents with the opposite characteristics, must usually follow the deviant pathway which leads to insecurity and a vulnerable personality, with little scope for improvement later in life. Unfortunately, such characteristics, it seems, are likely to be passed on to subsequent generations.

The features outlined in the last paragraph, however, are also features which are, by and large, characteristic of object-relations theory within psychoanalysis. The associations between attachment theory and object-relations theory demand investigation. The means for pursuing that investigation exist and will be adopted in this thesis.

CHAPTER TWO

RESEARCH RELATING TO ATTACHMENT THEORY

CHAPTER TWO

RESEARCH RELATING TO ATTACHMENT THEORY

THE STRANGE SITUATION PROCEDURE

Ainsworth's work (1969/82) helped to develop Bowlby's theory and led to attachment theory becoming widely regarded as a testable theory for socio-emotional development.

Ainsworth showed that certain characteristics of a mother's parenting are more important for determining the infant's security of attachment at a year than any innate quality of the infant yet to be assessed (Ainsworth, 1985). Her Strange-Situation Procedure ("SS") has been widely used to provide an assessment of infant-security. This is a standardised test in which the infant is left briefly alone in a strange room and then reunited with his mother: his reactions on being reunited are considered to indicate the nature of his security, because they reveal the expectations he has developed about her availability. Ainsworth's procedure (Ainsworth, 1971) distinguishes two broad categories of attachment: secure and insecure. The latter category is however divided into two main

categories: anxious-avoidant and anxious-resistant. Further categories and sub-categories are sometimes referred to.

An anxious-avoidant infant (A) tends not to be distressed during separations and avoids proximity to the parent upon reunion. Typically, he does not greet his mother on reunion and sometimes does not even look at her. The mother's approaches are likely to be resisted and, if picked up, the infant is likely to struggle. Bowlby (1988) interprets such a response as an unwillingness to express to the mother, one of the child's deepest emotions: fear at being separated and/or the equally deep-seated desire for comfort. Psychological defences are assumed by Bowlby to be at work in preventing the expression of fearfulness, dependency and hostility.

An anxious-resistant infant (C), on reunion, is ambivalent. He, typically, wants to be close to his mother but is angry with her for abandoning him during the separation and, therefore, very difficult to comfort. He tends to cling because of his need for comfort but, because his hostility overrides that need, in fact derives no comfort. He therefore resists being put down and is reluctant to return to his play.

In marked contrast to the above categories, a secure infant (B) may or may not be distressed by the separation.

On reunion with the parent, he is pleased. If distressed, he is easily comforted and soon able to return to exploratory behaviour in the form of play.

Ijzendoorn & Kroonenberg (1988) in a meta-analytic review of SS research which involved studies with samples of over 35 children, have demonstrated cross-cultural validity of infant-mother patterns of attachment. They looked at the findings from three samples in Germany, one in the U.K., four in the Netherlands, one in Sweden, two in Israel, two in Japan, one in China and eighteen in the U.S.A. Two thousand infant-mother patterns of attachment were considered. The overall distribution of patterns in these 32 samples was 65% secure (B); 21% avoidant (A); and 14% resistant (C). The incidence of avoidant-infants was significantly higher in Germany and the incidence of resistant-infants was significantly higher in Israel and Japan. It is not yet possible to determine the significance of these anomalies because of the small number of studies in those countries. If there are cross-cultural differences, there is nevertheless overwhelming evidence for the cross-cultural presence of the three principal patterns of infant-mother attachment described by Ainsworth et al. (1978).

There is strong evidence from research with middle-class families for stability of attachment patterns

assessed by SS from 12 to 18 months. Children who display behaviours leading to an anxious classification (A or C) at 12 months tend to display similar behaviour at 18 months. Similarly, children classified secure at 12 months show stability of classification at 18 months (Connel, 1976; Waters, 1978; Main & Weston, 1981).

Longer-term stability of attachment patterns have been reported by Main, Kaplan & Cassidy (1985). They found considerable stability in patterns of behaviour from 12 months to 6 years in children who were first assesed at 12 months in the SS and again at 6 years in a separation-task setting similar to the SS.

Security of infant-mother attachment at one year has also been correlated with future child-behaviour in a number of longitudinal studies. Of particular interest is a study conducted by Sroufe and his colleagues in Minnesota which comprises two large samples: one middle-class; the other lower-class disadvantaged families. Both began with the SS assessment of over 200 children. The study focuses on continuity in development and adaptation. Despite discontinuous advances in developmental level and despite dramatic changes in the behavioural repertoire, continuity is demonstrated in the quality of individual adaptation. There is striking evidence for the position that early

child-mother attachment predicts the child's future cognitive and social development (Sroufe, 1988).

The Minnesota studies have demonstrated correlations between SS classification and later social functioning in preschool children from three to five. There is a strong correlation between the early relationship with mother and future relations with peers and teachers. Children classified securely-attached to mother at 12 to 18 months were rated higher on positive-affect and lower on negative-affect by their teachers in pre-school settings. They were also rated more empathic and compliant than their peers classified insecurely-attached at 12 months (Sroufe, 1988). Pancake (1985) reports that children classified secure had friendships which both their teachers and independent observers reported as deeper and less likely to be tinged with hostility.

The SS, therefore, is a powerful procedure for determining, under laboratory conditions, the attachment-status of a young child. The probable state of anxiety that must always remain a component of any laboratory work with subjects is a feature which enhances the effect which it is sought to produce: presumably the effect of this procedure would not be so powerful if conducted in surroundings with which the child is familiar and might derive some comfort. In fact, Ainsworth took care to validate the patterns of

behaviour observed in the SS procedure under laboratory conditions by conducting detailed observations of infant-mother behaviour within the home environment: the same patterns were observed (Ainsworth, 1978). However, the SS is assumed to be ineffective as a procedure for assessing attachment-classification in children older than 6 years.

THE ADULT ATTACHMENT INTERVIEW

An aspect of attachment theory which is of critical importance is, not only the degree to which attachment-status persists throughout childhood and adulthood, but also the extent to which it transmits from one generation to the next. It is important to know how likely a securely-attached mother is to rear securely-attached children and how likely an insecurely-attached mother is to rear insecurely-attached children.

A number of studies have shown that attachment-status tends to persist throughout childhood and is closely related to the nature of the relationship with that child's mother (Matas, Arend & Sroufe, 1978; Wartner, 1986; Main & Cassidy, 1985).

Although the SS procedure proves highly satisfactory for assessing the attachment-classification of young

infants, it is unsuitable for assessing such status in older children and adults who would not find SS stressful. In order to assess the attachment-status of adults, the Adult Attachment Interview was devised (George, Kaplan & Main, 1985). This interview ("AAI") is designed to elicit as much information as possible concerning the individual's childhood experiences in relation to attachment behaviour and gives rise to one of three classifications: dismissing (D); preoccupied (E); autonomous (F). These correspond, respectively, to the SS classifications: avoidant (A); resistant (C); secure (B).

Autonomous mothers are not preoccupied with unresolved conflicts of childhood and are free to respond to their own child's attachment cues. Dismissing mothers are reluctant to acknowledge their child's attachment needs, often having been rejected by their own mothers, and, typically, are insensitive and unresponsive to their child's needs. Preoccupied mothers, typically, respond in an inconsistent way to their child's attachment needs, leaving them anxious and frustrated.

Mothers classified autonomous in the AAI are, typically, able to discuss their childhood objectively, whether favourable or unfavourable, and to do so coherently and convincingly. Those rated dismissing appear out of touch with the emotional aspects of their childhood

experiences which relate to attachment. They are unable to recall such experiences or distort them with idealisation or derogation. Those classified preoccupied remain over-involved with such experiences and have often been caught up in a pattern of parenting one of their own parents or even both. They are, typically, incoherent or preoccupied with anger or passive.

The AAI comprises 18 questions (Appendix 2.1 privileged communication - Department of Psychology, Berkeley University). The first question is designed to give subjects time to settle down and asks for a brief description of family background. The second requests a brief description of the early childhood relationship with each parent. Next come two questions, one for mother and one for father, which form the very core of the interview: a request to select 5 adjectives which describe the childhood relationship with that parent, followed by a request to give reasons why each adjective was selected, together with any memories and incidents which come to mind in connection with that adjective. This section of the interview is rounded off with a request to state which parent the subject was closest to and why.

There follows a question about what the subject would do when upset as a child, where the cause was a) emotional, b) physical injury, c) illness.

Next comes a series of questions relating to separation. The subject is asked to describe the first separation from parents and any subsequent ones; whether rejection was ever experienced; if so, to describe those feelings and state whether the parent in question realised there was a feeling of rejection.

There is then a question about parental discipline and whether they were ever threatening; whether there are any memories of physical or sexual abuse; if so how this has affected the subject.

This is followed by an enquiry about aspects of childhood experience which are seen as having affected adult personality and whether any aspects of childhood experience are seen as a setback in development.

Having ascertained whether any adults, other than parents, played a caregiving role or were important, there follows a series of questions about loss: of parent or close others during childhood and other losses in childhood or adulthood.

Finally, there are questions about changes in relationships with parents and about present relationships with them, together with questions about aspirations for

any child of the subject, linking this to anything learned from the subject's own childhood experiences.

The AAI can probably be described as a means of surprising the unconscious: of accessing the internalised representations of attachment which constitute the internal working-model in the adult. Classification is not based on the subject's history but, rather, on current state of mental organisation: on coherency of thought and feelings regarding attachment, determined from study of speech throughout the interview, as this appears in the written transcript of the recorded interview.

Each transcript is assigned three ratings: firstly, for the probable experience of each parent during childhood; secondly, for current state-of-mind regarding attachment experiences; and thirdly, a single classification which represents that state of mind.

There are thee principal classifications with regard to adult attachment: secure or fee-autonomous ("F"); dismissing of attachment ("D"); preoccupied by or entangled in past attachments ("E"); In addition, there is a fourth classification: unresolved with respect to trauma ("U"). Each of these corresponds directly to the four principal infant attachment classifications: secure ("B"); insecure-

avoidant ("A"); insecure-resistant or ambivalent ("C"); disorganised or disoriented ("D").

Each of the three principal classifications is further divided into sub-classifications which are better able to take into account more subtle nuances and distinguishing features that arise in subjects assigned to each of the principal classifications.

There are five nine-point scales in the original Main & Goldwyn system (Main & Goldwyn, 1985), related to probable parental experience of childhood. Transcripts of the AAI are rated separately for mother and father on each of these scales: loving; rejecting; role-reversing; neglecting; and pressure to achieve. However the University College London version of the AAI protocol, which has been adopted for the empirical investigations reported later in this thesis, has added a sixth scale: the extent to which parenting was overprotective.

There are nine nine-point scales in the original Main & Goldwyn system related to current state-of-mind regarding attachment. Again, transcripts of the AAI are rated separately for mother and father on these scales: coherency of transcript; idealisation of parents; insistence on lack of memory; involved/preoccupying anger; lack of resolution of mourning; fear of loss; passivity of thought processes;

dismissing, derogation; and metacognitive processes. The UCL version has added three scales: aggression; guilt; and quality of present-day relationship with parents.

In order to arrive at a final classification on the AAI, in addition to taking into account the ratings on the two categories of scales referred to above, it is necessary to assign an overall classification D, E, or F as described above. There is, however, the additional classification, coded U. This is not strictly part of the tripartite system so far described, but rather an additional classification which does not preclude a further rating within the tripartite system. Indeed such a rating is mandatory.

The classification U is the equivalent of the disorganised classification in infants. Individuals so classified have usually experienced attachment-related traumas which they have not yet been able to reconcile with their adult lives. Such traumas include the loss of an attachment figure, usually through death, and also severe abuse, sexual or otherwise. There is often a feeling of responsibility in the individual for the events which constitute the trauma and for which there is no apparent justification.

Since the AAI is based largely on memory of childhood experiences at the time of interview, rather than

actual experiences, distortion is a possibility. In particular, there may be a tendency to idealise childhood as a defence against acknowledging unacceptable aspects of parenting. Another possibility is that painful and unacceptable memories may be repressed, resulting in an inability to recall much in the way of childhood memories. A still further possibility is that a person, whose upbringing was such that they would almost certainly have been rated insecurely-attached as a child, might nevertheless be rated autonomous. This is the likely outcome for individuals who are able to accurately recall their unsatisfactory upbringing, reflect upon it and come to terms with it; even forgiving their parents for any shortcomings in infancy. Such a course appears to enable such persons to up-date their unsatisfactory internal working-model of earlier years to one that is more appropriate to reality, thus enabling their own infants to form a secure attachment to them.

The AAI is a structured interview which allows for the systematic analysis of the linguistic responses of adults to questions and repeated probes with regard to childhood attachment-experiences. There is a detailed rating and classification procedure (Main & Goldwyn, 1993). Transcripts of the audio recordings of interviews are rated in order to arrive at the classification system referred to above, based on the adult's organisation of cognitions and

affects concerning attachment-representations and experiences. Classification depends on current state of mind with regard to developmental history rather than on objective details of the recollected history. Validation of the AAI is based on reported associations between this measure and previous and concurrent assessments of child-parent attachment, using the SS procedure (Main, Kaplan & Cassidy, 1985; Grossmann et al., 1988; Ainsworth & Eichberg, 1991). These findings support Bowlby's (1973) view that patterns of attachment-relationships within families are continuous across generations.

In devising the AAI, Main and her colleagues were able to move away from the behavioural manifestations of attachment-relationships in infants to a different level of representation, more suited to the assessment of such relationships in adults. They did so by focussing on the linguistic manifestations of the internal working-model of attachment in adults. The interview (George, Kaplan & Main, 1985) asks a series of questions and probes, designed to elicit as full a story as possible about the adult's childhood attachment-experiences and evaluations of the effects of those experiences on present functioning. It is the manner in which these experiences are conveyed, rather than the nature of the experiences themselves, that give rise to an overall classification of the current state of

mind of the adult with respect to internalised representations of attachment.

Main & Goldwyn (1991) report a concordance coefficient of .61 between the attachment classifications of mothers assessed in the AAI and the infant-mother attachment classification of their child assessed in the SS. There was a comparable concordance coefficient of .37 in respect of fathers and the same child. The AAIs were carried out five years after the child had been assessed at 12 months in the SS procedure. Other studies have replicated and confirmed these findings (Grossman et al. 1985, 1988).

The retrospective associations found by Main et al. (1985) and Grossman (1988) have been replicated by Ainsworth and Eichberg (1991). SS assessments were carried out with 45 mother-infant pairs, followed 2 to 6 months later by AAI assessments of the mothers. They found an 80% match between SS classifications and AAI classifications. Of the six infants classified anxious-resistant, four had mothers classified preoccupied and two had mothers classified autonomous. Of the eight infants classified anxious-avoidant, six had mothers classified dismissing, one had a mother classified preoccupied and one had a mother classified autonomous. Thirty-one infants were classified securely-attached; twenty-six having mothers

classified autonomous, three dismissing and two preoccupied.

The AAI, therefore, represents a major advance in the understanding of attachment theory. Through its ability to operate at a different level of representation, by moving from the assessment of patterns of behaviour to the organisation of the manner in which attachment experiences are represented in adults, it has made it possible to assess and classify adults with respect to attachment in a manner which nevertheless mirrors the attachment classification-system used in respect of children.

Different styles of affect-regulation and representational-bias have been shown to be associated with particular working-models of attachment (Kobak & Sceery, 1988). Extending the use of AAI further, it was shown that children's behaviour corresponded to mothers' internal models of attachment in a study of the interaction-behaviour of mothers and their pre-school children (Crowell & Feldman, 1988).

OTHER THEORY-BASED ASSESSMENTS

While some studies have shown consistency in memories of childhood from early to advanced adult years (Block,

1969), individual differences in consistency of recall also suggested that loss of memory of the affect associated with, for example, maltreatment in childhood, might be linked with re-enacting childhood experiences in the following generation (Frailberg et al., 1975). Other studies have examined dependence, while investigating three generations simultaneously (Fu, Hinkle & Hanna, 1983), and other aspects of family ties across generations (Cohler & Grunebaum, 1981). Research in this area has mainly focused, on the one hand, on separation or disruption in the family of origin and, on the other, on detailed recollections by parents of childhood relationships with their own parents. For example, Rutter, Quinton & Liddle (1983) found that serious parenting-problems, in relation to widespread family difficulties, rarely arose in the absence of such childhood adversities in the previous generation.

Many other studies, not associated directly with attachment theory, have also shown concurrent associations between marital harmony and quality of parental behaviour (Sherefsky & Yarrow, 1976; Crockenberg, 1981). Rutter & Madge (1976) also confirm that marital harmony in the first generation is related to marital harmony in the second. Nevertheless, while the available data compellingly indicate that the quality of a mother's caregiving behaviour is strongly related to her memories of childhood

relationships, the causal relations among the personality, marital and parental variables require further empirical investigation in prospective rather than retrospective studies.

The question of the extent to which there is an association between the attachment status of mothers, as assessed in AAI, and that of their children, as assessed in SS, is thus a compelling one.

FURTHER RESEARCH

Other ongoing research, involving prenatal administration of the AAI, also suggests that it is possible to predict infant-mother patterns of attachment from pregnancy assessments (e.g. Ward et al., 1989; Slade, 1990). Unlike past retrospective and concurrent investigations, they did not find the preoccupied classification to be predictive of the resistant infant classification. However, the autonomous and dismissing AAI classifications were powerfully predictive of the secure and avoidant SS classifications. It was concluded that predictive power resides, not in the quality of past experience but, in the overall organisation of mental structures underlying relationships and attachment-related issues.

Fonagy, Steele & Steele (1991) has, for the first time, produced prospective data which confirm an association between prenatal assessment of maternal representations of attachment relationships, as assessed in the AAI, and subsequent SS assessments of infant-mother attachment relationships in respect of the infants of such mothers at one-year. This study powerfully confirms that the nature and quality of parent-child relationships is indeed transmitted across generations. The study looked at 96 mothers. Of these, 59 were classified autonomous in the AAI; 22 dismissing; and 15 preoccupied. Of those classified autonomous, 45 (75%) had securely-attached infants; 14 (34%) insecurely-attached infants (8 avoidant and 6 resistant. Of the 22 classified dismissing, 5 (23%) had securely-attached infants. Of the 15 classified preoccupied, 5 (33%) had securely-attached infants. This study provides the first report of a strong predictive association between expectant mothers' mental representations of relationships and subsequent classification of the infant-mother attachment relationship. Based on prenatal administration of the AAI to 96 primiparous mothers, it was possible, in 75% of the cases, to successfully predict whether an infant would be coded securely or insecurely attached to mother at one-year in the SS procedure.

There is, therefore, impressive evidence for lawful continuities in the nature and quality of parent-child relationships across generations. The AAI has been shown to be capable of identifying, prenatally, infants whose attachment to mother is more likely to assume an anxious, as opposed to secure form. Many previous studies have shown how these infant patterns of attachment make certain less-than-adaptive developmental pathways more likely (Sroufe, 1988).

No prospective attachment study has investigated any demographic or biographical variables of parents across previous generations as had been attempted in some former retrospective cross-generational studies (Ricks, 1985, Quinton & Liddle, 1983). There are several reasons why it might be of interest to consider whether there are associations between such demographic and biographical variables of family and parents and the attachment-status of children. These are all related to the efficacy of the AAI as a means of accurately assessing the attachment-status of mothers. It is forcefully argued that the AAI does have this capability in theory: the question remains, however, whether the AAI necessarily has this capability in practice, bearing in mind that assessment results from the judgment of independent raters based on the present recall of adult subjects of their childhood experiences.

One question which needs to be addressed, therefore, is the nature of objective recall of subjects, compared with their subjective recall. According to George, Kaplan & Main (1985), the objective recall of subjects is inadequate for assessment of their attachment-status and it is necessary to arrive at some assessment of their subjective recall in order to determine such attachment-status. This places a heavy burden on the independent raters who assess AAIs and the question arises whether they are influenced unduly by real events, as reported by subjects, when they should be influenced solely by subjective experiences. A closely related question, therefore, is whether there is an association between objective experiences as disclosed in AAIs and security of attachment: studies to date show that observed objective-experiences cannot be predictive of attachment-status but that subjective recall can be. Finally, the question arises whether there is any interaction between objective experience and subjective representation which may influence attachment-status.

ATTACHMENT RESEARCH AND PSYCHOANALYSIS

Research in respect of attachment has moved from the investigation of the meaning of the behaviour of infants with regard to security of attachment, to the investigation of the meaning of discourse in adults which is claimed to

relate to current representations of early attachment-experiences, at a cognitive and affective level. A behavioural component is, however, retained in the assessment of such adult representations, through the weight that is attached to the coherence with which attachment-experiences are related and which is thought to directly reflect security of attachment. Each level of representation is concerned with the same construct: the internal working-model of attachment. In infancy, this mediates directly on attachment-behaviour between parent and infant, in order to promote the twin objectives of the attachment system: the means by which the infant is able to experience feelings of security from the principal caregiver in a way that will provide protection when the need arises, and will also stimulate adaptive exploration of the environment when it is safe to engage in such activities.

Attachment research, therefore, is operationalised through notions that do not link directly with psychoanalysis. The latter is concerned far more with the manner in which the mother-infant dyad facilitates the emergence of the infant from a primary symbiotic and narcissistic state into an individual with a separate sense of self, able to enter into a fulfilling relationship with mother and subsequently enjoy good object-relations with others.

Nevertheless, any attempt to examine psychoanalytic concepts in infants would, of necessity, be compelled to draw inferences from the observation of infant-behaviour. Indeed, that already happens to some degree in the infant-observations that trainees in psychoanalysis are obliged to pursue: the observation of a specific mother-infant relationship at weekly intervals for a year or six months. Such observations are, however, more hermeneutic, almost algorithmic, than heuristic. The observations are conducted in order to demonstrate the theoretical perspective already adopted by the trainee, rather than used as data to investigate a range of theoretical possibilities.

When it comes to the investigation of attachment-representations in adults, attachment appears to be even further removed from psychoanalysis, with the evaluation of cognitive and affective components that have little direct relationship to psychoanalysis. What those cognitive and affective components are assessing, however, is the nature of the internal working-model of attachment-representations in adults, derived from early parental relationships, which is claimed to influence important relationships generally. Object-relations theory within psychoanalysis is similarly concerned with the influence of the early mother-infant relationship and the bearing it has on subsequent relationships, as reflected in the quality of object-relationships. A research tool which measures the cognitive

and affective components of the quality of object-relatedness in an individual might therefore be considered as looking at characteristics of the individual which have much in common with adult-attachment representations, as measured by the AAI. The SCORS measures of object-relatedness meet these requirements in that they purport to assess object-relatedness by examining both cognitive and affective components of relationships generally. It is contended that these measures of object-relatedness are particularly suitable as a means for exploring associations between attachment theory and object-relations theory while also employing the latest measure for assessing adult representations of attachment; the AAI.

SUMMARY

The AAI has considerably extended the boundaries and application of attachment theory, by providing the means for measuring and assessing, in adults, the representations of infant-attachment which are claimed to remain in the adult throughout life, via the internal working-model of attachment. This instrument, used in conjunction with the SS Procedure, has provided the means for examining any associations there may be between parental representations of attachment and the attachment-classification of the children of such parents. This in turn has permitted

research into the trans-generational transmission of patterns of attachment which is now positively confirmed.

Despite the different ways in which attachment theory and object-relations theory are operationalised, each attempts to explain how internalised representations, in adults, of early relationships come to exert a profound unconscious influence on important adult-relationships generally. Experimental measures exist within each theory which assess cognitive and affective aspects of the construct that is at the heart of each theory and is held to influence relations generally: security of attachment and object-relatedness. Such measures are therefore assumed to be suitable for investigating whatever associations may exist between the two theories.

CHAPTER THREE

OBJECT-RELATIONS THEORY WITHIN PSYCHOANALYSIS

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OBJECT-RELATIONS THEORY WITHIN PSYCHOANALYSIS

HISTORICAL ROOTS

Psychoanalysis is far from being a unified or even integrated psychological paradigm. It claims to be a theory of normal infant-development but goes far beyond this: it also attempts to account for and explain all forms of psychopathology and provides, arguably, the most comprehensive theory and set of techniques yet devised for the examination and treatment of such pathology. In fact it comprises many theories, some of which differ quite fundamentally one from another. These divisions, however, may be confined within two broad categories.

Firstly, there are those theories which coincide most closely, though today rarely, if ever, entirely, with the later views of Freud, in what has become known as drive-theory: that human mental development and motivation arise entirely from certain innate drives. Drives comprise genetically programmed states of psychic energy that stimulate and govern motivation in behaviour. They unremittingly demand fulfilment: relationships with others

are incidental to and purely in the service of the satisfaction which is incessantly demanded by the drives throughout life (Freud 1905).

Secondly, there are those theories which postulate a primary innate need to enter into relationships with others, commencing with the primary (usually maternal and paternal) ones of earliest infancy, internalised representations of which, in some degree, subsequently influence all other relationships throughout life. This has become known as object-relations theory. The term "object" as used in the theory denotes any other with whom a person (the "subject") has a close relationship but can also include aspects of the self which influence the subject's intrapsychic functioning, as well as relationships with others.

Drive-theory is concerned almost entirely with what is claimed to be the subject's unconscious internal phantasy-world, which is inhabited by and largely governed by the unconscious dynamic drives. The model tends to ignore or at least underplay reality or events which take place in the external environment. It is, therefore, an area of psychoanalytical theory which is difficult to investigate empirically. Object-relations theory, in contrast, is, with some important exceptions, much more concerned with relationships in the external world of

reality, albeit as influenced by a subjective internal-world of dynamic unconscious phantasy, which is in turn peopled by internalised object-relationships that often, though by no means invariably, mirror reality object-relationships. Because of its greater emphasis on relationships within the environment, this area of theory lends itself far more readily to empirical examination. The notable exception in this regard, within object-relations theory, is the Kleinian school which, because it postulates primary object-relationships which are innate and related exclusively to the subjective internal world of the psyche, tends to ignore or at least underrate the significance of reality object-relationships in favour of what is seen as quite separate internal object-relationships and which are not necessarily even linked to the external environment. Like the Freudian school, Kleinians are concerned almost exclusively with the internal world of dynamically-unconscious phantasy.

Despite these wide variations in the nature of psychoanalytic theory, certain core assumptions of the basic psychoanalytic model prevail (Sandler & Joffe, 1969): (1) psychic determinism; that cognitive, emotional and behavioural aspects of pathology may be most conveniently studied in terms of psychological causes, rather than physical causality or random biological events; (2) the pleasure-unpleasure principle; that behaviour may be seen

as an adaptive effort at minimising psychic pain and maximising psychic pleasure, and a sense of intrapsychic safety (Sandler, 1962); (3) the biological nature of the organism drives its psychological adaptation; (4) the dynamic unconscious; that mental forces contend for control over access to actions and, related to this, the determination of what ideas and feelings may have access to consciousness; (5) the genetic-developmental proposition, which states that all behaviours are understandable as sequences of actions developing out of earlier, or even earliest, infantile events. Thus, the developmental framework lies at the very heart of all psychoanalytic formulations.

Psychoanalytic theory is not a static body of knowledge but, rather, in a state of constant evolution. Historically, it has evolved from an early concentration on identifying the roles of instinct in development and psychopathology; to focus on the development and functions of the ego; to a current interest in the early mother-infant dyad and its long-term effect upon interpersonal relationships and their internal representation (object-relations). Object-relations theory has developed within a developmental framework (see Pine, 1985) which explores the evolution of a differentiated, cohesive and integrated representational world that emerges within the context of a mother-infant matrix and which Winnicott (1960) termed

"the holding environment". At its broadest, therefore, the theory concerns the development of schemata, from a diffuse set of sensory-motor experiences in the infant, into a differentiated, consistent and relatively realistic representation of the self and object in interaction. This evolution is towards increasingly symbolic levels of representation, but with a general assumption that earlier levels of representations of interactions are retained in the mind, and continue to exert influence.

Freud's (1905) psycho-sexual theory of development was revolutionary in presenting a predominantly developmental view of adult psychopathology, in that he began to construct an understanding of adult disturbances, in terms of infantile and early childhood experience. More recent psychoanalytic theories continued to follow strictly developmental lines. Anna Freud (1936) provided a developmental model of ego defences and later (1965) a comprehensive model of psychopathology, based on the dimensions of normal and abnormal personality-development. Melanie Klein (1935, 1936) was a pioneer in linking interpersonal relationships to instinctual developmental factors to provide a radically different perspective, both on severe mental disorders and on child development. In the U.S., Hartmann (1939) with Kris and Lowenstein (1946) provided an alternative, equally developmentally-orientated, framework, focussing on the evolution of mental

structures necessary for adaptation, and elaborated on the common developmental conflicts between mental structures in early childhood. Mahler (1979) provided psychoanalysts in the North American tradition with a dynamic map of the first three years of life and ample opportunities for tracing the developmental origins of disorders. Fairbairn (1952) traced the development of object-seeking from immature to mature dependence. Jacobson (1964) explored the development of representations of self and other. Kernberg (1975) drew on previous work of Klein, Hartmann and Jacobson to furnish a developmental model of borderline and narcissistic disturbances. Kohut (1971, 1977) constructed a model of narcissistic disturbances based on presumed deficits of early parenting.

It is impossible to ignore completely Freudian drive-theory and some examination of this important area of psychoanalysis, therefore, becomes necessary. This is particularly appropriate in view of another very important aspect of Freud's theory which relates to the very structure of the psyche, which he attempted to define in precise terms and which has led to the alternative label of his model as a structural theory (Freud 1923, 1933). It is probably this aspect of his theory which has most successfully survived within the wider paradigm of psychoanalysis and which has given rise to his greatest influence on object-relations theory in particular.

Freud's exposition of his drive-theory resulted from his clinical work with his patients over half his working life, as well as what he considered to be his own self-analysis. It represented a substantial shift away from his original and earlier ideas which were influenced by the almost universal claims by his patients that they had been seduced by an adult, often a parent, during infancy (Freud 1985).

Freud's structural theory postulated a tri-partite composition for the adult psyche (Freud 1920, 1923, 1926, 1933)). At its core lies the id or central part of the personality in which reside all the instinctual energies of the human creature and which are concerned solely with the physical and totally self-centred needs for survival of the individual within the environment. This is a wholly unconscious area of personality which is also the principal domain of the drives, as later defined by Freud. The newly-born infant's psyche comprises only the id (Freud, 1923).

Later in infancy, resulting from the influence of the primary relationships with the child's principal caregivers, usually mother and father, a second structure of the psyche develops, namely the ego. It is the area of the mind designed to negotiate between the selfish internal world of the id and the external social one of reality. Here reside the aspects of personality which have the

greatest obvious connections with the external world. While the ego is the theatre of consciousness within the psyche, large areas of the ego are also unconscious by reason of its invasion by the instinctual forces of the id. It is, therefore, an area of great unconscious conflict between the competing needs of id and ego (Freud, 1920).

Finally, during the last stages of personality-development in infancy, a third psychic structure is formed: the superego, wherein repose the modifying and civilising forces of morality and conscience, derived from the influence of the principal caregivers over an extended period of time. This structure is also largely unconscious but far more amenable to penetration by conscious thought than the id. Where the influence of the superego is adaptive, reasonable and accommodating, the result is a holistic psychic structure which successfully arbitrates between the uncompromising and selfish needs of the id and the competing needs of the ego. This enables the individual to secure and maintain his or her own best-interests in a way which accommodates the competing needs of others, in order to maximise the chances of survival of the individual within a species which is predominantly social and communal rather than solitary. When the superego develops within an unfavourable emotional environment, it becomes oppressive and sometimes even crushing, giving rise to serious

disturbance and pathology which preclude an adaptive and fulfilling existence within the environment (Freud, 1923).

It is within such a context that drive-theory and many of the variants of object-relations theory are held to operate. It is, however, a psychic environment which is particularly suited to the needs of drive-theory. It is, therefore, at this point that the nature of the drives is most usefully examined.

By 1905 Freud postulated two fundamental drives or classes of drive: one sexual; the other self-preservative but which by 1920 he more particularly defined as a destructive drive. Eventually, these two drives became known as the life and death instincts (1920). The word instinct used in this context is unsatisfactory since it usually relates to a specific piece of innate behaviour rather than a motivational force. Notwithstanding the progression in Freud's theory outlined above, the basic concepts underlying these two classes of drive remained largely unchanged throughout.

The first or sexual drive is usually considered as synonymous with the libido. Its ultimate aim is, of course, the discharge of its psychic energy through the genital activity of the post-pubertal adult. However, because it is an innate drive, and therefore present from

the outset of existence, such discharge is also demanded during infancy; even from birth. This is initially secured via primarily non-genital means and there is, according to Freud, a succession of erotic bodily-zones through which such discharge is expressed and progresses throughout infancy: oral, anal and genital (Freud, 1915). The existence of the sexual drive is increasingly recognised and acknowledged in other areas of psychology and coincides with currently more open attitudes towards infant-sexuality, although its significance during infancy is still hotly debated. The very existence of sexuality in infants was, however, bitterly denied by most psychologists outside the confined realms of psychoanalysis during the time when Freud was alive and remains probably the most misunderstood aspect of his theory.

The significance of the sexual or libidinal drive as the most intense motivational influence on personality is universally acknowledged in all shades of psychoanalytic theory and not least amongst object-relations theorists. It is only the primacy of the libido which is debated. In Freudian theory, it is the very wellspring of existence and object-relationships are merely the usual and natural, though not inevitable, response evoked by it. In fact, according to Freudian theory, the object elicited by this drive need not necessarily be a person. For most object-relations theorists, however, the libido is secondary to

and purely in the service of a more primary but similarly innate need to form relationships with other human beings.

Freud's second drive or class of drives never evoked in him the same interest as the first and he never seems to have seen its significance as comparable to that of the sexual drive or libido in relation to normal development and psychopathology. The drive of self-preservation has always been linked closely with aggression, although the influence of aggression is by no means limited to this drive but also plays a role in the sexual drive. What is highly controversial within psychoanalytic theory is the equation by Freud of this drive with what he terms the death instinct (Freud, 1920). This equation, while strongly endorsed and developed by the Kleinian school, is viewed with considerable scepticism by most object-relations theorists and strenuously opposed by some, including Fairbairn. It would be quite wrong, however, to claim that this second drive has no influence in the thinking of object-relations theorists. On the contrary, the aspect of this drive, which is conceptualised in terms of aggression, plays a most significant role in all variants of object-relations theory and, in some instances, an even greater role than it does in drive theory. As in the case of the sexual drive, however, it is the primacy of the aggressive drive which is disputed by object-relations theorists: it is, for them, at best a motivational influence comparable

to the libido which is in the service of a primary need to relate.

It is not possible to move into the realms of object-relations theory proper without first dealing with another aspect of Freudian theory, namely the mechanisms which result in sexual identity and which, given the fundamental if not primary importance of the sexual drive throughout psychoanalysis, is at the very heart of this paradigm, namely the Oedipus Complex (Freud, 1910, 1924).

Freud's theory of the Oedipus Complex postulates a primary identification with the mother in children of either sex which is accompanied by a parallel situation in which the mother is also the preferred object-choice. This gives rise to a basic potential in infants for what Freud referred to as polymorphous perversity (Freud, 1905), where either parent is capable of forming the child's sexual object-choice. Heterosexuality, however, requires an exclusive identification with the same-sex parent and an object-choice of someone whose gender is the same as the opposite-sex parent.

In male children, this can only be accomplished when the child is able to give up the mother as his object-choice. Freud claims that this is achieved through the situation in which the child fears castration by his father

unless he gives up his mother as object-choice. This shift, once accomplished, in turn enables the male child to form an alliance with the father and, once this has been firmly established, enables him to fully identify with the father so as to desire an object of the opposite sex, though no longer specifically the mother (Freud, 1924).

In the female child, the process differs in that she is not required to give up her identification with mother but, on the contrary, needs to strengthen such identification. She has to make only one shift, which is to give up her mother as object-choice in favour of her father. This is, however, a situation fraught with dangerous rivalry between mother and daughter, in which both compete for the father's affection (Freud, 1925).

The Oedipus Complex, as outlined above, is broadly accepted by most, if not all, psychoanalytic theoreticians. It is only the finer details and the time at which the various stages occur during development which are controversial.

DISTINGUISHING FEATURES OF OBJECT-RELATIONS THEORY

Object-relations theories are too diverse to have a commonly-agreed definition (Kramer and Akhtar, 1988), particularly as most psychoanalytical theorists have appeared to aspire to this category of theory, which has come to dominate psychoanalysis today. Greenberg & Mitchell (1983), whose definitive review of the area to date is widely accepted as authoritative, include in their definition all theories "concerned with exploring the relationship between real external people and the internal images and residues of relations with them, and the significance of these residues for psychic functioning". This definition, however, does not exclude many structural-theories, such as Jacobson's (1953, 1954, 1964, 1971) where, for example, when writing about depression, object-relations concepts are used while remaining rooted in a structural framework.

Kernberg (1976) offers a helpful clarification and identifies three aspects in which the term "object-relations" is used: (1) understanding the nature of present interpersonal relations in terms of past ones, which would include the study of intrapsychic structures as deriving from fixation, modifying and reactivating earlier internalisations; (2) as a specialised approach within psychoanalytic metapsychology, which stresses the building

up of mental representations of dyadic "self" and "object" relationships which are rooted in the original relation of the infant and the primary caregiver, and its later development into dyadic, triadic and multiple internal and external interpersonal relationships in general; (3) limiting the term to specific approaches of (a) the Kleinian School, (b) the British School of Independent Psychoanalysts, and (c) those theoreticians who attempt to integrate the ideas of those schools into their own developmental theory.

Accompanying the rise in interest with object-relations theories has been a move away from the study of intrapsychic conflict, particularly in respect of the sexual and aggressive drives, and the central organisation of oedipal compromise. This shift has been towards an experientially-based perspective which emphasises the experience of the individual of being with others, as well as with the analyst during analytic work (Schaffer, 1983; Schwaber, 1983; Gill, 1982; Loewald, 1986). Clinical emphasis on experience inevitably drives theory away from a structural mechanistic model towards what Mitchell (1988) broadly terms "relational-theory".

A number of assumptions are shared by object-relations theories (Kernberg, 1988; Kramer and Akhtar, 1988; Weston, 1990; Akhtar, 1992). These include (1) that

severe pathology has pre-oedipal origins; (2) that the pattern of relationships with objects becomes increasingly complex with development; (3) that the stages of this development represent a maturational sequence which exists across cultures but which nevertheless may be distorted by pathological personal experiences; (4) that early patterns of object-relations are repeated, are in some sense fixed and are reproduced throughout life; (5) that the developmental continuum of these relationships is isomorphic with the continuum of pathology (Weston, 1989); (6) that patients' clinical reactions to their therapist provide a window for examining healthy and pathological aspects of early relationship-patterns.

Nevertheless, there are considerable differences between theories in terms of the rigour with which the problem of object-relationships is tackled. Friedman (1988) differentiates between hard and soft object-relations theories. Hard theories, in which he includes those of Klein, Fairbairn and Kernberg, he sees as dominated by hatred, anger and destruction, as well as dwelling on obstacles, illness and confrontation. Soft theories, in which he includes those of Balint, Winnicott and Kohut, he sees as dominated by love, innocence, growth-needs, fulfilment and progressive unfolding.

KLEIN

Melanie Klein's (1935, 1936, 1959) model of development combines the structural model with an interpersonal, object-relations model of development. Until 1935, she worked basically within the theoretical framework of Freud, as developed by Abraham. However, her seminal papers (1935 and 1940) on the depressive position and (1946) on the paranoid-schizoid position, together with her 1957 book, Envy and Gratitude, established her as the leader of an entirely new and revolutionary school of psychoanalysis. It was only after much controversy and with considerable bitterness that an accommodation was reached which enabled Klein and her followers to remain within the international psychoanalytic movement, as members of a sub-group of the British Psycho-Analytical Society. A schism, comparable to that which had earlier excluded Jung and his followers, was avoided and the Kleinian school remains, to this day, a powerful force within the psychoanalytic establishment, particularly in the U.K.

In her early work with children, Klein was impressed by her finding that the internal images of objects within these children were much more ferocious and cruel than their parents appeared to be in reality. She assumed that these internalised parental representations were distorted by sadistic phantasies. She developed from this her

concepts of an inner-world inhabited by such internal objects which she saw as far from replicas of the external world of reality, and developed through the psychic mechanisms of introjection and of projection at work from the earliest stirrings of life. Her study of these processes led her to a reformulation of the developmental stages of the ego and superego.

Klein (1932) postulated mental structures influenced almost entirely by internal objects which changed in character in unconscious phantasy (Isaacs, 1943) as the child developed from infancy. At every stage, these phantasies are modified by actual experience. However, the actual or external object-world is used in the service of an internal, primarily defensive, system of relationships (Klein, 1935, 1948). Furthermore, Klein operationalised Freud's earlier ideas of a death instinct as a powerful determinant of the position assumed by the psyche in relation to the external world and present from birth.

Central to the Kleinian model are the two basic "positions" of the human psyche: the paranoid-schizoid position and the depressive position (Klein 1935, 1946, 1952). The paranoid-schizoid position prevails when the relationship to the object or caregiver is a part-one; that is to say that the relationship is split into both a persecutory component and an entirely separate idealised

one. These two components predominate alternately, in correspondence with an ego or self which is equally split, according to whether a state of unpleasure or well-being is being experienced. The depressive position prevails when feelings of both love and hate can be experienced in parallel, without a feeling of being overwhelmed by the two opposing states, in relationship to the same un-split or integrated object. Each position implies an individual constellation of object-relationships (both external and internal), phantasies, anxieties and defences. An individual will normally oscillate between the two positions throughout life. Klein and her followers therefore reject any notion that development is ever complete or that fluctuation between the two positions ever ceases (Klein 1928, 1945).

Fundamental to the earlier, paranoid-schizoid position, is Klein's notion of a relationship with the external world which is dominated by internal representations that are innate (Klein, 1932, 1959). The organisation of internal and external perceptions is dominated by splitting: all goodness, love and pleasure is attributed to a good or idealised object and all pain, distress and badness to a bad or persecutory one. Feelings of well-being are accompanied by a wish to possess, take inside (introject) and experience as self (identify with)

the good object. Feelings of unpleasure are directed at and projected (externalised) onto the bad object.

The depressive position is marked by a capacity to perceive the mother as a whole-object, accounting for both good and bad experiences, and is seen by Klein (1935) as the central achievement or process in the child's development. It is at this point that the infant becomes aware of a capacity to both love and hate the parent and to tolerate ambivalence. In this position, guilt or what Klein terms "depressive anxiety" is experienced in relation to hostility towards the loved object, as distinct from what would have been persecutory anxiety in the earlier position. It is the working through of such characteristic feelings in the depressive position that brings about the reparative feelings which are necessary for good object-relations and integration within the external environment (Klein, 1929, 1932, 1935; Riviere, 1936).

Modern Kleinian theorists (Quinodox, 1991; Steiner, 1992) see the critical aspect of the depressive position in terms of the child's achievement of separateness and the perception of the object's independence. This emphasis on the object's separateness also links the concept of the depressive position to classical ideas about oedipal conflict.

Klein's greatest contribution to psychoanalytic theory was probably her concept of projective identification (Klein, 1945). In classical or Freudian theory, projection arises where impulses and wishes are seen as part of the object rather than of the self; identification implies the attribution to the self of qualities perceived in the object. Projective identification as conceived by Klein, however, involves the externalisation of "segments of the ego" and an attempt to gain control over these unwanted possessions via, often, highly manipulative behaviour towards the object. Projective identification is, therefore, a more interactive concept than either projection or identification. There is a much closer relation to the object which now "stands for" the projected aspects of the self (Greenberg & Mitchell, 1983). For Klein, projective identification is located in unconscious infantile phantasy and is the means by which the child is able to relocate his persecutory experiences: by separating (splitting) them from his self-representation and making them part of his image of a particular object.

No exposition of Klein's theory would be complete without some reference to the role which she suggests is played by primitive envy (Klein 1957). Envy represents a particularly malignant form of what Klein considers to be innate aggression. Unlike other forms of aggression which are turned against bad objects, already seen as

persecutory, envy is hatred directed to the good object and arouses a premature expression of depressive anxiety about damage to the good object. Excessive envy is seen as interfering with the working through of the paranoid-schizoid position and to lead to confusional states (Rosenfeld, 1950).

Klein (1932, 1935, 1960) sees parents as corrective or mitigating factors who may modify the child's anxieties arising from constitutional tendencies. In favourable circumstances, good experiences predominate over bad ones; the idea of a good object is firmly established, as is the child's belief in his capacity to love. Klein's premise concerning the innate nature of the earliest objects and their independence of actual experience (Klein, 1932, 1936, 1959) appears to contradict this position but post-Kleinian theorists have successfully integrated environmental accounts with her ideas (Bion, 1957; Rosenfeld, 1965; Meltzer, 1974; Segal, 1981).

Intense anxiety, aroused by sadistic infantile phantasies, is, according to Klein, at the root of mental illness. Moreover, she developed a new conception of obsessional neurosis as a defence against early psychotic anxiety, instead of regarding it as a regression to a fixation point in the anal phase of libidinal development (Klein, 1932).

Klein's (1948) formulations were vital to the understanding of borderline-personality conditions. The paranoid-schizoid condition is the template for borderline-personality functioning: (1) In object-relationships, splitting predominates over repression and others are seen as either idealised or denigrated. There is no real knowledge of the other and the inner world is populated by parts or caricatures of the object. (2) Since the depressive position is avoided and all badness is pushed into the object, there can be no genuine sadness, mourning or guilt. (3) Projective identification predominates; communication cannot be meaningful and the object is manipulated by being forced to experience unacceptable aspects of the borderline individual's personality.

FAIRBAIRN

Fairbairn is, arguably, the greatest contributor to psychoanalytic theory these islands have ever produced. His theory of object-relations is possibly the one furthest removed from drive-theory, from which it differs in a number of fundamental respects. So far as the psychic structures are concerned, Fairbairn denies the existence of the id and claims that the personality is almost totally comprised by the ego which, according to him, is present in some degree from birth (1941) and gives rise to separate

sub-structures during development. The ego itself is powered by libidinal energy which is in turn programmed to seek out object-relationships in the real world. According to Fairbairn, healthy or non-pathological development results only in such external object-relationships: separate internal object-relationships are the result of unsatisfactory external ones and result only from pathology. Such internal object-relationships give rise to split-off portions of the ego. In fact, the concept of splitting within the psyche is central to Fairbairnian theory and forms a crucial aspect to the understanding and treatment of psychopathology (1944).

According to Fairbairn (1946), a primary need to relate to the mother produces a relationship with two fundamental components: one gratifying; the other ungratifying, because of the experience of rejection following a sense of promising hope. This results in three experiences of mother: one gratifying; one enticing; and one depriving. The outcome of this is three internalised object-relationships with the mother: firstly, the ideal-object, reflecting her gratifying aspects; secondly, the exciting-object, reflecting her enticing aspects; and thirdly, the rejecting-object, reflecting her withholding aspects.

Thus, Fairbairn postulates a central ego which, in some measure, replaces the id of Freudian drive-theory. That part of the ego which becomes identified with the exciting-object, he terms the libidinal ego. That part which becomes identified with the rejecting-object, he terms the anti-libidinal ego. It is thus crucial to Fairbairnian theory that every object-relationship is directly tied up with a portion of the ego. He therefore reverses the central concept of drive-theory, that the libido is pleasure-seeking: for him it is object-seeking, so that pleasure is no longer the goal but is in the service of the establishment of an object-relationship (1946).

So Fairbairn concludes that the infant is reality-oriented from the start and that internal-objects are the structures of pathology rather than normality. His theory can be summed up in his own words: "It is not the libidinal attitude which determines the object-relationship, but the object-relationship which determines the libidinal attitude" (Fairbairn 1941). Similarly, aggression is not for him a primary motivational drive but rather the principal force with which the ego must wrestle in order to preserve and maintain good object-relationships.

A key contribution by Fairbairn (1944) is his proposition that early traumata of great severity are

recorded in memories which are "frozen" or dissociated from the central ego or functional-self. This concept steps beyond the classical psychoanalytic notion of repression in developmental accounts of psychopathology; that conflict reaching the Oedipal (3-4 year) level leads to repression and that reactivation of such conflict leads to pathogenic neurotic compromise. Fairbairn's model applies to ego-disorders thought to arise out of traumata occurring before that age.

Fairbairn (1952) sees the schizoid reaction of withdrawal from and primitive defence against the trauma of not being intimately known or loved, as fundamental to all pathology. The environmental failure (the mother is unloving and the child's love for the mother is not recognised) leads the child to believe that his hate has destroyed the object. Such hate is therefore secondary and assumed, and contrasts with Klein's concept of the child's hate, as primary and actual. "Actual" early environmental failure and the need for therapeutic reconstruction is the focus of Fairbairn's model (Padel, 1972)

Although Fairbairn's formulations are very different from Klein's, he shared in many ways her views on the two basic developmental positions: the paranoid-schizoid on the one hand and the depressive on the other. His concept of schizoid-personality disorder, however, differs greatly

from hers. For him, the schizoid personality (1940, 1952) arises out of the infantile experience that love is destructive for the mother and therefore has to be inhibited along with all intimacy. In schizoid states, the ego is so split that the individual may be mystified about himself and is transiently disturbed about reality (finding the familiar in the unfamiliar and vice versa). These individuals resist perceiving others as whole persons and substitute bodily for emotional contacts. They hide their love and, to protect themselves from others' love, they will erect defences designed to distance others, seeming indifferent, rude or even hateful. Loving is dangerous and intimate relationships can only be maintained by retaining a part of the self which remains uninvolved. Often, since the enjoyment of love relationships is forbidden to them, they may give themselves over to the pleasure of hating and destruction. Fairbairn (1952) differentiates depressive disorder from schizoid conditions, in that it derives from later in infancy and is rooted in the infant's feeling that his aggression was destructive towards the object and has to be defended against (e.g. turned against the self).

It is perhaps surprising that, notwithstanding his views, which in some respects depart so radically from drive-theory, Fairbairn did not write at greater length about his ideas. In fact he wrote very little compared with other contributors to object-relations theory. Moreover his

ideas were confined to certain areas of the theory and he made no attempt, as one might reasonably have expected, to expound a developmental theory to rival Freud's. His contribution to psychoanalysis has nevertheless been profound.

WINNICOTT

Winnicott, like Fairbairn, did not attempt to expound any comprehensive developmental theory. He was strongly influenced by his work over many years as a consultant paediatrician in which, through careful observation, he gained a huge insight into the dyadic relationship which exists between a mother and her child. His observations here led him unquestioningly to the view that the human infant is born with a primary need to relate to its mother and that this relationship is, in some measure, the blueprint for all subsequent relationships throughout life. In fact he referred to a "drive that could be called object-seeking" (Winnicott 1956).

While Winnicott wrote extensively about psychopathology, he concentrated most of all on the qualities which are necessary in a mother to promote sound object-relationships in her infant. He is perhaps best remembered for his remark that there is no such thing as a

baby (1964). By this he meant that, in order to fully understand the individual, it is indispensable to examine the fundamental dyadic-relationship that exists between a nursing mother and her infant. It was he who developed the notion of the "good-enough mother". According to him, sound mental health requires, not a perfect mother, but only one who is good enough, in the sense that she makes herself sufficiently available to her child in order to facilitate and tolerate the child's early phantasies of omnipotence which she mirrors. This in turn promotes the child's own secure boundaries within which he can gradually experience himself as a separate being: dependence can be safely experienced, so that from it can, in due course, come the secure independence that is the hallmark of a happy adult (1945, 1971). Winnicott does not, however, assume that even early infancy is an idyllic era. The mother has to be "good-enough" but some failure is inevitable and is the motivator for growth.

An important aspect of Winnicott's concept of the child's developmental pathway from maternally-mirrored omnipotence and dependence to secure independence was his notion of a third or intermediate area of experience between self and object; an area of what he termed "transitional phenomena" to which both inner phantasy and the external environment each contribute. It is in this area that the infant is able to create, for example, a

breast which is absent; by weaving "me" and "non-me" aspects of his experience into a phantasied creation in the potential space. Thus, he may grasp something suitable around him, be it a cuddly animal or even his blanket, and so find an object which is not himself and can represent the mother; a transitional object. Such an object, however, does not have to be concrete: special sounds, sights, lighting and postures may serve the same aim, containing something of mother and standing for possession of and union with her, and yet are also "not-me" in the child's phantasied illusion (Rayner 1990).

Winnicott was scathingly critical of the views of Fairbairn, because they so obviously contradicted the views of Freud as to the structure of the psyche. Despite this criticism, it is clear from what Winnicott has written that the ego is, for him, the primary scene of intrapsychic conflict and development and that splitting is a vital ingredient of psychopathology. In fact, Winnicott has made a very important contribution in this area also through his concept of the "false-self": the notion that, where the ego is sufficiently threatened by a mother who is not good-enough, the "true-self" becomes concealed and overlaid by a separate split-off part of the personality which is false (the "false-self"). It is only this false part of the self which is made available in relationships in the outside world, so that such an individual is, at best, incompletely

object-related. The sole task of such a false-self is to protect the fragile "true-self", which remains fixated at an early stage of development and, of course, entirely beyond the reach of consciousness. Winnicott wrote extensively about the false-self; the difficulty of detecting it when present; and of the danger of unwittingly analysing the false-self during treatment, rather than the hidden true-self (Winnicott 1960).

KOHUT

Kohut's (1971, 1977, 1978; Goldberg, 1978) theory emerged, at first slowly and then with increasing rapidity, over the late sixties and early seventies, and is difficult to summarise. In brief, his formulation is that narcissistic development proceeds along a path of its own and that objects within this line of development serve special functions as self-objects. A self-object is defined as a person in the environment who performs particular functions for the self. These functions evoke the experience of selfhood (Wolf, 1988). To begin with, a mirroring self-object (assumed to be the mother) allows the unfolding of exhibitionism and grandiosity in a manner similar to that conceived by Winnicott. Frustration, when phase-appropriate and optimal in degree, permits a gradual modulation of infantile omnipotence through "a transmuting

internalisation" of this mirroring function. Empathic responses from the mirroring self-object facilitate the unfolding of the infant's grandiosity, exhibitionism, feelings of perfection and omnipotence, and this enables him to build an idealised image of the parent with whom he wishes to merge. "Transmuting internalisation" of the self-object lead gradually to consolidation of the nuclear-self (Kohut, 1978; Kohut & Wolf, 1978). The idealisation of self-objects, also through internalisation, leads to the development of ideals. The internalising of the mirroring-function and idealised self-object leads to the emergence of a "bipolar-self" with its ambitions and ideals and the natural talents available to it.

The self is made up of three basic constituents: striving for power and success; idealised goals; and talents and skills (Kohut & Wolf, 1978). Although the mirroring and idealised self-objects come to be internalised, the "self" continues to require self-objects to varying degrees throughout life, to help in the maintenance of self-cohesion (Kohut, 1984). According to Kohut, the development of the self requires "empathic merger with the self-object's mature self-organisation, and participation in the self-object experience of an affect-signal, instead of affect-spread" (Kohut, 1977). Self-objects are experienced as part of oneself and as serving to maintain the organisation of the self. Objects are the

target of desires, emanating from a more demarcated self-concept.

Kohut does not provide a clear timetable for his model of development, although he implies that grandiosity changes into ambition with the help of the mother's mirroring, between the second and fourth year. Idealised goals appear from the fourth to sixth year, in line with classical Freudian superego development.

Although in Kohut's early work (1971) the self was conceptualised as a component of the ego-structure, in his later writing (1977-1984), the self was regarded as a superordinate structure with drives and defences as its constituent parts. Kohut (1971, 1977, 1984) proposes that the main developmental achievement for any individual is the attainment of a cohesive self. He (1977) suggests that it is the "enfeebled self" which turns defensively towards pleasure-aims (drives) and then secondarily involves the ego in managing these aims. Drives are breakdown-products of disappointments to the self, usually involving failures in emotional attunement of self-object. Self-cohesion is the primary motivational property guiding human behaviour and is derived from inevitable disappointments of grandiosity and exhibitionistic needs (Kohut, 1971).

Kohut attempted to take a number of phenomena of structural psychoanalytic theory and redefine these in terms of self-cohesion. With regard to anxiety, for example, he differentiated between anxiety related to danger-situations, such as fear of instinctual gratification meeting with self reproach or object-loss, and anxiety related to the fear of disintegration of the self. Anxiety was primarily the self's experience of defecit and a lack of cohesiveness and continuity in the sense of self.

Kohut re-examined the Freudian concept of the Oedipus Complex and identified a group of individuals for whom oedipal preoccupation is a defence against a fragmentary or devitalised self. He sees the Oedipus Complex, as classically described, as the child's reaction to the parent's ability to enjoy and participate empathically in the child's growth. Unempathic parents are likely to react to their oedipal child with counter-hostility or counter-seduction, stimulating destructive aggression and isolated sexual-fixation. This is a reversal of Freud's model, in that Kohut identifies castration-anxiety and penis-envy as imposed from outside, rather than the consequence of a constitutional predisposition to oedipal experiences.

KERNBERG

Kernberg, an analyst with a Kleinian training, writing and practising in the environment of U.S. ego-psychology, achieved a remarkable level of integration between these two, possibly epistemologically inconsistent, developmental frameworks (Kernberg, 1975, 1976, 1980, 1984, 1987). In his theory of development, affects serve as the primary motivational system (Kernberg 1983). He suggests that combinations of a self-representation, an object-representation, and an affect-state linking them, are the essential units of psychic structure. He sees affects as coming to be organised into libidinal and aggressive drives, always vis-a-vis interactions with human object. To put this differently, he treats drives as hypothetical constructs, manifested in mental representations and affects. These representations are of the self and object, linked by some dominant affect-state. The object is not just a vehicle for drive gratification, and the major psychic structures (id, ego and superego) are seen as internalisations of object-representations and self-object relationships, under the influence of various emotional states. The characteristics of internalisation depend upon the affects active at the time. A superego may be harsh because of a prevailing affect of anger and criticism.

Kernberg (1976) describes the concept of self-image as a component of the process of internalisation. It is one of three components, the others being object-representations, and dispositions to affective-states. There are also three processes of internalisation: introjection, identification, and ego-identity, which correspond roughly to developmental processes involving the acquisition of experiences and behaviours which reflect an individual's self-image, as well as his object-representation.

Introjection exists at the most basic level of the internalisation-process. It involves the reproduction of an interaction with the environment by means of the clustering of memory-traces attached to the self or object-image and the interactions of the two in their affective context. This notion is based on the propositions of Spitz (1964) and Jacobson (1964) that self and object images are not yet distinguishable during the earliest stages of interaction.

The second internalisation process is identification, which presumes the child's cognitive ability to recognise the variety of role-dimensions that exist in in interactions with others. Identification, for Kernberg (1976), involves the capacity of the self to model itself after the object. Kernberg sees such identifications as strongly influenced by phantasy and affect. The

individual's experiences of gratification and frustration influence affective states and determine the degree to which self-representation is flexible, true and complex.

Finally, ego-identity is borrowed from Erikson (1956) as the overall organisation of introjections and identification under the synthesising influence of the ego.

Kernberg's model of early development is based on reconstructions from the treatment of severely disturbed adults which are strongly influenced by Kleinian theory. It is less concerned with the child's real experience and focussed on the force of introjects and phantasies. Kernberg (1976, 1980, 1984) is also strongly influenced by the work of Jacobson (1964) and proposes a three-stage developmental theory associated with a theory of character-pathology based on developmental failure.

SUMMARY OF OBJECT-RELATIONS THEORIES

The foregoing is a far from complete overview of object-relations theories. There are many other important contributors in this area of psychoanalysis, all of whose views merit due consideration. The purpose of this review, however, is not to attempt to be exhaustive but to provide a background against which to consider the ideas which are

to be explored in this thesis. It is intended to portray a spectrum of object-relations theory in such a way as to distinguish it from classical drive-theory, out of which it grew, rather than from which it is derived. At one extreme are the ideas of Fairbairn who perhaps most radically departed from drive-theory, albeit without expressing any intention of so doing. At the other are the ideas of Kohut whose attempts to totally reconcile his relational-theory with drive-theory, may have given rise to more questions than he has attempted to answer.

Whichever aspect of object-relations theory is considered, the one fundamental feature which emerges from them all, is the need to seek out and understand the nature and vicissitudes of primary object-relationships, whether real or internalised. This is in marked contrast to the fundamental need of the classical approach, based on drive-theory, to understand the internal struggle that is dictated by the drives through the examination of the defences against that struggle and which are marshalled by the ego.

LINKS BETWEEN OBJECT-RELATIONS THEORY AND ATTACHMENT

It is precisely the attention that object-relations theory pays to the nature and operation of the primary relationships between the infant and its parents that most closely aligns object-relations theory, when contrasted with other psychoanalytic theories, with attachment theory. Object-relations theorists do not concern themselves in any specific way with the origins of these primary relationships, other than to imply an inborn need in the infant to enter into such relationships, particularly with the mother. There is no imperative to explore the biological basis for that need. The implication seems to be that there is a drive to become object-related. By this they mean that there is an absolute need to internalise the characteristics of the primary relationships in a manner such that those internalised characteristics in some degree influence the operation of all subsequent relationships.

Attachment theory, in marked contrast, fully explains the precise biological needs that underlie the attachment relationships between child and parents: the need for a secure base from which to explore the environment. Both security and exploration are seen as the prerequisites for successful adaptation within the social species that comprises humanity. It is this aspect of attachment theory that most fundamentally distinguishes it from object-

relations theory. Yet that aspect hardly conflicts with object-relations theory. It merely seeks to explain the origins of attachment in a fundamental way that has not yet been fully explored by object-relations theorists and might yet be adopted as the original stimulus for object-relatedness.

Both attachment theory and object-relations theory are mediated by internalised representations of the primary relationships. In both instances, they operate at a largely unconscious level; are relatively resistant to change; and tend to persist. A direct comparison is, therefore, possible between the internal working-model of attachment and the internal world of psychoanalysis that is inhabited by representations of object-relationships, both as constructed at an entirely intrapsychic level and as attempts to mirror reality. It is the degree of congruence between the two that is the hallmark of sound object-relatedness, just as it is the congruence between the internal working-model of attachment and reality that is the hallmark of the securely-attached individual.

Both attachment theory and object-relations theory seek to account for the emergence of a sense of self in the infant who successfully separates from the primary maternal relationship; as an individual free to act without any disabling residues of an outdated maternal attachment-

relationship. In both cases, this is achieved through the operation of the internalised representations of the primary maternal relationship.

Both theories also make references to defensive strategies that can distort the internalised representations of the primary relationships in order to reduce psychic pain. Such strategies, while adaptive, tend to distort the congruence between the internalised representations and reality and therefore need to be more resistant to change than might otherwise be the case. It is this distortion which, while necessary for psychic survival, lies at the root of psychopathology according to both theories.

In the light of what has been said above, it is proposed that there are clear links between attachment theory and object-relations theory. These links demand an empirical investigation of the associations that may exist between the two constructs of attachment and object-relatedness.

SUMMARY

Links have always existed between attachment theory and psychoanalysis. Those links are most strongly represented by object-relations theory within psychoanalysis. Both theories explore the nature of the earliest infant-parent relationships; demonstrate the emergence of a sense of self within the context of those relationships; and show how those relationships influence all others throughout the life-cycle via the internalisation of representations of those early relationships which operate at an unconscious level and are, in varying degrees, resistant to modification.

CHAPTER FOUR

SOME ATTEMPTS TO EMPIRICALLY INVESTIGATE OBJECT-RELATIONS THEORY

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The recurrent criticism of psychoanalytic concepts is that the claims which are made in this field cannot be substantiated by empirical means: in the terms of Popper (1959), this area of theory is unscientific because that which is claimed cannot be refuted. Yet psychoanalysis has survived well since the time of Freud, in whom these ideas originated. What is claimed in this area might be summed up in the following words: that much of human motivation is governed by areas of the mind which cannot normally be reached by conscious effort but which can nevertheless function autonomously in a way which influences behaviour and consciousness; the dynamic unconscious.

Attempts have been made to submit aspects of psychoanalytic theory to empirical investigation. Some of these attempts, in relation to the object-relations perspective of psychoanalysis, are reviewed here. All of

these involve the development of instruments designed to be used to probe aspects of the unconscious processes which are claimed to operate dynamically in the development of the internalised representations which govern object-relations.

REFERENTIAL ACTIVITY SCALES

The Referential Activity Scales instrument ("RA") was developed by Bucci. This instrument in turn was built upon the earlier work of Bucci (1985) in research on how theories of mental representation deal with internal phenomena, which can be known directly only by their experiences. She refers to a dual-code model of mental representation which provides the theoretical context for her approach and which deals with the development of converging evidence for non-verbal structures and for structural change.

Bucci's dual-code model of mental representation provides a theory of mental apparatus which is compatible with psychoanalysis but which is nevertheless influenced by the newer perspectives of cognitive psychology. According to her model, separate verbal and non-verbal systems of representations are registered in symbolic form in the

mind. Each has its own independent organisation but is connected by a complex body of referential links. Thus, there are separate schemata within each system with interconnections between the systems which develop throughout life (Paivio, 1971, 1986; Kosslyn, 1980).

The verbal system in Bucci's model is the abstract code for coping with the most mature representational forms which are mediated by language and logic and is therefore specialised for representing abstract properties and category-membership. In contrast, the non-verbal system is specialised in the concrete representation of things where schemata may comprise representations of various forms of imagery and perceptual experiences. The formation of schemata in the non-verbal system, therefore, begins before language is acquired but continues throughout life with varying degrees of interaction with language, once this has been acquired. Because the organisation of emotional structures is determined by the interactions of early life, it follows that these structures will be rooted in the non-verbal system and it is these, claims Bucci, which are activated in the analytic transference or relationship between analyst and patient or analysand.

The crucial factor in Bucci's model is the referential connections or links between the two systems

(Bucci & Freidman, 1978; Bucci, 1984). There may be representations in the non-verbal system which cannot be put into words, particularly representations laid down early in life before language was acquired. However, such non-verbal schemata, which do not themselves have referential links with language, may nevertheless interact with those that do, through associations within the non-verbal system. The degree to which such connections operate is a function of individual difference and it is only in those whose links operate well that the schemata of the two systems can interact satisfactorily. Presumably the poor functioning of these links, although Bucci does not specifically claim it, is one of the major factors at work in psychopathology.

The dilemma for psychoanalytic treatment is that, although it is primarily conducted within a verbal framework, it is change within the non-verbal system, where the origins of emotions lie, which is sought. The risk is that the material of the analytic session, which belongs primarily to the verbal system, will not penetrate the non-verbal system, leaving the latter largely unchanged (Bucci, 1988). The successful operation of the referential connections is therefore a crucial factor in the effectiveness of any therapy.

It was largely on the basis of such a model that Bucci developed RA (Bucci, 1989). The instrument is designed to be applied to transcripts of spoken narrative texts such as monologues, psychotherapy sessions, dream reports or individual responses in the Early Memories or TAT protocols. Such texts are divided into idea-units and the rating scales are applied largely on the basis of intuitive judgment. Division is in accordance with segmentation procedures described in the instructions for this instrument.

Two types of segmentation are used for scoring RA: major thematic units ("MTU") and idea units ("IU"). MTUs are major shifts in topic and may include several turns of speech where RA scores can be applied to either speaker. IUs are less obvious shifts within the context of a major theme and provide more homogeneous units in which RA fluctuation can be scored. These are less obvious shifts in focus which capture a single "frame" of narrative.

RA comprises four scales: Concreteness, Specificity, Clarity and Overall Imagery-Level. These measures reflect poetic and literary, as well as psycholinguistic and cognitive research. The overriding principle is that the surest way to arouse and hold the attention of a reader is by being specific, definite and concrete.

It is intended that raters should form impressions of the narrative on the above four dimensions, which reflect access to non-verbal representations and their expression in language. Scoring is related to manifest-content of the text and no clinical inferences are required.

Bucci has developed in RA an instrument which allows the possibility of examining empirically her theory of the independent but interrelated mechanisms which she claims underlie emotional structures (Bucci, 1989). The instrument does not purport to examine specific object-relations concepts, though the way in which these concepts are examined is in sympathy with psychodynamic concepts and provide a means of assessing, over time, changes of the type which are thought to take place during the course of psychoanalytic treatment. RA therefore appears to be an instrument with considerable face validity which may suitably be employed in further research in this area after it has been subjected to further empirical investigation to establish both construct validity and reliability.

KAROLINSKA PSYCHODYNAMIC PROFILE

This instrument was designed to elicit information which is also claimed to relate to object-relations theory and which claims to have been validated by empirical investigation. The Karolinska Psychodynamic Profile ("KAPP") was developed by Weinryb et al. (1991).

KAPP is designed to assess relatively stable and slowly-changing modes of mental functioning and character traits. It comprises 18 sub-scales, each in turn comprising 3 levels, for which there is a detailed description which is closely related to clinically-observable phenomena. The subscales were designed to produce a thorough assessment of the modes of mental functioning and character traits with which the instrument is concerned, both as they appear in self-perception and in interpersonal relations.

Weinryb acknowledges that an individual's lifestyle and mental attitudes defy delineation with a rating procedure and that the breakdown and description of reality in some of the subscales is inevitably artificial, limited and even arbitrary; also that the modes of mental functioning are not specific functions with an independent existence. Nevertheless, and within these limitations, the

purpose of KAPP is, he claims, to conceptualise a complex reality.

The first 3 subscales describe the quality of interpersonal relations, e.g. intimacy and reciprocity. The next 4 deal with more specific areas of personality, e.g. tolerance of frustration. The following 2 deal with differentiation of affect in experience and expression. The next 3 describe the importance attached to the body as a factor of self-esteem. The next 2 deal with sexual functioning and satisfaction. The following 3 deal with impression of own social significance. The final subscale deals with personality organisation.

The 3 levels within each sub-scale are not directly related to degrees of pathology, though there may be some correspondence. Neither is the level in one sub-scale necessarily related to the same level in others.

The data for completing KAPP are obtained from a structured interview designed to elicit the necessary information. This is not interrogatory but takes the form of a free conversation, which the interviewer guides by asking appropriate questions and usually lasts about 2 hours.

Assessment of the data by raters is by interpretation of language-content as well as of non-verbal expression and total interaction. The subjective impressions of the raters may also be taken into account for that which may not necessarily be expressed verbally. Knowledge of psychoanalytic theory and related clinical experience are therefore essential requirements of the raters.

KAPP was initially tested in a group of 25 male and 18 female patients with ulcerative colitis, whose age ranged from 17 to 49 and who were considered normal in psychiatric terms but expected to vary across a range of modes of mental functioning.

All interviews were conducted by Weinryb, a psychoanalytically-trained psychiatrist, who also rated KAPP scores immediately after each interview without listening to the audiotape.

In order to assess the construct-validity of KAPP, a psychoanalytically-trained clinical psychologist assessed each patient using two projective techniques: Rorschach and Draw-A-Person Test and used only these data to rate their KAPP scores.

The interview took approximately 2 hours and so did the tests, usually administered on a separate day.

All the statistical analyses demonstrated similarity between the two sets of scores on KAPP: one based on the structural interview and the other on projective tests. This is claimed by Weinryb to validate KAPP and he suggests that the definitions in the instrument have sufficient clarity to be similarly interpreted by different raters. He cites the high correlations obtained, in support of the validity of the personality-constructs forming the basis of the descriptions.

Having thus established what Weinryb claims to be the validity of KAPP, in a further study (Weinryb 1991) he tested inter-rater reliability with different Swedish raters having varying psychodynamic training and experience and also with a non-Swedish rater with psychoanalytic training. He found generally high inter-rater correlations, suggesting that KAPP has interdisciplinary and cross-cultural reliability.

In a yet further study (in press) Weinryb found high correlations between KAPP ratings and two self-report instruments, all administered twice with an interval of at least one year between each administration.

In this third study, 37 patients were drawn from the same group as in the first study: 23 men and 14 women. All subjects were initially assessed using KAPP and tested on the two self-report instruments, following a preoperative diagnosis of ulcerative colitis. The procedure was repeated at least one year later, following major abdominal surgery.

KAPP was used for psychodynamic assessment and two psychological tests. The first of these was the Karolinska scale of personality ("KSP"), which is a self-assessment questionnaire designed to measure dimensions of temperament which are believed to be markers for vulnerability to psychopathology. Its constructs are derived from theories of biologically-based temperament-dimensions underlying various psychiatric disorders. The second test was the Schalling-Sifneos Personality Scale ("SSPS") which is a self-rating inventory for assessing alexithymia.

KAPP interviews were conducted exactly as in the first study, both on the initial occasion and at follow-up. The two psychological tests were administered by the clinical psychologist who was also the second KAPP rater, both initially and at follow-up.

All measures were found, on statistical analysis, to be quite stable with few exceptions, despite the

intervention of major surgery and convalescence between the two assessments. High correlations obtained using KAPP between initial ratings and at follow-up, were on a par with those obtained with the self-report instruments. The results are therefore claimed as suggesting that the psychoanalytically-based KAPP enables assessment of modes of mental functioning and character traits that are relatively stable and only slowly variable; further that KAPP may be a useful instrument for assessing such psychoanalytically-based constructs.

What has been established by these three studies, therefore, is that KAPP has satisfactory validity; that high inter-rater reliability can be achieved with modest training of the raters using the instrument; that it enables relatively stable and only slowly variable modes of mental functioning and character-traits to be represented. The subscales have been designed to obtain comprehensive assessment of modes of mental functioning and character-traits, as reflected in the patient's self-image and relationships with others.

While KAPP may be valid and even useful as an instrument for assessing aspects of personality, it can hardly claim to validate psychoanalytic principles in general or object-relations theory in particular. It is no

more than an instrument which uses psychodynamic concepts as its basis. It does not appear to deal with any specific area of psychoanalytic theory. It does not advance psychoanalytic theory, for example, in the same way as Ainsworth's Strange Situation Test or Main's Adult Attachment Interview have advanced attachment theory by confirming very specific hypotheses in relation to that theory.

Furthermore, it is difficult to conclude that KAPP is specifically a psychoanalytically-oriented instrument. None of the subscales deals with concepts which are specifically or exclusively psychoanalytical. Certainly they are all capable of psychodynamic interpretation, but not necessarily so. What Weinryb appears to have done here is to construct an instrument which is capable of psychodynamic interpretation and, in any event, he has only tested it with raters who have been trained in that area. On the face of it, the instrument could be used successfully by non-psychoanalytically trained raters and perhaps the data would have had more validity had this been done.

What is clear is that there is nothing, either in KAPP itself or in the way in which that instrument appears so far to have been applied, to substantiate in any way any

aspect of object-relations theory in psychoanalysis. At the moment it is difficult to visualise the utility of this instrument, which appears to beg the question: what does it achieve over and above the other procedures with which attempts have been made to find correlations during the course of the three studies cited above. It is difficult to escape the conclusion that all that has been achieved is the design of an instrument which lends itself to psychodynamic interpretation and is as reliable as non-psychodynamic tests. It might be equally reliable when applied by non-psychodynamically-trained raters but that question remains unanswered.

On the basis of what has been stated above, it appears reasonable to conclude that KAPP, while apparently a valid instrument, offers no empirical support for any aspect of object-relations theory in particular or of psychoanalytic theory in general.

OBJECT ATTRIBUTE SCALES

The Object Attribute Scales instrument ("OAS") has been developed by Taylor. This instrument is designed to describe the internal world in object-relations terms. Each scale comprises a rating from 1 to 11, measuring from

optimal to minimal object-relatedness and is intended to be applied to clinical material including dreams, early memories, reports of psychotherapy- sessions or, preferably, transcripts of psychodynamic assessment-interviews. OAS is intended to be applied serially to mother, father and partner, in order to provide data about object-choice.

Taylor intends to compare OAS ratings with data from measures of symptoms; of social and personal relationships; and of body image. By these means he hopes to establish that OAS will reflect change in the internal world and emerge as a useful instrument to describe such changes.

OAS comprises 13 evaluative scales. One refers to the state of objects; nine to activities, capacities and attitudes of objects; and three to formal qualities of object-representation. In addition, at the end of each rating, there is provision for a number of open-ended questions to be answered by the interviewer, designed to deal with differing versions of objects which may be portrayed, resulting from splitting. There is also provision for the interviewer to provide a brief clinical description of impressions about the subject.

The first scale is termed "Condition of Object" and refers to the capacity and fitness of objects in terms of vitality, vigour, range of responsiveness, and bodily-health or illness. An optimal rating would apply to healthy, strong and vigorous objects and a minimal one to those felt to be mortally ill or near death. However, the same qualities might also be expressed in terms of wealth or poverty; fertility or barrenness. Also relevant are questions of how and why any changes in condition of object might be felt to have come about.

The second scale is "Responsibility for condition of Object" and is concerned with the extent to which the subject feels responsible for problems created for objects. The range of ratings is from the optimal position of appropriate concern, to a minimal position of total indifference or repudiation of responsibility. This scale also embraces a concept of the object ranging from acknowledgment of the object's individual needs and qualities, to one of seeing the object as no more than an impersonal entity.

The third scale is "Reparative Capacities of Object", which deals with the extent to which an object is seen as capable of reparative activities: the extent to which an object is able to seek help for that object's own damaged

objects. The scale is therefore concerned with feelings about the internal world of the object. An optimal rating will arise where a capacity for effective reparation is seen as good enough. States of despair are associated with failure of reparation and a minimal rating.

The fourth scale is "Nature of Capacity to form Links with Objects" and is concerned with whether love or destructiveness predominates in relationships. An optimal rating is appropriate to denote a sufficient capacity to form loving relationships, although hatred and ambivalence may still feature. A minimal rating is appropriate where fundamental relationships have become inextricably linked with destructiveness as in the case of sado-masochism.

The fifth scale is "Morphology of Object", which deals with formal aspects of objects. An optimal rating will apply when objects tend to have stable and clearly-identifiable characteristics of wholeness. A minimal rating will apply where objects are extremely fragmented, which may also be associated with confusion and inability to think.

The sixth scale is "Splitting of Object" and refers to integration of the object. Where there is massive division of the object into two or more parts with no

experience of any connections between the parts, a minimal rating will apply. Where the object is seen as a whole person capable of being experienced in different ways, both pleasant and unpleasant as appropriate, an optimal rating applies.

The seventh scale is "Projection". It attempts to assess the extent to which object-representation is constructed along projective lines: the degree to which objects exist as embodiments of or as disowned parts of the self and tend to have features in common. It is, however, the effects of projection on the self which are assessed rather than how projection is constructed within the psyche. An optimal rating will apply where objects are seen as separate from the self and in their own right, while a minimal rating will apply where both object and self are seen on a non-real basis.

The eighth scale is "Object's Mode of Communication" and refers to modes of communication felt to be used by objects. An optimal rating is appropriate where there is a capacity to recognise internal and external reality; boundaries between objects and symbolic communication. A minimal rating is appropriate where there is diminished and distorted recognition of internal and external reality; limitations on flexibility and only concrete communication,

involving unconscious phantasies of dislocation of parts of the personality.

The ninth scale is "Persecutory Nature of Object", which deals with the extent to which objects are experienced as injuring, bad or malicious. An optimal rating arises where objects are experienced as benign, receptive and helpful to development. A minimal rating arises where objects are experienced as most persecutory and engaged in the murder or annihilation of the self.

The tenth scale is "Extent to which Objects are Spoiled". It deals with the extent to which objects are seen as recognising desirable qualities and the subject's ability to respond with desire. An optimal rating will apply where there is the possibility to respond with a capacity to be nourished and attracted by desirable objects. A minimal rating will apply where there is a need to spoil and make objects useless.

Finally, the eleventh scale is "The Working Through of Oedipal Conflicts". This deals with the extent to which the Oedipus complex has been resolved: the extent to which there is recognition of the parental couple and ability to respond to them by dealing with the libidinal and destructive impulses they provoke, and mourning their loss

as primary objects. An optimal rating will arise where the elements of the Oedipus Complex have been sufficiently dealt with, such that there is ability to relate sexually to others following the internalisation of the parental relationships, in sexual terms. A minimal rating will arise where there has been no internalisation of loving parents but rather a tendency to engage in obliterative attacks on them.

Taylor's OAS scales are all founded on important aspects of object-relations theory; particularly those relating to splitting, projection and the Oedipus Complex. By embodying them in an instrument which enables these aspects to be subjected to rating-scales, he has provided a useful framework within which to investigate empirically these aspects of object-relations theory. The scales are designed to be applied serially in respect of each of the subject's important objects: parents, siblings and partner. Obviously ratings are likely to differ in respect of each such object.

The OAS scales are intended to describe the patient's internal world in terms which clearly reflect the view of personality derived from object-relations theory in psychoanalysis. Because it is claimed that OAS reflects changes in the internal world, it can be used to describe

different types of change. By combining this information with the information from different sources, it may be possible to construct a theory of the processes of change in any one patient.

OAS has three aims. Firstly, to examine the possibility of making comparisons between the judgments on material of different therapists. Secondly, to investigate the interaction between clinical psychoanalytic thinking and the thinking on which the OAS scales is based. Thirdly, the hope that the pattern of ratings will provide information about the nature and process of change within psychoanalytical psychotherapy. The instrument appears to be well suited to these aims.

OAS, therefore, provides a means of investigating aspects of object-relatedness with considerable face-validity. There is not, however, no sufficient empirical validation to establish convincingly the construct validity or reliability of the measures proposed by OAS.

THE QUALITY OF OBJECT RELATIONS SCALE

The Quality of Object Relations Scale protocol ("QORS") was developed by Azim et al. (1991). QORS comprises an assessment system designed specifically to quantify the relative level and quality of object-relations. Classification is along dimensional and polythetic lines, rather than categorical or monothetic ones, and is also concerned with the degree to which the assessment resembles a prototype.

QORS comprises five organisational levels: mature; triangular, controlling; searching; and primitive. Within each of these levels, criteria are arranged under four headings, designed in terms of patterns of relationships: behavioural manifestations, describing typical relationship-patterns; affect regulation, defined by types of interpersonal relationship which reduce anxiety or bring gratification; self-esteem regulation, defined as wished-for and expressed relationships enhancing self-esteem; and antecedent factors, which are past events or relationships predisposing a given level.

In assessing QORS, more weight is given to behavioural manifestations, since these are observable and are usually manifest in the course of the interview. Also,

self-esteem regulation and antecedents are given less weight, in that order, while criteria closest to the prototypical description, specified for each level, are given more weight.

The five levels of QORS are rated from high (mature) to low (primitive). The dimensional, rather than categorical, approach to assessing QORS is intended to reflect the multitude of internalised early object-relations leading to several suborganisations of the ego.

Most subjects manifest several aspects of different levels, which can be reflected in the final QORS score. This is a numerical representation of the subject's unique, complex quality of object-relations and expresses the relative presence, or absence, of criteria from each level. The procedure is for a clinician to interview a subject for two sessions. Knowledge of the specified prototypical-levels prompts a focus to arise during the interview. What Azim refers to as a gestalt of the quality of object-relations, emerges and this determines the distribution of 100 points among the five levels, in accordance with the representation for each level in the subject's enduring patterns of object-relations. Thus, the proportion for each level, of the total of 100 available points overall,

represents the degree to which the subject approaches the prototype for that level.

Further empirical research by Azim and others has established a significant relationship between object-relations ratings and outcome form both individual and group psychotherapy, suggesting that QORS may be a useful predictor variable in the field of psychodynamic psychotherapy. However, to date, the instrument has shown classificatory bluntness and only moderate reliability. Despite these limitations, Azim sees QORS as capable of yielding relevant information regarding diagnosis, prognosis and differential therapies and has, over an extended period, been engaged in further work to refine the instrument.

QORS is a complex instrument and the manner in which it is applied is also complex. Moreover, it is only suitable for use by psychoanalytically-trained clinicians. The instrument is, however, based on concepts which belong entirely to the realms of object-relations theory. The instrument has been shown to have predictive validity (Piper, Azim, Joyce, McCallum, Nixon & Segal, 1992) and reasonable, if not high, reliability has also been established (Piper et al., 1990). It can therefore presumably be relied on as supporting psychodynamic

principles in general and object-relations theory in particular. Because it is complex, there must, presumably, be considerable scope for further development and refinement. Seen in this light, QORS does indeed tend to validate some of the concepts of object-relations theory and may have considerable scope, as yet unappreciated, for further investigation in this area. At present, its authors acknowledge a relatively blunt quality to the instrument where it has been used to yield information relevant to diagnosis, prognosis and choice of therapy. There is as yet, however, no empirical evidence of any discriminant validity that would indicate the instrument predicts any aspect of object-relatedness that other instruments do not predict.

SOCIAL COGNITION AND OBJECT RELATIONS SCALES

A very different approach to empirical research on object-relations theory is expressed in the work of Westen. The instrument developed by Westen is the Social Cognition and Object Relations Scales ("SCORS") - (Westen 1989, 1990).

According to Westen, social-cognition research and psychoanalytic object-relations theory both address

cognitive and affective processes which mediate interpersonal functioning: each faces a number of difficulties which would benefit by examining the other model. Thus social-cognitive research might benefit from a psychoanalytic understanding of affective processes, defensive processes and unconscious representations, while object-relations theory might benefit from social-cognitive methodology and developmental findings.

Westen, therefore, suggests there is a potential for applying an integrated understanding of object-relations theory and social-cognition theory to empirical examination. He suggests measures which he claims complement those of adult-attachment research, where instruments yield categorical data based on classifications first determined in infancy. He also suggests that longitudinal research of object-relations and social-cognition may shed more light on childhood experience and on parenting-factors which influence the development of interpersonal functioning. Of course, object-relations and social-cognition are both constructs which are wider than attachment. Research combining all three areas of theory, however, may, according to Westen, lead to measures for studying the intergenerational transmission of patterns of social relatedness and on the risk factors for psychopathology.

SCORS is, therefore, designed to provide scoring criteria for the assessment of four dimensions of object-relations and social-cognition: Affect-Tone of Relationship Paradigms; Complexity of Representations of People; Capacity for Emotional Investment in Relationships and Moral Standards; and Understanding of Social Causality. These dimensions are seen as interrelated but distinct aspects of object-relations and of social-cognition, to be measured independently of each other.

This instrument is designed to be applied to narrative data, including interviews, transcripts of psychotherapy-sessions, early memories, speeches and even transcripts of certain group interactions. The scales are intended to be applied to descriptions of interpersonal episodes in which subjects interact in some way with others.

The first scale of SCORS is the "Affect-tone Relationship Paradigm". This measures the affective quality of the representations of relationships and assesses the extent to which subjects expect from the world profound malevolence or overwhelming pain or, at the other extreme, view social interaction as benign and enriching. From a psychoanalytic perspective, this scale can be conceptualised as the affective colouring of the object-

world, ranging from malevolent to benevolent. From a social-cognitive perspective, it can be conceptualised as the affective quality of interpersonal expectancies or the extent to which relationships are expected to be painful and threatening or pleasurable and enriching.

The second scale is "Complexity of Representations of People". It measures the extent to which subjects clearly differentiate self from others, where each has stable, enduring, multidimensional dispositions and is seen as having complex motives and subjective experiences.

The third scale is "Capacity for Emotional Investment in Relationships and Morals". It measures the extent to which others are treated as ends rather than means and whether events are regarded in terms other than need-gratification; whether moral standards are developed and considered and relationships are experienced as meaningful and committed. Most object-relations theorists see development in terms of a progression from a need-gratifying pattern of emotional investment to mature object-relations based on mutual love, respect and concern for others. Cognitive-developmental researchers, on the other hand, have largely conceptualised development from a cognitive perspective. Nevertheless, although they see maturation of the capacity for emotional investment in

people and relationships as depending partly on cognitive development, simply possessing a complex representation or capacity for complex social cognition does not imply maturity of emotional investment.

The final scale is "Understanding of Social Causality". It measures the extent to which attributions about the causes of actions, thoughts and feelings are logical, accurate, complex and psychologically-minded. Object-relations theories typically describe unidimensional stages which do not distinguish particular cognitive or affective processes with specific developmental progressions but they do claim that those with serious psychopathology will tend to interpret interpersonal events idiosyncratically. Social-cognitive research, however, suggests a number of developmental shifts in the way children infer causality. These show an increase in complexity, abstractness, accuracy, insight and understanding of unconscious processes, which develops throughout childhood and adolescence.

SCORS has been validated in a number of ways (Westen, Lohr, Silk, Gold & Kerber, 1990). The instrument has been shown to be correlated with clinical-assessments and self-reports of social adjustment. It has also been found to predict various criterion-groups (e.g. clinical psychology

students score higher than natural science graduate students on the Social Causality and on the Complexity of Representations scales but not on the Affect-Tone scale: they have chosen an occupation suggestive of psychological-mindedness but are not likely to differ in the degree of malevolence they expect from relationships. TAT scores on each dimension also tend to correlate with scores on the same scale assessed from interview data (Barends, Westen, Leigh, Byers & Silbert, 1990). Also, the scales correlate in predicted ways with other personality measures (e.g. Complexity of Representations ratings and Social Causality ratings correlate with the cognitive-developmental level of representations of self and significant others using the Blatte et al. (1979) system of assessing representations from free response descriptions. Schneider (1990), assessing these dimensions from psychotherapy transcripts, found increases in Complexity of Representations ratings and of Capacity for Emotional Investment ratings over the course of brief psychoanalytic psychotherapy and at follow-up. Finally, ratings on three of the scales (Complexity of Representations; Capacity for Emotional Investment; and Social Causality) have been shown in research with both TAT and interview responses, to increase developmentally through late adolescence, whereas ratings on the Affect-Tone scale do not follow any developmental pattern, as predicted (Westen, Klepser, Ruffins et al., 1992).

Inter-rater reliability in coding the scales, which requires training in the use of an extensive manual that will be described in a later chapter, have been in the range of .80 to .95. Internal consistency, as assessed by Cronbach's alpha, depends on the number of observations: with an adequate number of items rated (ranging from 4 to 16, depending on the scale and type of data) alphas have been in the range of .65 to .85. The scales tend to intercorrelate in ways that might be expected: the two cognitively-oriented scales (Complexity of Representations; and Social Causality) correlate highly with each other; moderately with Emotional Investment (which relies on both an affective-motivational investment in others and also some capacity to represent them in rich and differentiated ways); and little, if at all, with Affect-Tone. The two more affective scales (Affect-Tone; and Emotional Investment) tend to correlate moderately with each other.

In developing SCORS, Westen has skilfully isolated aspects of object-relations theory where there has been comparable research in the far more widely accepted area of social-cognitive research and has sought to compare the two approaches. He goes even further and suggests an extension of this research to also embrace research in attachment-theory (Westen, 1991) which, empirically at least, might be seen as the neutral ground between these other two,

apparently opposed, areas of research. His approach appears, therefore, to offer considerable scope for the empirical advancement of object-relations theory.

A SUITABLE INSTRUMENT FOR EXAMINING THE ASSOCIATIONS BETWEEN OBJECT-RELATIONS THEORY AND ATTACHMENT

A number of measures has been examined in this chapter. All purport to offer the possibility for measuring aspects of object-relatedness.

Bucci's RA scales are highly specific in that they look at the emotional structures that represent object-relatedness, in both structural and semantic terms, rather than at the quality of object-relatedness itself as a psychic construct, in the same way as attachment represents such a construct. While representing an apparent means of investigating psychoanalytic concepts at a clinical level, its suitability as a measure for exploring associations between object-relations and attachment is less than ideal.

Similar criticisms apply to Weinryb's KAPP measures. They are designed to assess changes in models of mental functioning and are therefore far more suited to assessing changes that might take place in psychoanalytically-

oriented psychotherapy than for assessing relatively stable concepts of object-relatedness.

Taylor's OAS measures make it possible to arrive at a far more general assessment of object-relatedness than has been demonstrated by the two measures summarised immediately above. It is nevertheless very clinically oriented and might be described as a means of assessing, for clinical considerations, specific object-representations rather than some overall measure of object-relatedness.

All the measures so far summarised, while possessing face-validity, are somewhat lacking in other aspects of validity and/or reliability. In marked contrast, Westen's SCORS measures have been demonstrated to have all the required aspects of validity and reliability needed in order to adopt the measures with some degree of confidence in the course of an empirical investigation, albeit that Westen himself advocates a degree of caution in their adoption. It is, however, the very nature of the SCORS measures that makes them particularly suitable for the investigation of any associations there may be between attachment and object-relations theory. Firstly, the measures allow a broad assessment of object-relatedness which is not specifically related to the clinical

application of psychoanalysis. There is no overriding necessity for the measures to be administered by a clinician, though that might be an advantage. Furthermore, the SCORS measures assess the capacity for object-relatedness rather than simply the nature of object-relationships. This is very skilfully achieved by including some of the cognitive components of object-relatedness. Another major advantage of the SCORS measures is that they can be applied to transcripts of suitable material which includes AAI transcripts on which adult representations of attachment are measured. Westen himself proclaims the suitability of SCORS as measures to be used in conjunction with attachment-related research.

For the reasons set out above, it is proposed to adopt SCORS as the most suitable measures for assessing object-relatedness and, by comparing such findings with representations of adult-attachment as measured by the AAI, for investigating associations between object-relations theory and attachment theory.

SUMMARY

Object-relations theory may, arguably, be the most complex of any psychological theory because it purports to cover all aspects of human personality. No single investigation is ever, therefore, likely to stand out as a landmark comparable to, for example, Ainsworth's Strange Situation Procedure in attachment theory. The best hope for further empirical investigation in this area may very well be studies that investigate aspects of object-relatedness which, taken together rather than individually, might then afford scientific validation for this important area of psychoanalysis.

In order to investigate the questions raised in this thesis, it is proposed to take just one of the above instruments, Westen's SCORS measures, in order to assess object-relatedness. Since the purpose of the enquiry is to establish what associations there may be between object-relations theory and attachment theory, one of the attractions of using Westen's scales is that they are themselves associated with yet another important area of psychological theory, namely social cognition. Moreover, Westen himself has alluded to the benefits that might arise from the use of his scales in relation to research into attachment theory.

CHAPTER FIVE

SOCIAL COGNITION AND OBJECT-RELATIONS SCALE

(SCORS)

CHAPTER FIVE

SOCIAL COGNITION AND OBJECT RELATIONS SCALE (SCORS)

The Social Cognition and Object Relations Scale (SCORS) (Westen 1989, 1990) is a system for measuring different aspects of individual differences in social cognition and object-relations from narrative data. Such data may be interviews, transcripts of psychotherapy sessions and descriptive data of early memories.

Object-relations approaches have concentrated on the nature and development of representations of self and others and the related affective processes which mediate in these areas, while focussing on psychopathology and personality disorder (Greenberg and Mitchell, 1983). Social-cognitive approaches have concentrated on social information-processing, while focussing on normal, modal processes (Westen, 1990).

SCORS comprises four scales with scoring criteria for the assessment of four dimensions of object-relatedness and or social cognition: Affect-tone of Relationship Paradigm; Complexity of Representations of People; Capacity for Emotional Relationships and Morals; Understanding Social

Causality. Westen conceptualises these four dimensions as interrelated but distinct aspects of object-relations and social-cognition; they are cognitive and affective processes which mediate in interpersonal functioning and can be measured independently of each other.

AFFECT-TONE OF RELATIONSHIPS PARADIGM

This scale measures, at five levels, the affective quality of representations of relationships with people. It attempts to assess the extent to which the subject expects from the world, particularly in relationships with others, profound malevolence or overwhelming pain at one extreme or, at the other, views social relationships as benign and enriching. The scale has five levels.

At the lowest level, the subject typically views the world as tremendously threatening and experiences life as overwhelmingly capricious and painful. Others are typically seen as abandoning, abusive or destructive. They are often classified as victims or victimisers. The subject may feel overwhelmingly alone.

At the median level, the subject appears to have a range of affectively-charged object-representations and interpersonal expectancies. These are not quite primarily

positive. Nevertheless, others are generally seen as capable of loving and being loved; of caring and being cared for.

At the optimal level, the subject has predominantly positive object-representations and interpersonal expectancies. Relationships are generally expected to be benign and mutually enriching. There is an expectancy of intimacy, mutual appreciation and loyalty as a fundamental aspect of close relationships.

Appendix 5.1 summarises the criteria for rating on the Affect-Tone scale.

When using this scale, raters score primarily for the affect-tone of the subject's perceptions or expectations of others and, secondarily, for the quality of relatedness of the subject to others or for the affect evoked by situations. Momentary affects or the disturbance, engendered by a particular but anomalous interaction, should be taken into account but should be secondary to inferences about the affective-quality of the subject's more general expectations of relationships, where there are clear indications of markedly different expectations generally.

The affective-quality of self-representations of the subject or descriptions of positive actions of the subject towards others, are only taken into account to the extent that they reflect expectations of the social world: it is primarily the affective-expectations of how the subject is treated by others which is scored.

All available information should be used, including comments and apparent asides. Scoring should be concentrated on any episodes described, unless there is some clear indication that a particular interaction is subject to the principles of some broader frame of reference e.g. that the subject has other feelings towards the person described in the interaction which conflict with the feelings described in that interaction.

From a psychoanalytic perspective, this scale may be conceptualised as dealing with the affective colouring of the object-world, ranging from malevolent to benevolent. From a social-cognitive perspective, it may be understood as dealing with the affective quality of interpersonal expectancies, ranging from the extent to which the subject expects relationships to be painful and threatening, at one extreme, to being pleasurable and enriching at the other.

The concept of affect-tone has been implicitly adopted by psychoanalytic theoreticians, particularly in

connection with borderline personality-disorder (Klein, 1948; Kernberg, 1975; Masterson, 1976). According to Kernberg, for example, the malevolent object-world of borderline patients largely reflects projections of the subject's own intense aggression.

Empirical research into affect-tone from a psychoanalytic perspective has largely centred on the measurement of affective qualities related to others during the course of projective tests. Mayman et al. (1967, 1968) looked at the affect-tone adopted by subjects during the course of descriptions of human figures in the Rorschach Inkblot Test. This and many other instruments have been used to measure both affective and cognitive qualities simultaneously in order to assess object-relatedness. For example, Blatt et al. (1976) developed a system for coding malevolence of representations from Rorschach-driven human figures as part of a multidimensional scoring system for object-relations based on the Rorschach Test. Borderline subjects were found to have significantly more malevolent responses on this test than various control groups (Lerner and St. Peter, 1984). Other research has demonstrated characteristically malevolent responses in paranoid schizophrenics (Blatt and Wild, 1976) and in depressives (Blatt, 1974). In contrast, benevolent responses were found to be characteristic of other patient-groups, such as non-paranoid schizophrenics (Blatt et al., 1976).

Very little social-cognition research has examined the implications of affect-tone or of interpersonal expectancies generally. Dodge (1986) has examined the tendency towards hostile attributions in aggressive boys and has suggested that such subjects have a tendency to make malevolent attributions, while their non-aggressive peers do not; furthermore, that these characteristics are emphasised during the course of threatening interactions in a laboratory setting.

COMPLEXITY OF REPRESENTATIONS OF PEOPLE

This scale measures, at seven levels (the only one of the four scales to use more than five levels), the extent to which the subject clearly differentiates self from others; whether self and others are seen as having stable, enduring, multidimensional dispositions; and whether self and others are seen as psychological beings with complex motives and subjective experiences.

At base level, the subject is unable to see others as clearly differentiated from self or separately bounded. There is no differentiation of the subjects own thoughts and feelings from those of others.

At the median level, the subject has a developing appreciation of the complexity of the subjective-states and personality-dispositions of self and others.

At the optimal level, the subject is able to simultaneously coordinate and integrate complex, generalised representations of self and other with complex representations of specific mental states. There is an integrated understanding of complex psychological processes within the context of the personal histories and attributes of self and others. The subject is able to see and convey to others how people are particular and individual and is able to understand how personal meanings of long standing can affect current psychological experience. The subject is also able to make, in relation to both self and others, elaborate inferences about mental states, motivations, points of view, history, unconscious processes, as well as about conflicting feelings and impulses.

Appendix 5.2 summarises the criteria for rating on the Complexity of Representations scale.

When using this scale, raters are expected to score for the highest level indicated, unless there occurs a clear example of undifferentiation, blurring of boundaries, or profound egocentrism, in which case a level 1 score is usually indicated.

Complex responses which show clear evidence of poor integration (e.g. where that which looks superficially like a multifaceted representation is really an incoherent representation) require a level 2 rating.

Complex, well-elaborated and integrated representations which appear to call for scoring at higher levels but which also contain material which suggests, even inconclusively, a lack of differentiation, blurred boundaries, or profound egocentrism, must be scored at level 3. Representations which are overwhelmingly organised at one level with a brief glimmer of representations which would be two or more levels higher, should be scored at an intermediate level.

Descriptions of behaviour where the subject acts differently in different situations should not be scored as complex, ambivalent, or multifaceted unless the subject also explicitly recognises the connections between and is able to clearly integrate the various elements of personality which are involved.

Object-representations or mental representations are a fundamental aspect of object-relations theory. They are about conscious and unconscious, affectively-laden ideas and images about self, others and relationships between self and others which are derived from interpersonal

experiences, as well as from fears and phantasies about those experiences. Object-relations theorists, based on extensive clinical observation, suggest that the quality of a person's "object-world" (Jacobson, 1964) or "representational-world" (Sandler and Rosenblatt, 1962) is a central aspect of personality-structure and is critical to interpersonal functioning. Researchers in the area of attachment theory (Bretherton, 1985; Main et al., 1985) have investigated Bowlby's (1969) suggestion, based on object-relations theory, that the quality of attachment between infant and mother is mediated by the "internal working-model" each participant in a particular interaction brings to bear on the other and on the relationship.

Although, as has already been reported, object-relations theories differ widely one from another, they are largely in agreement about three developmental phenomena of self and object-representations (Greenberg and Mitchell, 1983). Firstly, the development of representations is characterised by increasing differentiation, resulting in the increasing differentiation and distinction between the points of view of self and other. Secondly, object-representations become increasingly complex and integrated with developmental maturity. Thirdly, while young children tend to split their representations of people, according to affective valence (experiencing difficulty in integrating representations which include both positive and negative

attributes), older children and adults are able to integrate more complex ambivalent or multivalent representations.

Mayman (1967, 1968) suggests that projective tests, such as the Rorschach Inkblot Test and his Early Memories Test (1968), elicit descriptions of people in relationships which "bear the imprint of the individual's formative interpersonal history and reveal something of his ingrained relationship-dispositions. Krohn and Mayman (1974) found significant correlations among a variety of measures of level of object-relational functioning, as measured in dream material rated by psychotherapists and their supervisors, who had in-depth clinical knowledge of the subjects.

Blatt and Lerner (1983) carried out an extensive programme of research aimed at assessing the structural or formal dimensions of object-representations. Based on an integration of object-relations theory and Piagetian and Wernerian cognitive-developmental theory, they constructed measures to assess the differentiation, articulation and integration of human and quasi-human responses, based on Rorschach, and have applied these to both developmental and pathological samples. In the first use of non-projective measures to assess object-representations, Blatt and his colleagues (1979) also assessed the content and structure

of object-representations, as manifested in open-ended descriptions of significant others; particularly parents.

Many of the same phenomena have been explored during the course of developmental research into the development of representations of self and others, but using entirely different data and methods. This suggests that infants initially form some sense of a self which is action-oriented and which experiences self through a recognition of the contingencies between the subject's own actions and the outcomes they produce. In the second and third years children develop a "categorical self" which is a representation of the self as having certain objective qualities and fitting into various categories i.e. male or female; young or old. Much of the research into the development of representations of self in childhood and adolescence suggests that representations of self in the preschool years tends to be concrete, transitory, relatively unorganised and often contradictory (Rosenberg, 1979; Damon and Hart, 1982). By adolescence, however, the focus on concrete and external attributes shifts to an emphasis on that which is psychological and internalised i.e. on thoughts, feelings and personality dispositions.

Research into the development of concepts of others suggests a similar developmental process (Shantz, 1983). Children progressively provide more psychological

statements about others. Descriptions of actions or physical attributes give way to more on abstract qualities. There is increasing recognition that traits are hierarchically organised with multiple components and that broad, generalised representations of people typically need to be qualified in order to be accurate. They move from focussing on unidimensional traits, as personality descriptors, to a focus on processes, including unconscious personality-processes. Adolescents are able increasingly to recognise that personality can change and that people can express different aspects of their personality in different ways and in different situations. Most importantly, people develop, throughout childhood and adolescence, an increasing capacity to represent the subjective experiences of others in complex and accurate ways, as well as to integrate traits of opposite affective valence and greater subtlety (Harter, 1983).

CAPACITY FOR EMOTIONAL INVESTMENT IN RELATIONSHIPS AND MORALS

This scale measures, at five levels, the extent to which others are treated as ends rather than means; events regarded in terms other than need-gratification; moral standards are developed and considered; and relationships are experienced as meaningful and committed.

At the baseline level, the predominant concern is self-gratification. The perspectives, needs and desires of others are not considered and the impact of the subject's actions upon others is frequently not taken into account. Others are seen as existing only in relation to the subject. They are treated as tools for the achievement of the subject's desires; as mirrors or an audience for the subject's displays; or are seen as impediments to gratification. Others may be seen as useful or comforting at the moment but are not invested in, at an emotional level, for their unique characteristics. Rules and aspects of authority are seen as obstacles, unless momentarily useful.

At the median level, the subject is able to consider the needs and wishes of significant others in making decisions. Pleasing others; being liked; and behaving in accordance with the standards of respected authorities are salient aims which often override self-interest. Friendships and familial relationships are relatively conventional. The subject is concerned with being good and experiences guilt when thoughts, feelings or actions conflict with internalised standards. Rules are respected because they are rules; manners and conventions are seen as important and even natural. Moral rules are relatively rigid and concrete and there may be a pronounced sense of duty, particularly to certain persons.

At the optimal level, the subject treats self and others as ends rather than means. The subject is interested in the development and happiness of both self and others and attempts to achieve autonomous self-hood within the context of real involvement with and investment in others. Conflicts between those with conflicting legitimate interests are understood as requiring compromise. Authorities and rules are not taken to be absolute. The subject has a sense of the conventional nature of social rules and believes that, at times, these must be overridden or changed because they conflict with self-generated or carefully considered standards; or because they do significant harm in concrete circumstances.

Appendix 5.3 summarises the criteria for rating on the Capacity for Emotional Investment scale.

Raters must score for the highest level attained, unless an otherwise conventional or high-level narrative is spoiled by the breakthrough of profound self-preoccupation or need-gratification in relationships. Where there is evidence of functioning at two or more levels apart, scoring should be at the intermediate level, unless one level is clearly predominant or generative of the other.

Scoring is based primarily on representations of the emotional investment and moral development of the subject.

The actions of others are scored only when the subject's description of or attitude towards these reflect the subject's own level of emotional investment or moral development.

All references to friendship or enduring familial relationships are not automatically coded at level 3 or above: it is the underlying structure of the affective-motivational experience of the relationship which is coded i.e. whether it is largely need-gratifying, appropriate and conventional, or more intimate than it is conventional to be.

Emotional investment refers to the endowing of the representation of a goal, desired state, or aspects of a relationship with affect, such that cognised convergence of reality with the goal-state leads to positive affect (Westen, 1985). All object-relations theorists propose a progression from a need-gratifying pattern of emotional investment (usually referred to as "narcissistic") where relationships with others are valued primarily for the gratification, security, or benefits they afford, to mature object-relations based on mutual love, respect and concern for others, who are valued for their specific attributes.

This development of mature patterns of emotional investment in relationships arises from three developmental

processes. Firstly, there is the development of the capacity to regulate emotional investment, so that the subject neither jumps prematurely into intense relationships with total investment nor defensively withdraws from relationships in order to avoid pain and vulnerability. Secondly, there is the development of a capacity to invest in specific others for their unique qualities. Thirdly, there is the development of a capacity to invest in moral values, prohibitions, and ideals that regulate relationships and provide meaning to life and which take precedence over the subject's own wishes and impulses, even when strongly aroused.

Psychoanalytic theorists suggest that much of the above affective maturation occurs by the end of the oedipal period (by the age of six). Research in the area of developmental psychology into the capacity to invest in others and to set aside need-gratification arises in research on the development of friendship. This typically involves semi-structured interviews. It has recognised many aspects of the above developmental processes but challenges the timetables proposed by the psychoanalytic theorists. These findings are summarised by Shantz (1983).

Research into children's concepts of justice, convention and authority provide further evidence of the development of emotional investment in the interpersonal

arena and point to the same general developmental patters (Damon, 1977).

Research on moral development has also extensively documented the shift from need-gratifying to more mature object-relations in the moral realm (Rest, 1983). Kohlberg and Kramer (1969) suggest a movement from preconventional moral-reasoning, in which the child views good and bad in terms of the hedonistic implications of action, to conventional moral-reasoning, in which the child seeks approval of authorities and internalises moral standards which are viewed as right and legitimate, to postconventional moral reasoning, in which a small sub-group of adults considers moral questions in more abstract, less culture-bound terms, by formulating and applying general principles, rather than specific learned rules.

Westen attempts, on three grounds, to justify the apparently arbitrary combination into a single scale of investment in relationships, on the one hand, and investment in moral values and ideals, on the other. Firstly, he claims, morality is a system for regulating relations between people, including self and others. Thus, although reflective thought concerning morals might in some measure be independent of any investment in others, the development of any investment in morals, which is about motivation for practising morality, cannot be independent

of any investment in others, because the relative emotional weight placed on the needs of self and others depends on the degree to which there is care for the interests of others. Secondly, it is impossible to separate a need-gratifying interpersonal orientation from a need-gratifying moral orientation, because interpersonal conflict-resolution is applied at a moral level. A need-gratifying orientation would lead to the same score on both scales, rendering separate scales superfluous. Thirdly, the underlying structure to emerge from many areas of research is that development in emotional investment in the social world proceeds from need-gratification, to investment in independent others. Therefore, this scale presents two paths to the highest levels of maturity: one involving depth of relatedness; the other involving reflection on relatedness, in terms of a capacity for investment in others. True depth of relatedness involves a considerable degree of autonomy: the other is not merely experienced as part of the self; true postconventionality involves commitment to the totality of the real features of others rather than merely to abstractions of features of others, selected to meet the subject's own needs.

UNDERSTANDING SOCIAL CAUSALITY

This scale measures, at five levels, the extent to which attributions about the causes of actions, thoughts and feelings of others are logical, accurate, complex and psychologically-minded.

At baseline level, the subject cannot understand the concept of causality within the social realm. There is either no sense of necessity to understand why behaviour, feelings or situations emerge, or explanations advanced are grossly illogical.

At the median level, the subject has a relatively complex understanding of some causal processes in social interaction: behaviours, feelings and their causes are still conceptualised in largely stimulus-response terms. The subject recognises that psychological processes may influence action but causality is nevertheless still, in many respects, primarily external to the other.

At the optimal level, the subject understands that feelings and behaviours are caused by psychological processes, which may or may not be elicited by environmental stimuli. Complex thoughts, feelings and conflicts are seen as mediating action.

Appendix 5.4 summarises the criteria for rating on the Understanding Social Causality scale.

When scoring on this scale, raters should first ask whether any action is related in a logical manner. If so, they should then decide what is causal. Finally, where there are implicit or explicit causal statements, they should determine whether such causality is (a) internal and (b) complex.

Where, following inquiry, a subject gives a response two levels above an earlier response, scoring is at the intermediate level.

Illogical causal reasoning, inconsistencies or unlikely attributions, automatically bring scoring down to levels 1 or 2, depending on the extent of faulty logic. Nevertheless, there should be no scoring down when the subject digresses from the main narrative, provided the narrative itself contains no unexplained or illogical sequences: quality of narration is not normally relevant.

Object-relations theorists, based on clinical observation, have often suggested that the ways in which those with profound psychopathology interpret interpersonal events, tend to be quite idiosyncratic. Westen (1990) has speculated about a borderline attributional-style,

characterised by egocentric attributions, expectations of malevolence in interpersonal relations, tendency to make peculiar and inaccurate attributions, and tendency to make affect-centred attributions i.e. congruent with the subject's mood rather than being more cognitively driven.

Blatt et al. (1976) developed a measure for scoring "motivation of action" attributed to human figures, using the Rorschach Inkblot Test. This rates the degree of internality of action: whether the action is seen as unmotivated, reactive or intentional. The measure was applied to a sample of subjects with borderline-personality disorder, major depressive disorder and normals. It emerged that borderlines' representations of action tended to be significantly more intentional than both comparison groups. However, benevolence and complexity of attributions were highly negatively-correlated in borderlines. This contrasted with complex attributional statements which correlated with more benevolent attributions in both normals and depressives (Stuart et al., 1990).

Social-cognitive research, carried out on the development of understanding of social causality in children, suggests a number of developmental shifts in the way children infer causality in respect of social interchanges (Shantz, 1983), These include increased complexity, abstractness, accuracy, internality and

understanding of unconscious processes. There is a trend towards moving away from making internal, to external attributions (Heider, 1958). They become increasingly able to distinguish between intentional and accidental behaviour (Shantz, 1983); adept at taking other's perspectives into account (Selman,1980); able to make increasingly complex and accurate attributions; understanding of unconscious processes (Chandler et al., 1978). Complexity, abstractness and accuracy of attribution of the causes and consequences of emotions also develop throughout childhood and adolescence (Masters and Carlson, 1984).

APPLICATION OF SCORS

Westen recommends that the SCORS measures be applied only by graduate psychologists, preferably with clinical experience. He further recommends that one coder, responsible for training, should have experience at clinical assessment.

For the purpose of training in proficiency to apply the scales, it is recommended that coders should train only on one scale at a time. There are a number of objectives. Firstly, the coder should gain familiarity with the aims and theoretical background of the scale as described in the manual. Secondly, the coder should read the scoring rules

several times and then proceed to score the three practice protocols set out in the manual. After scoring each one, the coder should study the model answers provided for each practice protocol. Improved expertise is gained when two or more coders train simultaneously and meet to discuss their respective scoring and discuss differences. Finally, each coder should score the reliability protocol with a view to determining inter-rater reliability. The same process should be adopted for each of the remaining scales.

According to Westen, the measures were constructed so that scale points would represent relatively equal intervals. Data are, therefore, considered continuous. For this reason, Westen regards Intraclass Correlation Coefficient on Pearson's Product-Moment correlation as a reliable indication of interrater reliability. Alternatively, reliability could be calculated using a weighted Kappa.

The measures can be applied to narrative data, such as interviews, transcripts of psychotherapy sessions, descriptions of early memories, speeches and transcripts of some forms of group process. Optimally, the scales should be applied to descriptions of interpersonal episodes. Although the scales can be applied to as few as three vignettes, it is recommended that each be applied to a minimum of between five and seven and, optimally, to ten.

A copy of the complete manual for the implementation of the SCORS protocol is set out in Appendix 5.5.

SUMMARY

The SCORS protocol comprises four scales for measuring object-relatedness. The scales rate at five levels (seven in the case of Complexity of Representations) different aspects of object-relatedness. Two of the scales, Complexity of Representations of People, and Understanding Social Causality, while purporting to assess aspects of object-relatedness, are nevertheless designed to have a social-cognitive orientation and, taken on their own, would almost certainly not constitute adequate measures of object-relatedness. The other two scales, however, Affect-Tone, and Capacity for Emotional Investment in Relationships and Morals, are entirely oriented towards aspects of object-relatedness and probably are adequate on their own, without the other two scales, for assessing object-relatedness. This is particularly so of the first scale, Affect-Tone. The problem with the second of these two scales is that it attempts to measure two different aspects of object-relatedness at the same time: investment in relationships, on the one hand, and in morals, on the other. This combination is almost certainly unhelpful when using this measure as an assessment of object-relatedness: looking at the situation from a purely psychoanalytic

perspective, the relationship element is far more concerned with the deeper ego-aspects of personality, while the morals aspect is far more likely to be related to higher superego aspects. Nevertheless, and despite these criticisms, there is no reason to suppose that the four SCORS measures, taken as a whole, do not adequately measure object-relatedness.

CHAPTER SIX

INVESTIGATION OF THE ASSOCIATIONS BETWEEN ATTACHMENT THEORY AND OBJECT-RELATIONS THEORY: CONCEPTUAL AND EMPIRICAL ISSUES

CHAPTER SIX

INVESTIGATION OF THE ASSOCIATIONS BETWEEN ATTACHMENT THEORY AND OBJECT-RELATIONS THEORY: CONCEPTUAL AND EMPIRICAL ISSUES

Psychoanalysis and behaviourism are usually seen as theoretical paradigms which are totally opposed to one another. Further investigation, however, reveals that these two apparently opposed theories have elements in common in relation to childhood development and beyond. Each acknowledges the primary influence of experiences within the environment, particularly in relation to early such experiences. It is on the nature of the environment, however, that the two theories diverge. The behaviourists acknowledged only that which could be empirically demonstrated; the clearly observable environment of the real world. Psychoanalysts went far beyond this and postulated, in addition, the influence of a separate internal world which, because it operates at a largely unconscious level, has the capacity to become even more influential on behaviour, expectations and experience than the external world of reality.

Behaviourism has now largely given way to a more cognitively-driven conceptualisation of the human psyche

which acknowledges the influence of unconscious processing. This is seen in the ideas of Craik (1943) concerning the internal working-model of the world upon which Bowlby has based his own ideas of the internal working-model of attachment representations. A similar concept was introduced by Piaget (1952) in relation to schemata of behaviour and expectations which amount to much the same notions of internalised unconscious processes and representations that mediate behaviour, expectations and experience.

Seen in this light, Bowlby's theory of attachment stands very much at the centre of all these ideas, drawing as it does on a behaviourist view of the primary influence of early experience, as demonstrated by patterns of behaviour, a cognitive view of internal behavioural mechanisms, and a psychoanalytic view of the dynamic nature of internalised representations of relationships with attendant coping or defensive mechanisms, when early experiences give rise to insecurity of attachment (Bowlby, 1980). The very theory of attachment has itself evolved along a developmental path which might be said to mirror a progression from behavioural ideas, via cognitive notions, to its present exposition which is moving ever closer to psychoanalytic concepts of motivation and behaviour. It is founded on the early work of Ainsworth in relation to infantile behaviour. Different patterns of infant-behaviour

have been soundly established as coping mechanisms for dealing with separation and loss. However, through the idea of the internal working-model of attachment, a different level of representation was arrived at which is neither behavioural nor cognitive but largely unconscious and dynamic. This has now resulted in the possibility of investigating internalised and largely unconscious representations of attachment in adults by means of the AAI.

Psychoanalysis has also evolved from the biologically-derived drive-theory of Freud, to the complex relational theories that today constitute object-relations theory; a not entirely dissimilar developmental pattern to attachment theory. The objective of this thesis is to investigate the extent to which attachment theory and object-relations theory may be similar or even largely identical.

A major feature of attachment theory, which radically distinguishes it from other theories of developmental psychology, is that individuals are not characterised by a collection of static traits which manifest consistently across time and situation. According to Bowlby (1969, 1982) individual adaptation is rather an ongoing process in which the individual reacts to and influences the interpersonal environment, by applying an internal working-model of self

and other which is coherent and meaningful. This model is made up of mental representations which constitute organised structures but which are nevertheless open to modification during the course of development. It is probably this capacity for modification which provides the seminal distinction between attachment and other developmental theories based on notions of permanent traits or characteristics of temperament. It is, therefore, the internal working model and its capacity for modification which lies at the very heart of attachment theory.

Bowlby regarded two behavioural systems to be of central significance to attachment relationships and emotional security: the attachment and exploration systems which are designed to operate homoeostatically, in order to maintain a balance between emotional security and exploratory behaviour. While these systems are operative from birth, a structured and serviceable internal working-model of attachment is generally considered to exist in individuals by the time they reach one-year, if not earlier. The model develops from and reflects the pattern of infant-caregiver interactions within the two behavioural systems referred to above. Thus, the child will internalise the meaning of the extent to which responsiveness and quality of care, provided by the principal caregiver, are experienced as positive and enabling, so as to allow freedom to explore the environment, as well as others

within that environment. That meaning will include how the child sees itself: as worthy or unworthy of care and consideration when encountering others, depending on the quality of responses and exchanges within the parental dyad. It is this aspect of the working-model which underlies the child's concept, not only of others, but of self. The meaning given to these experiences will, therefore, be crucial to the manner in which the child is able to identify with a particular model of parenting, which will also form the basis for any parental role assumed by the child later in life (Bowlby, 1973).

The interpretation of experiences, however, may become defensively dissociated in instances where the child is unable to cope with such experiences, because this would entail seeing a parent in an unfavourable light which is unacceptable to the child (Bowlby, 1980). In such cases, the defensive exclusion of representations that would otherwise cause painful feelings, provides emotional relief. The concomitance of this might be a model which demands the distortion of reality and even pathological behaviour which reinforces the distortion.

In extreme cases, the discrepancy, between interactions with reality and the internal working-model, may become so great that the model becomes unserviceable, to the extent that it can no longer accommodate both

external and internal experiences. Yet, despite the capacity for modification of the internal working-model, none takes place because of what Bowlby (1980) terms defensive mechanisms. These are special cases of the selective exclusion of information which is otherwise a normal part of the processing of incoming stimuli. There is much evidence that such information undergoes many stages of selective processing before it reaches awareness with opportunities for exclusion at each level (Erdelyi, 1985).

Selective attention and processing has long been recognised and was advanced by, for example, Piaget (1952). It is probably an adaptive mechanism which is necessary in order to limit awareness; to enable awareness to cope with and concentrate on a limited area of thought which is relevant to the current topic of attention or reflection, rather than become flooded with irrelevant or confusing information, as it must otherwise surely do. Defensive exclusion, however, goes far beyond this, although it is probably also adaptive. It is believed to occur in response to intolerable mental pain or conflict. Nevertheless, while defensive processes may bring relief in the short term, by protecting the individual from experiencing unbearable pain, they also severely impair the possibility of any modification to the internal working-model in the light of subsequent experiences that might otherwise call for such

modification. It is the inadequate working-model which results from such defensive mechanisms that is believed to increase the risk of psychopathology.

While psychoanalysis makes claims which go far beyond those advanced by attachment theory, this does not apply to the converse situation. There is probably nothing in attachment theory which directly contradicts or is inconsistent with psychoanalytic theory in general or object-relations theory in particular. All the elements of attachment theory have something in common with object-relations theory: a biologically-driven need to relate to the principal caregiver in a manner which influences all subsequent relationships; the internalisation of the meaning and significance of that relationship at an unconscious level in a manner which is capable of, though variably resistant to modification, as the mechanism that governs and influences all other relationships (the internal working model in attachment theory and the internal world of object-relationships in psychoanalysis); and finally the system of coping mechanisms (defensive mechanisms in attachment theory and defence mechanisms in psychoanalysis).

Despite these similarities, attachment theory and psychoanalysis have followed very different paths: the former based mainly on clinical observation in the

consulting room; the latter derived from empirical investigation under mostly laboratory conditions. The principal stimulus for Bowlby's work was his observation of the different patterns of behaviour in infants, in relation to separation and loss. These same issues would, however, also have been familiar to Bowlby in connection with his work as a psychoanalyst, as they are often at the heart of issues brought up by individuals of all ages within the psychoanalytic setting. The observation of very specific behavioural patterns in young children, however, provided ideal data on which to base the theory of attachment, as we have come to know it today.

It was Ainsworth who demonstrated those patterns of behaviour, both by home-observation and under laboratory conditions, through the Strange Situation Procedure. She focused her research on the first year of life. Observation was relatively easy because of the apparently simple and non-verbal behaviour of babies.

A detailed description of the different behavioural patterns elicited by the Strange Situation Procedure and their meaning is set out elsewhere in this thesis. What they convey in terms of attachment theory is that, where a child is able to perceive the environment as non-threatening, that child feels secure. The result of this is a relaxation of the need for proximity-seeking from the

attachment-figure, which in turn stimulates the equally adaptive need to explore the environment. It is probably only through the operation of such systems that the human infant can, not only familiarise himself with the complex social environment he is to inhabit, but also secure both protection and instruction during an extended period of dependence on the principal caregiver. This is necessary to reduce reliance on "hard-wired" behaviour to a minimum, in order to develop extensive freedom of choice in motivation and behaviour as the basis for acquiring the coping strategies that are required in order to survive within the complex social structures that comprise humanity.

The Strange Situation Procedure has been established as a reliable and valid instrument with which to assess the quality of infant-parent attachment (Bretherton (1985). It provides for two separations and two reunions with the parent. The focus of observation is the infant's behaviour, particularly during the reunions, where individual differences are measured in terms of the behavioural strategies employed by the infant to cope with the stressful situation, in relation to the unfamiliar setting into which a stranger is introduced alongside brief separation from the parent. The behavioural patterns observed fall into three principal categories which correspond to the three principal classifications of

infant-attachment described elsewhere: anxious avoidant (A); anxious resistant (C); and secure (B).

There have been many attempts to explain the behavioural patterns of infant-mother attachment observed in the SS, in terms of inborn behavioural predispositions, sometimes referred to as temperament. Foremost in these attempts is Kagan (1989). He is the main proponent for the view that it is the child's temperamental vulnerability to uncertainty in unfamiliar situations (inhibition), rather than emotional spontaneity (disinhibition), that most strongly contributes to the insecure behaviour observed in the SS.

No study has explicitly tested Kagan's construct of inhibition/disinhibition in conjunction with SS assessments. In any event, the construct of temperament would be a very difficult one to assess reliably. For example, St. James-Roberts & Wolke (1984, 1988) found significant discrepancies between parental and observer accounts of temperament, despite using equivalent conditions of observation and report. This would support the view that parental assessment of temperament in their child amounts to no more than a social perception which incorporates factors deriving from the parent, as well as the child, rather than an objective measure of individual child characteristics (Bates, 1980, 1983). In addition,

there is the difficulty of achieving blind and reliable independent ratings, uninfluenced by subjective factors. A variety of different measures of temperament which employ both maternal and independent ratings all conclude that the temperament scores derived from these measures do not distinguish securely from insecurely attached infants (Bates et al., 1985; Belsky & Rovine, 1987; Belsky, Rovine & Taylor, 1984; Webster et al., 1986).

There is strong evidence arising out of research with middle-class families for the stability of attachment-patterns, as measured by the SS from 12 to 18 months (Connel, 1976; Waters, 1978; Main & Weston, 1981). Longer-term stability of attachment-patterns have been reported by Main, Kaplan & Cassidy (1985) who found considerable stability in the organisation of behaviour from 12 months to 6 years for children who, five years after the original assessment, were seen again in a separation-task setting similar to the SS.

Lamb et al. (1984) claim that any apparent continuity is without significance and results from the fact that the environment and pattern of parent-child interaction remain unchanged. In fact, there is evidence that life-circumstances can alter attachment patterns in beneficial or detrimental directions. This is, however, entirely consistent with the view that internal working-models are

dynamic processes which develop and change in response to shifts in the environment. For example, stressful life-events in the child's family over the period from 12 to 18 months have been shown to change patterns of attachment in the infant from secure to anxious (Vaughn et al., 1979) or from anxious to secure (Thompson, Lamb & Estes, 1982).

Security of a child's attachment to mother at one-year has been correlated with future child-behaviour. Matas, Arend & Sroufe (1978) found that, in a sample of 48 two-year-old children, those classified securely-attached at 12 months and/or 18 months, approached simple tool-using tasks with more confidence than their peers who had been classified anxiously-attached. Securely-attached children, when presented with more difficult tool-using tasks, were more likely to enlist their mother's help in order to achieve a solution, while those classified as anxiously-resistant were frustrated, whiny and negativistic, regardless of whether they were trying to solve the easy or difficult problems. Those classified anxious-avoidant sought little help from their mothers, even when unable to find a solution of their own. Bretherton (1985) suggests that confidence in the mother's physical and psychological availability seems to constitute the foundation for autonomous exploration.

Longitudinal studies have correlated security of attachment to mother at 12 months with children's reunion behaviour with mother in the SS procedure at six years (Main et al., 1985; Wartner & Grossmann, in press). Children classified as secure at six years treated their parents in a relaxed and friendly way, entered into easy and subtle intimacies with them, and engaged in free-flowing conversation. Those classified anxious-resistant showed a mixture of insecurity and intimacy alternating with hostility. Those classified anxious-avoidant tended quietly to keep the parent at a distance, topics of conversation were impersonal and the child tended to keep busy with toys, ignoring or even dismissing parental initiatives. For the 32 child-mother pairs in the Main study, there was 90% agreement between early attachment-classification with mother and classification at age six. For the 36 child-mother pairs in the Wartner study, there was a similar 81% match.

There is, therefore, an impressive correspondence between security of attachment assessed at one year through the observation of pre-verbal behaviour and security of attachment assessed at six years through the observation of verbal behaviour. Beyond the age of six, however, the SS procedure becomes increasingly unsuitable as a means of determining security of attachment. The above studies pointed the way to a different level of representation of

the characteristics of attachment in older children and adults, moving from the purely behavioural level, through verbal behaviour to a more diffuse and abstract system of representation. If the internal working-model of attachment is persistent, unconscious and relatively resistant to change, the question then arises how it is represented in adults and how it can be investigated and its characteristics assessed.

The Adult Attachment Interview (George, Kaplan & Main, 1985) has addressed these questions. It involves the systematic analysis of the linguistic responses to questions and repeated probes put to adults in a structured interview concerning salient attachment-experiences of their childhood. Responses are rated in accordance with a complex classification procedure (Main & Goldwyn, 1993). Classification is dependent on current state-of-mind with regard to developmental history, rather than any attempt at objective determination of that history.

A more detailed description of the AAI is set out elsewhere in this thesis. The ultimate result of the measure is the classification of adults into three principal categories that reflect the current nature of the adult's internal working-model of attachment-relationships. The three categories, which mirror those arising from the SS procedure, are: insecure-dismissing (D), corresponding

to the anxious-avoidant (A) infant-classification; preoccupied-entangled (E), corresponding to the anxious-resistant (C) infant-classification; and free-autonomous (F), corresponding to the secure (B) infant-classification.

Main, Kaplan & Cassidy (1985) show that mothers of securely-attached children describe their own childhood in a manner that demonstrates some integration between current feeling and past experiences with regard to attachment. The objectivity and balance they reveal in the evaluation of their own childhood experiences mirrors the attachment behaviour which securely-attached infants demonstrate in the SS situation, when they openly express their attachment behaviour and, alternately, freely explore the environment. It has been suggested that it is the characteristic of autonomy from, as well as free access to, the childhood experiences of secure mothers that enables them to respond sensitively to the signals they receive from their infants.

Insecure-dismissing interviews typically reflect a history of parental-rejection and organisation of thought which enables the importance of attachment-relationships to be diminished. Such individuals seem cut off from attachment in much the same way as children classified anxiously-avoidant. It has been suggested that this reluctance to acknowledge their attachment needs may render

such parents insensitive and unresponsive to the signals they receive from their infants.

Insecure-preoccupied interviews typically demonstrate ambivalence, confusion, unfinished sentences and, either marked passivity or intense current resentment towards the parent, just as children classified anxiously-resistant appear to be overwhelmed by novelty and their own hostility towards the parent with whom they are ambivalently-attached.

A major feature of the Main & Goldwyn (1993) classification system is the reliance on coherence of language as reflected in the transcript of the AAI. Inappropriate pauses, silences, hesitations, repetitions and other features are all thought to be indicative of insecure attachment-representations and are contrasted with what are thought to be the fluent, free-flowing and spontaneous use of language characteristic of adults who have secure representations of their attachment-experiences. One of the first independent attempts to use the AAI, however, departed from the Main & Goldwyn classification system in a manner which is particularly significant for the issues raised in this thesis. Grossmann et al., 1988 adhered to the sequence of the AAI questions outlined by George, Kaplan & Main (1985). However, instead of adopting the Main & Goldwyn (1993) classification

system, they employed a two-way classification system of valuing (secure) or devaluing (insecure) of attachment, drawing heavily on psychoanalytic theories of defensive processes (Freud 1901; A. Freud, 1936; Bowlby 1980). Interviews, rated as valuing, demonstrated a non-defensive and open pattern of communication, while those rated devaluing, had in common an inconsistent or repressive pattern of communication concerning attachment.

Grossman et al. (1988) point out that "an unsupportive pattern, as reported in the Adult Attachment Interview, was passed on to the next generation only if the mother showed a strong defensiveness against the interview and had not shown any substantial reflections on her experiences as a child". Thus, despite differences in approach to classification from the Main study, the Grossmans drew similar conclusions regarding the central importance of adults' current organisation of cognitions and affects with respect to their developmental history.

These and other studies have shown promising results in comparing AAI responses with concurrently or previously collected child and parent-child data. They could not, however, control for any possible evolving effect the child might have on the parents' state of mind and reflections concerning past attachment-experiences. The London Parent-Child Project was, therefore, established as the first

longitudinal study to control for the possibility that internal working-models of attachment may change as a result of adults' evolving relationships with their children. The project in question controlled for this possibly significant variable by administering the AAI to adults before they became parents and then comparing these interview-results with subsequent assessments of the parent-child attachment relationship.

This thesis arises directly out of the work of the London Parent-Child Project, based at University College London and the Anna Freud Centre. The data and investigations reported in subsequent chapters form an integral part of that study. It has, for the first time, produced prospective data which confirm an association between prenatal assessment of maternal representations of attachment-relationships, as assessed in the AAI, and subsequent SS assessments of infant-mother attachment-relationships in respect of the infants of such mothers at one-year. This study has powerfully confirmed that the nature and quality of parent-child relationships is indeed transmitted across generation (Fonagy, Steele & Steele, 1991).

The design of the initial study in the London Parent-Child Project was such that, during the last trimester of a first pregnancy, the AAI (George, Kaplan & Main, 1985) was

administered to 100 women and their cohabiting partner, assumed to be the father of their child. At 12-months post-partum, all the families were invited to the laboratory for the first time where 96 children were assessed with mother in the SS procedure. At 18-months post-partum, the families returned to the laboratory where the children were assessed with father in the SS procedure.

The most important finding of that initial study was its confirmation of the predictive association between expectant mothers' representations of attachment-relationships, as assessed in the AAI, and the subsequent attachment-classification of their infants at one-year.

Data were available in the case of 96 mothers. 59 were classified autonomous; 22 dismissing; and 15 preoccupied. Of those classified autonomous, 45 (75%) had securely-attached infants; and 14 (34%) insecurely-attached infants (8 avoidant and 6 resistant). Of those classified dismissing, 5 (23%) had securely-attached infants. Of those classified preoccupied, 5 (33%) had securely attached infants (Fonagy, Steele & Steele, 1991).

This study thus provided the first report of a strong predictive association between expectant mothers' mental representations of relationships and the subsequent status of the infant-mother relationship. Based on prenatal

administration of the AAI to 96 primiparous mothers, it was possible, in 75% of the cases, to successfully predict whether an infant would be coded securely or insecurely attached to mother at one-year in the SS.

There is, therefore, impressive evidence for lawful continuities in the nature and quality of parent-child relationships across generations. The AAI has been shown to be capable of identifying, prenatally, infants whose attachment to mother is more likely to assume an anxious, as opposed to secure form. Many previous studies have shown how these infant patterns of attachment make certain less-than-adaptive developmental pathways more likely (Sroufe, 1988).

The London Parent-Child Project is continuing its prospective investigation of as many as possible of the original cohort of 100 families as survive the effects of attrition, in order to ascertain the stability over time of the original adult-attachment classifications of the parents, as well as the infant-attachment classifications of their primiparous child. Other elements have been added to the research, including an investigation of the possible influence of life-events on attachment. Most recently, between the ages of five and six, the surviving families have again, twice, been invited to return to the laboratory. On the first occasion, fathers have been re-

interviewed using the AAI, administered by a new rater, blind to the original AAI and subsequent classification, while the child was re-assessed for infant-classification with mother in the SS procedure. The second occasion occurred about six months later when the two procedures were reversed with respect to fathers and mothers, under otherwise identical conditions. Data from these procedures have not yet been analysed.

The principal investigations reported in this thesis, on the associations between attachment theory and object-relations theory, are based upon the AAIs collected in the initial study reported above, as well as the data therefrom with respect to the adult-attachment classifications of the mothers and fathers who participated in that initial study and the infant-attachment classifications of their primiparous child, as assessed in the initial SS procedure. We will also investigate the possible influence on attachment of life-events by looking at the transcripts of a parental-experience interview administered to both parents at 12-months post partum in the initial study.

The possible links between attachment theory and object-relations theory have already been considered elsewhere in this thesis, as has suitability of SCORS (Westen, 1989, 1990) as a measure for the assessment of

object-relatedness which is best suited for comparison with adult-attachment classification as assessed in the AAI.

The empirical investigations which are reported later in this thesis are all based on the application of SCORS ratings to the AAI transcripts obtained in the initial study referred to above, save that the validity of applying SCORS ratings to AAI transcripts will first be established in a pilot study, reported in a subsequent chapter, where SCORS ratings are applied to the AAI transcripts of a number of borderline patients, entirely separate from the cohort of 100 families referred to above.

The above investigations will investigate the associations between attachment theory and object-relations theory, by looking at any associations between the SCORS ratings and the adult-attachment classifications of the mothers and fathers referred to above, using the Mary Main Adult Attachment Classification system in various forms, ranging from a simple secure/insecure classification, through the three-way system of principal categories, to the detailed classification system that incorporates the various sub-categories of the three-way classification system that has been described elsewhere in this thesis. An attempt will be made to investigate whether object-relatedness predicts adult attachment-classification. These same investigations will also look for associations between

the same SCORS ratings and the infant-attachment classifications of the primiparous child of those mothers and fathers and will seek to determine whether object-relatedness of parents, as assessed by SCORS, predicts the infant-attachment classification of their child in the same way as the adult-attachment classification has been shown to do.

Finally there will be an investigation of the demographic information as well as data in respect of various instruments that measure personality traits and psychopathology, all collected in the initial study in respect of these same parents, in order to determine the discriminant validity of SCORS in relation to these measures.

CHAPTER SEVEN

RATING AND RELIABILITY IN APPLYING SCORS TO AAI TRANSCRIPTS

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RATING AND RELIABILITY IN APPLYING SCORS TO AAI TRANSCRIPTS

The London Parent-Child Project comprises an on-going prospective study of 100 mothers, fathers and their first child which is now in its seventh year. It represents not only a large cohort of subjects but is now a rich source of data which relate primarily to the attachment classifications of the subjects but are also based on some 600 or more variables, many of which extend beyond those necessary to establish the relevant attachment classifications. The AAI transcripts initially obtained of both mothers and fathers have been used as the narratives from which SCORS ratings have been obtained in order to determine the degree of object-relatedness of those mothers and fathers.

METHOD

Design

The current research builds upon and extends the data-base of an ongoing project of University College London: the London Parent-Child Project relating to parent-child attachment.

The design of the original study was such that, during the last trimester of a first pregnancy, the AAI (George, Kaplan & Main, 1985) was administered to 100 women expecting their first child and to the co-habiting partners of those women, presumed to be the child's father. 98 couples were interviewed in their homes and 2 were interviewed in the laboratory. While the laboratory-setting is normally to be preferred in AAI research, interviews in the home were favoured, in the original study, for the added degree of personal contact involved. To maintain continuity with the sample, all subjects were contacted by telephone and by post at 3-months post-partum. At 12-months post-partum, all the families were invited to the laboratory for the first time where 96 children were assessed with mother in the SS.

In the present study, 182 of the transcripts of the AAIs of the above mothers and fathers, which were used for the purpose of determining the adult attachment-classifications of those subjects, were also adopted as suitable material for applying the SCORS ratings. Identical data therefore formed the basis for determination of both the attachment classifications of the subjects as well as the extent to which they were object-related.

Subjects

One hundred primiparous mothers were selected as subjects from a larger group of such mothers attending prenatal classes at University College Hospital, London. Selection was in accordance with criteria which included: current cohabitation with the expected-child's father; fluency in English; and age above 20.

The expectant mothers' median age was 31 (range 22 - 42). 82 of these were married to the expectant father at time of recruitment or married subsequently. Subjects were typically well-educated, Caucasian and middle-class. All had completed their education to university-entrance level and 70 were university graduates. In accordance with U.K. governmental criteria, subjects were classified as to occupation as follows: 21 professional or managerial; 65

intermediate ; 9 skilled; 5 partly-skilled. In accordance with the same criteria, subjects were further classified as to income-group as follows: 21 upper; 65 middle; 14 lower. 75 were from England; 10 from Scotland or Ireland; 15 from outside the U.K.

The fathers comprised a similary homogeneous group. Median age was 33 (range 20-57). Subjects were typically well-educated, middle-class Caucasians. Only one was not educated to university-entrance level and 71 were university graduates. These subjects were classified as to occupation as follows: 25 professional or managerial; 57 intermediate; 16 skilled; 2 partly-skilled. They were further classified as to income-group as follows: 24 upper; 60 middle; 16 lower.

Between prenatal AAI assessments and SS assessments of their infants at one-year, one mother was excluded because she had twins. SS data were unavailable for three infants because of technical difficulties. 96 infants subsequently born to the mothers were seen in the laboratory for SS assessments: 50 males and 46 females. None had any significant auditory or visual handicap. One infant (classified secure in SS assessment) had congenital cystic hygroma and received considerable medical attention with multiple hospitalisation.

The investigations reported in this thesis looked at 90 of the transcripts of interviews which were used as the basis for the first AAI classification of 98 of the expectant-mothers and similary at 92 of the fathers (N = 182).

Materials

The questions used in the AAI were from George, Kaplan & Main (1985). A list of these is set out in Appendix 2.1 (privileged communication - Department of Psychology, Berkeley University).

AAI procedure

The prenatal interview of all subjects closely followed the AAI of George Kaplan & Main (1985). This is a structured interview comprising 18 questions. All interviews of mothers were conducted by the same female interviewer. All interviews of fathers were conducted by the same male interviewer. Both types of interview lasted from thirty minutes to two hours, most lasting approximately forty-five minutes. The interviewers, while trying to put the interviewee at ease, asked only the questions and the relevant probes without referring to

written material. The interviews were audio-recorded and later transcribed verbatim.

The AAI is structured entirely around the topic of attachment, principally the individual's relationship to mother and to father (and/or to alternative caregivers) during childhood. Subjects are asked both to describe their relationship with their parents during childhood and to provide specific biographical episodes to support global evaluations. Ultimate classification depends on the goodness-of-fit between semantic evaluations and episodic memories.

The interviewer asks directly about childhood experiences of rejection, being upset, ill and hurt, as well as about loss, abuse and separations. In addition, the subject is asked to offer explanations for the parents' behaviour and to describe the current relationship with their parents and the influence they consider their childhood experiences to have on current behaviour and on future parenting-style.

All interviews were independently rated by four judges (three had received training from Mary Main; while the fourth, a consultant psychiatrist, received training from the other three). The rating procedure followed the established guidelines (see Main & Goldwyn, in press) and

all raters independently studied and rated all interviews. Reliability coefficients were calculated by computing agreements between each possible pair of raters (six estimates) and choosing the median as indicator of reliability.

Each interview was rated on a series of 9-point scales according to criteria specified by Main & Goldwyn (1993) where every second point had specific operational definitions. Three of these scales concerned the adult's probable childhood experience of having been parented in a (1) loving; (2) rejecting; or (3) role-reversing manner. Although these scales pertain to the subject's experience, what was rated was the memory of the experience at the time of the interview, rather than the experience per se. It is for this reason that this set of scales was referred to as probable-experience-scales. The adult's probable experience with each parent was rated separately. A further five scales pertained to subjects' current state of mind with respect to attachment; (4) idealisation; (5) preoccupying anger; (6) derogation; (7) insistence on the inability to recall; and (8) the overall coherence of the interview. Notably, preoccupying anger was to be distinguished from derogation. The anger scale was thought to be most relevant to the preoccupied classification in its actively-resentful rather than passive form. Derogation, by contrast, was regarded as indicative of the dismissing classification,

derogation or devaluing of attachment being an attempt to distance oneself from attachment-related feelings, including anger. Furthermore, maternal anger was expected to correlate with infant-resistance in its active, angry form; while maternal derogation was expected to correlate with infant-avoidance.

After assigning probable-experience and state-of-mind scale ratings to an interview transcript, the judge then assigned each interview to one of three categories reflecting the subject's overall organisation of thought concerning attachment: (1) dismissing of attachment ("D"); (2) preoccupied with or entangled by past attachments ("E"); or (3) freely-valuing, secure or autonomous with respect to attachment ("F").

Levels of agreement amongst the four raters' readings of the AAIs were consistently high.

The AAI ratings by the four raters were averaged. The associations between the AAI scales were examined by computing product-moment correlations across the interviews. In the light of the relatively high correlations which were obtained between scales, a multivariate-approach was adopted in all further analyses involving the AAI-scale scores.

A discriminant-function analysis was performed to identify which of the AAI scales made the most important contributions to the categorisation of the interviews. Two significant canonical variables were extracted. The first variable appeared to distinguish the autonomous (F) group from the other two groups (D & E), while the second differentiated between the preoccupied (E) and dismissing (D) groups. Correlations between AAI-scale scores and canonical variables indicated that coherence of discourse, a loving past-relationship with mother and father and the absence of role-reversal, contributed highly to the first canonical variable. Present-anger, good recall and the absence of derogation made the most important contribution to the second canonical variable. The complete discriminant function accurately classified 89 of the 100 cases. All individual scales related to classification in the expected directions.

SS procedure

SS assessments were video-taped and audio-taped when the infants were between twelve and thirteen months. These were subsequently coded by raters blind to the mothers' interview-data. Proximity-seeking, contact-maintenance, resistance and avoidance during each of the two reunions specified in the SS, were coded on the seven-point scales developed by Ainsworth et al. (1978). In addition, all

infants were assigned an overall A/B/C classification. All SS tapes were coded by at least two independent coders, each blind to mothers' interview- classifications, and assigned to one of the three major categories. Disagreements between the two primary raters were discussed in conference between them and a third trained-rater, also blind to mothers' interview classifications.

Following the SS procedure, both parents were independently interviewed using a semi-structured interview with two major components. The first concerned the presence of major life-events or difficulties, including deaths, separations, employment and changes in financial circumstances. The second aspect of the interview concerned a more detailed inquiry into the individual's experiences of the transition to parenthood. Interviews were transcribed but the material therein was not used in the present study.

SCORS procedure

The 182 AAI transcripts referred to above were each divided up into 10 sections. Each section of each transcript was rated in accordance with each of the four object-relations scales of the SCORS protocol: 1. Affect-tone of Relationship Paradigms, which has a range of 5 possible ratings; 2. Complexity of Representations of

People, with a range of 7 possible ratings; 3. Capacity for Emotional Investment in Relationships and Morals, with a range of 5 possible ratings; 4. Understanding Social Causality, with a range of 5 possible ratings. Each section corresponded usually to one of the standard questions used in the AAI. Only in a few cases was the whole of the AAI transcript used for this purpose. There was considerable variation in the amount of material rated on SCORS, both within transcripts, because of the unequal amount of material resulting from each question, and between subjects, because of the large variation in the amount of material produced by individual subjects in response to the AAI questions.

Each transcript resulted in 10 ratings on each of the four SCORS object-relations measures. A single final score in respect of each of these four measures was arrived at for each subject, by calculating the average of the 10 ratings for each scale. The result of this procedure was that, while the original 10 ratings were in terms of whole numbers, the median rating eventually arrived at was to one decimal point.

SCORS ratings in accordance with the above procedure were initially obtained by a male post-graduate psychology student who was also a psychoanalytically-trained psychotherapist. Before obtaining these ratings, this rater

had first trained himself in the necessary skill for carrying out SCORS rating in accordance with the SCORS manual annexed to the protocol. In order to assess the reliability of these ratings, 12 transcripts in respect of mothers and 12 transcripts in respect of fathers, already rated as to SCORS by the first rater, were randomly selected to be rated in accordance with the above procedure by two independent raters. One was female and one male; both post-graduate students with some knowledge of psychoanalytic theory but without any clinical training or experience; both blind to the ratings of the first rater; and both having first trained for SCORS-rating in a similar manner to the first rater.

INTER-RATER RELIABILITY RESULTS

The means and ranges of raters' scores for the SCORS measures of object-relatedness in respect of mothers and fathers, based on the 12 mother and 12 father AAI interviews rated by all three raters, appear in Appendices 7.1 and 7.2. respectively.

A broadly similar pattern of rating emerged with no rater assigning either the lowest or highest possible rating on each scale and with most ratings tending towards

the lower end of each scale. Raters agreed in the majority of their ratings to within 0.5 of each other. No consistent pattern of variability emerged as between raters. Agreement between raters appeared to be greater in respect of mothers than it was in respect of fathers.

With respect to SCORS ratings of the 12 AAIs from the expectant mothers, inter-rater reliabilities, measured in terms of the Pearson Product-Moment correlation coefficient, were high (median r = .90, range = .78 - .95). A complete list of these reliabilities for each of the four SCORS measures are displayed in Appendix 7.3. Agreement over all four measures was marginally higher between the first rater (who rated all 182 transcripts) and the second (female) rater, than it was between the first rater and the third (male) rater or between the second and third raters. Agreement over all four measures was lowest between the second and third raters. The highest level of agreement on any measure was on scale 1 (Affect Tone) where median r in respect of the first and second raters was identical to median r between the first and third raters, while median r in respect of the second and third raters varied from these by .01. The lowest level of agreement on any scale was between the first and second raters on scale 2 (Complexity of Representations). In the light of the above range, however, such differences are statistically insignificant.

A similar pattern of agreement appeared with respect to SCORS ratings of the 12 AAIs from fathers. Inter-rater reliabilities were similarly high, (median r = .85, range = .79 - .96. A complete list of these reliabilities for each of the four SCORS scales are displayed in Appendix 7.4. Agreement over all four scales was marginally higher between the first and third raters than it was between the first and second raters or between the second and third raters. Agreement over all four scales was lowest between the second and third raters. The highest level of agreement on any scales were on scale 3 (Capacity for Emotional Investment) and scale 4 (Understanding Social Causality) where median r was identical in respect of the first and third raters on each of these scales and was also marginally higher than in respect of any of the scales in respect of mother ratings. The lowest level of agreement on any scale in respect of father ratings was between the second and third raters on scale 1 (Affect Tone). These data in respect of fathers represent some differences with mother. However, in the light of the above range, such differences are also statistically insignificant.

Agreement within and between raters for their ratings was further examined in terms of Cohen's Kappa coefficient (Cohen, 1968). Kappa is a further form of correlation which is often used as a measure of reliability where categorical data are being judged by two or more raters. It focuses on

the diagonal of a frequency-matrix to determine whether it contains more counts than are expected by chance. According to Fleiss (1981), Kappa values of less than 0.40 reflect poor agreement; between 0.40 and 0.75 fair to good agreement; and above 0.75 excellent agreement.

The Pearson's rho reliability results reported above were based on continuous data, where ratings might appear at any decimal point along the continuum from 1.0 to 5.0. In contrast, when measuring Kappa, the ratings were assigned to one of five discreet categories: 1 to 1.9; 2 to 2.9; 3 to 3.9; and 4 to 4.9. Therefore, two ratings which differed by as little as 0.1 would always be regarded as insignificant when measuring rho but would have a significant effect on reliability if the same difference placed the two ratings in different categories when assessing Kappa.

With regard to the SCORS ratings in respect of the 12 Mother AAIs, median Kappa = 0.65 (range = 0.39 to 1.00). Only one Kappa was below 0.40 (actually 0.39) while three were above 0.75. Broadly, therefore, reliability according to this measure on these ratings can be regarded as fair to good and in some instances excellent.

The first scale (Affect-Tone) was the one with the lowest Kappa for any scale (0.39 when comparing the first

and second raters). In marked contrast, the same scale produced Kappas of 0.61 (comparing the second and third raters) and 0.69 (comparing the first and third raters). Median Kappa for this scale = 0.56.

The second scale (Complexity of Representations) was the one with the highest Kappa for any scale (1.00 when comparing the first and second raters). Median Kappa for this scale = 0.66.

The third scale (Capacity for Emotional Investment) produced the highest median Kappa = 0.84 for any scale.

In the fourth scale (Social Causality) median Kappa = 0.53.

No patterns of difference emerged in respect of any of the 3 raters on these measures. Kappa therefore provides a significant measure of inter-rater reliability for the Mother SCORS ratings when treated as discreet variables.

A complete list of Kappa reliabilities for each of the four SCORS scales of Mother AAIs are displayed in Appendix 7.5

When turning to the SCORS ratings for the 12 Father AAIs, a rather different picture emerges. Median Kappa =

0.43 (range = 0.15 to 0.84). Four Kappas were below 0.40 Therefore, reliability according to this measure on these ratings can be regarded as no more than fair or approaching good; as poor in some instances and excellent in only one isolated instance.

In the first scale (Affect Tone) median Kappa = 0.51.

In the second scale (Complexity of Representations) median Kappa = 0.53.

In the third scale (Capacity for Emotional Investment) median Kappa = 0.24. This scale also produced the narrowest range or Kappas (0.22 to 0.27).

In the fourth scale (Social Causality) median Kappa = 0.45. This was also the scale which produced both the highest and lowest Kappas of any scale for the Father ratings and therefore the largest range of Kappas (0.15 to 0.84).

Once more, no identifiable pattern of differences emerged between the three raters on the Father ratings overall.

A complete list of Kappa reliabilities for each of the four SCORS scales of Father AAIs are displayed in Appendix 7.6.

Associations between SCORS Measures and AAI Measures

Appendix 7.7 portrays the correlations observed between the ratings observed on the four SCORS measures for mothers and the thirty AAI variables used to determine AAI classifications in relation to mothers.

Only five of the thirty AAI variables were significantly correlated with all four SCORS measures: positively in respect of loving-mother, relationship to mother, and coherence of mind; and negatively in respect of objective inability to recall and subjective inability to recall.

Loving-father was significantly correlated with Affect-Tone and with Capacity for Emotional Investment only, as were (negatively) rejecting-mother, rejecting-father, and neglecting-mother.

Neglecting-father and role-reversing mother were negatively correlated with only Affect-Tone.

There were several inexplicable positive correlations: neither mother pressuring to achieve nor father pressuring to achieve were correlated with Affect-Tone but were positively correlated to the other three SCORS measures. Overprotective-mother was also positively correlated with both the Capacity for Emotional Investment and with the Social Causality measures. Guilt-towards-mother was positively correlated to the Complexity of Representations measure only.

Fewer than expected of the AAI variables were negatively correlated with the SCORS measures. Derogation-of-mother was negatively correlated with the Affect-Tone and with the Capacity for Emotional Investment measures. Derogation-of-father, anger-towards-mother and anger-towards-father were negatively correlated only with the Affect-Tone.

Relationship-to-father and coherence-of-transcript were correlated with Affect-Tone and with Capacity for Emotional Investment only.

Metacognition and Fear-of-Loss were not correlated with Affect-Tone but were correlated with the other three SCORS sub-scales.

Aggression was negatively correlated to Affect-Tone but to none of the other SCORS measures.

All four SCORS measures were highly and very significantly correlated with each-other. Moreover, the paternal ratings on Complexity of Representations were correlated with the maternal ratings on all SCORS measures except Complexity of Representations.

Maternal ratings on the Affect-Tone measure had the greatest number of correlations with maternal ratings on the AAI variables (eighteen out of thirty). The next largest number of correlations with maternal ratings on the AAI variables was in respect of maternal ratings on the Capacity for Emotional Investment in Relationships and Morals measures (seventeen out of thirty).

Appendix 7.8 portrays the correlations observed between the ratings observed on the four SCORS measures for fathers and the thirty AAI variables used to determine AAI classifications in relation to fathers.

A very different picture of correlations emerged when looking at father ratings on the four SCORS measures compared with the father ratings on the AAI variables.

No AAI variable was correlated with all four SCORS measures. Loving-mother was correlated with all except Social Causality. Objective-inability-to-recall was negatively-correlated with all except Affect-Tone. Both loving-father and relationship-with-mother were correlated with Affect-Tone and with Capacity for Emotional Investment.

As in the case of mother ratings, father ratings in respect of the four AAI subscales were very highly and very significantly correlated with each other.

DISCUSSION

The results of both forms of testing for inter-rater reliability appear to be satisfactory.

The Pearson's Product Moment correlations are particularly impressive. Those for the Mother ratings are marginally better than for Father ratings but the difference does not appear to be significant. No patterns of differences emerge between raters or between the different scales. On this basis, therefore, there appears to be no reason to seriously question the validity of any of the ratings.

The Kappa reliability testing reveals a slightly more complex situation. Again, no patterns of differences emerge between raters. Nevertheless, it is clear from these data that inter-rater reliability of the Mother ratings is somewhat greater than it is in respect of Father ratings. Reliability appears to be good in respect of the Mother ratings but only fair in respect of the Father ratings. When comparing Mother and Father ratings for each scale, the second (Complexity of Representations) show the greatest concordance, producing the highest K in Mothers and the highest median K in Fathers. A very different situation emerges when comparing the two sets of ratings in respect of the third scale (Capacity for Emotional Investment) which produces the highest median Kappa in Mothers and the lowest median Kappa in Fathers.

It is possible that some of the variance referred to above is accounted for by the much more stringent nature of the Kappa reliability, which requires the ratings to be assigned to discreet categories while Pearson's measure of correlation treats the ratings as continuous data. It may be that these differences will be significant when it becomes necessary to consider whether aspects of object-relatedness can be divided into discreet categories or whether its measurable features lie on some continuum.

The overall result of these attempts at testing inter-rater reliability were regarded as sufficiently impressive to avoid the necessity of having all the remaining ratings (over and above the total of 24 subjected here to inter-rater reliability testing) subjected to similar testing. It was assumed that there were no significant differences in all the other ratings of the first rater and that these were likely to be as reliable as those subjected to the inter-rater reliability testing referred to in this chapter.

So far as the correlations between the SCORS measures and AAI variables are concerned, these are very disappointing in respect of fathers. Apart from the AAI variables being very highly correlated with each other, no useful pattern of correlations emerges.

So far as the mother ratings are concerned, the picture is rather more encouraging. Affect-Tone and Capacity for Emotional Investment stand out with the greatest number of correlations with AAI variables. Nevertheless, no useful pattern emerges.

SUMMARY

Inter-rater reliability in respect of the limited number of sets of ratings rated by three judges is sufficiently good to allow the assumption that the remaining ratings by a single judge are also reliable.

While there is no compelling pattern of correlations between ratings in respect of SCORS measures and AAI variables, and although the number of correlations in respect of those which relate to fathers is very low, nevertheless the significantly high correlations between the SCORES measures are sufficiently impressive to assume validity of these measures.

CHAPTER EIGHT

SCORS AND BORDERLINE PATIENTS

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SCORS AND BORDERLINE PATIENTS

At the very heart of psychoanalytic theory lies the assertion that dysfunctional object-relations are causal for psychopathology in general. This chapter describes a pilot study which investigates the object-relatedness, as measured by SCORS, of a sample of borderline-personality disorder patients, compared with a control group of subjects diagnosed according to other psychiatric criteria. The data showed that patients diagnosed with borderline-personality disorder produced more malevolent responses and slightly more complex representations on the Complexity of Representations scale, than did controls. The findings of this chapter demonstrate the validity of SCORS in assessing object-relatedness in borderline patients,

INTRODUCTION

In the empirical chapters which follow, the investigations are concerned with the associations between attachment classification and object-relatedness, as measured by SCORS. The data arising from those

investigations are based on a predominantly middle-class non-pathological sample of parents who comprised the cohort of the London Parent-Child Project. This chapter, in contrast, affords an opportunity to examine the effectiveness of SCORS in measuring pathological object-relations in a group of patients diagnosed with borderline-personality disorder ("BPD").

There is a growing area of empirical research to support what has long been asserted by psychoanalytical theorists in general and object-relations theorists in particular: that disrupted relationships in childhood with principal caregivers may influence the development of personality, patterns of parenting, and psychopathology (Chicchetti, 1990; Zeanah and Zeanah, 1989). Also that there are continuities between early childhood relationships and adult interpersonal-functioning (Bretherton,1990).

Psychiatric diagnostic criteria have long recognised a distinct area of psychopathology referred to as borderline-personality disorder in those whose pathology is not so extreme as to categorise them as psychotic but is nevertheless far more serious and debilitating than those who might be diagnosed as neurotic or depressive. Seen in psychoanalytic terms, such individuals retain a degree of ego-structure which goes a long way towards enabling them

to distinguish between reality and their internal world. Psychic functioning is nevertheless seriously impaired so as to cause them great difficulty in existing in a state which is sufficiently free of anxiety to enable them to relate freely and adaptively to themselves and others.

Personality disorders are usually thought of in psychiatric terms as "enduring patterns of perceiving, relating to and thinking about the environment and oneself, and are exhibited in a wide range of important social and personal contexts..... (and) are often recognisable by adolescence or earlier and continue throughout most of adult life" (introduction to Axis II diagnoses, APA, DSMIII-R, 1987 - see Appendix 8.1). Some clinicians regard BPD as a distinct clinical syndrome characterised by one or more of the following: impulsivity; a pattern of unstable but often intense relationships; inappropriate and intense, though not necessarily openly-expressed, anger; identity-disturbance; suicidal-threats; self-mutilating behaviour; affective instability; and frantic efforts to avoid real or imagined abandonment (Gunderson, 1984, 1987). Such clinicians therefore consider BPD as a specific disorder which differs from other personality disorders as described in, inter alia, DSMIII-R. Most psychoanalytic clinicians, however, are reluctant to draw such sharp distinctions based on concepts and categories which are primarily descriptive (e.g. Winnicott, 1971). For these clinicians,

BPD does not constitute such a precise clinical category but is part of a broad and vague borderline-level of psychic functioning, lying somewhere between, at one extreme, chronic psychotics and those whose ability to test reality and form meaningful relationships is grossly impaired, and at the other extreme, those with sound ego-structure who are able to function well and form successful interpersonal relationships, albeit with some impairment. For these clinicians, BPD is characterised by non-specific manifestations of ego-weakness, a shift towards primary-process thinking, identity diffusion and resort to specific defence operations (Kernberg, 1974,1988).

Whatever the merits of these two approaches to BPD, it is entirely appropriate that the subjects of this pilot study were diagnosed in accordance with the psychiatric diagnostic criteria of DSMIII-R as a satisfactory means of assessing their BPD status with empirical rigour.

A not inconsiderable body of research has examined the dynamics that underlie BPD. It is proposed to review some of the findings of this research in what now follows.

Of particular interest for the purpose of this thesis is the work in this area which has taken place in relation to attachment theory. Hobson & Patrick (1992) showed that there is a clustering of individuals diagnosed as BPD

within the preoccupied category of the AAI classification system. The almost unique association of BPD with the preoccupied/entangled classification would appear to indicate that BPD patients represent their early attachment relationships in a highly distorted and incoherent manner and it may be speculated that such individuals would almost certainly have been classified resistant or disorganised as infants in the Strange Situation.

In a further refinement of attachment theory, Higgitt & Fonagy (1992) have suggested that the aversive experiences which appear to underlie insecure attachment-classification, whether in children or adults, lead to the defensive inhibition of mental functions and, in particular, of what they term the reflective-self function: the ability to create a reasonable intrapsychic representation of the affective and motivational state of others. They suggest that BPD may be understood as reflecting severe dysfunction of the reflective-self function. Seen in these terms, there is no ability in BPD patients to resolve aversive experiences, because of the defensive strategies such individuals have employed during childhood and which have prejudiced the normal development of the reflective-self function seen in less pathological individuals.

In particular, Higgitt & Fonagy found, in relation to BPD patients (meeting the criteria of Axis II, DSMIII-R), that such patients (1) report somewhat more severe experiences of maltreatment; (2) describe experiences of abuse more frequently in a manner indicating that these remain unresolved; (3) have highly distorted representations of attachment-relationships which are linked to such experiences; (4) show distortion which is greatest in those with impaired reflective-self function.

Research on BPD, oriented more in the direction of object-relations theory, has focused primarily on Rorschach responses. Blatt et al., (1976) have developed a system which examins such responses in a manner which enables them to be rated for the affective quality of the figures which are perceived by the subject (malevolent or benevolent) as well as for a number of cognitive qualities (degree of articulation of the representation; accuracy and appropriateness of any elaborations. Urist (1977) has developed a scale which measures the extent to which individuals are perceived as having a stable, enduring, autonomous existence with respect to each other. Research which has adopted these measures has shown that BPD patients manifest pathology which differs significantly from other pathological categories, save for psychotics.

Lerner & St.Peter (1984) compared a group of BPD patients with psychotics, schizophrenics and neurotics. They found that BPD patients produced more malevolent responses than schizophrenics; and that their perceptions, while more inaccurate, nevertheless indicated a higher level of cognitive-development than was found in psychotics or neurotics. These findings would appear at first sight to conflict with the psychoanalytic view of BPD as lying midway on a continuum of psychopathology, between the extremes of psychoticism and neuroticism. In fact, there is no reason why these findings should contradict the psychoanalytic view: cognitive development is not necessarily associated with absence of pathology, which would presumably merely tend to impede such development. Moreover, since BPD patients tend to be more in touch with reality than psychotics, there may be a greater need for more malevolent representations in a futile attempt to make sense of a pathological internal working model.

Stuart et al (1990) replicated the Lerner study and found that BPD patients manifested a more malevolent object-world than either depressives or a group with no diagnosed pathology; and that the degree of complexity and psychological-mindedness of the attributions-of-intention of such patients were significantly more advanced than for the depressive or "normal" groups. Furthermore, the attributions of intention of BPD patients were at their

most cognitively advanced in respect of figures depicted as most malevolent, whereas in the control groups, such attributions were most cognitively advanced in respect of figures depicted as most benevolent.

Westen et al. (1990) also carried out research on BPD subjects, by examining responses to the Thematic Appreciation Test ("TAT"), as well as applying SCORS ratings. They compared TAT responses of a sample of BPD adolescents with those of a non-BPD psychiatric group and of a non-psychiatric group. The BPD group manifested a more malevolent object-world and greater incapacity for mature emotional investment in relationships and moral standards, as well as producing more pathological responses. They also produced more complex representations of others, even though these tended to be highly illogical and distorted.

Westen et al. (1991) found a similar pattern of findings when comparing adult BPD patients with a group of severely depressed individuals and a non-psychiatric group. Mean ratings on the two more cognitively-conceived SCORS scales (Complexity of Representations; and Social Causality) did not differ significantly for the two clinical groups. However, BPD patients had lower mean-scores on the two object-relations-oriented scales (Affect-Tone; and Capacity for Emotional Investment). Furthermore,

this group produced more pathological responses on all four SCORS scales.

The pilot study described in this chapter aimed to examine some of the above findings by applying SCORS ratings to the AAIs of a group of BPD patients as well as to the AAIs of a matched sample of non-BPD patients who had received alternative Axis II and Axis I diagnoses. It was hypothesised that the BPD patients would manifest more pathological responses on SCORS (more ratings at level 1) than those in the comparison group; further that BPD patients would produce lower mean-scores on the Affect-Tone, on the Capacity for Emotional Investment and on the Social Causality scales; as well as higher mean scores on the Complexity of Representations scale.

METHOD

Design

A matched sample of psychiatric patients was used, in which an attempt was made to control for comparable severity of disturbance, measured in terms of GAS scores (Spitzer et al., 1988). SCORS ratings of the subjects' AAIs

were used to assess object-relatedness, as dependent variable. The independent variables were (1) DSMIII-R diagnostic criteria (whether BPD or other personality disorders) (2) AAI classification.

Subjects

Inpatients (N=20) were drawn from the Cassel Hospital, London, who had already been selected and assessed as part of a study comparing BPD patients with matched others on both AAI and Reflective-Self measures. The sample was skewed towards social classes I and II with an age-range of 20 to 35 years (median 26 years). Diagnoses were based on structured-interview schedules, including the Schedule for Affective Disorders and Schizophrenia; the Diagnostic Interview for Borderline Disorder; and SCID II. There were 10 subjects in the experimental group, all female and all meeting BPD diagnostic criteria of DSMIII-R. There were 10 subjects in the control group, all-but-one female, who had received various personality-disorder diagnoses, other than BPD, in accordance with DSMIII-R criteria. All subjects had also received various Axis I diagnoses in accordance with DSMIII-R, the most common of which were depression; cyclothymia; anxiety states, including panic disorders; and somatoform or stress disorder. All subjects were matched for severity of

disorders, as assessed by the GAS. Exclusion criteria included organic, psychotic, sexual, sleep or adjustment disorders as well as IQ rating below 70 as assessed by the National Adult Reading Test ("NART") which uses the subject's verbal ability (as measured by the number of mistakes recorded in reading aloud a list of words in order of increasingly less-common usage and increasing complexity) to provide a rough estimate of IQ (see Nelson, 1982).

Procedure

A psychiatrist, trained in the administration of standardised psychiatric instruments, administered the psychiatric measures as close as possible to the subject's date of admission to the Cassel Hospital and never more than four weeks thereafter. As soon as possible after this, the AAI and psychometric instrument were administered by a psychologist who was blind to the subject's diagnosis. Each AAI was audio-recorded. This recording was then transcribed verbatim and the manuscript thereof rated in accordance with the Mary Main AAI classification system.

The transcriptions of the matched twenty AAIs were rated in accordance with the SCORS manual by two raters, both psychology graduates, each of whom had received

extensive training in SCORS rating, in accordance with the requirements of the manual. Each rater was blind to the results of any of the measures adopted, as well as to any demographic details of the subjects not apparent from the AAIs. Each rater coded two randomly-selected AAI transcripts to establish interrater reliability (average Pearson's r = 0.84). The two raters then each rated 9 of the remaining AAI transcripts.

RESULTS

A one-tail t-test was carried out on individual mean ratings by subject-category: BPD and others. Results are set out in Table 8.1

TABLE 8.1
MEANS OF SCORS RATINGS FOR BPD AND NO-BPD GROUPS

	Affect-Tone	Complexity of Representns.	Capacity for Emotionl Inv.	Social Causlty
BPD	1.78	2.69	1.72	2.08
(SD)	0.23	0.50	0.30	0.43
Others	2.15	2.30	1.90	2.30
(SD)	0.37	0.41	0.36	0.45
t(18)=	2.66	1.93	1.20	1.11
	$p<.05$	$p<.05$	N.S.	N.S.

On both the Affect-Tone and Complexity of Representations scales, BPD subjects differed significantly from controls: subjects in the control group had markedly higher mean-SCORS-ratings on the object-relations-oriented Affect-Tone scale, while BPD subjects had almost as marked higher such ratings on the more cognitively-oriented Complexity of Representations scale. Ratings for the other two scales did not reach significance but showed a tendency towards lower mean ratings in respect of BPD patients.

BPD subjects produced more pathological responses (level 1 ratings) on every scale except Complexity of Representations, where there were no level 1 ratings for this group. On Affect-Tone, 80% of BPD ratings were malevolent, compared with 20% of controls; on Capacity for Emotional Investment, the comparable figures were 70% and 30%; on Social Causality, 50% and 30%. For Complexity of Representations, 10% of controls' ratings were malevolent.

DISCUSSION

BPD patients were, as predicted, distinguishable from the control group. They represented their internal-object world in a manner which was more malevolent, as measured by lower mean ratings on the object-relations-oriented Affect-

Tone scale. Nevertheless, the representations of such patients were presented in a slightly more complex manner, as measured on the cognitively-oriented Complexity of Representations scale. In addition, there were indications of a trend in the BPD group, albeit this did not reach significance, which shows that such patients have a lower capacity for emotional investment in others, as well as an impaired understanding of social causality, compared with controls.

The most striking feature of these data is in relation to the extent of pathological responses in the BPD group compared with controls. This was most noticeable in respect of the Affect-Tone scale, which is arguably the SCORS measure most closely associated with object-relatedness. The equally striking exception to this feature was its reversal for the Complexity of Representations scale, where BPD subjects produced no pathological responses, while the control group produced some, albeit a much lower number, than for any other scale.

These data, therefore, support the hypothesis that there are significant differences between BPD patients and those with other personality disorders: that the BPD patients would manifest more pathological responses on SCORS and would produce lower mean-scores on the Affect-Tone, on the Capacity for Emotional Investment and on the

Social Causality scales; as well as higher mean scores on the Complexity of Representations scale.

These findings are consistent with recent empirical research (Zanarini, Gunderson, Marino, Schwartz & Frankenburg, 1989). They suggest that BPD express their representations of others in a manner which is significantly more malevolent than in the case of patients diagnosed with other personality disorders. It seems highly probable that BPD patients have had particularly poor attachment experiences during childhood. Westen, Ludolph, Misle, Ruffins & Block (1990) and Nigg et al. (1992) found the Affect-Tone scale, in particular, to be uniformly associated with a history of poor maternal relationships, preschool risk-factors and disrupted attachment-relationships.

For the purpose of this thesis, the detailed findings of this pilot study, in relation to any distinction there may be between BPD and psychiatric patients diagnosed with other personality disorders, are of marginal interest only. The more interesting feature for these purposes is that psychopathology has a markedly negative effect on SCORS ratings, as will become apparent when the SCORS ratings for the pathological sample of subjects looked at in this pilot study are compared with the ratings reported in the later empirical chapters, which look at a predominantly non-

pathological cohort of subjects. This pilot study, therefore, provides convincing validation for the SCORS measures which have been adopted for the purposes of the investigations carried out in this thesis.

SUMMARY

This pilot study has shown that there are significant differences in the manner in which BPD patients present and express their feelings about their internal representations of their principal caregivers and other close relationships. They do so in ways which can be considered more pathological than those of patients diagnosed with other personality disorders. The data obtained from both groups indicate that they produce lower SCORS ratings than might reasonably be expected from individuals who have received no diagnosis of psychopathology, as will become apparent from the data to be produced in subsequent chapters. The principal effect of these findings is to validate the SCORS measures as suitable for measuring object-relatedness.

CHAPTER NINE

THE INFLUENCE OF LIFE-EVENTS ON MOTHER-CHILD PATTERNS OF ATTACHMENT

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THE INFLUENCE OF LIFE-EVENTS ON MOTHER-CHILD PATTERNS OF ATTACHMENT

This chapter examines data obtained in The London Parent-Child Project, an ongoing longitudinal project designed to compare patterns of attachment in parents while awaiting the birth of their first child and of that child's pattern of attachment to its parents during the first 5 years of life. One study arising from the project (Fonagy, Steele & Steele 1991) compared the internal representations of attachment in the mothers, as evaluated by the Adult Attachment Interview during the three months before the birth of the child, with the attachment-status of that child subsequently assessed at age one-year by the Strange Situation Procedure. That study found that the nature and quality of parent-child relationships is transmitted across generations. The data in this study were compared with further data obtained by looking at interviews obtained from both parents at one-year dealing with their experiences of parenthood during the first year of life of their child. An attempt was made to ascertain whether certain life-events were reported in those interviews and to assess the possible influence such events might have on

patterns of attachment in the parents and their child. No significant relationship was found.

INTRODUCTION

Research by Ainsworth (1969/82) in developing Bowlby's theory of attachment revealed that certain characteristics of a mother's parenting are more important for determining the infant's security of attachment at one-year than any innate quality of the infant yet to be assessed (Ainsworth, 1985). Her Strange-Situation Procedure ("SS") has been widely used to provide an assessment of infant-security. This is a standardised test in which the infant is left briefly alone in a strange room and then reunited with his mother: his reactions on being reunited are considered to indicate the nature of his security, because they reveal the expectations he has developed about her availability. Ainsworth's procedure (Ainsworth, 1971) distinguishes two broad categories of attachment: secure and insecure. The latter category is however divided into two main sub-categories: anxious-avoidant and anxious-resistant. Further sub-categories and even sub-divisions of these sub-categories and of the secure category are now referred to.

It is one of the principal features of attachment theory that it has been formulated to explain certain patterns of behaviour which are characteristic, not only of infants and young children, but also of adolescents and adults. According to Bowlby, the propensity to make intimate emotional bonds with particular individuals is a basic component of human nature which is already present in germinal form in the neonate and continues through adult life into old age (Wartner, 1986). He regarded the capacity to make intimate emotional bonds with others, sometimes in the caretaking role and sometimes in the caregiving role, as a principal feature of effective personality-functioning and mental health. He argued that the status of a child's attachment, as determined by SS, is likely to influence that individual's personal relationships with others for the rest of life (Bowlby, 1988).

The concept of internal working-models of self and of parents was postulated by Bowlby as the mechanism through which the quality of a person's attachment-status operates, both in infancy and throughout adult life. Such models, based on the child's attachment-status, are built during the first few years of life in relation to mother, father, siblings and others and soon become established as influential cognitive structures (Main, Kaplan & Cassidy, 1985). These models are based on early reality-experiences.

As a result, they reflect the images the child's parents have of him, based on how they behave towards him and what they say to him. Such models then govern how he feels about his parents and about himself and enable him to plan his own behaviour towards them. These models also powerfully govern how he feels about and behaves towards others. Since they operate at an unconscious level, they tend to persist. The capacity to up-date such models is dependent on the freedom of communication between mother and child (Bretherton, 1987). If this is impaired, the result may be that the child's future relationships as an adult, interacting with others, become governed by the unsatisfactory internal working-models acquired during childhood which he is unable to up-date to cope with what would normally be the different circumstances of adulthood.

An aspect of attachment theory which is of critical importance, therefore, is the degree to which attachment-status not only persists throughout childhood and adulthood but also the extent to which it transmits from one generation to the next. It is important to know how likely a securely-attached mother is to rear securely-attached children and how likely an insecurely-attached mother is to rear insecurely-attached children.

A number of studies have shown that attachment-status tends to persist throughout childhood and is closely related to the nature of the relationship with that child's mother (Mates, Arend & Sroufe, 1978; Wartner, 1986; Main & Cassidy, 1985).

While the SS test procedure is highly satisfactory for assessing the attachment-status of young children, it is unsatisfactory for assessing such status in older children and adults, who would not find the SS stressful. In order to assess the attachment representations of adults, the Adult Attachment Interview was devised (George, Kaplan & Main, 1985). This interview ("AAI") is designed to elicit as much information as possible concerning the individual's childhood experiences in relation to attachment-status and gives rise to one of three classifications: dismissing; preoccupied; autonomous. These correspond, respectively, to the SS classifications: avoidant; resistant; secure.

Since the AAI is based largely on the mother's memory of her childhood experiences at the time of interview, rather than her actual experiences, distortion is a possibility. In particular, mothers may tend to idealise their childhoods as a defence against acknowledging unacceptable aspects of their parenting. Another

possibility is that painful and unacceptable memories may be repressed, resulting in an inability to recall much in the way of childhood memories. A still further possibility is that a mother, whose upbringing was such that she would almost certainly have been rated insecurely-attached as a child, might nevertheless be rated autonomous. This is the likely outcome for mothers who are able to accurately recall their unsatisfactory upbringing, reflect upon it and come to terms with it, even forgiving their parents for any shortcomings in infancy. Such a course appears to enable such mothers to up-date their unsatisfactory internal working-model of earlier years to one that is more appropriate to reality, thus enabling their own infants to form a secure attachment to them.

The AAI, therefore, represents a major advance in the understanding of attachment theory. It has made it possible, for example, to examine the coherence of attachment organisation during adolescence. Different styles of affect-regulation and representational bias have been shown to be associated with particular working-models of attachment (Kobak & Sceery, 1988). Extending the use of AAI further, it was shown that children's behaviour corresponded to mothers' internal models of attachment in a study of the interaction behaviour of mothers and their pre-school children (Crowell & Feldman, 1988).

Other theory-based assessments of attachment relationships have been made in retrospective studies. While these showed consistency in memories of childhood from early to advanced adult years (Block, 1969), individual differences in consistency of recall also suggested that loss of memory of the affect associated with, for example, maltreatment in childhood, might be linked with re-enacting childhood experiences in the following generation (Frailberg et al., 1975). Other studies have examined dependence, while investigating three generations simultaneously (Fu, Hinkle & Hanna, 1983), and other aspects of family ties across generations (Cohler & Grunebaum, 1981). Research in this area has mainly focused, on the one hand, on separation or disruption in the family of origin and, on the other, on detailed recollections by parents of childhood relationships with their own parents. For example, Rutter, Quinton & Liddle (1983) found that serious parenting problems in relation to widespread family difficulties, rarely arose in the absence of such childhood adversities in the previous generation.

Many other studies, not associated directly with attachment theory, have also shown concurrent associations between marital harmony and quality of parental behaviour (Sherefsky & Yarrow, 1976; Crockenberg, 1981). Rutter & Madge (1976) also confirm that marital harmony in the first

generation is related to marital harmony in the second. Nevertheless, while the available data compellingly indicate that the quality of a mother's caregiving behaviour is strongly related to her memories of childhood relationships, the causal relations among the personality, marital and parental variables require further empirical investigation in prospective rather than retrospective studies.

The question of the extent to which there is an association between the attachment-status of mothers, as assessed in AAI, and that of their children, as assessed in SS, is thus a compelling one.

Fonagy, Steele & Steele (1991) has now produced prospective data which confirm an association between prenatal assessment of maternal representations of attachment relationships, as assessed in the AAI, and subsequent SS assessments of infant-mother-attachment relationships in respect of the infants of such mothers at one-year. This study powerfully confirmed that the nature and quality of parent-child relationships is indeed transmitted across generations.

Data were available in the case of 96 mothers. Of these, with respect to attachment, 59 were classified

autonomous; 22 dismissing; and 15 preoccupied. Of those classified autonomous, 45 (75%) had securely-attached infants; and 14 (34%) insecurely-attached infants (8 avoidant and 6 resistant). Of those classified dismissing, 5 (23%) had securely-attached infants. Of those classified preoccupied, 5 (33%) had securely attached infants.

The above study thus provided the first report of a strong predictive association between expectant mothers' mental representations of relationships and the subsequent status of the infant-mother relationship. Based on prenatal administration of the AAI to 96 primiparous mothers, it was possible, in 75% of the cases, to successfully predict whether an infant would be coded securely or insecurely attached to mother at one-year in the SS.

Other ongoing research involving prenatal administration of the AAI also suggests that it is possible to predict infant-mother patterns of attachment from pregnancy assessments (e.g. Ward et al., 1989; Slade, 1990). Unlike past retrospective and concurrent investigations, they did not find the preoccupied classification to be predictive of the resistant infant-classification. However, the autonomous and dismissing AAI classifications were powerfully predictive of the secure and avoidant SS classifications. It was concluded that

predictive power resides not in the quality of past experience but in the overall organisation of mental structures underlying relationships and attachment-related issues.

There is, therefore, impressive evidence for lawful continuities in the nature and quality of parent-child relationships across generations. The AAI has been shown to be capable of identifying, prenatally, infants whose attachment to mother is more likely to assume an anxious as opposed to secure form. Many previous studies have shown how these infant patterns of attachment make certain less-than-adaptive developmental pathways more likely (Sroufe, 1988).

Nevertheless, the Fonagy & Steele (1991) study left some questions unanswered. Concordance in that study was of the order of only 75% and the question therefore remained: what might the explanation be for the remaining 25% discordance. There also remains the question of the possible influence on attachment of demographic or biographical variables of parents across previous generations, investigation of which has been attempted in some former retrospective cross-generational studies (Ricks, 1985, Quinton & Liddle, 1983).

Part of the work leading to this thesis was an attempt to address the question of the above 25% discordance by looking at objective variables which might account for this. One component of the longitudinal project, of which the above Fonagy & Steele study was a part, was the collection of one-year Parent Experience Interviews ("PEI") which attempt to investigate the transition to parenthood and evolving representation of the child. These questions were raised of both mothers and fathers who took part in the project.

The questions raised in this interview are set out in Appendix 9.1.

The above PEIs were used as the data-base for applying four questions related to major life-events which might possibly affect the parent's internal representations of security and so affect the child's attachment to that parent. These questions were: what were the caregiving arrangements for the child; whether the family had moved house; whether the parent had changed job; and whether there had been health problems for either parent or the child. In addition to asking these questions, an attempt was made to assess the threat involved in any of these changes in all but the first question. This threat was assessed both contextually, i.e. objectively in the light

of what was reported, and as reported by the parent i.e. that parent's subjective experience of the threat. In asking the same questions of both parents, one of the objectives was also to ascertain whether there might be any significant discrepancies between parents and to consider what the effect of these might be.

METHOD

Design

The study reported here builds upon and extends the data-base of the London Parent-Child Project, an ongoing longitudinal research programme at University College London and the Anna Freud Centre, of which the Fonagy & Steele (1991) study and also this thesis form a part.

The design of the above Project has so far comprised three phases and others are projected. The first was conducted during the last trimester of a first pregnancy when the AAI (George, Kaplan & Main, 1985) was administered to 100 women and their partners. The second phase took place at 12 and 18-months post-partum. At 12 months, all

the families were invited to the laboratory for the first time where 96 children were assessed with mother in the SS. The same children were assessed with their father in the SS at 18-months post-partum. When the families attended at 12-months, both mothers and fathers were each interviewed in the PEI, the semi-structured interview referred to above, which was designed to disclose the quality of each parent's adaptation to their first child. It is these latter data which have been used retrospectively in this study to discover whether the experience of intervening life-events has had an identifiable influence upon the parents' working-models of attachment.

Subjects

One hundred primiparous mothers were selected as subjects from a larger group of such mothers attending prenatal classes at University College Hospital, London.

The expectant mothers' median age was 31 (range 22 - 42). 82 of these were married to the expectant father at time of recruitment or married subsequently. Subjects were typically well-educated, Caucasian and middle-class. All had completed their education to university-entrance level and 70 were university graduates. In accordance with U.K.

governmental criteria, subjects were classified as to occupation as follows: 21 professional or managerial; 65 intermediate ; 9 skilled; 5 partly skilled. In accordance with the same criteria, subjects were further classified as to income group as follows: 21 upper; 65 middle; 14 lower. 75 were from England; 10 from Scotland or Ireland; 15 from outside the U.K.

Between prenatal AAI assessments and one-year SS assessments, one mother was excluded because she had twins. SS data were unavailable for three infants because of technical difficulties. 96 infants were seen in the laboratory for SS assessments: 50 males and 46 females. None had any significant auditory or visual handicap. One infant (classified secure in SS assessment) had congenital cystic hygroma and received considerable medical attention with multiple hospitalisation.

Materials

The present study looked at the transcripts of the PEI interviews at 12 months of 90 couples, each comprising a mother and the father of her primiparous child (N = 180).

Procedure

The questions referred to above were applied to the PEI transcripts, each rated in accordance with the criteria set out in Appendix 9.2 hereto. In addition, all except the first question were rated for both contextual and reported threat in accordance with the scale set out in Appendix 9.3 hereto.

Statistical Analyses

Non-parametric analyses were performed using an SPSS/PC computer programme to identify which items in the data obtained from the PEIs were most closely related to which classifications of the AAI and SS assessments in the Fonagy & Steele study.

RESULTS

The present study revealed no significant associations between the internal representations of attachment in either parent, as assessed by AAI prior to the birth of their first child, or between the child's attachment-classification with mother, as assessed by SS on

the one hand and intervening life-events during their child's first year of life on the other.

There were no significant discrepancies between the data deriving from mothers compared with that deriving from fathers.

So far as caregiving arrangements, as reported by both mothers and fathers, was concerned, 32% of mothers remained the principal caregiver of their child throughout the first 12 months; 8% had some form of help in caregiving; 53% returned to work after 3 months; and 7% returned to work before 3 months.

On the question of whether there was a move of home, as reported by mothers, 14% (N=13) of families moved while 86% did not.

With regard to the contextual threat of such moves, the threat was rated severe in the case of 2 mothers; moderate by 8 mothers; mild by 3 mothers.

With regard to the reported threat of such a move, the threat was rated severe in the case of 1 mother; moderate by 1 mother; mild by 4 mothers; and no threat by 7 mothers.

On the question of whether there was a move of home, as reported by fathers, 23% (N=21) of families moved while 77% did not.

With regard to the contextual threat of such moves, the threat was rated severe in the case of 6 fathers; moderate by 12 fathers; mild by 3 fathers.

With regard to the reported threat of such moves, the threat was rated severe in the case of 3 fathers; moderate by 4 fathers; mild by 6 fathers; and no threat by 8 fathers.

On the question of whether father changed his job, as reported by mothers, 6% (N=5) of fathers changed while 94% did not.

With regard to the contextual threat of such a change, the threat was rated severe in the case of 1 mother; moderate by 2 mothers; mild by 2 mothers.

With regard to the reported threat of such a change, the threat was rated severe in the case of 1 mother; moderate by 1 mother; no threat by 3 mothers.

On the question of whether father changed his job, as reported by fathers, 17% (N=15) changed while 83% did not.

With regard to the contextual threat of such change, the threat was rated severe in the case of 1 father; moderate by 6 fathers; mild by 8 fathers.

With regard to the reported threat of such a change, the threat was rated moderate by 2 fathers; mild by 3 fathers; and no threat by 10 fathers.

On the question of whether there was a serious health concern, as reported by mothers, 4.5% (N=4) reported a life-threatening situation for their child; 4.5% (N=4) a less-serious situation for their child; 1% (N=1) a serious health situation for the mother; 90% (N=81) no health problems.

With regard to the contextual threat of such situations, the threat was rated severe in the case of 7 mothers; moderate by 1 mother; mild by 1 mother.

With regard to the reported threat of such situations, the threat was rated severe in the case of 6 mothers; moderate by 2 mothers; mild by 1 mother.

On the question of whether there was a serious health concern, as reported by fathers, 7% (N=6) reported a life-threatening situation for their child; 2% (N=2) a less-serious situation for their child; 2% (N=2) a serious health situation for the mother; 2% (N=2) a serious health situation for the father; 87% (N=78) no health problems.

With regard to the contextual threat of such situations, the threat was rated severe in the case of 7 fathers; mild by 3 fathers.

With regard to the reported threat of such situations, the threat was rated severe in the case of 4 fathers; moderate by 2 fathers; mild by 3 fathers; no threat by 1 father.

DISCUSSION

The present study investigated data obtained as part of the London Parent-Child Project in order to determine whether life-events might influence working-models of attachment in parents and their one-year-old child. The reason for this investigation was related to the efficacy of AAI as a means of accurately assessing the attachment-status of mothers. It is contended that AAI does have this

capability in principle. The question remains, however, whether the AAI necessarily has this capability in practice, bearing in mind that assessment results from the judgment of independent raters based on the present recall of adult subjects of their childhood experiences.

One question which needs to be addressed, therefore, is the nature of objective-recall of subjects, compared with their subjective-recall. According to George, Kaplan & Main (1985), the objective-recall of subjects is inadequate for assessment of their attachment-status and it is necessary to arrive at some assessment of their subjective-recall in order to determine attachment classification. This places a heavy burden on the independent raters who assess AAIs and the question arises whether they are influenced unduly by real events, as reported by subjects, when they should be influenced solely by subjective experiences. A closely related question, therefore, is whether there is an association between objective experiences as disclosed in AAIs and security of attachment. Studies to date show that observed objective-experiences cannot be predictive of attachment status but that subjective-recall can be. Finally the question arises whether there is any interaction between objective-experience and subjective-representation which may influence attachment status.

The Fonagy & Steele (1991) study found that first-time mothers of anxiously and securely-attached infants are distinguishable before the birth of their child in terms of coherence of their statements and ideas concerning their attachment history and their current state of mind with respect to attachment. They claimed that reliable assessments of these cognitive and emotional processes were obtained through the use of the AAI. Others have been more impressed by the influence of life-events and by various demographic and biographical variables in parents, as predictors of subsequent mental adjustment in their children. If, therefore, after applying such criteria to both mothers and their children, and even to the parents of those mothers, there is still a strong association between the attachment-status of mothers and that of their children, this would provide further powerful support for the conclusions of the Fonagy & Steele study.

The question whether life-events and demographic and biographical variables are also associated with attachment-status across generations is, therefore, of interest in helping to reinforce or confirm earlier findings relating to associations between AAI assessments and SS assessments and, thus, further validating the efficacy of the AAI.

Although the data obtained in this study proved to be non-significant, the study may nevertheless not constitute convincing evidence that life-events do not play any significant role in the determination of the internal representations of attachment in parents and their first-born child at one year. The PEI is designed to uncover feelings about parenthood at one-year rather than to specifically detect the occurrence and consequent influence of intervening life-events. It seems reasonable to suggest, therefore, that a more detailed assessment of objective indicators of family-life should be developed before it becomes safe to dismiss these indicators as non-significant.

In fact, further analyses of the PEIs has highlighted the possibility that subjective aspects of maternal experience, especially negative affect, may explain the intergenerational discordance which has so far been observed.

The question of the 25% discordance in the Fonagy & Steele study, therefore, remains unexplained. Further work in this area is proposed on two fronts.

Firstly it is proposed to develop a life-history questionnaire to better elicit the inter-generational and

family life-events and other demographic and biographic variables which might act as an environmental influence on patterns and internal representations of attachment across generations.

Secondly, it is proposed to apply various assessments of subjective experience for comparison with the internal representations of attachment of both parents and their child, as well as instruments which attempt to assess the object-relatedness of parents and children as understood within object-relations theory of psychoanalysis.

By applying these further measures and making further comparisons with the data so far obtained in the London Parent-Child Project, it is hoped that some explanation will be found for the discordant 25% in the Fonagy & Steele (1991) study. It remains to be seen whether these further investigations will support the conclusions which have so far been drawn from the overall longitudinal study which comprises that Project.

CHAPTER TEN

THE RELATIONSHIP BETWEEN SCORS AND THE AAI CLASSIFICATION SYSTEM

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THE RELATIONSHIP BETWEEN SCORS AND THE AAI CLASSIFICATION SYSTEM

This chapter examines the relationship between the SCORS ratings and some of the variables of the AAI rating and classification system: 1. secure versus insecure; 2. the three-way classification system of secure or autonomous but with insecure divided into the classifications dismissing or preoccupied; 3. a four-way version of the previous classification system where, in addition to the three principal classifications, there is a fourth category of unresolved; 4. the detailed classification system specifically adopted by Main in which each of the three principal classifications is further divided into a total of 15 sub-classifications; 5. a collapsed version of the detailed classification system in which some of the sub-categories are combined; 6. the lack-of-resolution-of-mourning scales. In addition to the above, factor scores were obtained for the SCORS ratings which were also compared with all of the above AAI variables.

METHOD

Subjects

The subjects whose AAIs are used in this chapter are the 100 women and 100 men who were referred to in Chapter Seven.

Procedure

High inter-rater reliabilities were obtained in respect of the SCORS ratings as described in Chapter Seven. All the SCORS ratings were reduced to a single factor in respect of mothers (accounting for 82.2% of the variance) and a single factor in respect of fathers (accounting for 84.2% of the variance) through SPSS factor principal component analysis. The factor-structure for mothers closely resembled that produced for fathers. The loadings of the four SCORS measures on this factor are shown in Table 10.1 for mothers and fathers separately.

TABLE 10.1

LOADINGS

	Mothers	Fathers
Affect-Tone	.838	.812
Complexity of Representations	.905	.934
Capacity for Emotional Investment	.947	.968
Understanding Social Causality	.932	.943
Eigenvalue	3.29	3.37

RESULTS

Results are presented in six sections, each of which examines the relationship of SCORS ratings and related factor-scores, each with a different group of AAI variables as described above.

(1) Secure versus Insecure AAI

Mothers

A series of five analyses of variance was performed; one for each of the four SCORS scales and related factor-scores as dependant variables with secure versus insecure ratings of maternal AAIs as independent variables. SPSS ANOVA Procedure was used for the analyses (see Table 10.2).

TABLE 10.2
MEANS OF SCORS RATINGS OF MOTHERS' AAIs GROUPED BY 2-WAY ATTACHMENT CLASSIFICATION - SECURE v NOT SECURE

SCORS	SECURE N=53 (SD)	NOT SECURE N=36 (SD)	F-STATISTICS
Affect-Tone	3.54 (.49)	3.20 (.64)	F,1,87, = 7.88, p<.006
Complexity of Representations	3.56 (.89)	3.29 (.84)	F,1,87, = 2.04, p<.156
Capacity for Emotional Invest.	3.29 (.59)	2.87 (.66)	F,1,87, = 9.60, p<.002
Understanding Social Causality	3.25	3.07	F,1,87, = 1.63, p<.204
Factor scores	0.20 (.92)	-.030 (1.06)	F,1,87, = 5.53, p<.021

Two SCORS measures yielded significant results: Affect-Tone and Capacity for Emotional Investment. In both cases secure mothers were rated higher than insecure. There appeared to be no such differences in respect of Complexity of Representations and Understanding of Social Causality. The factor scores also yielded a significant result with the AAIs of secure mothers having a considerably higher mean SCORS factor-scores than insecure mothers.

Fathers

A similar series of five analyses of variance was performed, as in the case of mothers (see Table 10.3)

TABLE 10.3
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED BY 2-WAY ATTACHMENT CLASSIFICATION - SECURE v NOT-SECURE

SCORS	SECURE N=61 (SD)	NOT SECURE N=31 (SD)	F-STATISTICS
Affect-Tone	3.40 (.46)	3.21 (.47)	F,1,90 = 3.14, p<.079
Complexity of Representations	3.39 (.74)	3.19 (.72)	F,1,90 = 1.59, p<.210
Capacity for Emotional Invest.	3.04 (.56)	2.89 (.62)	F,1,90 = 1.47, p<.227
Understanding Social Causality	3.16	3.00	F,1,90 = 1.62, p<.205
Factor scores	0.12 (.98)	-0.22 (1.02)	F,1,90 = 2.22, p<.140

Mean SCORS ratings were not significantly different for the two groups, although Affect-Tone came very close to being so. Nevertheless, the insignificant difference in means between the secure and insecure classifications suggests that security on the AAI is unrelated to SCORS ratings for fathers.

(2) AAI classification: Dismissing; Preoccupied, Secure-Autonomous. We also contrasted SCORS ratings on the basis of the three-way classification of the AAI protocols.

Mothers

A series of five analyses of variance was performed; one for each of the four SCORS measures plus the related factor-scores, grouped according to the three-way AAI classification system (dismissing; preoccupied, secure-autonomous) of maternal AAIs as independent variables. SPSS Factorial ANOVA was used for the analyses (see Table 10.4).

TABLE 10.4
MEANS OF SCORS RATINGS OF MOTHERS' AAIs GROUPED
BY 3-WAY ATTACHMENT CLASSIFICATION - SECURE v INSECURE

SCORS	SECURE N=53 (SD)	INSECURE DISMISSING N=21 (SD)	INSECURE PREOCCUPIED N=15 (SD)	F-STATISTICS
Affect-Tone	3.54 (.49)	3.21 (.57)	3.18 (.76)	F,2,86 = 3.91, p<.023
Complexity of Representations	3.56 (.89)	3.16 (.67)	3.48 (1.03)	F,2,86 = 1.60, p<.207
Capacity for Emotional Inv.	3.29 (.59)	2.84 (.63)	2.91 (.72)	F,2,86 = 4.80, p<.01
Understanding Social Causlty	3.25 (,62)	3.01 (.67)	3.14 (.78)	F,2,86 = 0.97, p<.382
Factor scores	0.20 (.92)	-0.37 (.98)	-0.20 (1.19)	F,2,86 = 2.88, p<.062

Two of the ANOVAs yielded significant results. On this occasion there appeared to be a degree of differentiation, albeit a small one, between the secure group and the two insecure groups for Affect-Tone. The dismissing and preoccupied classifications showed no significant differences but both these classifications differed significantly from the secure-autonomous classification. Capacity for Emotional Investment was significantly higher for the group with secure AAI transcripts than the two insecure groups. This scale showed differences comparable to the Affect-Tone scale. With regard to the application of the factor-scores, the results

approached significance and the AAIs of secure mothers produced a significantly higher mean that either of the two insecure classifications.

Fathers

A similar series of five analyses of variance was performed as in the case of mothers (see Table 10.5).

TABLE 10.5
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED BY 3-WAY ATTACHMENT CLASSIFICATION - SECURE v INSECURE

SCORS	SECURE N=61 (SD)	INSECURE DISMISSING N=18 (SD)	INSECURE PREOCCUPIED N=13 (SD)	F-STATISTICS
Affect-Tone	3.4 (.45)	3.18 (.55)	3.25 (.36)	F,2,89 = 1.63, P<.201
Complexity of Representns	3.39 (.74)	2.99 (.82)	3.46 (.48)	F,2,89 = 2.34, P<.101
Capacity for Emotional Inv	3.04 (.56)	2.80 (.73)	3.0 (.43)	F,2,89 = 1.18, P<.310
Understanding Soc. Causal	3.16 (.56)	2.83 (.64)	3.25 (.35)	F,2,89 = 3.0, P<.05
Factor scores	0.12 (.98)	-0.43 (1.18)	0.08 (.70)	F,2,89 = 2.14, P<.124

In the two-way contrasts of SCORS measures for rating protocols, one SCORS measure yielded significant results: Understanding Social Causality. Interviews classified as dismissing yielded means lower on the measure of Understanding Social Causality than either the preoccupied or secure ones.

(3) Four-way AAI classification: Dismissing; Preoccupied; Unresolved; Secure-Autonomous. SCORS ratings were contrasted on the basis of this four-way classification of the AAI protocols.

Mothers

A series of five analyses of variance was performed as before: one for each of the four SCORS measures plus the related factor-scores, grouped according to four-way AAI classification (dismissing; preoccupied; unresolved; secure-autonomous) of maternal AAIs as independent variables. SPSS Factorial ANOVA was used as before (see Table 10.6).

TABLE 10.6
MEANS OF SCORS RATINGS OF MOTHERS' AAIs GROUPED BY 4-WAY ATTACHMENT-CLASSIFICATION - SECURE, INSECURE

SCORS	SECURE N=50 (SD)	INSECURE DISMISSING N=21 (SD)	INSECURE PREOCCUPIED N-11 (SD)	INSECURE UNRESOLVED N=7 (SD)
Affect-Tone	3.55 (.48)	3.21 (.57)	3.30 (.75)	3.10 (.80)
Complex. of Representns	3.55 (.91)	3.16 (.68)	3.44 (1.18)	3.70 (.51)
Capacity for Emotionl Investment	3.30 (.61)	2.84 (.64)	2.90 (.85)	3.03 (.28)
Understand. Socl. Caus.	3.27 (.63)	3.02 (.66)	3.25 (.83)	2.93 (.52)
Factor scores	0.21 (.93)	-0.37 (.98)	-0.12 ((1.33)	-0.20 (.75)

F-STATISTICS FOR THE ABOVE

Affect-Tone	F,3,85 = 2.63, p<.055
Complexity of Representations	F,3,85 = 1.15, p<.333
Capacity for Emotional Invest.	F,3,85 = 3.19, p<.028
Understanding Social Causality	F,3,85 = 1.09, p<.358
Factor Scores	F,3,85 = 1.86, p<.143

This 4-way classification system produces a third insecure category of unresolved, in addition to the dismissing and preoccupied categories. This additional category relates to unresolved issues of loss or mourning

or about childhood trauma, particularly abuse. Only seven mothers were classified in this category, four being drawn from the preoccupied category and three from the secure-autonomous category.

Only two SCORS measures yielded significant results when compared with this 4-way classification system.

For Affect-Tone, those AAIs rated as unresolved showed marginally the lowest mean SCORS rating, although all three means for insecure classifications were within a narrow band, while, as expected, those rated secure-autonomous showed the highest mean SCORS rating.

On Capacity for Emotional Investment, in contrast to the previous reported measure, AAIs rated unresolved showed the highest mean SCORS rating within the insecure categories. However, again, all three insecure categories produced mean SCORS ratings within a narrow band while the secure-autonomous category showed the highest mean SCORS rating of all.

Fathers

A similar series of five analyses of variance was performed, as in the case of mothers (see Table 10.7)

TABLE 10.7
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED BY 4-WAY ATTACHMENT CLASSIFICATION - SECURE INSECURE

SCORS	SECURE N=61 (SD)	INSECURE DISMISSING N=18 (SD)	INSECURE PREOCCUPIED N-12 (SD)	INSECURE UNRESOLVED N=1 (SD)
Affect-Tone	3.40 (.47)	3.19 (.55)	3.24 (.38)	3.40 (.00)
Complexity of Representns	3.40 (.74)	2.99 (.82)	3.43 (.50)	3.80 (.00)
Capacity for Emotional Invst	3.05 (.57)	2.81 (.73)	2.98 (.45)	3.30 (.00)
Understanding Social Causal	3.17 (.56)	2.83 (.64)	3.24 (.37)	3.40 (.00)
Factor scores	0.12 (.98)	-0.43 (1.18)	0.47 (.72)	0.50 (.00)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,3,88 = 1.11$, $p<.349$
Complexity of Representations	$F,3,88 = 1.63$, $p<.189$
Capacity for Emotional Invest.	$F,3,88 = 0.87$, $p<.460$
Understanding Social Causality	$F,3,88 = 2.01$, $p<.119$
Factor Scores	$F,3,88 = 1.48$, $p<.226$

None of the Father AAIs yielded significant SCORS ratings on this 4-way classification system.

(4) AAI Sub-classifications. We also contrasted SCORS ratings on the basis of the AAI sub-classification system which assigns a total of 15 possible sub-classifications to the three principal classifications of secure, dismissing and preoccupied.

Mothers

A series of five analyses of variance was performed; one for each of the four SCORS measures and related factor-scores as the dependant variable with the fifteen sub-classifications of the three principal AAI classifications of maternal AAIs as independent variables. SPSS ANOVA procedure was used for the analyses (see Table 10.8).

TABLE 10.8
MEANS OF SCORS RATINGS OF MOTHERS' AAIs GROUPED
BY ATTACHMENT SUB CLASSIFICATIONS FOR SECURE v INSECURE

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot. Inv.	Understand Soc. Caus.	Factor Scores
Dismiss of Attach N=8	3.36	3.22	2.88	2.96	-0.29
(SD)	(.45)	(.60)	(.47)	(.65)	(.80)
Devaluing of Attach N=3	2.30	2.33	2.13	2.23	-1.70
(SD)	(.20)	(.45)	(.15)	(.41)	(.42)
Restricted Feeling N=8	3.50	3.28	2.93	3.23	-0.13
(SD)	(.42)	(.43)	(.65)	(.40)	(.74)
Detached N=1	4.10	4.60	4.20	4.50	1.70
(SD)	(.00)	(.00)	(.07)	(.05)	(.00)
Passive N=6	3.25	3.28	2.85	2.85	-0.38
(SD)	(.81)	(.62)	(.62)	(.86)	(.99)
Angry N=9	3.13	3.61	2.95	3.34	-0.07
(SD)	(.76)	(1.25)	(.82)	(.69)	(1.35)
Setting Aside of Attach (Re-evaluated) N=4	3.07	3.00	2.87	2.85	-0.54
(SD)	(.20)	(.73)	(.26)	(.57)	(.60)
Setting Aside of Attach (Limited Involvt) N=1	2.90	2.80	3.00	2.70	-0.68
(SD)	(.00)	(.00)	(.00)	(.00)	(.00)

Somewhat Restrictg of Attach N=8	3.41	2.92	2.90	2.61	-0.50
(SD)	(.29)	(.53)	(.47)	(.44)	(.57)
Secure/ Autonomous (Suppportg Families) N=21	3.70	3.52	3.29	3.25	0.26
(SD)	(.55)	(.92)	(.57)	(.53)	(.92)
Secure/ Autonomous (Difficult Childhood) N=2	3.40	4.15	3.25	3.50	0.41
(SD)	(.00)	(1.20)	(.07)	(.42)	(.59)
Strong Valuing of Relatnships (Supportive Background) N=7	3.74	3.90	3.65	3.75	0.77
(SD)	(.56)	(.73)	(.75)	(.61)	(1.06)
Strong Valuing of Relatnships (Traumatic Childhood) N=10	3.40	4.07	3.35	3.44	0.40
(SD)	(.47)	(.88)	(.57)	(.59)	(.91)
Somewhat Resentful N=1	3.30	3.30	4.40	4.00	0.82
(SD)	(.00)	(.00)	(.00)	(.00)	(.00)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,13,74 = 2.20$, $p<.017$
Complexity of Representations	$F,13,74 = 1.86$, $p<.048$
Capacity for Emotional Invest.	$F,13,74 = 2.36$, $p<.010$
Understanding Social Causality	$F,13,74 = 2.91$, $p<.001$
Factor Scores	$F,13,74 = 2.31$, $p<.012$

In the above classification system, the first four subclassifications are all aspects of the dismissing main class; the next two are all aspects of the preoccupied main class (there is a third - fearfully preoccupied by traumatic events - for which no mother was rated); the final eight subclassifications are all aspects of the secure-autonomous main class.

All four SCORS measures yielded significant results when compared with the AAI sub-classification system.

It is curious that for Affect-Tone, both the highest mean and the lowest are in respect of subclassifications related to the dismissing main class: the subclassification "detached/cut-off from fear of loss" received the highest mean SCORS rating; in fact the highest rating. As only one AAI transcript for mothers was rated on this subclassification, it probably indicates no more than a single aberration. The lowest mean was in respect of the subclassification "devaluing of attachment" and is consistent with what might be expected. However, only three transcripts were assigned to this subclassification. Otherwise there were no material differences in means which might merit comment, either within any individual main class or between all three.

For the Complexity of Representations measure, there were the same interesting features in respect of the Dismissing main class, as has been reported in respect of Affect-Tone. Similarly, there was only marginal variation between mean ratings in respect of the two preoccupied subclassifications. However, within the Secure class, the mean ratings for three subclassifications were significantly higher than the remaining five: "Secure/Difficult Childhood"; "Strong Valuing of Relationships/Supportive Background"; and "Strong Valuing of Relationships/Traumatic Childhood".

On the Capacity for Emotional Investment measure, exactly the same features in respect of the Dismissing main class emerged as has already been reported above. Again, there was only marginal variation between mean ratings in respect of the two preoccupied subclassifications. However, within the Secure class there was a distinguishing feature for this SCORS measure: those AAIs assigned to the "Somewhat Resentful" subclassification scored a significantly higher mean rating than those scored on the other subclassifications within this group.

On the Understanding of Social Causality measure, the same features arose in respect of all subclassifications as has already been reported for the Complexity of Representations scale.

When applying the factor-scores to AAIs in the above subclassifications, the same pattern emerged for those assigned to the Dismissing main class. There was no significant difference for the Preoccupied group. Within the Secure class, however, some more interesting differences emerged. Again the AAIs assigned to the "Somewhat Resentful" subclassification scored a significantly higher mean rating that all others rated within this class. However, the remaining subclassifications divided into two groups: AAIs assigned to the two "Some Setting aside of Attachment" subscales and "Somewhat Restricting of Attachment" secured significantly lower mean SCORS ratings than those assigned to all the remaining subscales

Fathers

A similar series of five analyses of variance was performed, as in the case of mothers (see Table 10.9)

TABLE 10.9
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED
BY ATTACHMENT SUB CLASSIFICATIONS FOR SECURE v INSECURE

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.Soc.	Understanding Caus.	Factor Scores
Dismiss of Attach N=5	3.64	3.66	3.46	3.34	0.62
(SD)	(.71)	(1.20)	(1.00)	(.87)	(1.65)
Devaluing Attach N=5	3.12	2.78	2.58	2.70	-1.72
(SD)	(.41)	(.43)	(.43)	(.37)	(.65)
Restricted Feeling N=7	2.94	2.80	2.59	2.70	-0.80
(SD)	(.40)	(.48)	(.47)	(.40)	(.67)
Passive N=6	3.50	3.48	3.17	3.27	0.30
(SD)	(.24)	(.35)	(.37)	(.37)	(.58)
Angry N=7	3.04	3.44	2.87	3.24	-0.11
(SD)	(.34)	(.61)	(.47)	(.38)	(.78)
Setting Aside of Attach (Re-evaluated) N=2	3.20	3.65	3.00	3.45	0.22
(SD)	(.00)	(.64)	(.14)	(.50)	(.41)
Setting Aside of Attach (Limited Involvt) N=5	3.10	2.78	2.50	2.82	-0.71
(SD)	(.51)	(.40)	(.47)	(.28)	(.66)
Restricting of Attach N=9	3.34	3.18	2.93	3.04	-0.12
(SD)	(.38)	(.41)	(.33)	(.50)	(.65)

Secure/ Autonomous (Supportive Families) N=23	3.50	3.40	3.10	3.16	0.18
(SD)	(.43)	(.76)	(.56)	(.61)	(1.02)
Secure/ Autonomous (Difficult Childhood) N=4	3.75	3.76	3.30	3.33	0.63
(SD)	(.60)	(1.50)	(.83)	(1.03)	(1.70)
Strong Valuing of Relnships (Supportive Background) N=14	3.36	3.36	3.06	3.13	0.06
(SD)	(.45)	(.80)	(.68)	(.63)	(1.06)
Somewhat Resentful N=5	3.18	3.86	3.16	3.42	0.34
(SD)	(.64)	(.62)	(.56)	(.44)	(.97)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F_{11,79} = 1.92$, $p < .049$
Complexity of Representations	$F_{11,79} = 1.47$, $p < .158$
Capacity for Emotional Invest.	$F_{11,79} = 1.53$, $p < .136$
Understanding Social Causality	$F_{11,79} = 1.13$, $p < .346$
Factor Scores	$F_{11,79} = 1.48$, $p < .155$

None of the Father AAIs yielded significant SCORS ratings on this inclusive sub-classification system except in respect of Affect-Tone. Even on this SCORS measure, there was little variation in the mean ratings in respect

of the 12 AAI sub-classifications. The lowest was in the dismissing group in respect of the "Restricted-in-Feeling" subclassification. However, the second-highest was also within this group in respect of the "Dismissing-of-Attachment" subgroup. The highest was within the secure group in respect of the "Difficult-Childhood" subgroup.

(5) Collapsed AAI Sub-classifications. SCORS ratings were contrasted on the basis of a collapsed version of the AAI sub-classification system in order to avoid sub-categories which covered only a small number of subjects.

Mothers

Within the dismissing group, there remained two sub-groups: "Dismissing of Attachment" was combined with "Devaluing of Attachment". Within the preoccupied group, the two sub-groups remained unchanged. Within the secure group, there remained four sub-groups: the two sub-sub-groups for "Some setting aside of attachment" were combined; so also were the two sub-sub-groups for "Secure/Autonomous" and the two sub-sub-groups for "Strong valuing of relationships". A series of five analyses of variance was performed; one for each of the four SCORS

measures and related factor-scores as the dependant variable with the eight collapsed sub-classifications of the three principal AAI classifications of maternal AAIs as independent variables. SPSS ANOVA procedure was used for the analyses (see Table 10.10).

TABLE 10.10
MEANS OF SCORS RATINGS OF MOTHERS'S AIIs GROUPED BY COLLAPSED ATTACHMENT SUBCLASSIFICATIONS FOR SECURE v INSECURE

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.Soc.	Understanding Caus.	Factor Scores
Dismiss of Attach and Devaluing of Attach N=11	3.07	2.95	2.68	2.76	-0.67
(SD)	(.63)	(.72)	(.53)	(.67)	(.96)
Restricted Feeling and Detached N=9	3.43	3.43	3.08	3.38	0.07
(SD)	(.47)	(.60)	(.74)	(.57)	(.93)
Passive N=6	3.25	3.28	2.85	2.85	-0.38
(SD)	(.81)	(.62)	(.62)	(.86)	(.99)
Angry N=9	3.13	3.61	2.95	3.34	-0.07
(SD)	(.76)	(1.25)	(.82)	(.69)	(1.35)
Setting Aside of Attach (Re-eval) and Setting Aside of Attach (Limited Involvt) N=5	3.04	2.96	2.90	2.82	-0.57
(SD)	(.19)	(.64)	(.23)	(.50)	(.53)

Restrict of Attach N=8 (SD)	3.41 (.29)	2.92 (.53)	2.90 (.47)	2.61 (.44)	-0.50 (.57)
Secure/ Autonomous (Support Families) and Secure/ Autonomous (Difficult Childhood) N=23 (SD)	3.67 (.54)	3.58 (.94)	3.29 (.55)	3.28 (.52)	0.27 (.88)
Strong Valuing of Relnships (Supportive Background) and Strong Valuing of Relnships (Traumatic Childhood) and Somewhat Resentful N=18 (SD)	3.53 (.51)	3.96 (.80)	3.53 (.67)	3.60 (.59)	0.57 (.93)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,7,80 = 2.10$, $p<.052$
Complexity of Representations	$F,7,80 = 2.38$, $p<.029$
Capacity for Emotional Invest.	$F,7,80 = 2.68$, $p<.015$
Understanding Social Causality	$F,7,80 = 2.68$, $p<.015$
Factor Scores	$F,7,80 = 3.86$, $p<.001$

As in the case of the uncollapsed version of this classification system, all four SCORS measures plus the factor scores thereof, yielded significant results when compared with the AAI sub-classification system.

For Affect-Tone, the two highest means, unlike the uncollapsed version, are now within the secure group in respect of the "Secure/autonomous" sub-group and the "Strong valuing of relationships" sub-group. However, the lowest mean is also within the secure group in respect of the "Some setting aside of Attachment" subclassifications.

For the Complexity of Representations measure, both the highest and lowest means were again within the secure group: the lowest in respect of the "Somewhat restricting of attachment" sub-group; the highest in respect of the "Strong valuing of relationships" sub-group. The next highest was within the preoccupied group in respect of the "Angry" subclassification.

For the Capacity for Emotional Investment measure, the highest mean SCORS rating was within the secure group in respect of "Strong valuing of relationships" subclassification; so also was the second-highest in respect of the "Secure/Autonomous" subclassifications. The lowest was within the dismissing group in respect of the

"Dismissing and Devaluing of Attachment" subclassifications.

For the Social Causality measure, both the highest and lowest mean ratings were within the secure group: the highest in respect of the "Strong valuing of relationships" subclassifications; the lowest in respect of the "Somewhat restricting of attachment" subclassification. However, the second-highest mean rating was within the dismissing group in respect of the "Angry" subclassification.

For the Factor scores there were significant differences in mean ratings. The highest was within the secure group in respect of the "Strong valuing of relationships" subclassification. Also within this group, the "Secure/autonomous" subclassification produced the second-highest mean rating. The lowest mean was within the dismissing group in respect of the "Dismissing of attachment" subclassification. However, there were also very low mean ratings within the secure group in respect of both the "Some setting aside of attachment" and "Somewhat restricting of attachment" subclassifications.

Fathers

The subclassifications for fathers were combined in a slightly different way. Within the dismissing group, the three sub-groups remained intact. Within the preoccupied group also, the two sub-groups remained unchanged. Within the secure group, the sub-groups were combined in the same manner as with mothers: the two sub-sub-groups for "Some setting aside of attachment" were combined; so also were the two sub-sub-groups for "Secure/Autonomous" and the two sub-sub-groups for "Strong valuing of relationships". A series of five analyses of variance was performed; one for each of the four SCORS measures and related factor-scores as the dependant variable with the eight collapsed sub-classifications of the three principal AAI classifications of maternal AAIs as independent variables. SPSS ANOVA procedure was used for the analyses (see Table 10.11).

TABLE 10.11
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED BY COLLAPSED ATTACHMENT SUB CLASSIFICATIONS FOR SECURE v INSECURE

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Dismiss Attach N=5	3.64	3.66	3.46	3.34	0.62
(SD)	(.71)	(1.20)	(1.00)	(.87)	(1.65)
Devaluing Attach N=5	3.12	2.78	2.58	2.70	-1.72
(SD)	(.41)	(.43)	(.43)	(.37)	(.65)

Restricted Feeling N=7	2.94	2.80	2.59	2.70	-0.80
(SD)	(.40)	(.48)	(.47)	(.40)	(.67)
Passive N=6	3.50	3.48	3.17	3.27	0.30
(SD)	(.24)	(.35)	(.37)	(.37)	(.58)
Angry N=7	3.04	3.44	2.87	3.24	-0.11
(SD)	(.34)	(.61)	(.47)	(.38)	(.78)
Setting Aside of Attach (Re-eval) and Setting Aside of Attach (Limited Involvt) N=7	3.13	3.03	2.64	3.00	-0.45
(SD)	(.42)	(.59)	(.46)	(.43)	(.73)
Restrict of Attach N=9	3.34	3.18	2.93	3.04	-0.12
(SD)	(.38)	(.41)	(.33)	(.50)	(.65)
Secure/ Autonomous (Support Families) and Secure/ Autonomous (Difficult Childhood) N=27	3.54	3.45	3.13	3.18	0.25
(SD)	(.46)	(.86)	(.59)	(.66)	(1.11)
Strong Valuing of Relnships (Support Background) and Somewhat Resentful N=19	3.31	3.49	3.09	3.21	0.14
(SD)	(.49)	(.77)	(.64)	(.59)	(1.02)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,8,82 = 2.46$, $p<.019$
Complexity of Representations	$F,8,82 = 1.40$, $p<.209$
Capacity for Emotional Invest.	$F,8,82 = 1.94$, $p<.065$
Understanding Social Causality	$F,8,82 = 1.17$, $p<.324$
Factor Scores	$F,8,82 = 1.76$, $p<.098$

As in the case of the uncollapsed version of this AAI classification system, only the Affect-Tone SCORS measure yielded significant ratings in respect of paternal AAIs. Both the highest and lowest mean ratings were in respect of the same two subclassifications within the dismissing group as in respect of the uncollapsed version.

The Capacity for Emotional Investment measure yielded mean ratings on paternal AAIs which were almost significant and with almost identical features as in the case of the Affect-Tone measure.

(6) Comparison of SCORS ratings on collapsed AAI sub-classifications separately within each main classification group only: dismissing; preoccupied; and secure.

Mothers

Two collapsed sub-classification groups within the dismissing group were contrasted: "Dismissing of Attachment" was combined with "Devaluing of Attachment" to form the first sub-group and "Restricted in feeling" was combined with "Detached" to form the other. Again, a series of five analyses of variance was performed. SPSS ANOVA procedure was used for the analyses (see Table 10.12).

TABLE 10.12
MEANS OF SCORS RATINGS OF MOTHERS'S AIIs GROUPED BY COLLAPSED ATTACHMENT SUBCLASSIFICATIONS FOR DISMISSING ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Dismiss Attach and Devaluing Attach N=11	3.07	2.95	2.68	2.76	-0.67
(SD)	(.63)	(.72)	(.53)	(.67)	(.96)
Restricted Feeling and Detached N=9	3.43	3.43	3.08	3.38	0.07
(SD)	(.47)	(.60)	(.74)	(.57)	(.93)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,1,17 = 2.01$, $p<.173$
Complexity of Representations	$F,1,17 = 2.56$, $p<.127$
Capacity for Emotional Invest.	$F,1,17 = 1.93$, $p<.181$
Understanding Social Causality	$F,1,17 = 4.76$, $p<.042$
Factor Scores	$F,1,17 = 3.07$, $p<.097$

Only one SCORS measure, Understanding Social Causality, yielded significant data when applied to maternal AAIs which had been assigned to the dismissing sub-classifications only. The mean SCORS ratings in respect of AAIs assigned to the "Restricted in feeling" and "Detached" sub-classifications was higher than the mean ratings in respect of the "Dismissing of attachment" and "Devaluing of attachment" classifications.

An identical procedure was applied in respect of the two subclassifications within the preoccupied main classification only: "Passive" and "Angry" (see Table 10.13).

TABLE 10.13
MEANS OF SCORS RATINGS OF MOTHERS'S AIIs GROUPED BY ATTACHMENT SUBCLASSIFICATIONS FOR PREOCCUPIED ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Passive N=6	3.25	3.28	2.85	2.85	-0.38
(SD)	(.82)	(.62)	(.62)	(.86)	(.99)
Angry N=9	3.13	3.61	2.95	3.34	-0.07
(SD)	(.76)	(1.25)	(.82)	(.69)	(1.35)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,1,12 = 0.08$, $p<.783$
Complexity of Representations	$F,1,12 = 0.34$, $p<.567$
Capacity for Emotional Invest.	$F,1,12 = 0.07$, $p<.795$
Understanding Social Causality	$F,1,12 = 1.49$, $p<.243$
Factor Scores	$F,1,12 = 0.23$, $p<.638$

None of the maternal AAIs assigned to the preoccupied main classification only yielded significant data when compared with each other in respect of the SCORS ratings.

An identical procedure was applied in respect of the collapsed subclassifications within the secure main classification only (see Table 10.14).

TABLE 10.14

MEANS OF SCORS RATINGS OF MOTHERS'S AIIs GROUPED BY COLLAPSED ATTACHMENT SUBCLASSIFICATIONS FOR SECURE ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.Soc.	Understanding Caus.	Factor Scores
Setting Aside of Attach (Re-eval) and Setting Aside of Attach (Limited Involvt) N=5	3.04	2.96	2.90	2.82	-0.57
(SD)	(.19)	(.64)	(.23)	(.50)	(.53)
Restricting of Attach N=8	3.41	2.92	2.90	2.61	-0.50
(SD)	(.29)	(.53)	(.47)	(.44)	(.57)
Secure/ Autonomous (Support Families) and Secure/ Autonomous (Difficult Childhood N=23	3.67	3.58	3.29	3.28	0.27
(SD)	(.54)	(.94)	(.55)	(.52)	(.88)
Strong Valuing of Relnships (Supportive Background) and Strong Valuing of Relnships (Traumatic Childhood) and Somewhat Resentful N=18	3.53	3.96	3.53	3.60	0.57
(SD)	(.51)	(.80)	(.67)	(.59)	(.93)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,3,49 = 2.55$, $p<.065$
Complexity of Representations	$F,3,49 = 3.90$, $p<.013$
Capacity for Emotional Invest.	$F,3,49 = 3.12$, $p<.034$
Understanding Social Causality	$F,3,49 = 7.36$, $p<.000$
Factor Scores	$F,3,49 = 4.42$, $p<.007$

Maternal AAIs rated on all SCORS measures except Affect-Tone yielded significant results. Even the ratings for Affect-Tone were approaching significance. For those SCORS measures which produced significant results, the pattern was virtually identical. The lowest mean ratings were in respect of AAIs assigned to the first two collapsed subscales: "Some setting aside of attachment" and "Somewhat restricting of attachment". There was a significantly higher mean in respect of the last two subclassifications: "Secure/autonomous" and "Valuing of relationships" with the latter always giving rise to the highest mean score.

Fathers

The three sub-classification groups within the dismissing group were contrasted: "Dismissing of Attachment"; "Devaluing of Attachment"; and "Restricted in

feeling". Again, a series of five analyses of variance was performed. SPSS ANOVA procedure was used for the analyses (see Table 10.15).

TABLE 10.15
MEAN SCORS RATINGS OF FATHERS' AAIs GROUPED BY COLLAPSED ATTACHMENT SUB CLASSIFICATIONS FOR DISMISSING ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Dismiss Attach N=5	3.64	3.66	3.46	3.34	0.62
(SD)	(.71)	(1.20)	(1.00)	(.87)	(1.65)
Devaluing Attach N=5	3.12	2.78	2.58	2.70	-1.72
(SD)	(.41)	(.43)	(.43)	(.37)	(.65)
Restricted Feeling N=7	2.94	2.80	2.59	2.70	-0.80
(SD)	(.40)	(.48)	(.47)	(.40)	(.67)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,1,7 = 2.00$, $p<.194$
Complexity of Representations	$F,1,7 = 2.38$, $p<.161$
Capacity for Emotional Invest.	$F,1,7 = 3.28$, $p<.107$
Understanding Social Causality	$F,1,7 = 2.26$, $p<.170$
Factor Scores	$F,1,7 = 2.85$, $p<.129$

None of the paternal AAIs assigned to the collapsed subcategories within the dismissing group only, yielded significant results in respect of any of the SCORS ratings.

An identical procedure was applied in respect of the two subclassifications within the preoccupied main classification only: "Passive" and "Angry" (see Table 10.16).

TABLE 10.16
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED BY ATTACHMENT SUB CLASSIFICATIONS FOR PREOCCUPIED

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Passive N=6	3.50	3.48	3.17	3.27	0.30
(SD)	(.24)	(.35)	(.37)	(.37)	(.58)
Angry N=7	3.04	3.44	2.87	3.24	-0.11
(SD)	(.34)	(.61)	(.47)	(.38)	(.78)

F-STATISTICS FOR THE ABOVE

Affect-Tone $F,1,10 = 7.76$, $p<.017$

Complexity of Representations $F,1,10 = 0.02$ $p<.888$

Capacity for Emotional Invest. $F,1,10 = 1.52$, $p<.242$

Understanding Social Causality $F,1,10 = 0.01$, $p<.911$

Factor Scores $F,1,10 = 1.08$, $p<.319$

Paternal AAIs rated on only one SCORS measure produced significant results: Affect-Tone. The mean SCORS rating in respect of AAIs assigned to the "Passive" subcategory was higher than those assigned to the "Angry" subcategory.

An identical procedure was applied in respect of the collapsed subclassifications within the secure main classification only (see Table 10.17).

TABLE 10.17
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED BY COLLAPSED ATTACHMENT SUB CLASSIFICATIONS FOR SECURE ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Setting Aside of Attach (Re-evaltd) and Setting Aside of Attach (Limited Involvmnt) N=7	3.13	3.03	2.64	3.00	-0.45
(SD)	(.42)	(.59)	(.46)	(.43)	(.73)
Somewhat Restrctng of Attach N=9	3.34	3.18	2.93	3.04	-0.12
(SD)	(.38)	(.41)	(.33)	(.50)	(.65)
Secure/ Autonomous (Support Families) and Secure/ Autonomous (Difficult Childhood) N=27	3.54	3.45	3.13	3.18	0.25
(SD)	(.46)	(.86)	(.59)	(.66)	(1.11)

Strong Valuing of Relnships (Support Background) and Somewhat Resentful N=19	3.31	3.49	3.09	3.21	0.14
(SD)	(.49)	(.77)	(.64)	(.59)	(1.02)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,3,57 = 1.93$, $p<.134$
Complexity of Representations	$F,3,57 = 0.92$, $p<.437$
Capacity for Emotional Invest.	$F,3,57 = 1.54$, $p<.214$
Understanding Social Causality	$F,3,57 = 0.33$, $p<.805$
Factor Scores	$F,3,57 = 1.05$, $p<.377$

None of the paternal AAIs rated on the collapsed subcategories within the secure group only yielded significant results in respect of any of the SCORS ratings.

(7) AAIs rated on "lack of resolution of mourning" only. SCORS ratings were contrasted on the basis of AAIs assigned only to subcategories relating to "lack of resolution of mourning" which was also the sub-classification most closely associated with the fourth main AAI classification, confused.

Mothers

The same series of five analyses of variance was performed as described above. SPSS ANOVA procedures was used for the analyses (see Table 10.18).

TABLE 10.18
MEANS OF SCORS RATINGS OF MOTHERS' AAIs GROUPED BY ATTACHMENT SUB-CLASSIFICATIONS FOR MOURNING STATUS

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Mourning status resolved N=82	3.43	3.43	3.13	3.20	0.02
(SD)	(.56)	(.90)	(.68)	(.67)	(1.02)
Mourning status unresolved N=7	3.10	3.70	3.03	2.93	-0.20
(SD)	(.80)	(.51)	(.28)	(.52)	(.75)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,1,86 = 2.07$, $p<.154$
Complexity of Representations	$F,1,86 = 0.59$, $p<.446$
Capacity for Emotional Invest.	$F,1,86 = 0.15$, $p<.699$
Understanding Social Causality	$F,1,86 = 1.10$, $p<.297$
Factor Scores	$F,1,86 = 0.31$, $p<.576$

None of these maternal AAIs, assigned to sub-classifications relating to mourning status only, yielded

significant or meaningful data when contrasted with SCORS ratings.

Fathers

The same series of five analyses of variance was performed as described above. SPSS ANOVA procedures was used for the analyses (see Table 10.19).

TABLE 10.19
MEANS OF SCORS RATINGS OF FATHERS' AAIs GROUPED BY ATTACHMENT SUB-CLASSIFICATIONS FOR MOURNING STATUS

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.	Factor Scores
Mourning status resolved N=84 (SD)	3.31 (.48)	3.30 (.74)	2.96 (.58)	3.10 (.57)	-0.05 (1.00)
Mourning status unresolved N=8 (SD)	3.61 (.36)	3.59 (.78)	3.4 (.5)	3.31 (.58)	0.53 (.91)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,1,89 = 2.96$, $p<.087$
Complexity of Representations	$F,1,89 = 1.07$, $p<.303$
Capacity for Emotional Invest.	$F,1,89 = 4.31$, $p<.040$
Understanding Social Causality	$F,1,89 = 1.06$, $p<.306$
Factor Scores	$F,1,89 = 2.53$, $p<.115$

Of the paternal AAIs assigned to sub-classifications related to mourning status only, those rated on the Capacity for Emotional Investment SCORS measure yielded significant data where fathers in the group reflecting a high degree of lack of resolution of mourning scored higher mean SCORS ratings than fathers in the resolved group.

(8) The final investigation in this chapter relates to the contrasting of SCORS ratings with with AAIs rated, on the one hand, in relation to the Main presumed-experience variables, as modified by the UCL research (loving, rejecting, neglecting, role-reversing, pressuring to achieve, overprotecting) and, on the other, the state-of-mind variables (idealisation, derogation of attachment experiences, current anger, present guilt, actual and subjective inability to recall attachment experiences, coherence of mind, passivity of thought-processes, fear of loss, and aggression).

Mothers

SPSS canonical correlation procedure was used to compare SCORS ratings with the AAI presumed-experience variables as described above. Four canonical variables were extracted from the AAI scales. Correlations between these and the canonical variables are presented in Table 10.20).

TABLE 10.20

CORRELATIONS BETWEEN PRESUMED-EXPERIENCE AAI MEASURES FOR MOTHERS AND CANONICAL VARIABLES EXTRACTED FROM THESE

	VAR 1	VAR 2	VAR 3	VAR 4
Loving father	.864	.130	-.149	.021
Loving mother	.835	.331	.234	-.101
Rejecting father	-.750	.022	.025	-.181
Rejecting mother	-.795	.006	-.274	-.061
Role-reversing father	-.368	.455	-.148	.190
Role-reversing mother	-.441	.275	-.493	-.013
Pressuring to achieve - father	-.086	.676	-.060	.124
Pressuring to achieve - mother	-.024	.672	-.016	-.150

Overprotective father	.173	.212	.129	-.524
Overprotective mother	.291	.224	-.157	-.690
% variation accounted for	31%	14%	4.6%	8.7%

The above data show that the first canonical variable is most closely correlated with loving parents and a lack of rejecting parents. To a lesser extent, this variable is also correlated with a lack of role-reversing parents.

The second canonical variable is principally correlated with pressure to achieve from both parents and with role-reversal by father, though, curiously, hardly at all by mother, and to a much lesser extent with loving mother.

The third canonical variable is correlated to any degree with the lack of a role-reversing mother only.

The fourth canonical variable is most closely correlated with the lack of overprotective mother and father.

Using the same SPSS procedure, we next examined the correlations between the SCORS measures and the above canonical variables (see Table 10.21)

TABLE 10.21
CORRELATIONS BETWEEN SCORS RATINGS AND CANONICAL VARIABLES FOR MOTHERS' AAIs ON PRESUMED EXPERIENCE MEASURES

	VAR 1	VAR 2	VAR 3	VAR 4
Affect-Tone	.853	.433	.243	-.163
Complexity of Representations	.229	.944	.234	-.163
Capacity for emotional invest	.599	.762	-.240	-.059
Understanding soc. causality	.282	.843	-.085	-.450
% variation accounted for	10.9%	12.7%	0.7	0.2%

The SCORS measures Affect-Tone and Capacity for emotional investment correlate most highly with canonical variable 1; Complexity of Representations most highly with canonical variable 2; and Social Causality, negatively, with canonical variable 4. None of the SCORS measures is correlated with canonical variable 3.

Of the canonical correlations in respect of the four variables, only the first of .597 is significant; Wilks L .411; associated F 1.8; d.f. 40, 275.

SPSS canonical correlation procedure was again used to compare SCORS ratings with the AAI state-of-mind measures as described above. Four canonical variables were again extracted from the AAI measures. Correlations between these measures and the canonical variables are presented in Table 10.22).

TABLE 10.22
CORRELATIONS BETWEEN STATE-OF-MIND AAI MEASURES FOR MOTHERS AND CANONICAL VARIABLES EXTRACTED FROM THESE

	VAR 1	VAR 2	VAR 3	VAR 4
Idealised father	-.075	-.162	.132	.216
Idealised mother	.170	-.077	.401	.324
Derogation of father	-.408	.257	- .047	.238
Derogation of mother	-.399	.450	-.441	.146
Anger towards father	-.711	.098	.012	.016
Anger towards mother	-.722	.063	.126	-.206
Guilt towards father	-.287	-.133	.295	-.419
Guilt towards mother	-.315	-.179	.198	-.127
Objective recall	.120	.760	.042	.318
Subjective recall	.012	.740	-.095	-.121
Coherence of min	.219	-.585	-.436	-.217
Passivity of thought	-.037	.303	.428	-.172
Fear of loss	-.101	-.275	.081	.004
Aggression	-.755	.116	.157	.179
% variation accounted for	15.8%	14.4%	6.7%	4.9%

The above data show that the first canonical variable is most closely correlated with unresolved aggression of the subject: with anger towards both parents; and, to a lesser extent, with the lack of derogation of both parents or of guilt towards both parents, though particularly towards mother.

The second canonical variable is principally correlated with the insistence on inability to recall, both objective and subjective; also with the lack of coherence of mind; and to a lesser degree, with derogation of mother and with passivity of thought.

The third canonical variable is correlated most highly with the lack of derogation of mother; also with lack of coherence of mind as well as with idealisation of mother and passivity of thought.

The fourth canonical variable is most closely correlated with the lack of guilt towards father and with idealisation of mother and insistence on inability to objectively recall.

Using the same SPSS procedure, we next examined the correlations between the SCORS measures and the above canonical variables (see Table 10.23)

TABLE 10.23
CORRELATIONS BETWEEN SCORS MEASURES AND CANONICAL VARIABLES FOR MOTHERS' AAIs ON STATE OF MIND MEASURES

	VAR 1	VAR 2	VAR 3	VAR 4
Affect-Tone	.468	-.830	.301	-.048
Complexity of Representations	-.286	-.903	.171	.270
Capacity for emotional invest	.007	-.970	-.104	-.218
Understanding soc. causality	-.347	-.856	.284	-.256
% variation accounted for	5.2%	30.2%	0.8	0.4%

The SCORS measure Affect-Tone correlated most highly with canonical variable 1 while Understanding Social Causality was negatively correlated. All four SCORS measures were equally highly correlated with canonical variable 2. Only Affect-Tone was significantly correlated with canonical variable 3. No SCORS scale was significantly correlated with canonical variable 4.

Of the canonical correlations in respect of the four variables, again only the first of .704 is significant; Wilks L .242; associated F 2.0; d.f. 56, 255. However the second approached significance with a correlation of .617; Wilks L .479; associated F 1.42; d.f. 39, 196.

Fathers

An identical SPSS canonical correlation procedure to the one described above for mothers was used to compare SCORS ratings with the AAI presumed-experience measures as described above. Again four canonical variables were extracted from the AAI scales. Correlations between these and the canonical variables are presented in Table 10.24).

TABLE 10.24
CORRELATIONS BETWEEN PRESUMED-EXPERIENCE AAI MEASURES FOR FATHERS AND CANONICAL VARIABLES EXTRACTED FROM THESE

	VAR 1	VAR 2	VAR 3	VAR 4
Loving father	.819	-.235	-.264	.188
Loving mother	.782	.254	-.292	.139
Rejecting father	-.575	.450	.063	.009
Rejecting mother	-.424	.144	-.113	.118
Neglecting father	-.508	.599	-.079	-.156
Neglecting mother	-.653	.121	.237	.096
Role-reversing father	-.116	.319	.064	.160
Role-reversing mother	-.246	.664	-.202	.154
Pressuring to achieve - father	.204	.424	.599	.221
Pressuring to achieve - mother	.336	.256	.413	-.548
Overprotective father	.189	-.123	-.161	-.096
Overprotective mother	-.009	.212	-.278	-.252
% variation accounted for	22.8%	13%	7.6%	4.8%

The above data show that the first canonical variable is most closely correlated with loving parents and a lack of rejecting or neglecting parents. It is also correlated with pressure by mother to achieve.

The second canonical variable is correlated with a rejecting, neglecting father as well as one who exerts pressure to achieve. It is also correlated with role-reversing mothers or fathers.

The third canonical variable is correlated only with pressure to achieve, albeit from both mother and father.

The fourth canonical variable is closely correlated with the lack of pressure to achieve by mother only.

Using the same SPSS procedure, we next examined the correlations between the SCORS scales and the above canonical variables (see Table 10.25)

TABLE 10.25
CORRELATIONS BETWEEN SCORS MEASURES AND CANONICAL VARIABLES FOR FATHERS' AAIs ON PRESUMED EXPERIENCE MEASURES

	VAR 1	VAR 2	VAR 3	VAR 4
Affect-Tone	.970	-.035	-.050	-.235
Complexity of Representations	.495	.629	-.204	-.564
Capacity for emotional invest.	.804	.532	.074	-.256
Understanding soc. causality	.510	.521	.105	-.677
% variation accounted for	19.2%	6.4%	0.1	1.2%

All the SCORS measures correlated highly with canonical variable 1; Affect-Tone was an almost perfect correlation, closely followed by Capacity for Emotional Investment. In contrast, all save Affect-Tone correlated well with canonical variable 2. None correlated well with canonical variable 3. Both Understanding Social Causality and Complexity of Representations were negatively correlated with canonical variable 4.

Of the canonical correlations in respect of the four variables, as in the case of mothers, only the first of .606 is significant; Wilks L .385; associated F 1.7; d.f. 48, 290.

SPSS canonical correlation procedure was again used to compare SCORS ratings with the AAI state-of-mind scales as described above. Four canonical variables were again extracted from the AAI measures. Correlations between these and the canonical variables are presented in Table 10.26).

TABLE 10.26
CORRELATIONS BETWEEN STATE-OF-MIND AAI MEASURES FOR FATHERS AND CANONICAL VARIABLES EXTRACTED FROM THESE

	VAR 1	VAR 2	VAR 3	VAR 4
Idealised father	.489	.082	-.517	-.132
Idealised mother	.483	.014	-.476	.089
Derogation of father	-.396	.476	-.198	-.250
Derogation of mother	-.267	.438	.032	-.176
Anger towards father	-.547	-.015	-.309	.038
Anger towards mother	-.675	-.206	-.341	-.067
Guilt towards father	-.163	-.127	.139	.352
Guilt towards mother	-.371	.206	-.301	.424
Objective recall	.150	.696	-.149	-.032
Subjective recall	-.007	.493	-.202	-.292
Coherence of mind	.037	-.411	.006	.213
Passivity of thought	-.086	.573	-.237	.195
Fear of loss	-.120	-.088	-.708	-.077
Aggression	-.478	.065	-.216	.203
% variation accounted for	13.5%	12.6%	10.9%	4.6%

The above data show that the first canonical variable is most closely correlated with the absence of anger towards both parents. It is also correlated with idealisation of both parents as well as the absence of derogation towards father and the lack of guilt towards mother.

The second canonical variable is most closely correlated with recall, objective and subjective; with passivity of thought and derogation of both parents; and with the absence of coherence of mind.

The third canonical variable is very highly correlated with the absence of fear of loss as well as with the absence of idealisation of both parents and of anger towards both parents as well as of guilt towards mother.

The fourth canonical variable is significantly correlated with only guilt towards both parents.

Using the same SPSS procedure, we next examined the correlations between the SCORS scales and the above canonical variables (see Table 10.27)

TABLE 10.27
CORRELATIONS BETWEEN SCORS MEASURES AND CANONICAL VARIABLES FOR FATHERS' AAIs ON STATE-OF-MIND MEASURES

	VAR 1	VAR 2	VAR 3	VAR 4
Affect-Tone	.571	-.760	.051	.307
Complexity of Representations	-.227	-.934	-.253	.112
Capacity for emotional invest.	.117	-.812	-.298	.489
Understanding soc. causality	-.275	-.896	-.008	.348
% variation accounted for	4.8%	23.9%	0.4%	0.8%

The SCORS measure Affect-Tone was the only one to correlate significantly highly with canonical variable 1. As in the case of mothers, all four SCORS measures were equally highly, but negatively, correlated with canonical variable 2. No SCORS measure was significantly correlated with canonical variable 3. All SCORS measures, save Complexity of Representations, were significantly correlated with canonical variable 4.

Of the canonical correlations in respect of the four variables, again, only the first of .645 is significant; Wilks L .324; associated F 1.7; d.f. 56, 286.

DISCUSSION

All procedures adopted in this chapter produced a greater degree of significance in respect of data for mothers than for fathers. The one exception in this regard was in respect of the single factor extracted from the SCORS measures: although the same factor appeared to apply to all four measures for both mothers and fathers, this accounted for a slightly greater amount of the variance in respect of fathers (84.2%) than for mothers (82.2%). Nevertheless, when it came to applying this single factor to the adult-attachment-classification data, the factor produced no significant results at all for fathers, while, in marked contrast, it produced significant results for mothers rated in a number of ways in accordance with AAI measures. There is no apparent explanation for this curious outcome, other than that, for some reason, the SCORS measures better predict maternal adult-attachment classification than paternal, on the measures examined in this chapter.

The feature referred to in the preceding paragraph is reinforced by the results of the application of the SCORS measures themselves to the AAIs rated on the measures examined in this chapter. There was a uniform paucity of significant data in respect of fathers rated on these measures.

Mothers

Maternal AAIs produced encouraging data when compared with the SCORS measures.

The "Capacity for Emotional Investment" SCORS measure resulted in the most consistently significant data: for all AAI classification-systems examined in this chapter but not not in relation to the lack of resolution of mourning measure which produced no significant data on any of the SCORS measures. Moreover, when comparisons were made between AAI subclassifications within each main classification group only, it was only within the secure-autonomous classification group that "Capacity for Emotional Investment" gave rise to significant data.

"Affect-Tone" produced results almost as good as for the scale referred to in the preceding paragraph, differing only by just failing to reach significance in respect of the comparison within the secure-autonomous classification group.

Both other SCORS measures produced almost identical levels of significance: they also produced significant data in relation to the comparison within the secure-autonomous classification group and both failed to reach significance

until the AAI classification systems reached the 15-way comparison level.

Factor scores produced significant data on a number of the AAI measures but showed no significant improvement on the SCORS measures themselves.

These results for mothers are encouraging, particularly as it is the two SCORS measures most closely associated with object-relatedness rather than social cognition which produced these results.

The investigation of canonical correlations also produced some interesting data for mothers.

For the presumed-experience variables, four canonical variables were produced. Only the first reached significance. This was highly correlated with loving parents and highly negatively with rejecting parents as well as, to a lesser extent, with role-reversing parents. This variable was, moreover, highly correlated with both "Affect-Tone" and with "Capacity for Emotional Investment". The second canonical variable was highly correlated with pressure to achieve from both parents and also highly correlated with all four SCORS measures, though particularly with the two social-cognition-oriented scales and least of all with Affect-Tone.

For the current-state-of-mind measures, four canonical variables were again produced. Again, only the first of these reached significance. The principal components of this variable were derogation of and anger towards both parents together with aggression and the variable was highly correlated with the "Affect-Tone" SCORS measure and negatively with "Understanding Social Causality": in other words this variable was most closely associated with the measure most concerned with object-relatedness. The second canonical variable almost reached significance and was also most interesting but more difficult to interpret: highly correlated with both insistence on inability to recall variables (objective and subjective) and with derogation of mother while highly negatively correlated with coherence of mind. This variable was very highly negatively correlated with all four SCORS measures. Presumably there is something highly significant about derogation of mother which is closely associated with both poor object-relatedness and with inability to recall childhood attachment experiences as well as with lack of coherence of mind.

Fathers

The "Affect-Tone" SCORS measure was the one which was most significantly associated with any of the AAI classification-systems. Even then, this scale did not produce significant results until the level of detail of the 15-way sub-classification system was reached. This significance was preserved when some of the sub-categories were collapsed to produce more meaningful groupings. However, when a comparison was made between the collapsed sub-groupings, only within each main classification group, only those AAIs rated on sub-classifications within the preoccupied main classification yielded significant results with regard to Affect-Tone, for which there is no readily-apparent explanation.

The degree of significance of the "Affect-Tone" measure in relation to paternal AAIs is particularly gratifying as this scale is, arguably, the SCORS measure most closely associated with object-relatedness.

The "Understanding Social Causality" SCORS measure was also found to be significantly associated with paternal AAIs rated in accordance with one of the AAI classification systems: the three-way system of autonomous; dismissing; preoccupied. This is more disappointing as this SCORS measure is, arguably, the one least associated with object-

relatedness, having much more to do with functioning at a cognitive level.

The only other significant association for paternal AAIs was in respect of the "Capacity for Emotional Investment" SCORS measure which produced significant data in respect of paternal AAIs assigned to the lack of resolution of mourning sub-classification. This scale also came close to producing significant results in respect of paternal AAIs rated on the collapsed version of the 15-way subclassification system.

The investigation of canonical correlations between the SCORS measures and some of the AAI variables in relation to paternal AAIs was rather more encouraging.

For the current state of mind variables, four canonical variables were produced. As in the case of mothers, only the first of these reached significance. It appeared easiest to interpret: the most important components were derogation of and anger towards both parents, together with aggression. This variable was highly correlated with the "Affect-Tone" SCORS measure and negatively with "Understanding Social Causality": in other words this variable was most closely associated with the measure which is, arguably, most closely concerned with object-relatedness. The second canonical variable was most

interesting but more difficult to interpret: highly correlated with both insistence on inability to recall variables (objective and subjective) and with derogation of mother, while highly, negatively, correlated with coherence of mind. This variable was very highly, negatively, correlated with all four SCORS measures. Presumably there is something highly significant about derogation of mother which is closely associated with both poor object-relatedness and with inability to recall childhood attachment experiences, as well as with lack of coherence of mind.

For the presumed-experience measures, again four canonical variables were produced, only the first of which reached significance. This was strongly correlated with loving parents and negatively with both rejecting and neglecting parents. This variable was very highly correlated with all four SCORS measures and highest of all with "Affect-Tone". The second canonical variable was also interesting, as it was particularly associated with feelings about father: with rejecting, neglecting, role-reversing fathers who exert pressure to achieve. Nevertheless, the highest correlation for this variable was also with a role-reversing mother. Most interesting of all was the high correlation of this variable with all SCORS measures, except "Affect-Tone" with which the variable was negatively correlated. A third canonical variable was

related to pressure to achieve from both mother and father but was disappointing for showing only a weak negative correlation with "Complexity of Representations". The fourth canonical variable was highly, negatively, correlated with pressure-to-achieve-from-mother and was also highly negatively correlated with the two social-cognition-oriented SCORS measures: "Complexity of Representations" and "Understanding Social Causality".

For the current-state-of-mind variables, again four canonical variables were produced, only the first of which reached significance. This was highly correlated with idealisation of both mother and father, as well as highly, negatively, with anger towards both parents. The variable was highly correlated with "Affect-Tone" only. The meaning of this is difficult to interpret. The second canonical variable was correlated with derogation of both parents and with insistence on inability to recall, particularly objective, as well as, negatively, with coherence-of-mind. This variable was impressively highly, negatively, correlated with all four SCORS measures.

SUMMARY

There is cogent evidence that the SCORS measures are significantly associated with attachment-classification and other AAI variables, except for lack-of-resolution-of-mourning, at least in respect of mothers. The evidence in respect of fathers is either much weaker or unconvincing. Nevertheless, when canonical variables are extracted, there are impressive correlations between the SCORS measures and AAI variables in respect of both mothers and fathers, though more so in respect of mothers. The application of factor-scores in respect of the SCORS measures produced data which were mostly less impressive than those arising directly from the SCORS measures themselves.

CHAPTER ELEVEN

THE RELATIONSHIP BETWEEN SCORS AND THE INFANT ATTACHMENT CLASSIFICATION SYSTEM

CHAPTER ELEVEN

THE RELATIONSHIP BETWEEN SCORS AND INFANT-ATTACHMENT CLASSIFICATION

This chapter examines the relationship between the SCORS ratings and some of the variables of the Strange Situation infant-attachment classification system: 1. secure versus insecure with mothers and fathers at twelve months; 2. the three-way classification-system, secure, avoidant, resistant, with mothers and fathers; 3. the four-way classification-system secure, avoidant, resistant, disorganised, with mothers and fathers; 4. the eight-way sub-classification system for the main classifications of secure, avoidant, resistant, with mothers and fathers; 5. comparisons within each main classification only, for secure, avoidant, resistant, with mothers and fathers; 6. whether SCORS ratings predict infant security in a way which differs from adult attachment-classification; 7. whether SCORS ratings give rise to discriminant functions which predict infant attachment-classification

METHOD

Subjects

The subjects whose Strange Situation data are used in this chapter are the first child of the 100 women and men who were referred to in the previous Chapter.

Procedure

SCORS ratings for mothers were found in the preceding chapter to be strongly associated with the AAI classification systems and the Affect-Tone measure in particular. In this chapter there is an attempt to investigate whether there is a comparable association in respect of the SS classification system and whether the SCORS measures predict infant attachment-classification, using SPSS analysis of variance procedures.

Results

Results are presented in five sections, each of which examines the relationship of SCORS ratings with the SS classification systems described above.

(1) Secure versus Insecure SS

Mothers

A series of four analyses of variance was performed; one for each of the four SCORS measures as dependent variables with secure versus insecure infant attachment-classification ratings of mothers as independent variables. SPSS ANOVA Procedure was used for the analyses (see Table 11.1).

TABLE 11.1
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH MOTHERS, GROUPED BY 2-WAY CLASSIFICATION (SECURE v INSECURE)

SCORS	SECURE N=48 (SD)	NOT SECURE N=39 (SD)	F-STATISTICS
Affect-Tone	3.36 (.51)	3.49 (.66)	F,1,84, = 1.01, p<.317
Complexity of Representations	3.42 (.73)	2.52 (1.05)	F,1,84, = 0.29, p<.593
Capacity for Emotional Invest	3.15 (.56)	3.12 (.79)	F,1,84, = 0.11, p<.745
Understanding Social Causality	3.17 (.61)	3.21 (.75)	F,1,84, = 0.09, p<.762

No SCORS measure yielded significant results in respect of the SS classification system with which they were here compared for mothers.

Fathers

A similar series of four analyses of variance was performed, as in the case of mothers (see Table 11.2).

TABLE 11.2
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH FATHERS, GROUPED BY 2-WAY SS CLASSIFICATION (SECURE v INSECURE)

SCORS	SECURE N=62 (SD)	NOT SECURE N=23 (SD)	F-STATISTICS
Affect-Tone	3.36 (.48)	3.34 (.49)	F,1,82, = 0.05, p<.829
Complexity of Representns	3.32 (.73)	3.37 (.85)	F,1,82, = 0.06, p<.813
Capacity for Emotional Investmnt	3.02 (.55)	2.96 (.75)	F,1,82, = 0.18, p<.670
Understndg Soc. Caus.	3.13 (.56)	3.10 (.63)	F,1,82, = 0.07, p<.786

As in the case of mothers, no SCORS measure yielded significant results in respect of the SS classification system with which they were here compared for fathers.

(2) Secure versus Insecure Avoidant and Insecure Resistant SS. SCORS ratings were contrasted on the basis of the three-way SS classification system.

Mothers

A series of four analyses of variance was performed; one for each of the four SCORS scales as dependent variables with secure versus insecure-avoidant and insecure-resistant ratings of SS with mothers as independent variables. SPSS ANOVA Procedure was used for the analyses (see Table 11.3).

TABLE 11.3
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH MOTHERS, GROUPED BY 3-WAY CLASSIFICATION (SECURE, INSECURE-AVOIDANT, INSECURE-RESISTANT)

SCORS	SECURE N=48 (SD)	INSECURE AVOIDANT N=28 (SD)	INSECURE RESISTANT N=11 (SD)	F-STATISTICS
Affect-Tone	3.36 (.51)	3.39 (.67)	3.72 (.61)	F,2,83, = 1.84, p<.165
Complex. of Representns	3.42 (.73)	3.38 (.94)	3.89 (1.27)	F,2,83, = 1.47, p<.236
Capacity for Emot. Invst.	3.15 (.56)	2.97 (.74)	3.45 (.75)	F,1,84, = 0.11, p<.745
Undstndng Soc. Caus.	3.17 (.61)	3.14 (.75)	3.40 (.72)	F,1,84, = 0.09, p<.762

Again no SCORS measure yielded significant results in respect of the SS classification system with which they were here compared for mothers.

Fathers

A similar series of four analyses of variance was performed as in the case of mothers (see Table 11.4).

TABLE 11.4
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH FATHERS, GROUPED BY 3-WAY CLASSIFICATION (SECURE, INSECURE-AVOIDANT, INSECURE-RESISTANT)

SCORS	SECURE N=59 (SD)	INSECURE AVOIDANT N=22 (SD)	INSECURE RESISTANT N=4 (SD)	F-STATISTICS
Affect-Tone	3.36 (.48)	3.34 (.50)	3.42 (.47)	F,2,81, = 0.06, p<.940
Complex. Representns	3.34 (.72)	3.40 (.86)	2.83 (.86)	F,2,81, = 0.98, p<.379
Capacy for Emot. Invst.	3.03 (.54)	2.98 (.76)	2.90 (.70)	F,2,81, = 0.11, p<.892
Understndng Soc. Caus.	3.16 (.56)	3.11 (.64)	2.80 (.64)	F,2,81, = 0.71, p<.495

Again, no SCORS measure yielded significant results in respect of the SS classification system with which they were here compared for fathers.

(3) Secure versus Insecure-Avoidant, Insecure-Resistant and Disorganised SS. SCORS ratings were compared on the basis of this four-way SS classification system.

Mothers

A series of four analyses of variance was performed; one for each of the four SCORS measures as dependent variables with secure versus insecure-avoidant,insecure-resistant and disorganised ratings of SS with mothers as independent variables. SPSS ANOVA Procedure was used for the analyses (see Table 11.5).

TABLE 11.5
MEANS OF SCORS RATINGS AND INFANT SS CLASS WITH MOTHERS, GROUPED BY 4-WAY CLASSIFICATION (SECURE, AVOIDANT, RESISTANT, DISORGANISED)

SCORS	SECURE N=48 (SD)	INSECURE AVOIDANT N=25 (SD)	INSECURE RESISTANT N=6 (SD)	INSECURE DISORGAN. N=8 (SD)
Affect-Tone	3.36 (.51)	3.39 (.66)	3.58 (.57)	3.71 (.77)
Complexity of Representations	3.42 (.73)	3.37 (.98)	3.75 (1.20)	3.85 (1.21)
Capacity for Emotional Invst.	3.15 (.56)	2.97 (.77)	3.40 (.86)	3.31 (.65)
Understanding Social Causlty	3.17 (.61)	3.15 (.79)	3.35 (.81)	3.30 (.62)

F-STATISTICS FOR THE ABOVE

Affect-Tone	F,3,82, = 1.01, p< .392
Complexity of Representations	F,3.82, = 0.84, p< .474
Capacity for Emotional Inv.	F,3,82, = 1.05, p< .377
Understanding Soc. Causal.	F,3,82, = 0.22, p< .880

Again no SCORS measure yielded significant results in respect of the SS classification system with which they were here compared for mothers.

Fathers

No data are available in respect of fathers for this four-way SS classification system because, at the time when the SS procedure was undertaken for this system, no infants were rated resistant.

(4) Secure versus Insecure Avoidant and Insecure Resistant in the SS in accordance with the detailed eight-way subclassification system. We contrasted SCORS ratings on the basis of this eight-way SS classification system.

Mothers

A series of four analyses of variance was performed; one for each of the four SCORS measures as dependent variables with secure versus insecure-avoidant and insecure-resistant ratings of SS classification with mothers as independent variables, using the detailed sub-classification system. SPSS ANOVA Procedure was used for the analyses (see Table 11.6).

TABLE 11.6
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH MOTHERS, GROUPED BY 8-WAY SS SUB-CLASSIFICATION FOR SECURE AVOIDANT AND RESISTANT MAIN CLASSIFICATIONS

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.
Avoidant Extreme				
N=14	3.65	3.73	2.96	3.39
(SD)	(.63)	(1.07)	(.58)	(.78)
Avoidant Moderately				
N=14	3.14	3.04	3.3	2.89
(SD)	(.62)	(.66)	(.72)	(.66)
Resistant Dismissing of Attachment				
N=7	3.53	3.87	3.4	3.39
(SD)	(.52)	(1.13)	(.80)	(.75)
Resistant Devaluing of Attachment				
N=4	4.08	3.93	3.55	3.43
(SD)	(.67)	(1.68)	(.76)	(.79)
Secure Usually some Avoidance				
N=12	3.32	3.30	3.23	3.08
(SD)	(.35)	(.36)	(.54)	(.59)
Secure Initial Avoidance only				
N=12	3.48	3.54	3.3	3.33
(SD)	(.51)	(.89)	(.67)	(.68)
Secure Very				
N=8	3.31	3.53	3.13	3.34
(SD)	(.50)	(.64)	(.53)	(.49)
Secure Very Distressed				
N=16	3.33	3.38	3.0	3.03
(SD)	(.64)	(.88)	(.51)	(.61)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,7,78 = 1.82$, $p<.094$
Complexity of Representations	$F,7,78 = 1.13$, $p<.355$
Capacity for Emotional Invest.	$F,7,78 = 2.04$, $p<.060$
Understanding Social Causality	$F,7,78 = 1.08$, $p<.386$

None of the above data reached significance. However the data in respect of the Capacity for Emotional Investment SCORS measure, when compared with infant attachment to mother as measured on this subclassification system, almost reached significance. Mean ratings in respect of both subclassifications for the resistant group were comparable and significantly higher than any mean rating for either the avoidant or secure groups, while the lowest mean was in respect of moderately avoidant infants and the mean in respect of extremely avoidant infants was identical to the highest mean for infants within the secure group.

In view of the small number of subjects in the two resistant subclasses, the above series of four analyses of variance was repeated after collapsing the data in respect of the two resistant subclasses into a single subclass (see Table 11.7).

TABLE 11.7
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH MOTHERS GROUPED BY 7-WAY SS SUB-CLASSIFICATION FOR SECURE, AVOIDANT AND COLLAPSED RESISTANT

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.
Avoidant Extreme				
N=14	3.65	3.73	2.96	3.39
(SD)	(.63)	(1.07)	(.58)	(.78)
Avoidant Moderately				
N=14	3.14	3.04	3.3	2.89
(SD)	(.62)	(.66)	(.72)	(.66)
Resistant Dismissing and devaluing of attachment combined				
N=11	3.73	3.89	3.45	3.40
(SD)	(.61)	(1.27)	(.75)	(.72)
Secure Usually some Avoidance				
N=12	3.32	3.30	3.23	3.08
(SD)	(.35)	(.36)	(.54)	(.59)
Secure Initial Avoidance only				
N=12	3.48	3.54	3.3	3.33
(SD)	(.51)	(.89)	(.67)	(.68)
Secure Very				
N=8	3.31	3.53	3.13	3.34
(SD)	(.50)	(.64)	(.53)	(.49)
Secure Very Distressed				
N=16	3.33	3.38	3.0	3.03
(SD)	(.64)	(.88)	(.51)	(.61)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,6,79 = 1.70$, $p<.131$
Complexity of Representations	$F,6,79 = 1.33$, $p<.254$
Capacity for Emotional Invest.	$F,6,79 = 2.38$, $p<.036$
Understanding Social Causality	$F,6,79 = 1.27$, $p<.280$

The collapsing of the two resistant sub-classification groups resulted in significant ratings on the Capacity for Emotional Investment SCORS measure. In fact, the highest mean-rating on this scale was in relation to the newly collapsed data in respect of children classified resistant in SS.

Fathers

A similar series of four analyses of variance was performed as in the case of mothers (see Table 11.8).

TABLE 11.8
MEANS OF SCORS RATINGS FOR INFANT SS RATINGS WITH FATHERS GROUPED BY 8-WAY SS SUB-CLASSIFICATION FOR SECURE, AVOIDANT AND RESISTANT

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv.	Understanding Soc. Caus.
Avoidant Extreme				
N=18	3.39	3.49	3.07	3.18
(SD)	(.47)	(.87)	(.74)	(.64)
Avoidant Moderately				
N=6	3.13	2.80	2.53	2.73
(SD)	(.51)	(.64)	(.68)	(.55)
Secure Usually some Avoidance				
N=11	3.32	3.28	3.05	3.03
(SD)	(.36)	(.90)	(.62)	(.75)
Secure Initial Avoidance only				
N=9	3.64	3.78	3.4	3.49
(SD)	(.67)	(.81)	(.72)	(.53)
Secure Very				
N=30	3.31	3.23	2.93	3.1
(SD)	(.44)	(.62)	(.44)	(.49)
Secure Very Distressed				
N=11	3.36	3.32	3.02	3.15
(SD)	(.50)	(.69)	(.49)	(.52)

F-STATISTICS FOR THE ABOVE

Affect-Tone $F,5,78 = 1.02$, $p<.414$

Complexity of Representations $F,5,78 = 1.53$, $p<.191$

Capacity for

Emotional Invest. $F,5,78 = 1.71$, $p<.141$

Understanding Social Causality $F,5,78 = 1.40$, $p<.233$

None of the above data for SCORS ratings in relation to infant attachment classification in accordance with these subscales reached significance. No infants were rated resistant.

(5) Comparisons of SCORS ratings with SS subclassifications only within each main classification group for secure, avoidant, resistant, with mothers and fathers.

Mothers

Three series of four analyses of variance were performed; one for each of the four SCORS scales as dependent variables with the subclassifications only within each of the three separate main classification groups: secure; insecure-avoidant; and insecure-resistant: looking at SS ratings with mothers as independent variables and using the detailed sub-classification system. SPSS ANOVA Procedure was used for the analyses (see Tables 11.9, 11.10, 11.11).

TABLE 11.9
MEANS OF SCORS RATINGS AND INFANT SS CLASS WITH MOTHERS WITHIN THE SS MAIN-CLASSIFICATION FOR AVOIDANT ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv	Understanding Soc. Caus.
Avoidant Extreme				
N=14	3.65	3.73	3.30	3.39
(SD)	(.63)	(1.07)	(.72)	(.78)
Avoidant Moderately				
N=14	3.14	3.04	2.64	2.89
(SD)	(.62)	(.66)	(.63)	(.66)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,1,25 = 4.75$, $p<.038$
Complexity of Representations	$F,1,25 = 4.26$, $p<.049$
Capacity for Emotional Invest.	$F,1,25 = 6.63$, $p<.016$
Understanding Social Causality	$F,1,25 = 3.46$, $p<.074$

All SCORS measures, except for Understanding Social Causality, gave rise to significant results when compared with the two avoidant subclassifications only, within the subclassification system for rating infants' attachment with mothers. However, for all SCORS measures, infants rated extremely avoidant gave rise to a higher mean SCORS ratings than those rated moderately avoidant.

TABLE 11.10
MEANS OF SCORS RATINGS FOR INFANT SS CLASS. WITH MOTHERS WITHIN THE SS MAIN-CLASSIFICATION FOR RESISTANT ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv	Understanding Soc. Caus.
Resistant Dismissing of Attachment				
N=7	3.53	3.87	3.4	3.39
(SD)	(.52)	(1.13)	(.80)	(.75)
Resistant Devaluing of Attachment				
N=4	4.08	3.93	3.55	3.43
(SD)	(.67)	(1.68)	(.76)	(.79)

F-STATISTICS FOR THE ABOVE

Affect-Tone $F,1,8 = 2.33$, $p<.162$

Complexity of Representations $F,1,8 = 0.00$, $p<.950$

Capacity for Emotional Invest. $F,1,8 = 0.09$, $p<.768$

Understanding Social Causality $F,1,8 = 0.00$, $p<.936$

None of the SCORS measures gave rise to significant data when compared with the two resistant SS subclassifications.

TABLE 11.11
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH MOTHERS WITHIN THE SS MAIN-CLASSIFICATION FOR SECURE ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv	Understanding Soc. Caus.
Secure Usually some Avoidance				
N=12	3.32	3.30	3.23	3.08
(SD)	(.35)	(.36)	(.54)	(.59)
Secure Initial Avoidance only				
N=12	3.48	3.54	3.3	3.33
(SD)	(.51)	(.89)	(.67)	(.68)
Secure Very				
N=8	3.31	3.53	3.13	3.34
(SD)	(.50)	(.64)	(.53)	(.49)
Secure Very Distressed				
N=16	3.33	3.38	3.0	3.03
(SD)	(.64)	(.88)	(.51)	(.61)

F-STATISTICS FOR THE ABOVE

Affect-Tone $F,2,43 = 0.29$, $p<.831$

Complexity of Representations $F,2,43 = 0.28$, $p<.838$

Capacity for Emotional Invest. $F,2,43 = 0.74$, $p<.529$

Understanding Social Causality $F,2,43 = 0.87$, $p<.463$

Again, none of the SCORS measures gave rise to significant data when compared with the four secure SS sub-classifications.

Fathers

A similar series of four analyses of variance was performed as in the case of mothers except that no infants were rated resistant with respect to fathers on this occasions (see Tables 11.12 and 11.13).

TABLE 11.12
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH FATHERS WITHIN THE SS MAIN-CLASSIFICATION FOR AVOIDANT ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv	Understanding Soc. Caus.
Avoidant Extreme				
N=18	3.39	3.49	3.07	3.18
(SD)	(.45)	(.87)	(.74)	(.64)
Avoidant Moderately				
N=6	3.13	2.80	2.53	2.73
(SD)	(.51)	(.65)	(.68)	(.54)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,1,21 = 1.33$, $p<.261$
Complexity of Representations	$F,1,21 = 3.19$, $p<.087$
Capacity for Emotional Invest.	$F,1,21 = 2.44$, $p<.132$
Understanding Social Causality	$F,1,21 = 2.39$, $p<.136$

None of the above data reached significance.

TABLE 11.13
MEANS OF SCORS RATINGS AND INFANT SS CLASS. WITH MOTHERS WITHIN THE SS MAIN-CLASSIFICATION FOR SECURE ONLY

Class Group	Affect-Tone	Complexity of Reps	Capacity Emot.Inv	Understanding Soc. Caus.
Secure Usually some Avoidance				
N=11	3.32	3.28	3.05	3.03
(SD)	(.36)	(.90)	(.62)	(.75)
Secure Initial Avoidance only				
N=9	3.64	3.78	3.4	3.49
(SD)	(.67)	(.81)	(.72)	(.53)
Secure Very				
N=30	3.31	3.23	2.93	3.10
(SD)	(.44)	(.62)	(.44)	(.49)
Secure Very Distressed				
N=11	3.36	3.32	3.02	3.15
(SD)	(.50)	(.69)	(.49)	(.52)

F-STATISTICS FOR THE ABOVE

Affect-Tone	$F,3,56 = 1.21$, $p<.314$
Complexity of Representations	$F,3,56 = 1.36$, $p<.263$
Capacity for Emotional Invest.	$F,3,56 = 1.81$, $p<.155$
Understanding Social Causality	$F,3,56 = 1.39$, $p<.256$

None of the above data reached significance.

(6) Whether SCORS ratings predict infant security in a way which differs from what is predicted by adult attachment classification. Hierarchical regression was employed to determine if the addition of information regarding AAI 4-way classification (secure, dismissing, preoccupied, unresolved), and then SCORS ratings, improved prediction of infant security beyond that afforded by the SS classification system. Analysis was performed using SPSS Regression for data in respect of mothers and fathers separately.

Mothers

Table 11.14 displays the correlations between the variables, the unstandardised regression coefficients (B) and intercepts, the standardised regression coefficients (B), the semipartial correlations (sr2), and R, R2, and adjusted R2 after entry of all seven IVs. R was significantly different from zero at the end of each step. After step 3, with all IVs in the equation, $R = .62$, $F(7,79) = 7.09$, $p < .001$.

TABLE 11.14
HIERARCHICAL REGRESSION OF MATERNAL AAI CLASSIFICATION AND SCORS-RATING VARIABLES ON INFANT SECURE/INSECURE ATTACHMENT CLASSIFICATION WITH MOTHERS

Var	INSEC (DV)	SEC	DISM	UNRE	AT	RE	EM	SO	B	Beta	sr2 (incr)	
SEC	.49									.39	.39	
DISM	-.40	-.63								-.29	-.25	
UNRS	-.12	-.34	-.16							-.21	-.12	.28x
AT	-.12	.28	-.18	-.15						-.34	-.39	
RE	-.06	.12	-.19	.08	.63					-.02	-.04	
EM	.04	.31	-.24	-.04	.77	.80				.15	.19	
SO	-.03	.15	-.14	-.11	.66	.84	.86			-.00	-.00	.05x
									Intercept = .40			
Means		.57	.57	.23	.08	3.40	3.46	3.12	3.18			
Stand devn		.50	.50	.42	.27	.58	.88	.66	.63			
										R2 = .39		
									Adjusted R2 = .33			
									R = .62x			

x p<.001

After step 1, with log of 4-way adult attachment classification in the equation, R2 = .28, Finc (1,79) = 12.13, p <.001. After step 2, with square root of SCORS ratings added to prediction of log of infant attachment classification by log of adult attachment classification, R2 = .39, Finc (1,79) = 7.09, p <.001. Addition of square root of SCORS ratings to the equation results in a significant increment in R2. However, the only variable to

make a significant contribution in step 1 was the secure classification (p <.05). The only additional variable to make a significant contribution in step 2 was AF (Affect-Tone) (p <.01). The above Hierarchical regression was therefore repeated leaving only these significant variables in and removing the insignificant ones.

Table 11.15 displays the correlations between these restricted variables, the unstandardised regression coefficients (B) and intercepts, the standardised regression coefficients (B), the semipartial correlations ($sr2$), and R, $R2$, and adjusted $R2$ after entry of both restricted IVs. R was significantly different from zero at the end of each step. After step 2, with all IVs in the equation, R = .59, $F(1,85)$ = 22.70, p < .001.

TABLE 11.15
HIERARCHICAL REGRESSION OF MATERNAL SECURE AAI CLASSIFICATION AND SCORS-RATINGS ON AFFECT-TONE VARIABLES ON INFANT SECURE/INSECURE ATTACHMENT CLASSIFICATION WITH MOTHER

Variables	INSEC (DV)	SEC	AT	B	Beta	sr2 (incrm)
SEC	.49			.61	.60	.28x
AT	-.12	.28		-.23	-.27	.07x
		Intercept = .98				
Means	.57	.57	3.40			
Stand dev	.50	.50	.58			
					R2 = .35	
				Adjusted	R2 = .34	
					R = .59x	

x p<.001

After step 1, with log of secure adult attachment classification in the equation, $R2$ = .28, $Finc$ (1,85) = 33.83, p <.001. After step 2, with square root of SCORS AT (Affect-Tone) ratings added to prediction of log of infant attachment classification by log of secure adult attachment classification, $R2$ = .35, $Finc$ (1,85) = 22.70 p <.001. Addition of square root of SCORS ratings to the equation results in a significant increment in R2.

Fathers

Table 11.16 displays the correlations between the variables (secure/insecure infant attachment with father as DV together with IVs paternal adult attachment classification secure/dismissing/ and the four SCORS ratings for fathers), the unstandardised regression coefficients (B) and intercepts, the standardised regression coefficients (B), the semipartial correlations ($sr2$), and R, $R2$, and adjusted $R2$ after entry of all seven IVs. R was significantly different from zero at the end of each step. After step 3, with all IVs in the equation, R = .50, $F(6,74)$ = 4.11, p < .01.

TABLE 11.16
HIERARCHICAL REGRESSION OF PATERNAL AAI CLASSIFICATION AND SCORS-RATING VARIABLES ON INFANT SECURE/INSECURE ATTACHMENT CASSIFICATION WITH FATHERS

Var.	INSEC (DV)	SEC	DISM	FAF	FRE	FEM	FSO	B	Beta	sr2 (incrm)
SEC	.39							.29	.30	
DISMIS	-.38	-.70						-.25	-.21	.17x
AT	.02	.18	.18					-.22	-.24	
RE	-.03	.13	.11	.60				-.40	-.66	
EM	.04	.13	.21	.82	.86			.36	.49	
SO	.03	.13	.11	.63	.94	.87		.23	.29	.02x
						Intercept =		.84		
Means	.71	.66	.20	3.34	3.33	2.99	3.11			
Stand devn	.46	.48	.40	.27	.48	.74	.59	.57		
								R2 = .25		
							Adjusted	R2 = .19		
								R = .50x		

x p<.001

After step 1, with log of 2-way adult attachment classification in the equation, R2 = .19, Finc (1,78) = 9.20, p <.001. After step 2, with square root of SCORS ratings added to prediction of log of infant attachment classification by log of adult attachment classification, R2 = .25, Finc (1,78) = 4.12, p <.001. Addition of square root of SCORS ratings to the equation results in a significant increment in R2. However, the only variable to make a significant contribution in step 1 was the secure

classification (p <.05). The only additional variable to make a significant contribution in step 2 was RE (Complexity of Representations) (p <.01). The above Hierarchical regression was therefore repeated leaving only these significant variables in and removing the insignificant ones.

Table 11.17 displays the correlations between these restricted variables, the unstandardised regression coefficients (B) and intercepts, the standardised regression coefficients (B), the semipartial correlations ($sr2$), and R, $R2$, and adjusted $R2$ after entry of the two restricted IVs. R was significantly different from zero at the end of each step. After step 2, with all IVs in the equation, R = .42, $F(1,78)$ = 8.42, p < .001.

TABLE 11.17
HIERARCHICAL REGRESSION OF PATERNAL SECURE AAI CLASSIFICATION AND SCORS-RATINGS ON COMPLEXITY OF REPRESENTATION VARIABLES ON INFANT SECURE/INSECURE ATTACHMENT CLASSIFICATION WITH FATHER

Variables	INSEC (DV)	SEC	FRE	B	Beta	sr2 (incrm)
SEC	.39			.40	.42	.16x
FRE	.02	.18		-.05	-.09	.00x
		Intercept = .63				
Means	.71	.66	3.34			
Stand dev	.46	.48	.48			
					R2 = .18	
					Adjusted R2 = .16	
					R = .42x	

x p<.001

After step 1, with log of secure adult attachment classification in the equation, R2 = .17, Finc (1,79) = 16.20, p <.001. After step 2, with square root of SCORS RE (Complexity of Representations) ratings added to prediction of log of infant attachment with father classification by log of secure adult attachment of father classification, R2 = .18, Finc (1,79) = 8.42 p <.001. Addition of square root of SCORS ratings to the equation results in no significant increment in R2.

(7) Whether SCORS ratings give rise to discriminant functions which predict SS classification. Step-wise discriminant function analyses were performed to assess prediction of membership in, first, the three-way infant attachment classification system (secure, avoidant, resistant) and, secondly, in the four-way system (secure, avoidant, resistant, disorganised). Prediction in each case was from the AAI classification variables (secure, dismissing, unresolved) and the four SCORS scales.

Mothers

In relation to the three-way infant attachment classification system (secure, avoidant, resistant) predicted by the AAI classification system (secure,

dismissing, unresolved) and the four SCORS measures, stepwise discriminant function analysis gave rise to two discriminant functions: the first resulting from initial selection for analysis of the secure AAI variable; the second, after step 1, from selection for analysis of the Affect-Tone SCORS measure.

At step 1, there was statistically significant separation among the three attachment groups from the secure adult-attachment classification alone, $F(2,84) = 21.13$, $p<.001$. At this point, 38% of infants were correctly classified.

At step 2, Affect-Tone was added as a predictor, $F(4,166) = 12.09$, $p<.001$, indicating again reliability in separation of groups. With both predictors in the equation, 42% of infants were correctly classified. However McNemar's X2 test for change indicated that the improvement in classification, with addition of the Affect-Tone predictor to the AAI predictor, failed to reach significance, $X2(1) = 3.32$ p .07, but by a margin which in these circumstances is assumed to be small enough to disregard, leading to an assumption of significance.

As shown in Figure 11.1, the first discriminant function separates avoidant infants from secure, with resistant infants falling between these two groups. The

second discriminant function separates avoidant infants from secure. However, this function shows negligible separation between the avoidant and secure groups.

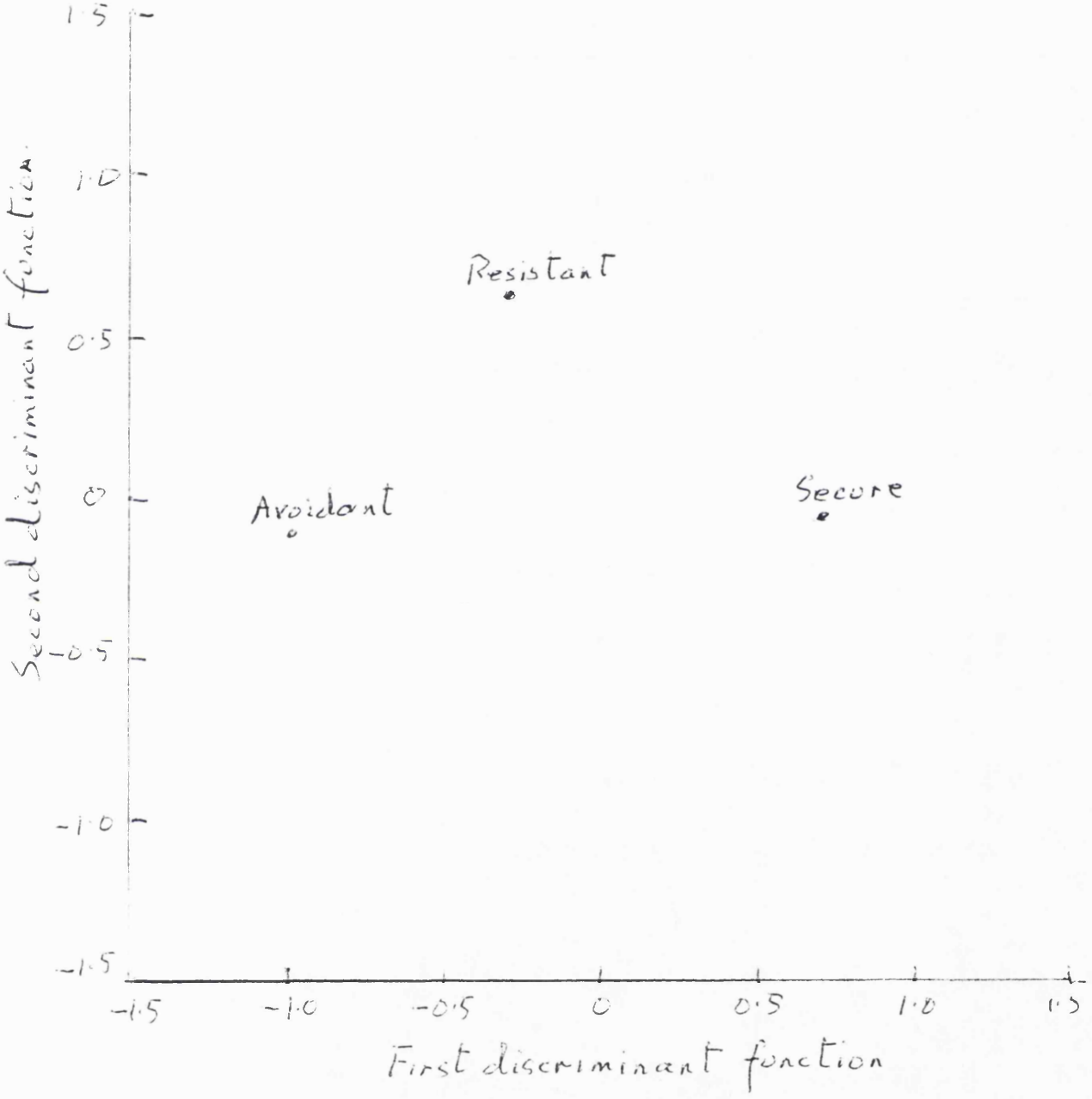

Figure 11.1 Plot of three group centroids on two discriminant functions derived from three AAI and four SCORS variables.

The loading matrix of correlations between the 7 predictor variables and the two discriminant functions, as seen in Table 11.18, shows that the primary predictor (loadings of .5 and above) for the first discriminant function (separation of avoidant infants from secure) is secure maternal adult attachment classification. The primary predictors on the second discriminant function (separation of avoidant infants from resistant) were all four SCORS measures but with a significantly higher correlation in respect of Affect-Tone compared with the other SCORS measures.

TABLE 11.18
RESULTS OF DISCRIMINANT FUNCTION ANALYSIS
OF AAI PLUS SCORS VARIABLES FOR MOTHERS

Predictor variable	Correlation of predictor variables with discriminant functions 1	2	Univariate F(2,84)
AAI			
Secure	.91	.42	21.13
Dismissing	-.42	-.25	14.68
Unresolved	-.29	-.22	1.38
SCORS			
Af. Tone	-.07	1.00	1.84
Comp. Reps	-.15	.60	1.48
Emot.Invst	-.04	.77	2.25
Soc. Caus	-.12	.65	0.64
Canonical R	.61	.20	
Eigenvalue	.60	.04	

In relation to the four-way infant attachment classification system (secure, avoidant, resistant, disorganised) predicted by the AAI classification system (secure, dismissing, unresolved) and the four SCORS measures, step-wise discriminant function analysis gave rise to two discriminant functions: the first resulting from initial selection for analysis of the secure AAI variable; the second, after step 1, from selection for analysis of the unresolved AAI classification variable.

At step 1, there was statistically significant separation among the four infant attachment groups from the secure adult-attachment classification alone, $F(3,83) = 13.92$, $p<.001$. At this point, 36% of infants were correctly classified.

At step 2, the Unresolved AAI variable was added as a predictor, $F(6,164) = 8.95$, $p<.001$, indicating again reliability in separation of groups. With both predictors in the equation, 49% of infants were correctly classified. McNemar's X2 test for change indicated that the improvement in classification, with addition of the Unresolved AAI predictor to the Secure AAI predictor, was significant, $X2(2) = 11.55$ $p<.01$.

As shown in Figure 11.2, the first discriminant function separates avoidant infants from secure, with

disorganised infants falling between these two groups. However, the function shows minimal separation between the secure and resistant groups. The second discriminant function separates avoidant infants from disorganised, with resistant infants falling between these two groups. This function shows negligible separation between the secure and avoidant groups.

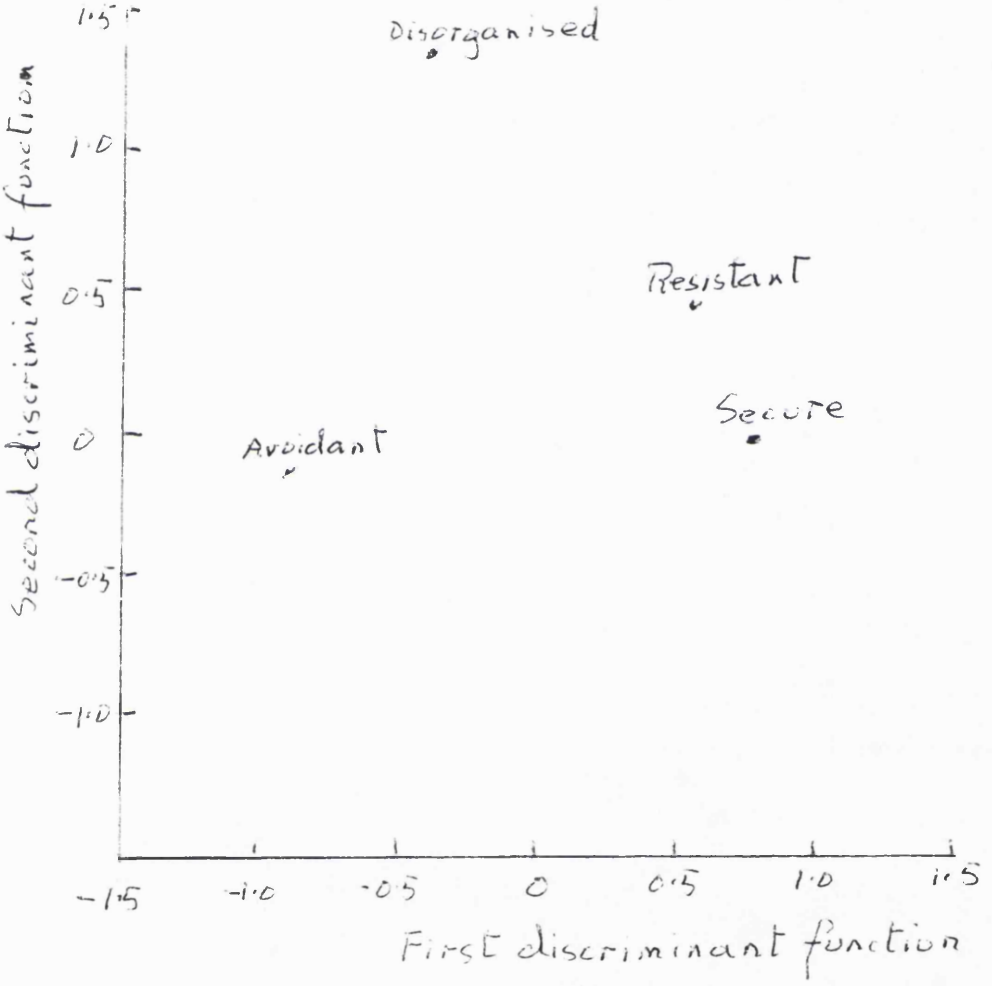

Figure 11.2 Plot of four group centroids on two discriminant functions derived from three AAI and four SCORS variables.

The loading matrix of correlations between the 7 predictor variables and the two discriminant functions, as seen in Table 11.19, shows that the primary predictor (loadings of .5 and above) for the first discriminant function (separation of avoidant infants from secure) is secure maternal adult attachment classification. The primary predictor on the second discriminant function (separation of avoidant infants from disorganised) is the Adult Attachment classification of unresolved.

TABLE 11.19
RESULTS OF DISCRIMINANT FUNCTION ANALYSIS
OF AAI PLUS SCORS VARIABLES FOR MOTHERS

Predictor variable	Correlation of predictor variables with discriminant functions 1	2	Univariate F(3,83)
AAI			
Secure	.96	-.29	13.92
Dismissing	-.62	-.26	10.028
Unresolved	-.09	1.00	4.22
SCORS			
Af. Tone	.33	-.22	1.01
Comp. Reps.	.16	.03	0.84
Emot. Inv	.30	-.07	1.05
Soc. Caus	.14	-.14	0.22
Canonical R	.59	.36	
Eigenvalue	.53	.15	

Fathers

In relation to the three-way infant attachment classification system with father (secure, avoidant, resistant) predicted by the paternal AAI classification system (secure, dismissing, unresolved) and the four SCORS scales for fathers, step-wise discriminant function analysis gave rise to only one discriminant function, resulting from initial selection for analysis of the secure AAI variable.

At step 1, there was statistically significant separation among the three attachment groups from the secure adult-attachment classification alone, $F(1,83) = 15.30$, $p<.001$. 73.33% of infants were correctly classified. McNemar's X2 test for change indicated that the improvement in classification, with addition of the AAI predictor, was significant, $X2(1) = 13.96$ p .001.

The loading matrix of correlations between the 7 predictor variables and the discriminant function, as seen in Table 11.20, shows that the primary predictor (loadings of .5 and above) for the discriminant function (separation of dismissing infants from secure) is secure paternal adult attachment classification.

TABLE 11.20
RESULTS OF DISCRIMINANT FUNCTION ANALYSIS
OF AAI PLUS SCORS VARIABLES FOR FATHERS

Predictor variable	Correlation of predictor variables with discriminant function	Univariate F(1,83)
AAI		
Secure	1.00	15.30
Dismissing	-.63	12.88
Unresolved	-.06	2.07
SCORS		
Af. Tone	.19	.12
Comp. of Reps	.16	.01
Emot. Inv	.10	.50
Soc Caus	.10	.32
Canonical R	.39	
Eigenvalue	.18	

In relation to the four-way infant attachment classification system with fathers (secure, avoidant, resistant, disorganised) predicted by the paternal AAI classification system (secure, dismissing, unresolved) and the four SCORS measures for fathers, step-wise discriminant function analysis again gave rise to only one discriminant function, resulting from selection for analysis of the secure AAI variable.

At step 1, there was statistically significant separation among the four infant attachment groups from the secure adult-attachment classification, $F(2,82) = 8.19$,

$p < .001$. At this point, 71% of infants were correctly classified. McNemar's X2 test for change indicated that the improvement in classification, with addition of the Secure AAI predictor to the Secure AAI predictor, was significant, $X2(2) = 14.93$ $p < .01$.

The loading matrix of correlations between the 7 predictor variables and the two discriminant functions, as seen in Table 11.21, shows that the primary predictor (loadings of .5 and above) for the first discriminant function (separation of avoidant infants from secure) is secure maternal adult attachment classification. The primary predictor on the second discriminant function (separation of avoidant infants from disorganised) is the Adult Attachment classification of unresolved.

TABLE 11.21
RESULTS OF DISCRIMINANT FUNCTION ANALYSIS
OF AAI PLUS SCORS VARIABLES FOR FATHERS

Predictor variable	Correlation of predictor variables with discriminant function	Univariate F(2,82)
AAI		
Secure	1.00	8.19
Dismissing	-.63	7.88
Unresolved	-.06	1.44
SCORS		
Af. Tone	.20	.06
Complex of Reps.	17	.98
Emot. Inv.	.12	.11
Soc. Caus.	.15	.71
Canonical R	.41	
Eigenvalue	.20	

DISCUSSION

Much of the statistical analyses attempted in this chapter resulted in data which did not reach significance. This was much more the case in respect of fathers. So far as mothers are concerned, the most consistently significant data were in respect of comparisons between the two sub-categories of infants found to be avoidant in relation to mothers, where all SCORS measures, except Understanding Social Causality, produced significant ratings in relation to avoidant infants. This means that the two scales most closely related to object-relatedness have some association

with avoidant infants. It is curious, however, that this only applied within the avoidant sub-classifications and not within the secure sub-classifications. It is difficult to speculate why this might be so.

Whereas the Affect-Tone SCORS measure fared best in relation to the AAIs, the Capacity for Emotional Investment measure fared rather better in respect of infants. This scale resulted in the only significant data for resistant infants, when compared only with the sub-classifications within that main category. The same scale also gave rise to data which almost reached significance when compared with the complete SS sub-classification system.

Multiple regression analysis showed more promising results. In the case of mothers, the Affect-Tone SCORS measure was shown to add significantly to the prediction of infant security, over and above the secure AAI classification. What appeared at first to be a similar effect for fathers, save with respect to the Complexity of Representation SCORS measure, ultimately failed to reach significance.

Finally, discriminant analysis revealed two interesting discriminant functions for mothers, in respect of which the SCORS measures made significant contributions and particularly Affect-Tone. These predict infant

attachment classification on both the three and four-way classification systems. On the three-way classification, the first function clearly distinguishes secure from avoidant infants, with resistant ones lying between the two. This progression makes sense if viewed in terms of a progression from the poorest, most distant and unrewarding type of relationship, through one which is closer but unsatisfactory, to one which is close and rewarding. It may be to do with emotional comfort and warmth. The second function makes virtually no distinction between the avoidant and secure infants but clearly distinguishes both from the resistant group. Possibly, there is a much greater sense of permanence and predictability for both the avoidant and secure groups, while for resistant infants there is perhaps a much greater sense of unpredictability

With the addition of the disorganised classification in the four-way infant classification system, two rather different discriminant functions emerge for mothers. Function one continues to distinguish secure from avoidant infants. However, resistant infants move much closer to those classified secure, while disorganised infants are much closer to those classified avoidant. This change is not inconsistent with the explanation already posited for the first function described in the three-way system above and continues to represent a meaningful progression. The second function on the four-way system shows exactly the

same features as for the corresponding function in the three-way system described above, except that infants classified disorganised are now furthest from those classified avoidant. This progression also makes sense in the light of what has already been speculated for the second function as described above. Maybe it is infants classified disorganised who have the greatest sense of unpredictability about their lives. Experiences of unresolved loss would certainly be likely to promote such feelings.

Once again the corresponding results for fathers are disappointing. Only one discriminant function was revealed, to which the SCORS variables made no significant contribution.

These results continue to show that the SCORS measures are much more closely related to mothers, on the variables considered in this thesis, than they are to fathers. It is, however, now clear that they predict adult attachment-status, at least in respect of mothers, but that they also predict infant attachment-status of the infants under certain circumstances only. This is not what might have been expected in view of the findings of the London Parent-Child Project that adult attachment-classification in parents impressively predicts the subsequent attachment-status of the children of those parents. The results here

would suggest that the SCORS measures might be assessing something which is qualitatively different from attachment-classification.

SUMMARY

The SCORS measures in respect of mothers appear to have a limited ability to predict infant attachment-classification in the infants of those mothers.

CHAPTER TWELVE

THE DISCRIMINANT VALIDITY OF SCORS

CHAPTER TWELVE

THE DISCRIMINANT VALIDITY OF SCORS

This chapter further extends consideration of the validity of SCORS by looking primarily at its discriminant validity. SCORS data are compared with the data obtained in three areas of enquiry which accompanied the AAI research in the London Parent-Child Project: demography; personality traits and adjustment; and verbal skills. Data arising from variables within these three areas are compared with the SCORS ratings already obtained, in order to assess the extent to which object-relatedness, as measured by SCORS, is independent of these constructs.

Demography

There is no reason to suppose that demographic characteristics are associated in any meaningful way with object-relatedness. The question nevertheless merits serious investigation in view of some of the findings of previous research related to attachment. For example, it has been suggested, in relation to infant security, that there is an increased risk of insecure attachment in infants brought up in impoverished families (Egeland &

Farber, 1984). Shifts in levels of economic well-being and of social support have also been shown to be linked with changes in infant-mother attachment-relationships between 12 and 18 months (Vaughan et al., 1979). Studies which have looked at adult patterns of attachment have mostly failed to report any associations between AAI results and demographic characteristics. In any event, those studies have mostly looked at predominantly middle-class samples. No studies appear to have looked specifically for associations between object-relatedness and demographic characteristics. This chapter examines whether there are any associations between object-relatedness, as measured by SCORS, and a range of demographic characteristics which are described in what follows.

Personality Traits and Psychological adjustment

A trait may ordinarily be understood as a characteristic or predominant feature of an individual's personality. For psychoanalytic theoreticians, traits are regarded rather like symptoms. They constitute that which appears on the surface of personality and are, therefore, mostly ignored in an attempt to understand and deal with underlying and concealed dynamic processes which are alone thought to be responsible for any traits or symptoms: deal with the underlying processes and the traits and symptoms

will take care of themselves. Others take an entirely different view of traits: that these alone predict a limited category of personality types. Those who hold these views usually see traits as inborn or genetically-driven, in marked contrast to psychoanalytic theoreticians, most of whom would consider traits as much more, if not exclusively, environmentally-driven.

Eysenck & Eysenck (1969) found two personality-types, introverts and extroverts, which are stable over time. Introverts manifest psychological maladjustment, as characterised by the following traits: tendency to be anxious, depressed, hostile, self-conscious, emotionally unstable, impulsive and to having poor ego-strength. Extroverts manifest psychological adjustment, as characterised by the following traits: interpersonal warmth, sociability, gregariousness, and a need to be engaged in activity and excitement. Eysenck developed the Eysenck Personality Questionnaire (1975) which is designed to test for introversion and extroversion.

Langner (1962) developed a system for assessing psychological health, on the basis of the presence or absence of a number of psychological symptoms.

Clearly, there is likely to be a significant overlap between the degree of object-relatedness on the one hand

and the characteristics isolated by the Eysenck and by the Langner instruments. The question addressed here is whether there are any meaningful associations between these characteristics and object-relatedness.

Verbal Skills

Coherence and verbal fluency are features which play a particularly important part in determining adult security as measured by the AAI classification system (Main, Kaplan & Cassidy, 1985). These variables are thought to be strongly associated with AAI classification. In view of the associations which have now been shown to exist between object-relatedness and adult security of attachment, it is interesting to examine whether verbal skill also predicts object-relatedness.

METHOD

Design and Subjects

The data in this chapter are derived from the same sample as has already been described in the preceding

empirical chapters of this thesis: the cohort of mothers and fathers first seen prior to the birth of their first child; when that child was 12 months old; and again when the child was 18 months old. The measures compared here are the SCORS ratings of the AAIs of both parents; certain demographic characteristics of the parents; their responses to the Langner-22 Index of Psychopathology (Langner,1962); their responses to the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1985) ("EPQ"); and their ratings on the Short Form of the Mill Hill Vocabulary Scales.

Demographic characteristics

The characteristics examined, which were the same for both mothers and fathers, were: age; education; social-class; socioeconomic status; and ethnic-origin. Additional characteristics examined only for mothers were: whether she had worked since becoming pregnant; and years of cohabitation with the father. Appendix 12.1 sets out the mean scores and standard deviations on these demographic indices for both mothers and fathers.

Langner-22

The Langner-22 Index (Langner, 1962) consists of a list of 22 symptoms of psychological health: subjects are asked to indicate whether they consider these to be present or not. The questions are worded so as to minimise and anxiety they might raise in subjects. This instrument is widely used as a screening device to provide a broad but unsophisticated distinction between psychological good-health and ill-health. Appendix 12.2 sets out the mean scores and standard deviations on the Langner-22 measures for both mothers and fathers

Eysenck Personality Questionnaire

The EPQ (Eysenck & Eysenck, 1975) yields four scores, assessing extroversion versus introversion; neuroticism; psychoticism; and social desirability or lie-scale. The EPQ is one of the most widely-used instruments in personality research, particularly as the extroversion and neuroticism scales are widely regarded as reliable indicators of what are believed to be genetically-based personality-traits. The mean scores and standard deviations of mothers and fathers on the EPQ are set out in Appendix 12.3.

Mill Hill Vocabulary Scales

The Short Form Mill Hill Vocabulary Scales (Raven et al., 1986) were designed to assess ability to communicate. Subjects are presented with a standard list of words. As each word is presented orally by the experimenter, the subject is asked to construct and declaim a sentence which incorporates that word, as well as to define the word. There are two scores: one for the total number of words appropriately used and correctly defined; the other more refined, as it allows the experimenter to count as correct words which there is good reason to believe the subject knows, even though answers rated strictly might indicate otherwise. The mean scores and standard deviations of mothers and fathers on the Mill Hill Vocabulary Scales are set out in Appendix 12.4.

RESULTS

Results are presented as a series of comparisons between parents' SCORS ratings and their demographic characteristics; psychological health; personality traits; and verbal skills.

Table 12.1 displays the correlations between the SCORS ratings for mothers and fathers and ratings in

respect of the demographic characteristics which were examined.

Of all the correlations considered for both mothers and fathers, only one, mother's age in relation to Affect-Tone, is notable (r= .22, $p \leq .05$, 2-tailed). However, the correlation is not particularly high and it appears unlikely that anything of importance arises from the correlation.

TABLE 12.1
CORRELATIONS BETWEEN SCORS RATINGS OF MOTHERS AND FATHERS AND THEIR DEMOGRAPHIC CHARACTERISTICS

	Affect-Tone	Complexity of Representns.	Capacity for Emot. Invst.	Social Causl.
MOTHERS				
Age	.22x	.19	.11	.15
Education	.05	.10	.05	.13
Social class	-.01	.00	-.04	.02
Socio-economic	-.10	.06	-.01	.00
Ethnic-origin	-.17	-.04	-.09	-.11
Work since pregnant	-.02	.01	-.05	.03
Time cohabit	.05	-.11	-.06	-.10

FATHERS				
Age	-.09	-.07	-.02	-.02
Education	.17	.05	.08	.03
Social class	-.15	-.13	-.11	-.12
Socio-economic	-.13	-.18	-.17	-.13
Ethnic-origin	.12	.09	.10	.07

(2-tailed Signif: x .05)

Table 12.2 illustrates the correlations observed between parents' responses to the Langner-22 (Psychopathology index and EPQ, on the one hand, and their SCORS ratings on the other.

TABLE 12.2
CORRELATIONS BETWEEN SCORS RATINGS OF MOTHERS AND FATHERS AND THEIR LANGNER-22 PSYCHOPATHOLOGY AND EPQ RATINGS

	Affect-Tone	Complexity of Representns.	Capacity for Emot. Invst.	Social Causl.
MOTHERS				
Langner psychopathology	.12	.23x	.13	.26xx
EPQ-Extrovn	.24x	.23x	.33xx	.23x
EPQ-Neurotcm	-.02	.12	.04	.23
EPQ-Psychotcm	-.12	-.07	-.13	-.12
EPQ-Lie	.01	-.18	-.24x	-.23x

FATHERS

Langner psychopatholog	-.23x	-.05	-.09	-.03
EPQ-Extrovn	.25x	.22x	.28x	.25x
EPQ-Neurotcm	-.09	-.03	-.05	.00
EPQ-Psychotc	-.17	-.03	-.10	-.02
EPQ-Lie	-.00	-.05	-.01	-.11

(2-tailed Signif: x p <.05; xx p <.01)

For mothers, the two cognitively-oriented SCORS measures, Complexity of Representations and Understanding Social Causality, were significantly, if not very highly, correlated with the Langner-22 index of psychopathology. For fathers, only Affect-Tone was significantly (negatively and not very highly) correlated with this index of psychopathology. It is not surprising that, what is probably the SCORS measure which best predicts object-relatedness, should be negatively correlated with a measure of psychopathology but not at all clear why the same SCORS measure is positively, if not significantly, correlated with the same measure for mothers. This is an interesting reversal of results reported in earlier chapters where Affect-Tone has often produced significant data for mothers but not for fathers. There is no obvious explanation either for why only the two cognitively-oriented SCORS measures

produced significant data for mothers and not the two object-relations-oriented measures.

So far as the EPQ is concerned, there is a startling contrast between the Extroversion-Introversion measure and the others. This measure was significantly, if not very highly, correlated with all the SCORS measures, for both mothers and fathers. Indeed, it was the only measure significantly correlated to SCORS measures for fathers. The Lie-scale was significantly, but not at all highly, correlated with two of the SCORS measures for mothers, Capacity for Emotional Investment and Understanding Social Causality.

Table 12.3 illustrates the correlations observed between parents' responses to the Mill Hill Vocabulary Test and their SCORS ratings.

TABLE 12.3
CORRELATIONS BETWEEN SCORS RATINGS OF MOTHERS AND FATHERS AND THEIR MILL HILL VOCABULARY RATINGS

	Affect-Tone	Complexity of Representns.	Capacity for Emot. Invst.	Social Causl.
MOTHERS				
VOCAB TOTAL	.07	.23	.17	.24
VOCAB ALPHA	.03	.21x	.13	.22x

FATHERS

VOCAB TOTAL	.16	.24x	.22x	.23x
VOCAB ALPHA	.15	.23x	.21x	.22x

(2-tailed Signif: x p <.05)

For mothers, only the adjusted alpha ratings on the Mill Hill measure gave rise to significant data: ratings on these measures were significantly, but not at all highly, correlated, again, with the two cognitively-oriented SCORS measures. For fathers, both Mill Hill measures were significantly, but not at all highly, correlated with all SCORS measures except Affect-Tone.

The above data for both mothers and fathers produced some interesting, if not large, correlations which merited further investigation in order to determine if addition of any of the above non-SCORS variables (demographic, psychopathology, character traits or verbal skill) and then SCORS ratings improved prediction of adult-security classification of parents or infant-security classification of their child. SPSS Multiple Regression procedures showed that the non-SCORS measures do not predict security of attachment in the infants. Similar SPSS Multiple Regression procedures showed that the same measures do not predict adult-attachment, save for the ethnic-origin demographic variable in respect of mothers only.

Table 12.4 displays the correlations between the variables, the unstandardised regression coefficients (B) and intercepts, the standardised regression coefficients (B), the semipartial correlations (sr2), and R, R2, and adjusted R2 after entry of all three IVs. R was significantly different from zero at the end of each step. After step 3, with all IVs in the equation, R = .38, F(3,83) = 4.73, p < .01

After step 1, with log of ethnic origin of mother in the equation, R2 = .06, Finc (1,85) = 5.78, p <.01. After step 2, with square root of SCORS (Affect-Tone and Capacity for Emotional Investment only) ratings added to prediction of log of adult-attachment classification by log of ethnic origin of mother, R2 = .15, Finc (3,83) = 4.73, p <.01. Addition of square root of SCORS ratings (Affect-Tone and Capacity for Emotional Investment only) to the equation results in a significant increment in R2. However, the only variable to make a significant contribution in step 1 was the ethnic origin of mother (p <.01).

TABLE 12.4
HIERARCHICAL REGRESSION OF ETHNIC-ORIGIN AND SCORS-RATING VARIABLES OF MOTHERS ON SECURE/INSECURE ADULT-ATTACHMENT CLASSIFICATION OF MOTHERS

AAICLAS Variables	ETHNIC (DV)	MAF	MEM	B	Beta	sr2 (incrm)
ETHNIC	-.25			-.23	-.23	.05x
MAF	.29	-.04		.10	.11	.12x
MEM	.32	-.09	.77	.14	.19	.00
			Intercept = 1.28			

Means	.57	.57	.23	.08	3.40	3.46	3.12	3.18
Stand devn	.50	.50	.42	.27	.58	.88	.66	.63

R2 = .15
Adjusted R2 = .12
R = .38x

x p<.01

After step 1, with log of ethnic origin of mother in the equation, R2 = .06, Finc (1,85) = 5.78, p <.01. After step 2, with square root of SCORS (Affect-Tone and Capacity for Emotional Investment only) ratings added to prediction of log of adult-attachment classification by log of ethnic origin of mother, R2 = .15, Finc (3,83) = 4.73, p <.01. Addition of square root of SCORS ratings (Affect-Tone and Capacity for Emotional Investment only) to the equation results in a significant increment in R2. However, the only variable to make a significant contribution in step 1 was the ethnic origin of mother (p <.01).

DISCUSSION

The comparisons described above demonstrate that object-relatedness, as assessed by SCORS, cannot be accounted for by demography, psychological ill-health, personality traits or verbal skills.

The only variable within the above categories which showed any ability to distinguish any aspect of attachment was the demographic indicator ethnic origin which appears to be able to distinguish secure from insecurely attached mothers only as classified by the AAI. This was the three-point scale: Scotland, Ireland, Wales; England; elsewhere.

CHAPTER THIRTEEN

FINAL DISCUSSION

CHAPTER THIRTEEN

FINAL DISCUSSION

The investigations reported in this thesis provide evidence for the reliability and validity of the Social Cognition and Object-Relations Scales (SCORS) which are assumed to assess object-relatedness. Object-relations theory is probably the dominant influence in psychoanalysis today. It is not a single theory but an area of theory within the psychoanalytic model. Theories within this area differ in significant ways. What they all have in common, however, is that which distinguishes them from Freudian drive-theory, which is based on the primary influence on the psyche of inborn drives, most notably the libidinal drive. That distinction is founded upon a dominant inborn need, proposed by object-relations theorists, to enter into social relationships with others, and with principal caregivers and significant others in particular. It is generally assumed among object-relations theoreticians that adaptive, meaningful, satisfying and supportive relationships, accompanied by a comfortable and satisfying sense of self and others, well-rooted in reality, is the hallmark of individuals who manifest sound mental health and minimal psychopathology. The presence of these qualities in an individual is generally considered to

equate with a state of what is termed object-relatedness. That assumption has been adopted for the purpose of this thesis.

The principal purpose of this thesis has been to investigate whether there are any meaningful associations between object-relatedness, as measured by SCORS, and security of attachment, as measured in adults by the Adult Attachment Interview (AAI) and in infants by the Strange Situation procedure (SS). The hypothesis has been that security of attachment is substantially the same construct as object-relatedness; alternatively it is, at the very least, a more narrowly-conceived aspect of object-relatedness. There is good reason to conclude that this hypothesis has been upheld by the investigations reported here.

For the purpose of these investigations, it was possible to have access to the attachment and other data obtained in the London Parent-Child Project, based on a cohort of 100 primiparous mothers, the child subsequently born to them and the child's father, as seen in the ongoing longitudinal study conducted at University College and the Anna Freud Centre in London.

Inter-rater reliability was established in the application of the SCORS rating-system to transcripts of

AAIs obtained from the above mothers and fathers. It therefore became possible to examine various relationships suggested between the SCORS ratings thus obtained and the adult-attachment classifications of those same individuals, as well as the attachment classifications of the infants subsequently born to those parents.

Some correlations emerged between SCORS ratings and the variables on which the parents were rated in order to determine their adult-attachment status within the AAI classification system. The extent of such correlations was particularly impressive when data in respect of the mothers was considered. The Affect-Tone SCORS measure was significantly correlated with many of these variables. The Capacity for Emotional Investment measure was also significantly correlated and with almost as many such variables, though not necessarily the same ones. The other two SCORS measures were also correlated with many of these variables, usually the same in each case but for a slightly smaller total number of such variables than in the case of the other two measures. The AAI measures which were significantly correlated with all four SCORS measures were loving mother, relationship with mother, subjective and objective recall, and coherence. When the comparable data for fathers was considered, very few correlations emerged: almost all of them with respect to Affect-Tone; two for Complexity of Representations; and none for the other two

scales. Taken together, these results suggest a much closer association between AAI classification and the two object-relations-oriented SCORS measures than with the two cognitively-oriented SCORS measures, at least in respect of mothers.

Investigation of the association between the SCORS measures and adult-attachment classification, as measured by the AAI, showed significant associations for mothers in respect of all four measures. This association was best demonstrated when the AAI classification system was at its most sophisticated: i.e. when the the sub-classifications prescribed by the Mary Main rating-system were adopted, rather than when, the simpler, two, three, or four-way classification system was adopted. The association was nevertheless sufficiently robust to remain constant when the SCORS measures were compared with the two, three and four-way classification systems for the two object-relations-oriented SCORS measures (Affect-Tone; Capacity for Emotional Investment in Relationship) but not for the remaining two more cognitively-oriented measures (Complexity of Representations; Understanding Social Causality). Furthermore, any association virtually disappeared when the SCORS measures were compared with each main AAI classification group separately (Dismissing; Preoccupied; Free/Autonomous; Unresolved), save that an

association nevertheless remained with regard to the free-autonomous group only.

The comparable investigation in respect of fathers was much less promising. Only Affect-Tone showed an association with the adult-attachment classification of fathers and then only on the comprehensive Main sub-classification system. However, in a modified version of this sub-classification system which combined the data for some of the sub-classification groups that confirmed very few subjects, the Capacity for Emotional Investment measure showed an association which almost reached significance.

These results demonstrate very clearly that, in the case of mothers at least, all SCORS measures are significantly associated with the AAI classification system when this is at its most comprehensively detailed; that the two object-relations-oriented SCORS measures show the strongest associations and that Affect-Tone is the most robust measure of all in this regard. With regard to fathers, however, these effects are much weaker, though Affect-Tone remains strongly associated with adult-attachment classification.

Factor scores were also extracted for all SCORS measures. However, when substituted for the original SCORS ratings in the above investigations, they did not

significantly improve or modify the earlier findings and were therefore disregarded in subsequent investigations.

Canonical variables were extracted from both the SCORS ratings and the adult-attachment-classification measures. This was carried out in two separate investigations: one including the presumed-experience AAI variables; the other including the current-state-of-mind AAI variables; both including the SCORS ratings.

So far as mothers' presumed-experience is concerned, two canonical variables were of considerable interest. The first was very highly correlated with loving parents and very highly, negatively, correlated with rejecting, neglecting, and role-reversing parents. This canonical variable was also impressively highly correlated with the two object-relations-oriented SCORS measures: Affect-Tone and Capacity for emotional Investment. The second was very highly correlated with parents exerting pressure to achieve and also, though less highly, with role-reversing parents. This canonical variable, in contrast to the first, was correlated with all the SCORS measures but, significantly more highly so, with the two cognitively-oriented measures: Complexity of Representations and Social Causality.

On mothers' present-state-of mind, again two of the canonical variables were of particular interest. The first

was highly, negatively, correlated with many of the variables concerning state-of-mind with regard to parents, while showing a reasonable correlation with the Affect-Tone measure and a negative correlation with the Social Causality measure. There is no obvious explanation for the latter effect. Nevertheless, the distinction between the measure which appears most closely linked with object-relatedness (Affect-Tone) and the one which is arguably most remote from that concept with, probably, the largest cognitive component, is an interesting one. The second canonical variable was most highly correlated with the coherence and recall variables and extremely highly, but negatively, correlated with all SCORS measures: -.97 in the case of Capacity for Emotional Investment.

The data for fathers showed the same features as described above but with some interesting differences. On presumed-experience measures, the first canonical variable correlations did not include role-reversing parents but it was highly correlated with all four SCORS measures, though particularly highly-so in the case of the two object-relations-oriented scales: Affect-Tone (.97) and Capacity for Investment in Relationships (.80). The second canonical variable was not predominantly associated with parental pressure to achieve, as in the case of the comparable variable for mothers. It was less strongly correlated with pressure to achieve from father but only very weakly from

mother. It did, however, show significant correlations with other variables, the highest being with role-reversal of mother. Furthermore, this canonical variable showed a negligible negative correlation with Affect-Tone, while showing similar and very high correlations with the other three SCORS measures.

In respect of fathers' present-state-of-mind measures, again the effects were comparable to mothers. The first canonical variable correlations with these measures, which were significantly high, extended to idealisation of parents, which was not the case in respect of mothers. There was the same pattern of correlation with the SCORS measures for this canonical variable as with mothers: even more highly in the case of Affect-Tone, while not so highly (negatively) in the case of Understanding Social Causality. The second canonical variable for fathers showed a virtually identical pattern of correlations with these AAI measures as in the case of mothers, particularly in relation to recall and coherence. The variable showed very high correlations with all four SCORS measures, as in the case of mothers, albeit slightly smaller ones.

The results produced by the canonical variables are very encouraging. They confirm the strength of the association between all the SCORS measures and adult-attachment classification, particularly for the two object-

significantly improve or modify the earlier findings and were therefore disregarded in subsequent investigations.

Canonical variables were extracted from both the SCORS ratings and the adult-attachment-classification measures. This was carried out in two separate investigations: one including the presumed-experience AAI variables; the other including the current-state-of-mind AAI variables; both including the SCORS ratings.

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relations-oriented SCORS measures and best of all for Affect-Tone. The earlier investigations had already established this pattern for mothers, if not for fathers. The canonical variables, however, have extended this pattern to fathers also, if perhaps less markedly so.

Having established the close association between the SCORS measures and the AAI classification system, the investigation turned to the question of whether comparable associations exist between the SCORS measures and infant-security as measured by the Strange Situation Procedure (SS). The findings of the London Parent-Child Project were that the attachment-classification of both mothers and fathers assessed prior to the birth of their first child was strongly related to the subsequent attachment-classification of their child as determined by the SS procedure: 52% of mothers of secure infants received ratings in the top two sub-categories of the autonomous main classification group, while only 10% of mothers of avoidant infants did so; the association in respect of fathers was somewhat weaker but still statistically significant (Fonagy et. al., 1991). Ainsworth and Eichberg (1991) found an 80% match between SS classifications and AAI classifications in 45 mother-infant pairs. In the present investigation, it was anticipated that, in view of the strong association now established between the SCORS

and AAI measures, there might be a significant association also between the SCORS and SS measures.

Attempts were made to find such an association between the SCORS measures and SS classification in its two (secure versus insecure) three (secure; avoidant; resistant) and four-way (secure; avoidant; resistant; disorganised) configurations. No such association was found. However, when the enquiry was extended to the detailed classification system incorporating sub-categories for each of the three principal classification-categories, the Capacity for Emotional Investment SCORS measure indicated an association which almost reached significance. The same measure in fact showed a significant association (the only measure to do so) when compared with infants rated resistant only, when rated in accordance with a modified version of this category which combined some of the sub-categories where the number of subjects was small. Furthermore, a significant association was shown for all the SCORS measures, except Understanding Social Causality, when compared with infants rated avoidant only. There does not appear to be any obvious explanation as to why the SCORS measures should show this predominant association with avoidant infants only. Comparable investigations with regard to fathers revealed no associations whatsoever between the SCORS measures and infant-security with

fathers. These results appeared therefore to indicate that the SCORS measures do not predict infant-security.

Discriminant analysis, however, revealed interesting effects for mothers. There were two discriminant functions in the dimensions along which SCORS and AAI measures differ in the prediction of classification of infant security of attachment. This was the case in respect of both thee-way (secure, avoidant, resistant) and four-way classification (secure, avoidant, resistant, disorganised). The latter produced the more interesting results. The first discriminant function accounted for 36% of the variance, the most highly correlated variables within it being the two object-relations-oriented SCORS measures, along with the free/autonomous and dismissing AAI groups. The second discriminant function accounted for only 13% of the variance, the most highly correlated variables within it being the Social Causality SCORS measure (negatively) along with the unresolved group.

In the light of the above, there is reason to believe that the SCORS measures do play some role in predicting infant-security, albeit a more remote one than is the case for adult-attachment classification.

The final area of investigation was with regard to the discriminant validity of the SCORS measures in relation

to demographic indices and other measures not related to attachment, which might predict psychopathology: the EPQ, Langner-22 and Mill Hill Verbal Skills. No association was shown between these and any of the SCORS measures.

In addition to the above, reference was made to a pilot study which investigated the influence of life-events on patterns of attachment. No evidence for such an influence was found and it is assumed that, equally, life-events would have no significant effect on object-relatedness.

In a further pilot study, there was evidence for the validity of the SCORS measures in relation to patients with borderline personality disorder.

The results which have been outlined above, provide cogent evidence for a close association between object-relatedness and security of attachment, even though there is also reason to believe that the SCORS scales measure additional dimensions which may not coincide with security of attachment. That is hardly surprising in view of the fact that two of the SCORS measures have a specifically cognitive component. In fact, it is the two object-relations-oriented SCORS measures (Affect-Tone and Capacity for Emotional Investment) which have been shown to have the closest association with the attachment measures: Affect-

Tone preeminently so. The other two more cognitively-oriented SCORS measures (Complexity of Representations and Understanding Social Causality) appear to be much less closely associated with the attachment measures, while still retaining a degree of association. It may be that these two measures largely account for the additional discrimination of SCORS and that object-relatedness and security of attachment are largely identical psychological conditions. An alternative explanation might be that object-relatedness is a wider construct than security of attachment but that the two substantially overlap.

These findings demand further consideration of the characteristics of the two areas of theory, examination of what they may have in common and whether the measures adopted here fully elicit the dimensions which characterise the two constructs of object-relatedness and security of attachment. Each arises from a different and, in many ways, opposed method of enquiry into psychological states of being. Object-relations theory is derived almost entirely from the clinical observations of practitioners of psychoanalysis, in conditions which do not allow for external scrutiny, though often carried out over much longer periods than is usual in empirical research. Attachment theory is based almost entirely on investigations carried out in a carefully controlled experimental environment which permits external scrutiny.

Each method has its shortcomings which are well known and need not be discussed here. If, however, these two very different modes of enquiry have produced constructs which are broadly the same, then each acquires increased validity, while an important aspect of psychoanalysis acquires a degree of empirical validation which might form the basis of further such investigation.

All investigations are probably based at some point on an assumption. The underlying assumption of this thesis, for example, is that there is such a concept as object-relatedness. The weakness of object-relations theory is that it is founded on a huge assumption: that an adaptive psychological state of well-being is founded on an inbuilt and overriding need to enter into a symbiotic relationship with a primary caregiver from which differentiated states of self and other can emerge in a manner where the ability to enter into relationships with others generally is largely, if not entirely, influenced by the nature and characteristics of that primary relationship. There is no real attempt by object-relations theoreticians to address how that primary need comes about and what its biological origins might be.

In marked contrast, attachment theory addresses this issue in a highly specific manner. Bowlby, in his initial concept of attachment, was much influenced by the

observations of Robertson and himself of the apparent indifference of children when reunited with their parents after a period of prolonged separation, usually through hospitalisation. Such observations formed the basis of Bowlby's concept of attachment as a biologically-derived need in infants to maintain comforting-proximity with the principal caregiver; a need which is even more primary to survival than the need for nourishment (Bowlby, 1969). This would suggest that the need for a state of psychological well-being in human beings overrides any need for physical well-being and that such psychological well-being is, in some measure, dependent on the acquisition of an ability to interact adaptively with others, rather than the consequence of meeting the needs of some biologically derived imperative.

Bowlby's concept of attachment was considerably advanced by the work of Ainsworth, who devised the Strange Situation Procedure to give meaning to the different patterns of behaviour in young children when reunited with their mother, after a period of separation, under laboratory conditions Ainsworth et al., 1978). This was the beginning of examining aspects of attachment under the carefully controlled conditions which have established the concept as an important component of infant development. Had the work stopped there, we would have no more than the

equivalent of a "sparking-plug" for igniting interpersonal relationships.

Arguably, the most important aspect of Bowlby's work is his concept of the internal working-model of attachment. It is a concept based on the widely accepted views of Craik which foreshadowed some of the ideas of cognitive psychologists today. According to Craik (1943) individuals do not interact with the world and with others in a wholly spontaneous fashion but, rather, on the basis of models of the world and of others constructed within the mind which function as templates for the behaviour of the individual. Bowlby drew on these ideas to suggest that, based on early attachment-related experiences with mother, the child constructs a model of that relationship which will allow the child to predict what can be expected of her should any danger intervene to threaten the infant's security. Therefore, the working model has to function at an unconscious level which does not impede cognitive functioning and also needs to be very persistent. These are the two cardinal characteristics of the Bowlby's internal working-model (Bowlby, 1980).

While these are the distinguishing features of Bowlby's internal working-model, an even more significant characteristic is that this model serves as a governing template for all subsequent relationships, so that they are

always, in some measure, influenced by the nature of that initial primary relationship. If that is the case, the initial working-model of attachment of the infant is fundamental to that individual's personality and psychic functioning in relationships with others throughout life. This is indeed what Bowlby claims (Bowlby 1989).

It is perhaps this one vital characteristic, the lasting effect of the internal working model of attachment, that led to all subsequent work in this field, in an effort to determine how the working model might be represented in adults. Clearly, the Strange Situation procedure could only work with children sufficiently young to experience separation from mother as a significant threat. It was, of course, the work of Main and her colleagues which provided the means for insight into the internalised representations of attachment that are present in the minds of adults. The Main AAI protocol has afforded the means for accessing those representations through a structured interview which is designed to surprise the unconscious of the individual and disclose feelings about attachment experiences with parents and about separation and loss. The interview is designed to elicit both past attachment history and present-day feelings about those experiences. The complex system for rating the information provided, enables us to classify individuals in relation to their present-day feelings about attachment, according to categories which

accurately mirror the categories of attachment in infants elicited by the Strange Situation procedure (Main & Goldwyn, 1993). Many variables are implicated in the assignment of individuals to these adult-attachment categories. Taken together, these are assumed to reflect the nature of the internal working-model of attachment in the adult individual.

If, in the light of the enquiries reported in this thesis, we are now justified in considering object-relatedness to be associated with attachment, the question then arises how the soundly-investigated features of attachment, outlined above, are themselves associated with object-relatedness. The starting-point for answering that question must, of course, be the link between object-relatedness and the biologically-driven need, established by the work of Bowlby and Ainsworth, for the human infant to seek the comfort and security of a principal caregiver in a manner which is predictable: a dual requirement, not just for protection from dangerous situations which the infant cannot confront without help, but equally to experience feelings of comfort and well-being when no specific danger threatens. This is the secure base from which the infant can begin to explore the world, at a distance which is not so remote that he cannot return for comfort and protection when danger intervenes, and in which he can gradually learn to experience himself as an

autonomous individual; the nature of the world he inhabits; and how best to co-operate with others and exploit the complex social world of the human environment. It is this degree of interpersonal relatedness which must surely also govern adaptive object-relations.

If object-relations theorists have overlooked the origins for their ideas, they have allowed themselves an enormous amount of freedom of association in developing their ideas in the opposite direction. This has led to the many and diverse complexions of that area of psychoanalytic theory. It is not proposed here to explore those differences but rather to look at the feature the various theories have in common: the notion of a dynamically-unconscious internal world. Indeed, this feature might be said to apply to all psychoanalytical theories, relational or not. It is, arguably, the aspect of psychoanalysis which those who are not psychoanalytically-oriented have found most difficulty in accepting. Surely, however, we are now entitled to raise the question: what is the difference between Bowlby's internal working model of attachment, originating from the ideas of Craik, and the internal world of psychoanalysis? Presumably, the compelling associations observed in the investigations reported here strongly suggest that the internal working-model and the dynamic internal world are in fact one and the same psychological

construct; or, possibly, that one is derived from the other.

If we can now assume that the internal working-model of attachment and the internal world of object-relations are in fact the same psychological construct, the question of changes and modifications within that construct assumes considerable importance. Research related to adult-attachment has now established the transgenerational transmission of attachment behaviour: that a mother rated autonomous on the AAI is more likely than not to rear a securely-attached child (Fonagy, Steele & Steele, 1991). However, that is not invariably the case and some mothers, who are not rated autonomous, do in fact rear securely-attached children. Furthermore, we see from the AAIs of some of the mothers rated autonomous on the AAI that they have an attachment history that strongly suggests they might have been rated insecure in the Strange Situation, had they been assessed as children. Bowlby always acknowledged that, while the internal working model tends to persist throughout the life-cycle of the individual and is certainly resistant to change, it is nevertheless capable of revision at any time in the light of subsequent life-experiences which might impinge on attachment-representations and, even more importantly, that the internal working-models of those rated least secure are most resistant to change (Bowlby, 1980).

It is precisely this capacity for modification and change, albeit a capacity which is very resistant to conscious processes, which so closely aligns Bowlby's concept of the internal working-model with the psychoanalytic concept of the dynamic internal world. Psychoanalysis also acknowledges the resistance to change in the internal world and is in fact very preoccupied with the psychic agencies adopted by the individual to guard against change. Therapeutically-applied psychoanalysis is largely concerned with enabling patients to understand these resistances, in order to acquire a degree of choice in modifying the dynamics of the internal world: in other words bringing about psychic change.

Few theoreticians concerned with either attachment theory or object-relations theory have tried to address the question of the agency through which either the internal working model or the dynamic internal world, both so resistant to change, can in fact be modified. This is a question of prime importance, if we are to accept the need to cultivate secure internal working models of attachment or adaptive object-relations in our fellow beings, particularly if these are the hallmarks of the absence of psychopathology. Object-relations theorists would argue that any changes to the internal world are brought about through the agency of the transference: the aspects of the relationship between analyst and patient which mirror the

patient's primary relationships. Other theoreticians might look for a quality of resilience within the individual's personality which has provided a degree of insulation against the effects of adverse attachment experiences. Fonagy suggests a more fundamental agency for change: the reflective-self function (Fonagy et al., 1994). He argues persuasively that this function, which he and his colleagues have demonstrated and measured, is the agency for any changes brought about to the internal working model, which cannot otherwise be accounted for, and that the same or some similar agency lies at the heart of changes brought about within any psychotherapeutic treatment. It follows from this argument that reflective-self function is also the agency for any changes brought about in the dynamic internal world that is at the root of object-relatedness. Indeed, the presence of a reflective-self function could well explain research which has demonstrated that most, if not all, forms of psychotherapy are likely to produce some change. While the transference is not confined to the psychoanalytic setting, it is only ever interpreted within that context. Reflective-self function, however, if it exists adequately within an individual, is always present: even if the individual is not in any form of therapy. This would explain how some are able to gain insight into their mental representations and make modifications without outside help.

Having reviewed the nature of the possible associations between object-relations theory and attachment theory, it is perhaps useful to have a further look at the measures which have formed the basis for the enquiries that have led to these conclusions. At first sight, the object-relations measures, SCORS, are very different from the attachment measures that relate to the AAI. SCORS does not place individuals in discreet categories of object-relatedness and can only measure the degree of object-relatedness on a series of ordinal scales. This says very little about the characteristics of the individual's relationships with others. Furthermore, only two of the SCORS measures deal exclusively with aspects of object-relatedness: Affect-Tone and Capacity for Emotional Investment in Relationships and Morals. The first measure has been clearly shown to be the one most closely associated with the AAI measures and it is the SCORS measure which, arguably, best captures the characteristics of object-relatedness. The second measure has two aspects to it: relationships and morals. No doubt good moral standards are often concomitant with good object-relations but not necessarily with an adaptive capacity for emotional investment in relationships. It is perhaps regrettable that these two separate aspects of object-relatedness have been combined in a single measure. The two remaining SCORS measures, Complexity of Representations of People and Understanding Social Causality are claimed by Westen to be

oriented more towards social cognition. These cognitive aspects, while they are probably components of good object-relations, are nevertheless ones which might well mirror other characteristics of object-relatedness. While the associations between these two SCORS measures and the AAI measures have been shown to be much weaker, that does not necessarily mean that they do not measure aspects of object-relatedness and it may well be these two measures account for some of the additional discrimination which has been found to exist in the SCORS measures when compared with the AAI measures. What does seem possible is that these two measures might reflect, in some degree, the presence of reflective-self function. Further investigations in that area might prove rewarding.

Since the enquiries reported here were initiated, Westen himself has alluded to shortcomings in the application of the SCORS measures but these relate mainly to difficulties when rating pathological subjects. The subjects in the investigations reported here were, of course, assumed to be non-pathological, to the extent that they were not psychiatric patients. Westen also acknowledges the unsatisfactory combination of two different aspects of object-relatedness in the Capacity for Emotional Investment measure. Westen's solution to these problems, and others, has been to develop a Q-sort procedure for projective stories which subjects are invited

to relate. The new protocol nevertheless incorporates many of the existing features of the original SCORS protocol. It is therefore assumed that the original protocol adopted in these enquiries, is sufficiently valid to support the findings that have been reported here. It would, nevertheless be useful to replicate these investigations, using the new Westen protocol. There is, however, one significant advantage in using the original SCORS protocol over the new Q-sort. The former, having been applied to the original AAIs, could also be applied to the second AAIs administered some five or six years after the original ones in the continuing research of the London Parent-Child Project. This would examine how stable the characteristics of object-relatedness are over time and how such expected stability compares with the stability over time that is currently being investigated with regard to attachment in adults, as measured by the AAI.

Having established the strong associations between object-relatedness, as measured by SCORS, and adult attachment, as measured by the AAI, which now allows for the strong possibility that the two constructs are, at least broadly, the same, it is useful to examine how they might fit as a single entity into a pattern of infant development. We might call that single or common construct object-attachment. The ideas of Craik reflect something of what lies behind the need for object-attachment: a need to

construct an internalised model of the world, and by extension of Craik's theory, to construct an internalised model of how to relate to important others, erected on the foundations of primary relationships with principal caregivers. Presumably what predicates such models, whether of the world or of others within it, is the need for human beings to acquire the ability to resolve adaptively the conflicting needs of competing and co-operating in what is arguably the most complex social species on the planet, while at the same time resolving the huge freedom of choice that exists in our species to explore, understand and exploit our environment, not just in terms of the here-and-now but within a context that incorporates concepts of past and future. Arguably, these two competing and conflicting imperatives of our existence can only be resolved where there is sufficient predictability in the environment as well as in others who inhabit it. In this situation, it is those who are best able to predict the environment, including the social environment as experienced through interpersonal relationships, that can best survive, while experiencing the feelings of comfort and well-being that have so effectively been demonstrated by attachment research.

A not unreasonable extension of this argument is that such internalised representations must function in a consistent and persistent way and that access to them must

be automatic and instantaneous. If that is so, the possibility of the representations becoming degraded by conscious cognitive processes must be avoided. The function of such representations might be seen as akin to a template that dictates; a prism designed to reflect in a particular predetermined way; or a computer programme that provides a stable process through which new ideas can be processed and retained, amended or rejected. The price to be paid for such a one-way system of internal representations, therefore, is that those representations must remain largely unconscious. Nevertheless, individuals who function optimally and most adaptively are those who are able to gain some degree of access to such representations in order to fine-tune them for greater effectiveness, via some means which is probably best conceptualised at present by processes akin to reflective-self function.

It does not seem beyond the bounds of possibility that the apparent experience of living in the real world is no more than the best available reconstruction of what is going on externally, produced deep within the mind, mediated only by the success with which perceptions are interpreted at that inner level when they arrive there in the form of signals from the outside world. That is certainly the case with regard to visual input and has long been recognised as such: that the apparent and internalised image of the outside world is no more than the

interpretation within of electro-chemical signals from without. Much of the processes that underlie that situation are now well understood and particularly the need for large areas of the brain to be dedicated to these entirely automatic and largely unconscious processes. Why should it be any different for the mechanisms that represent relatedness to others, except that these must surely exist on a far larger scale.

What is crucial to both object-relations theory and to attachment theory, therefore, is the inborn need to construct a robust internalised psychic model of the nature and parameters of a close primary relationship, which will broadly serve as a model for all future relationships throughout the life-cycle. Seen purely in these terms, there is no material difference between object-relations theory and attachment theory. Any differences arise largely from the manner in which each is investigated and applied. Considerable further research in both areas is now required. It may be, however, that future research should not overlook the important associations that have been demonstrated here.

CONCLUSION

The investigations reported in this thesis have revealed strong and significant associations between the notion of object-relatedness, as conceived by object-relations theorists within psychoanalysis, and the notion of attachment, as conceived by Bowlby, Ainsworth, Main and other contributors to this important empirically-based theory of child development. It therefore becomes possible to suppose that the broad theoretical concepts which underlie object-relations theory and attachment theory are the same and, therefore, that attachment theory is, at the very least, an empirically and perhaps more narrowly conceived aspect of object-relations theory. The converse of this argument is that an important area of psychoanalysis may thereby acquire a degree of empirical validity which is essential if it is to survive as a convincing model of human development and behaviour.

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APPENDIX 2.1

ADULT ATTACHMENT INTERVIEW

QUESTIONS and PROBES OF THE ADULT ATTACHMENT INTERVIEW (After George, Kaplan & Main, 1985).

1. Please orient me as to your family background, where you grew up, what your parents did for a living, whether there were brothers and sisters in the picture, other persons (e.g. grandmother) living in the family household.

2. I'd like you now to try to briefly describe your relationship with your parents as a young child, starting if you could from as far back as you can remember?

3. Please think now of five adjectives that describe your relationship to your mother during your childhood. Pause to allow subject to think. Then ask about each in turn, as you think about your relationship to your mother as a (e.g. loving one) what kinds of memories, incidents come to mind?

4. Please think now of five adjectives that describe your relationship to your father during your childhood. Pause to allow subject to think. Then ask about each in turn, as you think about your relationship to your father as a (e.g. loving one) what kinds of memories, incidents come to mind?

5. Which parent were you closes to? Why? Why not the same closeness with the other parent?

6. What would you do when you were upset as a child? Pause. (a) Emotionally upset? . . . incidents? (b) Physically hurt . . .incidents? (c) When ill as a child, what would happen?

7. First separation? Others?

8. Were there occasions when you felt rejected as a child? How old? How exactly did you feel? What did you do? Did parent(s) realize s/he was rejecting you?

9. Parents ever threatening--for discipline, jokingly? Some of the adults interviewed in this way have memories of some kind of abuse in their family,--did anything like that happen to you or in your family? How old were you? How severe? How frequent? Has this experience effected you as an adult? Has it or will it, do you think, effect your approach to your own child(ren)?

10. Are there any aspects of your childhood experience which you would see as having effected your adult personality? Are there any aspects of your childhood experience which were a set-back to your development?

11. Why do you think your parents behaved as they did during your childhood?

12. Were there other adults, a part from your parents, who played a caregiving role to you during your childhood? Or other adults especially important? (How so? Ages at which they were an influence?)

13. Loss of parent, or other close loved one (sibs) as a child? Age? Circumstances? How did you respond at the time? Was the death sudden or expected? Did you go the funeral? Feelings at the time? Have your feelings regarding the loss changed over time? Effect on remaining parent? Effect on your adult personality? On approach to your own child?

13a. Other losses in childhood. Queries as above.

13b. Important losses in adulthood. Queries as above.

14. Have there been many changes in your relationship with your parents since childhood?

15. What is your relationship with your parents like now, as an adult?

16. How do you feel now when separated from your child(ren)? Ever worried about him/her?

17. Thinking of the kind of future you'd like to see for your child, if you had 3 wishes for your child 20 years from now, what might they be? Minute to think . . .

18. Is there any one thing you've learned from your childhood experience? And, finally, what would you hope your child learned from his/her experience of being parented by you?

APPENDIX 5.1

SUMMARY CRITERIA FOR RATING ON SCORS

AFFECT-TONE MEASURE

Affect-tone of Relationship Paradigms

Principle:

Scale measures affective quality of representations of people and relationships. Assessing what the person expects, from profound malevolence to enriching and benign social interaction.

General Rules:

1. Score subject's perceptions or expectations of others, and secondarily for quality of relatedness or the affect evoked by the situation.
2. Score for affective expectations how self is treated by others, rather than vice versa.
3. Make use of all informations, comments, asides, etc... If evidence of malevolent object activation =1/2, even if elements of compassion exist.
4. Score the current episode described, score for affect-tone of specific encounter, unless subject explicityly notes counter-examples.

Scoring Table

Level 1: Person views the social world as threatening, people are seen as abandoning, abusing/destructive without a reason. People are classified as victims/victimizers. Person may feel tremendously alone.	1. Unabmiguously malevolent representations, grossly negliegent caretakers/signigicant others. If person escapes malevolence =2. If manfisesting overwhelming sense of malevolence/victimazation with one small "birght spot" =1. 2. Gratuitous violence/aggression by others disproportionatet to provocation. If violence is competitive =2. 3. Profound loneliness of interpersonal emotiness. 4. Malevolent atributions/paranoid.
Level 2: Person views social world as hostile, capricious, empty or distant, but not overwhelming. Person may feel alone. People may be exprienced as unpleasant/uncaring, but not primarily as threats to one's existence.	1. Not overwhelming but hostile, capricious, unpleasant and/threatening interactions. If hostile interaction is unusual/anomalous with respect to usual expectations of the social world =3/4. 2. Sense of people as unempathic/passing strangers where it upsets the subject. People may be seen as pushing subject into doing things. 3. Sense of aloneness which is not profound. 4. Substantially self-generated victimization, if overwhelming =1. 5. Failed ministrations by well-intending others. Escape from malevolent forces/momentary interpersonal relief from profoud depression. 6. Escape from very unpleasant existence through own efforts, with no relatedness to others. 7. At least 2 for implied compassion of one person for another. 8. Breakdown of relationships without resolution of consequent negative feelings. 9. Violence reflecting competitiveness. 10. Idealization/grossly defensive denail masking upsetting material. If only suggestive =3.
Level 3: Person has a range of affectively charged objects which are not primarily positive people are generally seen as capable of loving and being loved, of caring being cared for.	1. Mildly negative representations, hostile interactions which is clearly unsual or anomalous with respect to expectations of the social world, if usual expectations is clearly benign =4. 2. Affectively mixed representations, where overall tone is negative or neutral. 3. At least 3 for explicit expression of compassion. 4. Person being comforted after a loss. If an afterthought tacked onto a story about loneliness =1/2. 5. Escape from danger effected through help of benevolent others. If escaping malevolence with help from others =2. 6. Self resolution of difficult feelings, or negative feelings that dissipate with time. 7. Persons described in a somewhat bland/unelaborated manner. 8. Minimal affect involved in the episode, where it is relatively neutral.
Level 4: Person has a range of affectively charged objects, which are primarily positive. People seen as loving & being loved, & enjoying company of others.	1. Affectively mixed interactions, overall affect-tone is positive. Persons may be in conflict or midly depressed, but outcome of conflicts is positive in affect-tone, if momentarily lifted from profound depression/chronically low expectations =2. 2. Giving/sharing where it seems largely an expectation/social obligation. 3. Description of personal success, where interaction is in a subordinate role. 4. Mutual pleasurable activity. A happy episode, but unclear if reflects person's generalized expectations of the social world. 5. Positive affect-tone where minimal affect is expressed. 6. Relationships are on good terms at the end. 7. Interpersonally efficacious feelings, and evidnece of positive expectations of the social world. 8. Elements of painful or negative affect-tone about a compelling & mutual friendship.
Level 5: Person has predominantly positive objects, expecting relationships to be benign and mutually enriching, involving intimacy, appreciation, and loyalty.	1. Very positive interactions, people resond to each others' wishes. If giving & caring is only from the self =3/4. Genuine interest in one another. If including a loss of significant other =1-3/4 if backdrop to positive affect-tone. If unclear that relatedness is enduring =4. 2. Enjoyment of relationship. if highly stereotypic generalized descriptions of closeness =4 (unless a compelling example). 3. Unequivocallu highly positive generalized representations of relationships.

APPENDIX 5.2

SUMMARY CRITERIA FOR RATING ON SCORS

COMPLEXITY OF REPRESENTATIONS OF PEOPLE MEASURE

Complexity of Representations of People

Principle:

Scale measures the extent to which the subject clearly differentiates self from others; sees self and others as having stable, enduring, multidimensional dispositions; and sees the self and others as psychological beings with complex motives and subjective experience.

General Rules:

1. Score for highest level unless a clear example of undifferentiation, blurring, or profound egocentrism; score level 1.

2. Complex representation poorly integrated, superficially multifaceted, but incoherent; score level 2.

3. Complex, well-elaborated, and integrated representations (5,6,7) containing suggestive lack of differentiation, blurring or profound egocentrism; score level 3. Score 4 when a representation is overwhelmingly organized at one level with a brief glimmer of a response level higher.

4. Sequences of behaviour are not scored as complex, ambivalent, or multifaceted unless these are enduring aspects of personality.

Scoring Table

Level 1: Undifferentiation of self-other boundaries and emotions and thoughts.	1. Emotions & thoughts attributed to situation, with no elaboration of people's separate feelings. 2. Profound egocentricism. All affects & thoughts derive from self; if feeling shared with other score =2/3. 3. Complementary emotions or intentions to other when unlikely. 4. Lack of recognition of privileged information. 5. Undifferentiated "they" with a single set of thoughts, emotions, and/or intentions when commonality is unlikely. 6. Manifestation of merging (but not when metaphoric).
Level 2: Self/other clearly bounded, lacking subjective states, motives, or enduring characteristics and are unidimensional, existing in situations; enduring qualities are global. No psychological awareness.	1. Lack of complexity of self & others: minimally elaborated or unidimensional, without reference to internal lives. Traits are global, evaluative, and univalent. If others described globally with several distinct but similarly valanced traits =3. If affectively rather than cognitively driven =2. Score if complex-sounding traits derive from liking or disliking. If suspicion, but not certainty of affect-driven, =3. 2. Enumeration of what other does rather than traits or dispositions of who the other is. 3. Self & other have a momentary existence, with no sense of continuity, enduring dispositions, or life history. People may be defined in terms of momentary actions. 4. Simple unelaborated understanding of emotions. 5. Splitting, fluidity of characterization: no recognition of ambivalence. 6. Twinning, while thoughts & feelings are univalent or uncomplex. If commonality unlikely, score 1. If mental state is complex, =3. 7. Incoherent poorly integrated representations; people described across a series of vignettes. For complex inconclusive response =3.
Level 3: Some evidence of psychological awareness, and inference about subjective states, however not delving beneath the surface. Theory of mind is unidimensional, overly general, stereotypic, or unsubtle. No understanding of individual mental states, personal meaning, or enduring attributes.	1. Minor elaboration/inference of mental lives. People remain stereotypic or not well developed. 2. Minimal trait continuity, or some mention of enduring attitudes, where people remain unidimensional. 3. Contrasting univalent, enduring trait with anomalous behaviour. 4. Global portrait differentiated into several similar traits. If affect-driven, =2. 5. Rudimentary sense of ambivalence. Self having two simultaneous feelings of the same affective valence, if describing others, =4. Affects must be discrete and clearly differentiated, & simultaneous. 6. Appropriate twinning, when feelings are mixed or complex. 7. Elaborated descriptions of feelings states, with no more than a rudimentary understanding of ambivalence. 8. Recognition of different perspectives. If complex >=4. 9. Complex, well elaborate & integrated representation suggestively affect-driven, lack of differentiation, blurred boundaries, or profound egocentrism. 10. Interest in other's history without drawing causality. 11. Rudimentary understanding of personality change, without much subjectivity. When more individualized and less stereotypic >=4.
Level 4: Developing appreciation of complexity of subjective states & personality dispositions. Self & others described in elaborated, rather than simple unidimensional fashion.	1. Complex mental states with relatively vague individuality. Complex perspective-taking in a specific situation. 2. Others having two simultaneous feelings of same affective valence. If describing self =3. 3. Self having simultaneous yet dissimilar or oppositely valanced feelings. If others =5. 4. Conflicting intentions. 5. Enduring personality dispositions described with qualifications or some subtlety. Relatively simple traits with opposite affective valence are ascribed to the same person. 6. Stereotypic, unelaborate personality change descriptions, particularly traits are univalent and the process of change is relatively simple or global. 7. Recognition of difference between reality and appearance with respect to emotions, which is not necessarily conscious but is uncomplex.
Level 5: Complex recognition of subjective states, differentiated view of personality. However, unintegrating complex subjective states with complex personality representation; no understanding of these in conflict. Some awareness of unconscious processes, but not integrated with enduring traits/personal history.	1. Detailed psychological elaborations of subjective states within the specific interaction described when there is minimal sense of enduring qualities. 2. Depiction of multifaceted enduring qualities, without much elaboration of subjectivity. 3. Others experience simultaneous mixed emotions, with little sense of what the person is across situations; when self =4. 4. Explicit recognitions of others having mental conflicts, when these are unelaborated or elaborated only during inquiry, and do not appear to have been central in shaping description of interaction. Detailed elaboration of people's psychic lives when such elaboration has no relation to the interaction described. Simple conflicting intentions =3/4. 5. Different aspects are seen manifesting in different situations. Explicit contrasts between self or others in interaction and the way they usually are, when their psychological qualities are well developed; if stereotypic =4. Contrasts between current behaviour, and long-term, well-developed traits. If contrasts current and pas behaviour =2.
Level 6: Able to reflect on his/her own representations of self & others, able to depict personality change over time, conveys a rudimentary sense of historical roots of traits.	1. Some sense of extended time frame for psych. predicaments, enduring internal, psychological issue, problem, rather than external, interpersonal situation. If complex subjective experience is also described =7. 2. Simplistic descriptions of personality change with some understanding of reasons for change are apparent and person's subjectivity is described with some subtlety. 3. Understanding of change of self & other over time, in terms of complexity. 4. Complex description of others' subjective states with some reference to relatively simple personality dispositions. If personality description absent =5; if description of personality outside the situation is complex =7. 5. Complex, multifaceted personality description with some reference to subjective states, if not described or simple =5, if complex =7. 6. Self described complexly in terms of both personality and subjective states, but no other person is complexly described.
Level 7: Able to simultaneously coordinate & integrate complex, generalized representations of self and others with complex representations of specific mental states. An integrated understanding of complex psychological processes within the context of self's & others' histories & attributes, can see how this affects psychological experience. Makes elaborate inferences about self & other theory of mind.	1. Elaborated multidimensional mental processes or seen in extended temporal context. People described as having complex both enduring & momentary traits & states. When self is described, score only if another person is complexly described, if not =6. 2. Complex motives or elaborated mental conflicts representing enduring aspects of personality not merely situation-specific, the conflict must be clearly internal. 3. Understanding complex unconscious processes in the context of long-term personality dispositions. 4. Demonstration of clear appreciation of individuality in the context of history. Understanding of how the person responds individually and not a generic person. 5. Self is complexly described in terms of both subjectivity and personality, and at least one other. 6. Complex personality change over time.

APPENDIX 5.3

SUMMARY CRITERIA FOR RATING ON SCORS

CAPACITY FOR EMOTIONAL INVESTMENT IN RELATIONSHIPS

AND MORALITY MEASURE

Capacity for Emotional Investment in Relationships and Morals

Principle:

Scale measures the extent to which others are treats as ends rather than means, even are regarded in terms other than need gratification, moral standards are developed and considered, relatioships are experienced as menaningful and committed.

General Rules:

1. Score highest level unless high-level is "spoiled" by breakthrough of profound self-preoccupation or need-gratifying approach to relationships, if this occurs =1/2. If subject betrays functioning two or more levels apart, score intermediate.

2. Score subject's emotional investment and moral development.

3. Coding underlying structure of the affective-motivational exprience of the relationship.

Scoring Table

Level 1: Others' perspecitives, needs, and desires are not considered. People exist only in relation to oneself. Rules and authorities are seen as obstacles.	1. Exploitativeness, manipulativeness, or single-minded pursuit of self-interest without remorse, if expressing =2. 2. Others are seen only as obstacles preventing realization of a goal. 3. One sided view of a conflict, pursuing self needs without regard to other. Sense of people as important only to be used. 4. People depicted as mirrors, tools for gratification. People valued only as being there for the subject. 5. Pseud-attachment, narcissistic pseudo-investment, or intense investment. Termination of relationship leads to devaluation. 6. Others devaluation to the point of dehumanization, if ambiguous or less severe =2, if defensive or anomalous =3. 7. Profoundly slef-preoccupied descriptions, or primary focus on bodily sensations. Focus is on own image or reflection. 8. Need-gratifying conception of friendship, if expressing loss =2/3. 9. Loners, schizoid unrelatendness, when not profound =2. 10. Theme is need-gratification, if clear enjoyment =2. 11. Unresponsiveness to major interpersonal event. 12. Hurtfull acts to others without expressing remorse. If act is minor =2. Surface feeling of guilt not affecting action. 13. Response betraying low-level moral development or emotional investment. 14. Extreme commitment to unconventional values motivated by rage/desperate need for self-definition. If unclear =2/3. 15. Profound sense of entitlement.
Level 2: Recognition of differences between needs and desires of self & others. Relationships consist largely of shared activities. Attachments are important, needs of other are typically secondary to self.	1. Trickery, manipulativeness, explotivativeness. 2. Unresolved/unmediated.compromised conflict between self and other. If effort made, score >=3. 3. S obeys to avoid punishment, or gain approval, if remorsing explicitly =3. Parents punishing children for impulsive acts where parents exist only as punishers. If independent =3. If punshiment is abusive =2, if S indicates it is wrong =3. 4. Impulsive agression with some remorse, if verbal, then only when severely abusive. If remorse occurs =2/3 depending on degree of agression & genuineness of remorse. 5. Lack of depth to attachment, superficial relationship, reflecting merely mutual self-interest. 6. Expressed relationship with minimal appreciation of others' wishes/needs. 7. Impulse control, frustration tolerance. 8. Arbitrary authority figures viewed as unfair or invested with legitimacy. Complaints of false accusations. 9. Unelaborated parental concern, where parent exist to help the child. 10. Wish to please others, when ambiguous or primarily self-serving. 11. Level 1 responses with some hint of real moral concern or conventionality. 12. Sense of entitlement. 13. Mildly hurtful without expressing remorse. If severe =1, if appropriate confrontation =3. 14. Rigidity leading to devaluation of other, leading to self-defeating behaviour. 15. Schizoid unrelatenedss. 16. Masochism or profoundly self-deating behaviour.
Level 3: Person considers needs and wishes of others in decision making. Relationships are conventional. Rules are respected, while moral rules are relatively rigid and concrete, and there maybe a pronounced sense of duty, particularly to certain people.	1. Conventional attachments, focus on shared thoughts & feelings, if intimate & committed relationship =4. If deriving from self-gratification =2. Long-lasting friendships with minimal sense of history/appreciation & uniqueness of others. 2. Obedience to moral standards because these are valued rules or edicts of respected authorities. Score for condem and dislike of bad actions of others. 3. Sense of duty to help others, rigid morality, if allied with devaluation of self/other =2. If duty is expressed in explicitly abstract form =4. Where masochistic or self-defeating =2. 4. Exprience of guilt for actions harming others. If primitive/harsh =2. Where initial action is intentional and extremely injurious to other =2. Exprience of guilt/disappointment due to conflicts of cognitions and internalized standards. 5. Action rather than feelings of other seem central. Superficial altruism. 6. Unconventionality or rejection of social rules, if due to need-gratification =1/2. Post-conventional standard unclearly motivated by mature sense of relativity of tradition & conventions or, self-serving disregard of community standards. 7. Impulse control, frustration tolerance.

Level 4: Person capable of forming deep, committed relationships where other is valued for unique qualities. No sense of duty, and conventional conflict-resolution. Relationships are seen as lasting over time, involving considerable commitments and intimacy.	1. Long-term, committed relationships, nonstereotypic enjoyment of another's unique characteristics. Devoted behaviour, not undertaken to gain praise or reward, fulfill sense of duty, or compensate for guilt. 2. Obedience, compliance or altruisitic behaviour settming from concern for others. 3. Empathy based on appreciation of another's plight. If simple compassion =2/3. 4. Intimacy, elaborated shared thoughts and feelings. 5. Commitment to relatively abstract ideals, involving self-sacrifice. If self-serving/righteous, or rigid =2/3. 6. Conflicts between people in committed or enduring relationships with expression of concern for other. 7. Postconventional values, with probable indication of commitment to rela relationships. If unclear whether specific others are really valued, score =3; if clear =5.
Level 5: Person treats self & others as ends rather than means, attempting to achieve autonomous selfhood investing in others. Authorities and rules are not perceived as absolute.	1. Creative compromise or mediation of conflict. If growing to parents' wishes =3/4. 2. Sense of conflict between social norms and subject's own considered standards, if need-gratifyin =2, do not score for intellectualized discussion of conventional morals except where subject evidence capacity for relatedness to others. 3. Elaborated depiction of pursuit of self-definition, development, mastey within context of mature, committed relationships.

APPENDIX 5.4

SUMMARY CRITERIA FOR RATING ON SCORS

UNDERSTANDING SOCIAL CAUSALITY MEASURE

Understanding Social Causality

Principle:

Scale measures the extent to which attributions about the cause of people's actions, thoughts, and feelings are logical, accurate, complex, and psychologically-minded.

General Rules:

1. Score material after prompt if appearing to have influenced S's initial understanding of action.
2. If upon inquiry S gives a response 2 levels above the previous, score intermediate.
3. Illogical reasoning, or unlikely attribution =1/2.
4. Examine responses with the following considerations: a) Logical? b) what is causal? c) Internal? d) Complex?

Scoring Table

Level 1: No understanding of causality, no sense of necessity to understand illogical reasoning, emotions and thoughts.	1. Grossy illogical scenarios, unexplained transitions or transformations, causality is physical not social. 2. Unexplained affects, absence of indication how people reason in order to act. 3. Actions based on illogical assumptions. 4. inappropriately attributed motives. 5. Attribution to univalent traits.
Level 2: Ruidemntary understanding of social causality. Actions stem from simple, global feelings as S-R. Interaction frequently have mild logic errors or inconsistencies.	1. Action stemming from simple unexamined/global feelings. 2. Behaviours/feelings caused by environmental stimuli, without mediation of psychological states/processes. 3. Minimally elaborated sense of causality. 4. Minor logic errors, incongruity between thoughts, feelings, and actions. Do not score if ambiguous. 5. Twinning. If causality is complex and internal =4; if internal but not complex =3. 6. Projection, if irrationaly is unacknowledged =1.
Level 3: Complex understanding of some causal process, but still largely in S-R terms. Recogintion of psych. processes influencing actions, but is often external.	1. Minor elaboration of psychological causes of feelings/behaviours, mostly based on environmental/behavioural causes. 2. Multidirectional behavioural causes, without understanding the role of internal states in motivating action. 3. Recogntion of behavioural causes influenced by broader social systems on thought/heavhours/consequences for actions. If very complex =4. 4. Ruidementary understanding of others' thoughts & feelings affecting others' behaviour. 5. Complex mental states evoked but not causing behaviour. If complex understanding of what led to the mental state psychologically =4. 6. Mutlitiple causes producing a single action. 7. Responses of 4/5 (complex internal causality) with unexplained transitions resulting from Ss's logic errors or irrational behaviour. If not acknowledged =1. 8. Same psychological exprience for self 7 other where causality is internal. If complex and internal =4. 9. Responses of 4/5 with minor unexplained transition/stretching logic caused by defensive disavowal of feelings, impulses/unacceptable thoughts. 10. Appropriate internal causality with recognition of an unexplained affect/behaviour. 11. Generalizations. 12. Causes of change in relationship, if simple =2, if complex and psychologically-minded =4.
Level 4: Basic understanding of psychological causality, though incomplete or applied only irregularly.	1. Unidirection complex internal causes. If other desribed as well =5. Siohistacted understanding of others' theory of mind differing from self, which is causal. If unclear about complexity =3. 2. Behaviours influenced by people's construal of the situation. 3. Awareness of simple unconscious motivational processes. 4. Multidirectional internal causes. 5. Twinning with complex and internal causality. If unlikely =1/2. 6. Complex understanding of how social forces influence individual motivations.
Level 5: Understanding of social causality in terms of psychological processes, which is complex, incorporating feelings & conflicts.	1. Mutlidirectional internal causes, describing both self/other actions as stemming from complex motives. If only one =4. 2. Actions based on introspection even if unidrectional. 3. Awareness of complex unconscious motivational processes.

APPENDIX 5.5

MANUAL FOR IMPLEMENTATION OF SCORS PROTOCOL

SOCIAL COGNITION AND OBJECT RELATIONS SCALE (SCORS): MANUAL FOR CODING INTERVIEW DATA

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For several years the representational processes underlying interpersonal functioning have been explored in two independent literatures: psychoanalytic object relations theory and social cognition research (for reviews, see Greenberg and Mitchell, 1983; Singer and Kolligian, 1987; Westen, 1990a). Object relations approaches have examined, from a clinical perspective, the nature and development of representations of self and others and the affective processes brought to bear on those representations, with a focus on pathological object relations in personality disorders. Using an entirely different database, social cognition researchers from an experimental perspective have explored mechanisms of social information processing, with a focus on normal, modal processes. The present manual is part of an effort to develop systems for measuring different aspects of individual differences in social cognition and object relations from narrative data (such as interviews, psychotherapy sessions, and descriptions of early memories). Similar manuals for use with TAT stories and stories told to the Picture Arrangement subtest of the WAIS-R are available upon request from the first author, as is an addendum for using this manual to code early memories.

The present manual provides scoring criteria for the assessment of four dimensions of object relations/social cognition: complexity of representations of people, affect-tone of relationship paradigms, understanding of social causality, and capacity for emotional investment in relationships and morals standards. These different dimensions are conceptualized as interrelated but distinct aspects of object relations and social cognition (i.e., as cognitive and affective processes mediating interpersonal functioning) that can be measured independently of each other.

The manual includes several parts. First is a synopsis of each scale. Second is a description of the theoretical basis for each measure and of the research and clinical observations and traditions that were used in its construction. The third section is comprised of scoring rules for each of the levels of each scale. The fourth section consists of three practice protocols of sample subject descriptions of various interpersonal interactions, and corresponding scores and scoring rationales for each description on each scale. The final section includes two reliability protocols which can be used to establish interrater reliability on the measures.

Coding and Interrater Reliability

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1. The authors would like to express their appreciation to the nearly two dozen graduate students who helped in fine-tuning the scoring criteria as applied to different forms of data and in helping develop model answers and scoring rationales for the three practice protocols.

2. Although these dimensions are interdependent, for purposes of research they have been operationalized as orthogonal. While at times this may limit the capacity of a given scale to capture certain aspects of the phenomenon it is designed to measure, this was necessary to avoid artificial inflation of correlations between scales stemming from overlapping scoring rules.

We would recommend use of graduate student or Ph.D. psychologist coders only, preferably with clinical experience. Undergraduate raters are unlikely to have the experience and psychological-mindedness necessary to code interview data on these dimensions unless they are exceptional and undergo more extensive training than recommended in this manual. We recommend that trained coders meet periodically to resolve all scoring discrepancies of more than one point and of randomly selected one-point discrepancies, reviewing the theoretical rationales and scoring rules each time before meeting. We would also recommend that at leas one coder, responsible for training coders, have experience at clinical assessment.

Coders should always train only on one scale at a time, and it is preferable if coders will be scoring multiple scales to score all data on one scale at a time. Our experience is that the best way to learn to code data reliably using these measures is as follows. First, the coder should familiarize him/herself with the aims and theoretical background of the measure described briefly in the first section. Second, the coder should carefully read the scoring rules two or three times and then proceed to score the first practice protocol. He or she should then read the model answers and scores and adjust his/her coding accordingly. It is optimal at this point to meet with a second coder who is simultaneously training on the measure to discuss scoring of the first protocol and differences between raters or between raters and scores in the manual. Next, the coder should similarly score practice protocol #2 and then #3, read the scoring rationales for those protocols, and meet again with other coders to discuss scoring differences. Finally, each coder should score the first reliability protocol and compute interrater reliability. If reliability is not acceptable, coders should discuss each response and then score the second reliability protocol.

The same process should be repeated on each scale. Because these measures were constructed so that scale points would represent relatively equal intervals from a theoretical perspective, we have considered the data continuous and thus used and Intracless Correlation Coefficient on Pearson's Product-Moment correlation in calculating interrater reliability. We would recommend double-coding all data and applying the Spearman-Brown Prophecy Formula to the correlation coefficient to provide an accurate measure of reliability of multiply-scored data. Alternatively, reliability could be calculated using a weighted Kappa, with Rosenthal correction for multiple coders. Using graduate student coders, we have obtained reliabilities (uncorrected) in the range of .72 to .94, and in the range of .82 to .96 with correction for multiple coding.

Types of Applicable Data, Number of Observation Necessary for Reliable Assessment of the Constructs, and Validity

These measures can be applied to narrative data such as interviews, psychotherapy transcripts, early memories, speeches, and some group process transcriptions. Optimally, the scales should be applied to descriptions of interpersonal episodes of some sort, although with the exception of social causality, they can also be applied to person/descriptions or generalizations about relationships without specific examples of interpersonal interactions.

As of the date of this revision, data on internal consistency of the measur and the number of observations necessary for reliability on different kinds of

data are only preliminary. Acceptable levels of internal consistency (Cronbach's alpha) on the two cognitive measures (complexity of representations and social causality) have been obtained with as few as three observations (i.e., ratings of three separate vignettes). For the other sales, reliability is heavily dependent on variance scales, reliability if heavily dependent on variance within the sample (e.g., clinical versus college student subjects). With early memories using clinical subjects, five to seven observations have yielded alphas between .70 and .80. Since internal consistency is a partial function of the number of observations, the more ratings the better. We would recommend for most forms of data a minimum of ten vignettes. A vignette should optimally include an interpersonal episode in which the subject interacts in some way with another person. In unstructured narrative descriptions such as psychotherapy transcripts, vignettes can be reliably isolated using procedures developed by Luborsky et al. (1988).

The theoretical basis for each scale in described briefly in this manual and nonextensively in Westen (1989, 1990a-d). Validation research to date is summarized in Westen (1990a) and Westen, Lohr, Ludolph, et al. (1990). The scales or analogous measures applied to other forms of data such as TAT responses have been able to discriminate various clinical groups, children of different ages, and subjects with different development histories. The scales also correlate with self-reported and clinician-reported social adjustment and with similar measures applied to TAT responses.

Synopsis of Scale: Affect-tone Relationship Paradigms

Principle: scale measures affective quality of representations of people relationships. It attempts to assess the extent to which the person expects f the world, and particularly the world of people, profound malevolence or overwhelming pain, or views social interaction as basically benign and enrichi

Level 1: at Level 1 the person views the social world as tremendously threatening and/or experiences life as overwhelmingly capricious and painful. People are seen as abandoning, abusing, or destructive of others and oneself with no reason, other than perhaps malice or unconcern. People are often classified as victims or victimizers. The person may feel tremendously alone.

Level 2: at Level 2 the person views the world, and particularly the world of people, as hostile, capricious, empty, or distant, but not overwhelming. The person may feel alone. People may be experienced as unpleasant or uncaring, but not primarily as threats to one's existence.

Level 3: at Level 3 the person has a range of affectively charged object representations/person schemas and interpersonal expectancies, which are not primarily positive. People are generally seen as capable of loving and being loved, of caring and being cared for.

Level 4: at Level 4 the person has a range of affectively charged object representations/person schemas and interpersonal expectancies, which are primarily positive. In general people are seen as capable of loving and being loved, and enjoying the company of others.

Level 5: at Level 5 the person has predominantly positive object representations/person schemasa and interpersonal expectancies. He or she generally expects relationships to be benign and mutually enriching. The person expects intimacy, mutual appreciation, and loyalty in close relationships.

Synopsis of Scale: Complexity of Representations of People

Principle: scale measures the extent to which the subject clearly fferentiates the self from others; sees the self and others as having stable, during, multidimensional dispositions; and sees the self and others as ychological beings with complex motives and subjective experience.

Level 1: at Level 1 the person does not see others as clearly differentiated or bounded, and/or does not differentiate his/her own thoughts and feelings from those of others.

Level 2: at Level 2 the person sees people as clearly bounded, separate from self and from each other, but lacks a sense of people's subjective states, motives, or enduring characteristics. The focus is on behaviors and momentary actions. People are seen as unidimensional, existing in situations rather than across situations. Where people are understood as having enduring qualities, these are global, evaluative traits like "nice" or "mean." The person conveys no sense of psychological awareness.

Level 3: at Level 3 the person begins to show some evidence of psychological awareness, and begins to make inferences about subjective states in addition to focusing on behavior. Understanding of one's own and others' psychological processes and subjective experience does not, however, delve far beneath the surface. The person has ideas or "theories" about self's and others' enduring characteristics, but these intuitive theories are either unidimensional, overly general, stereotypic, or lacking in subtlety. There is little sense that people could do things "out of character" or experience psychological conflicts. Descriptions may be based on schemas of how people in general are, rather than on an understanding of the particularity of the self's or others' mental states, personal meanings, or enduring attributes.

Level 4: at Level 4 the person has a developing appreciation for the complexity of the subjective states and personality dispositions of self and others.

Level 5: at Level 5 the person has a recognition of the complexity of the subjective states of self and others and has a relatively differentiated view of personality dispositions. However, the person does not integrate complex representations of subjective states with complex representations of personality. Component parts of personality are not yet understood as aspects of an interacting system, in which enduring dispositions can come into conflict. The person has some awareness of unconscious processes, but understanding of these is not yet integrated with understanding of enduring attribures and personal history.

Level 6: at Level 6 the person sees the self and others in fairly complex ways. The person is able to reflect on his/her own representations of self and others, is able to depict personality change over time, and may convey a rudimentary sense of the historical (familial, experiential) roots of traits, feeling states, and psychological processes.

Level 7: at Level 7 the person can simultaneously coordinate and integrate complex, generalized representations of self and other with complex representations of specific mental states. He/she has an integrated understanding of complex psychological processes within the context of the self's and others' personal histories and attributes. The person can see and convey how people are particular and individual, and can see how personal meanings of long standing affect current psychological experience. The person is able to make elaborate inferences about the self's and others' mental states, motivations, points of view, history, unconscious processes, and conflicting feelings and impulses.

Synopsis of Scale: Capacity for Emotional Investment in Relationships and Morals

Principle: scale measures the extent to which others are treated as ends rather than means, events are regarded in terms other than need gratification, moral standards are developed and considered, and relationships are experienced as meaningful and committed.

Level 1: at Level 1 the predominant concern is self-gratification. Others' perspectives, needs, and desires are not considered, and the impact of one's actions upon others is frequently not taken into account. People are seen as existing only in relation to oneself: They are treated as tools for the achievement of one's desires; as mirrors or audience for one's displays; or as impediments to one's gratification. People may be seen as useful or comforting at the moment but are not invested in emotionally for their unique characteristics. Rules and authorities are seen as obstacles unless momentarily useful.

Level 2: at Level 2 the person recognizes that there exist differences between the needs and desires of self and others, though the primary aim remains the satisfaction of one's own wishes. Friendships develop but in many respects remain interchangeable. Relationships consist largely of shared activities. Attachments are important, but the needs of the other are typically experienced as secondary to the needs of the self, particularly when these conflict. There is a rudimentary sense of right and wrong, characterized by an equation of prudence and morality (i.e., bad actions are bad because they lead to punishment). Moral injunctions that exist are frequently primitive and harsh.

Level 3: at Level 3 the person considers the needs and wishes of significant others in making decisions. Pleasing other people, being liked, and behaving in accordance with the standards of respected authorities are salient aims which often override self-interest. Friendships and familial relationships are relatively conventional. The person is concerned with being good and experiences guilt when his/her thoughts, feelings, or actions conflict with internalized standards. Rules are respected because they are rules; manners and conventions are seen as important and even natural. Moral rules are relatively rigid and concrete, and there may be a pronounced sense of duty, particularly to certain people.

Level 4: at Level 4 the person is capable of forming deep, committed relationships in which the other is valued for his/her unique qualities. Commitment to others often overrides personal desires, but actions on behalf of another are undertaken without a rigid sense of duty or a predominant desire to be liked for

one's good deeds. Moral judgments, values, and modes of conflict-resolution remain relatively conventional. The person is concerned with doing the right thing, as defined by society or respected authorities, which is frequently expressed in more abstract terms and is often self-abnegatory. Relationships are seen as lasting over time and involving considerable commitment and intimacy.

Level 5: at Level 5 the person treats self and others as ends rather than means. The person is interested in the development and happiness of both self and others, and attempts to achieve autonomous selfhood within the context of real involvement with and investment in others. Conflicts between people with conflicting legitimate interests are understood as requiring compromise. Authorities and rules are not taken to be absolute; the person has a sense of the conventional nature of social rules and believes that at times these must be overridden or changed because they conflict with self-generated or carefully considered standards, or because they do significant harm to people in concrete circumstances.

Synopsis of Scale: Understanding of Social Causality

Principle: scale measures extent to which attributions about the causes of people's actions, thoughts, and feelings are logical, accurate, complex, and psychologically-minded.

Level 1: at Level 1 the subject does not understand the concept of causality in the social realm. There is either no sense of necessity to understand why behaviors, feelings, or situations emerge, or explanations that are advanced are grossly illogical.

Level 2: at Level 2 the subject has a rudimentary understanding of social causality. Actions are explained as resulting from simple, often global feelings or are explained as responses to environmental stimuli. Explanation of behaviors, feelings, or interactions frequently have mild logic errors or inconsistencies.

Level 3: at Level 3 the person has a relatively complex understanding of some causal processes in social life, where behaviors, feelings, and their causes are still conceived largely in stimulus-response terms. The person recognizes that psychological processes may influence action, but causality is still in many respects primarily external to the person.

Level 4: at Level 4 the person has a basic understanding of the role of psychological events in motivating action. There is considerable recognition of the importance of people's thoughts and perceptions in social behavior and experience, though understanding of psychological causality is incomplete or applied only irregularly.

Level 5: at Level 5 the person understands feelings and behaviors as caused by psychological processes, which may or may not be elicited by environmental stimuli. Complex thoughts, feelings, and conflicts are seen as mediating action.

Dimensions of Object Relations and Social Cognition: A Theoretical Introduction

Affect-tone of Relationship Paradigms

An important dimension of the representations underlying interpersonal functioning is the affect-tone of relationship paradigms. From a psychoanalytic perspective, this can be conceptualized as the affective coloring of the object world, ranging from malevolent to benevolent. From a social-cognitive perspective, this can be understood as the affective quality of interpersonal expectancies, i.e., the extent to which the person expects relationships to be painful and threatening, or pleasurable and enriching.

Within the psychoanalytic framework the concept of affect-tone has been implicitly used by theoreticians of psychopathology, particularly borderline personality disorder (Klein, 1948; Kernberg, 1975; Masterson, 1976; Gunderson, 1984). For Kernberg, the malevolent object world of the borderline patient largely reflects a projection of his/her own intense aggression. Masterson (1976) emphasizes the lack of integration in borderline patients of various "part-objects," i.e., relatively primitive representations of some aspect of self-other interaction which are organized around a particular affect-dominated script or interactional paradigm. According to Masterson, in borderline patients two such part-object units are of particular importance: withholding and rewarding units. Because of empathic failures of the infant's primary caretaker in the first few years, these two units never become integrated, and the person remains fearful of a withholding, malevolent, abandoning object who can leave the person helpless, empty, profoundly alone, and abandoned. Gunderson (1984) similarly attributes the malevolence characteristic of borderline phenomenology to the person experiencing his/her "major object" as frustrating or unavailable.

The empirical study of affect-tone from a psychoanalytic perspective has involved measurement of affective qualities of human figures on projective tests. Mayman and his colleagues (1967, 1968; Urist, 1977; Krohn and Mayman, 1974) have examined the content of human figures on the Rorschach Inkblot Test, the Early Memories Test, and dream reports, and have documented differences among patients at different levels of pathology. Many of these instruments have, however, measured both affective and cognitive aspects of object relations simultaneously (for example, coding lack of differentiation of representations and malevolence simultaneously as low-level object relations). Blatt and colleagues (Blatt and Lerner, 1983; Blatt et al., 1976) have developed a system for coding malevolence of representations from Rorschach human figures as part of a multidimensional scoring system for object relations using the Rorschach. Borderline subjects have been found to have significantly more malevolent responses on the Rorschach than various control groups (Lerner and St. Peter, 1984; Stuart et al., 1990). Other studies have demonstrated characteristically malevolent responses in paranoid schizophrenics (Blatt and Wild, 1976) and depressives (Blatt, 1974). Benevolent responses have been found to be characteristic of other patient groups, such as non-paranoid schizophrenics (Blatt et al., 1976).

Social cognition researchers have not yet focused much attention on the affect-tone of relationship paradigms or of interpersonal expectancies. One exception is Dodge (1986), who has investigated the tendency toward hostile

attributions in aggressive boys. His research suggests that aggressive boys have a tendency to make malevolent attributions where their non-aggressive peers do not, and that this is exacerbated in threatening interactions in the laboratory. Fincham and colleagues (1987), Larrance and Twentyman (1983), and Janoff-Bulman (1989) have studied related phenomena in distress marital couples, abusive mothers, and trauma victims, respectively. Several social-psychological instruments have been developed to measure attitudes related to affect-tone of relationship paradigms using self-report questionnaires. Wrightsman (1964), Rosenberg (1956), and Fey (1955) have developed measures of people's broad beliefs about how much faith they can have in others. Rotter's (1967) Interpersonal Trust Scale assesses a similar dimension.

Like other aspects of object relations and social cognition, affective expectations of relationships are likely to be differentiated, so that a person expects different things from different kinds of relationships. A patient with focal neurotic issues around her relationship with her mother may, for example, have relatively neutral or positive expectations of interactions with males but may expect criticism or jealousy from women. Many patients with severe character disorders seem to manifest overgeneralized or poorly differentiated affective expectations, so that differentiated and hierarchically organized social-cognitive structures with different affective qualities in different domains (e.g., males vs. females) and at different levels (males vs. older male authority figures vs. father) may be relatively absent or may become relatively undifferentiated with strong emotional arousal.

The coding scheme in this manual was derived from clinical experience, from research and theory reported here and elsewhere, and from a number of manuals previously developed for other forms of data by other researchers (e.g., Blatt et al., 1981; Mayman, 1967; and Urist, 1977). At the lowest level of the scale, subjects manifest an expectation of relationships as profoundly hostile or malevolent, whereas at the higher ends of the scale subjects have a broad range of affective expectations but generally expect relationships to be benign and enriching.

Complexity of Representations of People

Fundamental to object relations theory in psychoanalysis is its focus on mental representations ("object representations"). Object representations are conscious and unconscious, affectively laden ideas and images about the self, others, and the relationships between self and others, which derive from interpersonal experiences as well as from fears and fantasies about those experiences. Based on extensive clinical observation, object relations theorists have proposed that the quality of a person's "object world" (Jacobson, 1964) or "representational world" (Sandler and Rosenblatt, 1962)--that is, the totality of social representations--is a central aspect of personality structure and is critical to interpersonal functioning. Recently researchers studying attachment (Bretherton, 1985; Main et al., 1985) have begun following up Bowlby's (1969) suggestion, based on object relations theory, that the quality of attachment between infant and mother is mediated by the "internal working models" each partner in the transaction has of the other and of the relationships, and that aspects of these working models or representations of the attachment relationship can be coded in children and adults.

Although object relations theorists vary widely in their particular models of the development of self- and object-representations, they are largely in agreement about three developmental phenomena (see, e.g., Jacobson, 1964; Kernberg, 1976; Greenberg and Mitchell, 1983). First, development of representations is characterized by increasing differentiation, in which the points of view of self and others are gradually more clearly distinguished. Although recent infancy research (Stern, 1985; Horner, 1985) has called into question many psychoanalytic hypotheses about infantile undifferentiation, the developmental literature on egocentrism (see Flavell, 1985; Light, 1983; Piaget, 1926) and perspective taking (Selman, 1980) has amply documented children's progressive ability to differentiate their own from others' perspectives in a number of domains (although the unity of egocentrism as a structural property of cognition in childhood remains in question; Ford, 1979). A second feature of the psychoanalytic account is that object representations gradually become more complex and integrated as children mature. A third developmental tenet is that, whereas young children tend to split their representations of people by affective valence (that is, they have difficulty integrating representations of people which include both positive and negative attributes), both children and adults are able to integrate more complex, ambivalent or multivalent representations. Once again, though many specific features of these developmental hypotheses have recently drawn criticism from an empirical perspective, such as the developmental timetables (the notion that the "splitting" of representations is overcome by age five, ~~or~~ that representations are complex and integrated by that period; Westen, 1989, 1990a, b), research in developmental psychology has by and large documented many of these developmental processes (Shantz, 1983).

Although diagnostic assessment of an individual's mental representations has been an area of concern for over fifty years by psychoanalytic diagnosticians (Urist, 1980), research into their structure, development, and affective quality has been a more recent development. Mayman (1967, 1968) suggested that projective tests such as the Rorschach Inkblot Test and his Early Memories Test (1968) elicit descriptions of people in relationships which "bear the imprint of [the individual's] formative interpersonal history and reveal something of his ingrained relationship dispositions" (1967, p. 18). Mayman and his colleagues have developed measures for coding aspects of object relations from projective tests which they have used in clinical research. For example, Krohn and Mayman (1974) found significant correlations among a variety of measures of level of object-relational functioning (from poor, undifferentiated, and uncomplex, to healthy, differentiated, and complex), developed for the Rorschach, the Early Memories Test, and dream reports. In addition, Krohn and Mayman found significant correlations between levels of object-relational functioning as measured in dream material and as rated by therapists and supervisors who had in-depth clinical knowledge of the patients.

Blatt and his colleagues have carried out an extensive program of research, primarily aimed at assessing the structural or formal dimensions of object representations (Blatt and Lerner, 1983). Based on an integration of object relations theory and Piagetian and Wernerian cognitive-developmental theory, Blatt has constructed measures to assess the differentiation, articulation, and integration of human and quasi-human responses on the Rorschach and has applied these both to developmental and pathological samples. In the first use of non-projective measures to assess object representations, Blatt and his colleagues (1979) have also assessed the content and structure of object representations as

manifested in open-ended descriptions of significant others, in particular, parents. (For a more thorough description of object relations research, see Blatt and Lerner, 1983; Stricker and Healey, 1990).

Research on the development of representations of self and others in developmental psychology has explored many of the same phenomena, with an entirely different database and methodology. Research on the development of representations of self in infancy (Stern, 1985; Lewis and Brooks-Gunn, 1979) suggests that infants initially form some sense of an action-oriented, experiencing self through a recognition of the contingencies between their own actions and the outcomes they produce. Gradually in the second and third years toddlers develop a "categorical self," which is a representation of the self as having certain objective qualities and fitting into various categories (such as male or female, young or old). In other words, infants fairly early seem to develop a sense of self as subject, and gradually distinguish a sense of self as object ("I" vs. "me"; James, 1890). A great deal of research on development of representations of self in childhood and adolescence (Rosenberg, 1979; Damon and Hart, 1982; Wylie, 1979) suggests that representations of self in the preschool years tend to be concrete, transitory, relatively unorganized, and often contradictory. In the preschool years and early childhood actions and body self-representations predominate, as do relatively manifest social identity elements (such as race and gender). By adolescence, the focus on concrete and external attributes shifts to an emphasis on the psychological interior, i.e., on internal thoughts, feelings, and personality dispositions.

Research regarding the development of concepts of others is quite extensive and suggests a similar developmental trajectory (see Shantz, 1983 for review). Livesley and Bromley (1973), for example, conducted a program of systematic research on the development of person perception in children between the ages of seven and fifteen. They found that children progressively provide more psychological statements about people rather than descriptions of actions or physical attributes, and focus more on covert, abstract qualities, such as dispositions, values, and beliefs. Throughout childhood subjects also provided more differentiated use of traits, with a greater recognition that traits are hierarchically organized with multiple components, and that broad, generalized representations of people typically need to be qualified in order to be accurate (see also Leahy, 1976; Barenboim, 1977; Harter, 1983). Between late childhood and adolescence (at least in Western, industrialized societies), most studies find that children move from focusing on relatively unidimensional traits as personality descriptors to a focus on processes, including unconscious personality processes. Adolescents also come to the recognition that personality can change, and that people can express different aspects of their personality in different ways and in different situations. Throughout childhood and adolescence, people develop a greater capacity to represent the subjective experiences of others in complex and accurate ways, as well as to integrate traits of opposite affective valence and greater subtlety (Harter, 1983).

Outside of object relations research, which is focused on comparisons of various normal and pathological groups, individual differences in the complexity of representations of self and others have received little attention. Linville (1985) has recently been studying the relation between complexity of self-concept, measured by the number of separate traits or roles a person endorses, and affective extremity, and has argued that complex representations of self buffer

affective extremity (see also Kernberg, 1975; Westen, 1985).

The present manual is aimed at coding what might be called "working" representations of self and others, as opposed to "prototypic" representations. In developmental research that asks for free-response descriptions of self or others, the researcher codes for the complexity of relatively conscious, ideal-typical representations which consist of lists of typical or prototypic features of the person being described. Such representations are likely to be quite different from working representations, that is, concepts of the self or others in action, which are brought to bear in actual social situations and which structure momentary cognition. Sandler and Rosenblatt (1962) distinguished between prototypic self-descriptions and the particular "shape" of the self-concept active at any particular time. Similarly, Markus and her colleagues (Markus and Wurf, 1987) have recently begun to discuss self-concepts in "working memory," although they have drawn upon a cognitive science model of working memory that fails to differentiate active from conscious representations. The notion of working representations, which are active in structuring both conscious and unconscious information processing and behavior and have conscious components, is related to conceptions of "internal working models".

The coding scheme in this manual derived from clinical experience, research and theory reported here and elsewhere, and a number of manuals previously developed for other forms of data by other researchers (e.g., Blatt et al., 1981; Damon, 1977; Mayman, 1967; Selman, 1980; Thompson, 1981; and Urist, 1977). At the lowest level of the scale subjects have difficulty differentiating their own perspective from the perspectives of others. At slightly higher levels they provide simple, unidimensional portraits of people which are nevertheless clearly differentiated from each other. At the highest levels subjects manifest a complex understanding of the nature, expression, and context of personality and subjective experience.

Capacity for Emotional Investment in Relationships and Morals

"Emotional investment" refers to the endowing of the representation of a goal, desired state, or aspects of a relationship with affect such that cognized divergence of reality from that goal-state leads to negative affect and/or cognized convergence of reality with the goal-state leads to positive affect (Westen, 1985). Although object-relations theorists diverge in their particular accounts of development (see Greenberg and Mitchell, 1983), they all posit a developmental movement from aneed-gratifying pattern of emotional investment (often referred to as "narcissistic"), in which relationships with others are valued primarily for the gratification, security, or benefits they afford, to mature object relations based on mutual love, respect, and concern for others who are valued for their specific attributes. Fairbairn (1952), for example, posits a movement from immature to mature dependency.

The development of mature patterns of emotional investment in relationships entails three maturational processes. The first is the development of the capacity to regulate emotional investment, so that the person neither jumps prematurely and wholeheartedly into intense relationships with total investment (as in borderline personality disorders) or defensively withdraws from relationships to avoid pain and vulnerability (as in avoidant and schizoid personalities and dynamics). A second process involved in the development of mature patterns of emotional investment is the evolution of a capacity to invest in specific others for their unique qualities. A third process is the development of a capacity to invest in moral values, prohibitions, and ideals that regulate relationships and provide meaning to life and which take precedence over one's own wishes and impulses, even when these are strongly aroused.

Research in developmental psychology, while challenging the developmental timetables suggested by psychoanalytic theorists (who propose that much of this affective maturation occurs by the end of the oedipal period, i.e., by age six) has documented many of these developmental processes (Westen, 1989;1990 a,b). The development of the capacity to invest in others and to set aside need-gratification as one's predominant aim in interpersonal relations is chronicled in the research literature on the development of friendship. This research typically entails semi-structured interviews in which children are asked what a friend is, how friends are made and lost, etc. Shantz summarizes the findings of this body of research as follows:

> In accord with much of the research in other areas of social cognition, the friendship conceptions undergo a good deal of change and development, the major changes appearing to be: (1) from defining friendship as a concrete, behavioral, surface relationship of playing together and giving goods to more abstract, internal dispositional relationships in adolescence of caring for one another, sharing one's thoughts and feelings, and comforting each other; (2) from a self-centered orientation of the friend as satisfying one's wants and needs to a mutually satisfying relation; (3) from momentary or transient good acts between individuals to relations that endure over time and occasional conflicts...(1983, p. 531)

Selman (1981) has proposed a stage model of friendship, in which children move from defining friendship in terms of proximity or playing together to a conception of "intimate and mutually shared relationships" in which friendship is viewed as involving mutual intimacy and support. Selman's data point to two developments in the child's experience of friendship: a movement from self-interest to mutual concern; and a shift from undifferentiated, situational friendship, to friendships with distinct people who are nonetheless readily discarded, to more durable friendships between people who have a history together.

Research on children's conceptions of justice, convention, and authority provide further evidence of the development of emotional investment in the interpersonal arena and suggest the same general developmental patterns (Damon, 1977). Young children define fairness and justice in terms of their own wishes and interests: "judgements like, 'I should get more candy than Jimmy' are not distinguished from statements like, 'I want more than Jimmy.' The child's distribution choices derive from his wish for a given act to occur and from his attempt to ensure pleasant consequences for himself or for his close associates" (Damon, 1977, p. 78). Children's view of authority follows a similar sequence. In a study of children ages four to nine, Damon found that the youngest children did not differentiate between what they want and what authorities expect of them: children at the earliest level generally believe that authorities should conform to the self's desires and not the other way around" (1977, p. 183).

Research on moral development has extensively documented the shift from need-gratifying to more mature object relations in the moral realm (see Rest, 1983; Lickona, 1976). Kohlberg's theory is especially relevant in this regard (Kohlberg and Kramer, 1969), in that it posits a movement from preconventional moral reasoning in which the child views good and bad in terms of the hedonistic implications of action (rewards or punishments), to conventional moral reasoning in which the child seeks the approval of authorities and internalizes moral standards which are viewed as right and legitimate, to postconventional moral reasoning, in which a small sub-group of adults considers moral questions in more abstract, less culture-bound terms by formulating and applying general principles rather than specific, learned rules. Gilligan (1982) has recently amended Kohlberg's theory, arguing that high-level moral development in women frequently takes the form of a greater concern for relationships and the needs and feelings of others in a more immediate way, rather than the more abstract, philosophical, reflective version of high-level moral development embodied in Kohlberg's highest levels.

Cognitive-developmental researchers who have examined the development of children's conceptions of friendship, authority, morality, etc., have largely conceptualized development along these lines from a cognitive perspective. Cognition is, however, necessary but not sufficient for these developmental processes. By and large, research does not consistently support a relationship between measures of social knowledge or perspective-taking and either aggression or "prosocial" behavior (Shantz, 1983, pp. 526-529). Although the maturation of the capacity for emotional investment in people and relationships depends in part on cognitive development--a person cannot love another person for his or her unique qualities without being able to represent them cognitively, or often cannot respond appropriately to the needs of others without being able to understand their perspective--simply possessing a complex representation or capacity for

complex social cognition does not imply maturity of emotional investment. Many sociopaths "know" social rules; if asked how a model citizen would answer items from the Comprehension Subtest of the WAIS-R such as, "what is the thing to do if you find a letter on the ground, stamped and addressed?" they can typically (with a wink and a smile) provide a perfect answer. What sociopaths typically lack is not knowledge of social rules; it is an affective-motivational investment in them. By and large, research does not consistently suppport a relationship between measures of social knowledge or perspective-taking and either aggression or "prosocial" behavior (Shantz, 1983, pp. 526-529). When children view friendships as vehicles for gratification, they are not only saying something about their cognitive representations of friendships, but they are simultaneously describing what they value in relationships.

The coding scheme in this manual was derived from clinical experience, from research and theory reported here and elsewhere, and from a number of manuals previously developed for other forms of data by other researchers (e.g., Damon, 1977; Selman, 1980; Urist, 1977; Kohlberg and Kramer, 1969; Loevenger et al., 1970). It largely reflects a developmental scheme (Westen, 1985) which views the development of emotional investment as entailing the transition through three stages in the affective relationship between self and other. In the first stage, to the extent that others are clearly differentiated from the self, they are viewed primarily as instruments of gratification, security, and comfort. In the second stage, people, relationships, and ideals come to be valued as ends in themselves. Moral values at this stage reflect an emotional investment in the ideals, values, and prohibitions of idealized and respected authorities, as cognized by the child at the time of their acquisition and subsequently revised through experience. Failure to meet these standards leads to guilt, shame, and lowered self-esteem. At the highest stage the person is capable of forming deep, committed relationships in which the other is valued for his/her unique qualities, and the treats both self and others as ends rather than means. The individual is interested in the development and happiness of both self and others, and attempts to achieve autonomous selfhood within the context of real involvement and investment in others. The person has a sense of the conventional nature of social rules and believes that at times these must be overridden or changed because they conflict with carefully considered standards or because they do significant harm to people in concrete circumstances. The scale in this manual adds transitional levels between these broad stages, for a total of five levels of the scale. The highest level excludes a sub-group of people who would score at the upper end of Kohlberg's scale who may espouse seemingly postconventional views but who are unable to involve themselves in committed relationships and whose ideology reflects an early failure of internalization of values rather than a mature transcendence of conventional standards, an outlet for tremendous rage against devalued or dehumanized others who are experienced as exploiters, or a desperate quest for a "cause" to establish and maintain a tenuous sense of identity.

Although at first glance the combining into one scale of investment in relationships and investment in moral values and ideals may seem arbitrary, the scale combines the two for the following reasons. First, morality is a system for regulating relations among people, particularly between self and others. Although cognition about morals may proceed to some degree independently of investment in people, the development of investment in morals -- that is, the motivational basis for the practice of morality--cannot, because the relative emotional "weight" one places on the needs of self and others depend on how much one actually cares about

the interests of other people. Second, it is impossible to separate a need-gratifying interpersonal orientation from a need-gratifying moral orientation because interpersonal conflict resolution is applied morality. Thus, at least at the lower end of the scale, a need-gratifying orientation would lead to the same score on both scales, rendering separate scales superfluous. Preliminary empirical evidence suggests that the correlation of these two dimensions is high enough to merit giving them a single score. Third, the underlying structure that emerges across many domains of research--on friendship, convention, morals, etc., as well as from clinical observation--is that development in emotional investment in the social world proceeds from need-gratification to investment in independent others. Gilligan's critique of Kohlberg suggests that true concern with the needs of significant others is inseparable from moral concerns; the present scale essentially incorporates two paths to maturity at its highest levels, one involving depth of relatedness, and the other involving reflection on relatedness in the context of capacity for investment in others. True depth of relatedness involves some considerable degree of autonomy, so that the other is not simply experienced as part of self, and true "postconventionality" involves commitment to real people rather than just to abstractions.

Understanding of Social Causality

Although object relations theories have typically described unidimensional stages which do not distinguish particular cognitive or affective processes with specific developmental trajectories, these theories, and the clinical observations upon which they are based, suggest that the ways patients with profound psychopathology interpret interpersonal events tend to be quite idiosyncratic. Clinical experience with patients with borderline personality disorders, for example, suggests that these patients tend to make highly idiosyncratic, illogical, and inaccurate attributions of people's intentions; these attributions are often of a malevolent nature. From clinical observation of borderline adolescents and adults, Westen (1990) has speculated about a "borderline attributional style," characterized by egocentric attributions, expectations of malevolence in interpersonal relations, tendency to make peculiar and inaccurate attributions, and tendency to make affect-centered attributions (that is, attributions which are congruent with mood or affective valence of representations of specific others, rather than more cognitively-based attributions). Relevant research largely supports this conceptualizations (Westen, Lohr, et al., 1990; Westen, Ludolph, Silk, et al., 1990).

Although there has been minimal psychoanalytic experimental research on social causality, Blatt et al. have developed a measure for scoring "motivation of action" in human figures on the Rorschach Inkblot Test (1976). Following Wernerian and Piagetian developmental theory, Blatt's measure rates the degree of internality of action, that is, whether action is seen as unmotivated, reactive, or intentional. Stuart et al. (1990) applied Blatt's scale to a sample of subjects with borderline personality disorder, major depressive disorder, and normals, and found that borderlines' representations of action tended to be significantly more intentional (i.e., developmentally advanced) than both comparison groups. In contrast to both normals and depressives, for whom more complex attributional statements correlated with more benevolent attributions on Blatt's measure, benevolence and complexity of attributions (i.e., internality) were highly negatively correlated for borderlines.

Extensive social-cognitive research has been carried out on the development of understanding of social causality in children (Piaget, 1926, 1970; Shantz, 1983; Whiteman, 1967; Chandler et al., 1978; Selman, 1980). This research suggests a number of developmental shifts in the way children infer causality in the social realm. These developmental achievements include increased complexity, abstractness, accuracy, internality (that is, focus on internal psychological processes rather than on surface-level, observable, behavioral causes), and understanding of unconscious processes. Children tend to move from making internal to external attributions (Heider, 1958; Ruble and Rholes, 1981), and they become increasingly able to distinguish between intentional and accidental behavior (Livesley and Berndt, 1975; Shantz, 1983). As children get older they also become increasingly adept at taking others' perspectives (Selman, 1980), with a resulting increase in the complexity and accuracy of their attributions. Children's increasing understanding of unconscious processes is documented in studies which find a progressive understanding of defense mechanisms as ways of modulating unpleasant affects (Chandler, et al., 1978; Whiteman, 1967; King, 1971). Complexity, abstractness, and accuracy of attribution of the causes and consequences of emotions also develops throughout childhood and adolescence (Masters and Carlson, 1984).

With the exception of research on depressive attributional style, few studies have examined individual differences in attributions, particularly in attributional complexity or accuracy. Dodge and Somberg (1987) found that aggressive boys tend to attribute aggression to others when explaining their behavior, suggesting a bias toward malevolent attributions, much as one finds clinically in borderline patients. Fletcher and colleagues (1986) developed an Attributional Complexity Scale, a self-report instrument designed to measure individual differences in complexity of attributions. This scale includes items such as, "I don't usually bother to analyze and explain people's behavior," which asks subjects to indicate how complexly they think about interpersonal events.

Construction of the present measure drew upon clinical experience, theory and research reported here, and specific coding manuals developed by other researchers (e.g., Bogen, 1982; Damon, 1977; Selman, 1980). Its aim is to assess the logic, complexity, and accuracy of social causality as manifest in subjects' descriptions of interpersonal events. At the lowest levels, causality is preoperational in Piaget's sense: it is illogical or alogical, with confused, inappropriate, highly unlikely, or absent attributions of interpersonal phenomena. At the middle levels, subjects make accurate attributions which are relatively non-complex. At the highest levels, subjects manifest an understanding of the way complex psychological processes are involved in the generation of thoughts, feelings, and actions.

Scoring Rules: Affect-tone of Relationship Paradigms

Drew Westen and Alex Barends

Principle: scale measures affective quality of representations of people and relationships. It attempts to assess the extent to which the person expects from the world, and particularly from the world of people, profound malevolence or overwhelming pain, or views social interaction as basically benign and enriching.

General Scoring Rules:

(1) Score primarily for affect-tone of the subject's perceptions or expectations of others, and secondarily for the quality of relatedness of the subject to others or for the affect evoked by the situation. For example, if the subject evidences interpersonal manipulativeness but seems to enjoy relationships and expect them to be gratifying, score primarily for positive affect-tone of expectations; similarly, the subject's momentary affects or the disturbing nature of a particular interaction (e.g., an anomalous fight) should weigh into scoring but should be secondary to inferences about the affective quality of the subject's more general expectations of relationships if there are clear indications of markedly different expectations of relationships.

(2) Affective quality of self-representations or descriptions of positive actions of the self toward others are important only insofar as they reflect expectations of the social world; score primarily for affective expectations of how the self is treated by others, rather than vice versa.

(3) Make use of all information, including comments, asides, etc., e.g., "I had a good time with her - for once - usually I feel like dirt with girls." Where there is evidence of activation of a malevolent object world or inappropriately malevolent attributions (where the malevolent attribution is not warranted by the situation), score Level 1 or 2, even if there are elements of compassion and/or positive affect-tone in the story.

(4) Score primarily for the episode the subject is currently describing unless the coder has other information that clearly places this particular interaction in a broader frame of reference. For example, if the subject describes a very painful encounter with a significant other, score for the affect-tone of that specific encounter even if one suspects that the subject has other feelings toward the person, unless the subject explicitly notes counter-examples of comments on the anomalous nature of the encounter.

Level 1

Principle: at Level 1 the person views the social world as tremendously threatening and/or experiences life as overwhelmingly capricious and painful. People are seen as abandoning, abusing, or destructive of others and oneself with no reason, other than perhaps malice or unconcern. People are often classified as victims or victimizers. The person may feel tremendously alone.

(1) Score for unambiguously malevolent representations of people or interaction, or for grossly negligent caretakers or significant others. If person escapes malevolence through his own efforts or those of someone else, score Level 2. If the response manifests an overwhelming sense of malevolence or victimization with one small "bright spot," score Level 1.

(2) Score for gratuitous violence or aggression by others disproportionatet to provocation. Do not score for violence between actors that is competitive (e.g., reflects masculine competition for position) or a consequence of an attempt to establish "turf"; score Level 2.

(3) Score for profound loneliness or interpersonal emptiness, even if there is one small "bright spot."

(4) Score for clearly malevolent attributions or paranoid concerns, even whe4n it is not the self who is in danger.

Level 2

Principle: at Level 2 the person views the world, and particularly the world of people, as hostile, capricious, empty, or distant, but not overwhelming. The person may feel alone. People may be experienced as unpleasant or uncaring, but not primarily as threats to one's existence.

(1) Score for predominantly hostile interactions which are not overwhelming. Interactions can be capricious, unpleasant and/or threatening, but the social world is not viewed as generally malevolent. Do not score for hostile interactions, where the subject makes it clear that this kind of interaction is unusual or anomalous with respect to her expectations of the social world. Score Level 3 or 4.

(2) Score for sense of people as unempathic or as passing strangers where this appears to be upsetting to the subject or the person involved. People may be seen as pushing the subject into doing things, with minimal interaction or consideration.

(3) Score for loneliness or sense of aloneness which is not profound or overwhelming.

(4) Score for victimization, where victimization is seen as substantially self-generated, not only the result of malevolent or impersonal forces. If victimization is overwhelming, score Level 1.

(5) Score for failed ministrations by well-intending others. Score for escape from malevolent forces or malevolent others; or for momentary interpersonal relief from profound depression, loneliness, or chronically low

expectations for self or from others.

(6) Score for escape from a very unpleasant existence through one's own efforts, where there is no help from others and no clear sense of relatedness to others.

(7) Score at least Level 2 for implied compassion of one person for another.

(8) Score for breakdown of relationships without any resolution of consequent negative feelings, if these feelings are not overwhelming.

(9) Score for violence that reflects bravura or competitiveness, or is a consequence of an attempt by the actors to establish "turf" (e.g., adolescent boys pushing each other around).

(10) Score for marked idealization or grossly defensive denial, where idealization or denial clearly mask very upsetting material. If the description only strongly suggests this, score Level 3.

Level 3

Principle: at Level 3 the person has a range of affectively charged object representations/person schemas and interpersonal expectancies, which are not primarily positive. People are generally seen as capable of loving and being loved, of caring and being cared for.

(1) Score for mildly negative representations. People may argue. People may become more distant from one another, where this does not lead to strong negative affects. Score for hostile interactions, where the subject makes it clear that this kind of interaction is unusual or anomalous with respect to her expectations of the social world. If the usual expectation is clearly benign, score Level 4.

(2) Score for affectively mixed representations where the overall tone is negative or neutral (e.g., a person consistently puts down a friend in front of others, they argue about it, and then suddenly are better friends).

(3) Score at least a Level 3 for explicit expression of compassion by one person for another.

(4) Score for person being comforted after a loss unless relatedness between persons is clearly an afterthought tacked onto a story about loneliness (in which case, score Level 1 or 2).

(5) Score for escape from danger effected through the help of benevolent others, where the danger is not the result of malevolent or abusive forces. Where escape from malevolence (i.e., real danger resulting from an intentional force) occurs with help from others, score Level 2.

(6) Score for resolution of difficult feelings through one's own efforts or for negative feelings that dissipate with time.

(7) Score if persons described are somewhat bland and unelaborated but do not appear averse to relating to each other.

(8) Score for minimal affect involved in the episode, where the affect-tone is relatively neutral.

Level 4

Principle: at Level 4 the person has a range of affectively charged object representations/person schemas and interpersonal expectancies, which are primarily positive. In general people are seen as capable of loving and being loved, and enjoying the company of others.

(1) Score for affectively mixed interactions, where overall the affect-tone is positive. Persons may be in conflict, or mildly depressed, but the outcome of their conflicts or interactions is positive in affect-tone. Do not score where a person is momentarily lifted from profound depression, or from chronically low expectations of self and others; score Level 2.

(2) Score for giving or sharing, where this seems largely an expectation or social obligation.

(3) Score for description of personal success where interaction is in a subordinate role.

(4) Score for mutual pleasurable activity where focus is not on the quality of the relationship. Score where the person seems comfortable and happy in the particular episode, but because of a lack of history to the relationship or sense of other relationships, it is unclear whether this is reflective of the person's generalized expectations of the social world.

(5) Score for positive affect-tone where minimal affect is expressed. For example, people may feel closer to one another after conversations they have on topics of mutual interest.

(6) Score for vignettes in which relationships weather a storm and are on good terms at the end, where mutual warmth and caring are in evidence.

(7) Score where subject feels interpersonally efficacious within his social world, and gives evidence of positive expectations of the social world, even if the other person in an interaction is depicted with a somewhat negative tone (e.g., a person assertively confronts someone for his or her intrusiveness and the person's behavior becomes modified).

(8) Score for elements of painful or negative affect-tone in an account about a compelling and mutual friendship.

Level 5

Principle: at Level 5 the person has predominantly positive object representations/person schemas and interpersonal expectancies. He or she generally expects relationships to be benign and mutually enriching. The pers expects intimacy, mutual appreciation, and loyalty in close relationships.

(1) Score for very positive interactions in the context of an enduring relationship. People may be seen as doing things for each other or responding to each others' wishes. Do not score where giving and caring is only from the self; score Level 3 or 4. Persons may show genuine interest in one another. Do not score if the story includes a loss of a significant other (score Level 1-3, or 4 in rare cases if loss is largely a backdrop to a story with positive affect-tone of relationships.) Do not score if strong negative affects are expressed about a relationship. Do not score for predominantly positive affects where pleasure is derived less from the quality of relationship than from the enjoyment of an activity that people happen to be enjoying together when it is unclear that this kind of relatedness is enduring; score Level 4.

(2) Score where the subject clearly seems to enjoy a relationship rather than just a shared activity and there is no evidence that this is anomalous or defensive. Do not score for highly stereotypic generalized descriptions of closeness unless the subject provides a compelling example; score Level 4.

(3) Score where subject's comments unequivocally suggest highly positive generalized representations of relationships.

Scoring Rules for Complexity of Representations of People

Drew Westen and Janet Leigh

Principle: Scale measures the extent to which the subject clearly differentiates the self from others; sees the self and others as having stable, enduring, multidimensional dispositions; and sees the self and others as psychological beings with complex motives and subjective experience.

General Rules:

(1) Score for the highest level attained unless a clear example of undifferentiation, blurring of boundaries, or profound egocentrism occurs; in such cases, score Level 1.

(2) Complex responses that show clear evidence of poor integration--where what looks superficially like a multifaceted representation is really an incoherent representation--are "spoiled" to Level 2.

(3) When the subject's response includes a representation that is complex, well-elaborated, and integrated (i.e., a Level 5, 6, or 7), but also contains material suggestive, albeit not conclusive, of a lack of differentiation, blurred boundaries, or profound egocentrism, score Level 3. Score the intermediate level when the subject's response includes a representation overwhelmingly organized at one level with a brief glimmer of a response two or more levels higher.

(4) Do not score descriptions of sequences of behavior in which a person acts differently in different situations as complex, ambivalent, or multifaceted unless the subject clearly seems to be describing enduring aspects of personality or explicitly recognizes the connections among various personality elements. In other words, a series of relatively simple Level 2 or Level 3 descriptions of a person is scored Level 2 or 3, not Level 4 or above as a complex representation, unless it is clearly integrated.

Level 1

Principle: At Level 1 the person does not see others as clearly differentiated or bounded, and/or does not differentiate his/her own thoughts and feelings from those of others.

(1) Score when emotions and thoughts are attributed to the situation, e.g., "it was an angry time," with no further elaboration of people's separate feelings.

(2) Score for profound egocentricism, i.e., nearly complete embeddedness in the subject's own point of view, or confusion of perspectives. Score when all affects and thoughts derive from the self. For example, score when the subject assumes that the other feels something because that is how the subject feels, when such an assumption is unlikely or there is minimal reason to believe this. If the subject is talking about sharing

feelings with another and it is likely that feelings were shared, score Level 2 or 3, depending on complexity.

(3) Score when the person attributes complementary emotions or intentions to the other where they are unlikely. For example, if someone did something painful to the subject, the subject attributes an intention on the other's part to be hurtful and/or attributes a feeling of anger to the other when there is little reason to assume intentionality.

(4) Score for lack of recognition of privileged information; i.e., the person attributes feelings or thoughts to another person based on knowledge to which only the self is privy.

(5) Score when other people are seen as an undifferentiated "they" with a single set of thoughts, emotions, and/or intentions, when such commonality is unlikely. For example, the subject describes his/her friends, family, and/or "the world" as an undifferentiated malevolent "they."

(6) Score when the subject manifestly merges self and other; e.g., "at that time I was my brother." Score for feeling like a "clone" or "twin." Do not score when the subject is clearly speaking metaphorically.

(7) Score where the subject describes the self and another as idealized or extremely similar when this seems highly unlikely or contradictory in the light of available data. Score where the subject claims that someone who objectively does not know him or her well knows "everything" about or "totally knows" the subject's inner experience.

Level 2

Principle: At Level 2 the person sees people as clearly bounded, separate from self and from each other, but lacks a sense of people's subjective states, motives, or enduring characteristics. The focus is on behaviors and momentary actions. People are seen as unidimensional, existing in situations rather than across situations. Where people are understood as having enduring qualities, these are global, evaluative traits like "nice" or "mean." The person conveys no sense of psychological awareness.

(1) Score for lack of complexity of descriptions of self and others. People are minimally elaborated or unidimensional. Subject's emphasis may be on physical descriptions of people with no elaboration of their internal lives. Any traits used to describe them are global, evaluative, and univalent; e.g., "she's really nice," "he's basically a jerk." If people are described globally with several distinct but similarly valenced traits, e.g., "caring, thoughtful, sensitive," score Level 3. However, if a seemingly differentiated but univalent description appears to be affectively rather than cognitively driven (i.e., based on what the subject feels rather than on what

he/she knows), score Level 2. Score where even relatively complex-sounding traits all seem to derive from a sense of absolute liking or disliking. If there is a strong suspicion, but not a certainty, that a seemingly complex representation is affect-driven, score Level 3.

(2) Score when the subject enumerates a list of what the other does (i.e., behaviors) rather than describing traits or dispositions that give a picture of who the other is.

(3) Score for descriptions in which self and others seem to have a momentary existence, with no sense of continuity, enduring dispositions, or life history, except perhaps for recent history contextualizing the description; for example, "it was summer vacation, so we were out of school and feeling good" may precede the interaction described. People may be defined in terms of momentary actions.

(4) Score for simple understanding of feeling-states and intentions. Feelings may be described with terms such as "angry," "sick," or "tired," or with relatively simple and unelaborated emotions words, e.g., "she was very upset."

(5) Score for fluidity of characterization, e.g., "maybe he was feeling mad or maybe he was embarrassed." If the subject describes self or others as experiencing two emotions, she or he cannot see how to integrate them and may offer them as alternate feelings. Recognition of ambivalence is not present.

(6) Score for "twinning," i.e., when the subject describes an interaction between self and another in terms of "we," and the thoughts and feelings ascribed to self and the other are univalent or not very complex. For example, "we thought we'd go on a picnic and we had a really good time, we were both really happy and contented"; or "we were both really angry, both feeling a lot of hate, and we both wanted to do the other down." If common feelings seem very unlikely or inappropriate and thus seem to reflect a lack of differentiation, score Level 1. If the shared mental state is complex, score Level 3.

(7) Score for representations that are incoherent or very poorly integrated, where disparate ascriptions are juxtaposed in such a way that the coder cannot imagine such a person existing, or where the subject almost seems to be describing the person as a different person across a series of vignettes. Where a complex response is suggestive but not conclusive with respect to incoherence, score Level 3.

Level 3

Principle: At Level 3 the person begins to show some evidence of psychological awareness, and begins to make inferences about subjective states in addition to focusing on behavior. Understanding of one's own and others' psychological processes and subjective experience does not, however, delve far beneath the surface. The person has ideas or "theories" about self's and others' enduring characteristics, but these intuitive theories are either unidimensional, overly general, stereotypic, or lacking in subtlety. There is little sense that people could do things "out of character" or experience psychological conflicts. Descriptions may be based on schemas of how people in general are rather than on an understanding of the particularity of the self's or others' mental states, personal meanings, or enduring attributes.

(1) Score for minor elaboration of, or inference about, people's mental lives, beyond description of simple feeling states or intentions, where people remain stereotypic or not well developed.

(2) Score for some minimal sense of trait continuity over time or some mention of enduring attitudes, where people remain unidimensional; e.g., "he is a real music lover." Do not score for continuity of actions when implications are not explicitly drawn about the self's or other's dispositions; e.g., "he normally does that," or "he practices everyday." Do not score for statements like "my friend likes to play music" when these are essentially extensions of the interaction being described.

(3) Score where the subject contrasts a univalent, enduring trait with an anomalous behavior, e.g., "she's a nice person but she was acting thoughtless at the time."

(4) Score for an essentially global portrait in which the overall description has been differentiated into several similar traits, e.g., "thoughtful," "caring," "sensitive," and "wise." If clearly affect-driven, score Level 2.

(5) Score for a rudimentary sense of ambivalence when one of the opposing affective states is not quite a differentiated mood or emotion, e.g., "weird." Score when the subject describes the self as having two simultaneous feelings of the same affective valence, e.g., anxiety and sadness; if describing others this way, score Level 4. To score this, the affects must be discrete and clearly differentiated; e.g., do not score "he was worried and upset." Do not score for ambivalence unless the affects are simultaneous; that is, do not score for different affects experienced at different times even if close together in time.

(6) Score for appropriate "twinning," i.e., self and other having same feelings, when those feelings are mixed, e.g., "we were both happy and sad that school was ending," or when the

thoughts and feelings are complex.

(7) Score for elaborated descriptions of feeling states when there is no more than a rudimentary understanding of ambivalence, and when no other aspect of the self's or others' mental lives is touched on.

(8) Score for a clear recognition that two people in an an interaction could perceive the same event differently from each other, e.g., "he thought he was being funny but I thought he was mean." Do not score for people who are on opposite sides of a conflict and simply focus on their own interests; subject must clearly acknowledge that two people can have a different "take" on the same objective situation. If perspective-taking is complex, score Level 4 or above.

(9) Score when the subject's response includes a representation that is complex, well-elaborated, and integrated (i.e., a Level 5, 6, or 7), but also contains material suggestive, albeit not conclusive, of affect-driven representations, a lack of differentiation, blurred boundaries, or profound egocentrism.

(10) Score where subject takes a particular interest in another person's history but does not seem to draw any particular conclusions about the influence of this history on the person's current personality (e.g., "it was neat to learn more about my mom's childhood, about what made her who she is"); if unclear whether subject has drawn specific conclusions, or if these are very vague, score Level 4.

(11) Score for statements reflecting a basic understanding of how personality typically changes over time, e.g., that children of different ages act different ways. Where understanding of personality change is more individualized and less stereotypic or generic, score Level 4 or above. Score Level 3 for personality change where there is not much understanding of subjectivity.

Level 4

Principle: At Level 4 the person has a developing appreciation for the complexity of the subjective states and personality dispositions of self and others. Self and others may be described in an elaborated, rather than simple, relatively unidimensional fashion.

(1) Score when the person manifests a somewhat complex understanding of psychological processes which could be attributed to anyone, e.g., "I think he was feeling upset that his girlfriend was being attacked by them, partly because he believed some of what they were saying." Score for depiction of a relatively complex mental state, involving more than an elaborated feeling state, when the individuality of the person to whom the state is attributed remains relatively vague. Score for complex perspective-taking in a specific situation.

(2) Score when others are described as having two simultaneous feelings of the same affective valence (e.g., sadness and anxiety). Affects must be clearly differentiated. If describing the self, score Level 3.

(3) Score for descriptions of the self as having simultaneous yet dissimilar or oppositely valenced feelings. If others are described this way, score Level 5.

(4) Score for simple conflicting intentions (e.g., "he knew he should speak up on her behalf, but he couldn't get himself to do it").

(5) Score for descriptions of people whose enduring personality dispositions are described with qualifications or with some subtlety. Score where two relatively simple traits with opposite affective valence are ascribed to the same person, e.g., "she's nice but sometimes she's not very smart." Do not score where the subject contrasts a univalent enduring trait with an anomalous behavior (e.g., "she's a nice person but she was acting thoughtless that time"); score Level 3.

(6) Score for descriptions of stereotypic, unelaborated personality change, particularly in which the traits at each time are univalent and the process whereby change occurred is relatively simple or global. For example, "people change in the army--the last time I saw him he'd become much louder and sort of arrogant." Score for relatively simple or stereotypic depictions of therapeutic change which appear largely to reflect the viewpoint of a therapist or self-help book (e.g., "I used to be an enabler, but now I realize that I have more self-worth than to get into relationships like that."). Score for an understanding that different psychological issues are salient for people at different times in their lives. Do not score for simple understanding about ways children of different ages think or behave.

(7) Score for recognition of a difference between reality and appearance with respect to emotions, e.g., "I acted like I couldn't do it so they wouldn't expect much so I could really surprise them when I did it." Score where the subject knows that a person may feel something "deep down" which is not necessarily conscious but is not complex (e.g., "I know deep down he was hurt, but he acted like everything was okay").

Level 5

Principle: At Level 5 the person has a recognition of the complexity of the subjective states of self and others and has a relatively differentiated view of personality dispositions. However, the person does not integrate complex representations of subjective states with complex representations of personality. Component parts of personality are not yet understood as aspects of an interacting

system, in which enduring dispositions can come into conflict. The person ha some awareness of unconscious processes, but understanding of these is not ye integrated with enduring attributes and personal history.

(1) Score for detailed psychological elaborations of subjective states within the specific interaction described, where there is minimal sense of enduring qualities.

(2) Score for depiction of multifaceted enduring qualities ascribed to self or others without much elaboration of subjectivity.

(3) Score when others experience simultaneous mixed emotions (i.e., of opposite or dissimilar affective valence), where there is little sense of what the person is like outside of the particular situation. If the self is so described, score Level 4.

(4) Score for explicit recognition that people have mental conflicts, when such conflicts are either unelaborated or elaborated only during inquiry and do not appear to have been central in shaping the description of the interaction, or where there is no sense of the person outside of this particular situation or conflict. Do not score for simple conflicting intentions, e.g., "he wanted to go to the store but he knew his mother wanted him home;" score Level 3 or 4. Score for detailed elaboration of people's psychic lives when such elaboration has no relation to the interaction described.

(5) Score when different aspects of personality are seen as manifesting in different situations, e.g., "she's generally very warm and open to people, but when she's under pressure from work she gets kind of withdrawn." Score for explicit contrasts between the way the self or others are in the interaction and the way they usually are, when their psychological qualities are well developed; if stereotypic, score Level 4. Do not score for contrasts between current and past behaviors (score Level 2); do score for contrasts between current behavior and long-term, well-developed traits.

(6) Score for rather simplistic, but non-stereotypic, descriptions of personality change when some understanding of the reasons for change are apparent, but where there is little sense of subjective experience.

(7) Score when characteristics or traits with opposite or dissimilar affective valence are ascribed to the same person, and at least one of the traits is not global or is qualified, e.g., "she's nice but sometimes she's impulsive."

Level 6

Principle: at Level 6 the person sees thew self and others in fairly compl ways. The person is able to reflect on his/her own representations of self and others, is able to depict personality change over time, and may convey a rudimentary sense of the historical (familial, experiential) roots of traits,

feeling states, and psychological processes.

(1) Score for some sense of extended time frame for psychological predicaments, in which what is enduring is an internal, psychological issue, problem, or dilemma, rather than an external, interpersonal situation. For example, "he had these feelings towards his mother for a long time and only now are they coming out." If complex subjective experience is also described, score Level 7.

(2) Score for rather simplistic descriptions of personality change when some understanding of the reasons for change are apparent, and where the person's subjectivity is described with some subtlety.

(3) Score for explicit recognition that the subject's own view of him/herself or of others has changed and become more complex. For example, "I always thought of her as rather happy-go-lucky, never really worrying about anything, never taking anything seriously, but now I can see that she is deeper than that, that she really cares about other people, especially her friends, and is concerned to help them whenever she can."

(4) Score for a complex description of others' subjective states with some reference to relatively simple personality dispositions. If no personality descriptions are given, score Level 5; if description of personality outside the situation is complex, score Level 7.

(5) Score for complex, multifaceted descriptions of personality with some reference to subjective states. If subjective states are not described or are simple, score Level 5; if subjective states are complex, score Level 7.

(6) Score where the self is described complexly in terms of both personality and subjective states, but no other person is complexly described.

Level 7

Principle: at Level 7 the person can simultaneously coordinate and integrate complex, generalized representations of self and others with complex representations of specific mental states. He/she has an integrated understanding of complex psychological processes within the context of the self's and others' personal histories and attributes. The person can see and convey how people are particular and individual, and can see how personal meanings of long standing affect current psychological experience. The person is able to make elaborate inferences about the self's and others' mental states, motivations, points of view, history, unconscious processes, and conflicting feelings and impulses.

(1) Score for people whose mental processes are elaborated and who are multidimensional or seen in extended temporal context (i.e., in the context of enduring dispositions). Score

for people who are described as having both enduring and momentary traits and states (which need not be conflicting or discrepant) and who are relatively complex. When the self is described in this manner, score only if, in addition, another person is complexly described in terms of his/her personality or subjective experience; if not, score Level 6. Do not score for ornate elaborations of a character's momentary dilemma or experience in one dimension (e.g., lengthy description of an interaction without extended temporal dimension to the participants' psychological attributes); score Level 5.

(2) Score for characters who have complex motives or elaborated mental conflicts where these represent enduring aspects of personality and are not merely situation-specific. Do not score for momentary situational conflicts between characters, e.g., "he wanted me to stay; I thought about it but left"; the conflict must be clearly internal and psychological.

(3) Score for understanding of complex unconscious processes in the context of long-term personality dispositions.

(4) Score when the subject demonstrates a clear appreciation for the individuality of the way a person acts in a situation in the context of a history. The description conveys the subject's understanding of how the person responds as a particular and not a generic person.

(5) Score when the self is complexly described in terms of both subjectivity and personality, and at least one other person is complexly described in terms of his/her personality or subjective experience.

(6) Score for a depiction of complex personality change over time.

Scoring Rules: Capacity for Emotional Investment in Relationships and Morals

Drew Westen and Matthew Mendel

Principle: Scale measures extent to which others are treated as ends rather than means, events are regarded in terms other than need gratification, moral standards are developed and considered, and relationships are experienced as meaningful and committed.

eneral Scoring Rules:

(1) Score for the highest level attained unless an otherwise conventional or high-level narrative is "spoiled" by the breakthrough of profound self-preoccupation or need-gratifying approach to relationships. In that case, score Level 1 or Level 2 depending on severity of the "spoil." If the subject stacks on" a sentence which does not seem integral to the narrative as a whole, score for the predominant level of the narrative. Where the subject betrays functioning two or more levels apart (e.g., Level 4 devotion to someone but also level 2 primitive sense of self as bad or destructive), score the intermediate level unless one is clearly predominant or generative of the other (e.g., when extraordinary devotion to the other reflects a need to allay a primitive sense of guilt).

(2) Score primarily for representation of the subject's emotional investment and moral development. Score for others' actions only when the subject's description of or attitude towards these reflect his/her level of emotional investment or moral development.

(3) Do not automatically code all references to "friendship" or enduring familial relationships as Level 3 or above. Code the underlying structure of the affective-motivational experience of the relationship, that is, whether it is largely need-gratifying, appropriate and conventional, or more intimate than is conventional.

Level 1

Principle: At Level 1 the predominant concern is self-gratification. Others' perspectives, needs, and desires are not considered, and the impact of one's actions upon others is frequently not taken into account. People are seen as existing only in relation to oneself: They are treated as tools for the achievement of one's desires; as mirrors or audience for one's displays; or as impediments to one's gratification. People may be seen as useful or comforting at the moment but are not invested in emotionally for their unique characteristics. Rules and authorities are seen as obstacles unless momentarily useful.

(1) Score for wanton trickery, exploitativeness, manipulativeness, or single-minded pursuit of self-interest without any concern for others. Subjects describe selfish or inconsiderate actions without any sense of remorse or guilt and may express feeling primarily happy in the face of their own bad deeds or someone else's misfortune. When some genuine moral concern is expressed about subject's own

behavior of this sort, score Level 2.

(2) Score when subject reacts with anger or strong resentment when his/her pursuit of a goal is blocked. Others are seen only as obstacles preventing realization of this goal or as potential assistance in its achievement.

(3) Score for focus solely on one's own point of view in a conflict. Score for people pursuing their own needs without regard for each other or each other's perspective. Score when the subject recounts an action with major impact on significant others without apparent concern or interest in their wishes or their actual viewpoint. Score for sense of people as important only to be used.

(4) Score for people depicted as mirrors, tools for gratification, or transitional objects (i.e., turned to for self-soothing). Score where all action is directed toward helping the subject. Score where another person is clearly valued solely as a listener or as someone to be there for the subject, but not as a separate person in a mutual interaction. If the other is seen as a separate person (i.e., his/her perspective or needs recognized), score Level 2 or 3.

(5) Score for pseudo-attachment or narcissistic pseudo-investment, where it is clear that the other person is valued or respected only because the person resembles or is associated with the subject (as when the subject describes all his/her friends as brilliant, extraordinary, and deeply intimate with him/her. Score for intense investment in another person when the motivation for such investment does not appear to stem from anything about the other person, but rather from the subject's need for the other to fulfill a certain idealized role or purpose. Score when the termination of such a relationship leads to the subject's nearly total devaluation of the other.

(6) Score where others are devalued almost to the point of dehumanization. Where devaluation is ambiguous or less severe, score Level 2. If there is evidence of conventional-level morality or ofinvestment in relationships (e.g., friendship), and where the devaluation seems defensive or is recognized as anomalous (e.g., an uncharacteristic vitriolic outburst), score Level 3.

(7) Score for profoundly self-preoccupied descriptions or for primary focus on bodily sensations. Score when subject's main focus is on his/her own image or reflection.

(8) Score for need-gratifying conception of friendship, where friends who are momentarily not gratifying are easily dismissed (e.g., because of a single conflict or argument). Do not score if subject describes a sense of real loss when a

friendship ends; in that case score Level 2 or 3.

(9) Score for loners or for sense of schizoid unrelatedness; where not profound, score Level 2.

(10) Score when the primary theme of the vignette is need-gratification, even without apparent harm to someone, when there is minimal sense of relationship between people. If there is clear enjoyment of a relationship per se, beyond need-gratification, score Level 2.

(11) Score for lack of response to a major interpersonal event, such as a death.

(12) Score where subject commits an act which is hurtful to others and expresses no remorse, or less remorse than concern about apprehension. If the act is relatively minor (e.g., yelling at someone), score Level 2. Score when subject has a surface experience of guilt or of conventional-level morality where this does not seem to affect action, and, instead, seems to suggest simple knowledge of, rather than investment in, moral standards.

(13) Score where subject describes a situation involving another person in which obvious moral issues should be brought to bear but in which subject's response betrays low-level moral development or emotional investment.

(14) Score for extreme commitment to unconventional values, where this seems to be motivated mainly by rage or by a desperate need for self-definition, in which the "cause" appears to be primarily an extension of self or a means of maintaining a cohesive sense of self. Score where commitment to an ideal or cause permits callous disregard for whole categories of people, where this disregard or acceptance of the need for violence seems primarily to reflect primitive rage and not a reasoned, pragmatic consideration of unfortunate necessities; if unclear, score Level 2 or 3.

(15) Score for a profound sense of entitlement, i.e., the subject feels that he/she deserves or is "owed" things to which, in reality, he/she has no claim (e.g., feeling that one's parents should continue to provide for one into adulthood in the manner to which he or she is accustomed). Where entitlement is ambiguous or not extreme, score Level 2.

Level 2

Principle: At Level 2, the person recognizes that there exist differences between the needs and desires of self and others, though the primary aims remains the satisfaction of one's own wishes. Friendships develop but in many respects remain interchangeable. Relationships consist largely of shared activities. Attachments are important, but the needs of the other are typically experienced as

secondary to the needs of the self, particularly when these conflict. There is a rudimentary sense of right and wrong, characterized by an equation of prudence and morality (i.e., bad actions are bad because they lead to punishment). Moral injunctions that exist are frequently primitive and harsh.

(1) Score for trickery, manipulativeness, exploitativeness, or self-serving actions with some recognition of the impact on others.

(2) Score for conflict between the subject and another person, each of whom clearly knows what the other wants but does not heed his/her wishes; score when it is ambiguous whether they are heeding at all. Score when subject is involved in an argument with no mediation, resolution, or compromise, when subject does not make an active effort at resolving the conflict in a mutually satisfactory way; if such an effort is made, score at least Level 3. Do not score Level 2 if the description seems to reflect an accurate portrayal of an argument not involving the subject.

(3) Score for descriptions in which subject is obedient or avoids actions injurious to others primarily to escape punishment, gain approval, or carry out the demands of an omnipotent authority figure. Score when a person in a description is apprehended and/or punished but feels no guilt or remorse, unless subject explicitly notes this, in which case score Level 3. Score for parents punishing children for impulsive acts where the parents seem to exist only as punishers; if they are people in their own right, score Level 3, particularly if the subject explicitly views them as teaching a moral lesson. If punishment is abusive, score Level 2, unless subject clearly indicates an unambivalent belief that abuse of this sort is wrong and should not occur; in that case, score Level 3.

(4) Score for impulsive aggression with some remorse. If aggression is verbal, score only if severely abusive. If the aggression and consequent remorse occurs in the context of a committed relationship, score Level 2 or 3, depending on degree of aggression and genuineness of remorse.

(5) Score for interchangeable friends, where there is some sense of attachment or sadness at friendship ending. Score for loss themes where there is a lack of depth to the attachment. Score for engagement in conversation unless there are indications of higher-level relatedness. Score for superficial relationships indicative of the subject's knowledge of, but not particular investment in relationships. Score for friendships which seem primarily to reflect mutual self-interest. Score for shared activity between or among friends in which enjoyment of the relationship per se is not explicit, or in which the subject's needs and emotions are strongly emphasized.

(6) Score where a relationship is expressed, but there is minimal appreciation of the needs or wishes of the other. Score for preoccupation with one's own experience within the context of a relatively unelaborated relationship.

(7) Score for sense of impulse control, frustration tolerance, or perseverance, where not in the service of moral or clearly interpersonal ends. Perseverance must be explicit, not inferred.

(8) Score for arbitrary authority, where authority figures generally seen as legitimate (e.g., police, parents) are not viewed as fair or invested with legitimacy. Score for a tendency toward externalization to avoid punishment or self-reproach, as evidenced, for example, by complaints of false accusations.

(9) Score for unelaborated parental concern where the concern is mentioned explicitly but the parent seems only to exist to help the child. Where concern is not expressly mentioned, score Level 1; where the parent's existence is more separate and independent, score Level 3.

(10) Score for hint of subject wishing to please others, when this is ambiguous or his/her motives seem primarily self-serving.

(11) Score for responses that seem overwhelmingly to be categorized as Level 1 but which have some hint of real moral concern or conventionality.

(12) Score for sense of entitlement; if profound, score Level 1.

(13) Score where subject commits an act which is mildly hurtful to others and expresses no remorse. If act is more severe or seems malicious, score Level 1. If act represents an appropriate confrontation, score Level 3.

(14) Score when moral rigidity leads to the devaluation of another person, beyond simple moral condemnation. Score where rigid sense of duty is allied with masochism or self-defeating behavior or attitude.

(15) Score for minor sense of schizoid unrelatedness or disconnectedness to others.

(16) Score for masochism or profoundly self-defeating behavior. Where subject is self-punitive but not profoundly so, indicating harsh but integrated moral standards, score Level 3. If subject describes masochistic behavior in the past in the context of decribing his/her psychological improvement since then, score Level 3 if the account of change is convincing.

Level 3

Principle: At Level 3 the person considers the needs and wishes of significant others in making decisions. Pleasing other people, being liked, and behaving in accordance with the standards of respected authorities are salient aims which often override self-interest. Friendships and familial relationships are relatively conventional. The person is concerned with being good and experiences guilt when his/her thoughts, feelings, or actions conflict with

internalized standards. Rules are respected because they are rules; manners and conventions are seen as important and even natural. Moral rules tend to be relatively rigid and concrete, and there may be a pronounced sense of duty, particularly to certain people.

(1) Score for a clear but relatively conventional attachment to or valued affiliation with a significant other. The subject may relate emotionally laden positive interactions with others, and begins to focus on shared thoughts and feelings rather than shared activities in defining a friendship; if subject relates sharing of intimate thougnts and feelings in the context of a committed relationship, score Level 4. If sense of closeness seems to derive primarily from need-gratification or shared activities, score Level 2. Score for friendships which are of long duration but in which there is no more than a minimal sense of history or appreciation of each others' unique characteristics.

(2) Score for obedience to moral standards because these are valued rules or edicts of respected authorities, not just to avoid unpleasant consequences. Score where subject expresses concern for others and dislike of bad actions because they are wrong. Score for conventional level morality (i.e., concern for conventions, social norms, manners, and being nice). People may be described as chivalrous, well-mannered, gentlemanly, protecting someone else's honor, or fulfilling social obligations. They may perform prosocial or expected behaviors because of role expectations. Score for stereotypic gender roles. If the only evidence of conventional level morality is indignation that someone has hurt the subject, score Level 2.

(3) Score for pronounced sense of duty to help specific others or to carry out specific internalized rules. Score for a rigid, moralistic sense of rules and duty. When thismoral rigidity is allied with a severe devaluation of self or others, score Level 2. Where duty is expressed in explicitly abstract form (i.e., duty to abstract ideals rather than duty to particular rules or relationships) and leads to action, score Level 4. Where masochistic or extremely self-defeating, score Level 2.

(4) Score for experience of guilt for actions which harm others. If guilt is extremely primitive or harsh (e.g., profound feelings of evilness) or provokes extreme retribution which is not clearly viewed as extreme, score Level 2. Where the initial action is intentional and is extremely injurious to others, score Level 2. Score for expression of remorse or guilt for an aggressive action when this occurs in the context of a committed relationship. Score for experience of guilt or disappointment in oneself when subject's thoughts, feelings, or actions conflict with internalized standards.

(5) Score when subject appropriately carries out relatively selfless duties, such as caretaking responsibilities. Score for a helping orientation. Score when subject does things to make others happy, when the objects of such actions seem

relatively interchangeable and when the action, rather than the feelings of the other, seems central. Score for superficial altruism or consolation of someone who is suffering or grieving. Score for performance of social roles or obligations (e.g., taking an injured person to a hospital). Score for generosity, magnanimity, or willingness to make up after an argument.

(6) Score for unconventionality or rejection of social roles where there is minimal sense of relatedness to others. Do not score when the rejection of social roles seems to be primarily in the pursuit of need-gratification, in which case score Level 1 or 2. Score if unclear whether a seemingly "post- conventional" standard is, in fact, motivated by a mature sense of relativity of tradition and conventions or, instead, by a self-serving disregard of community standards.

(7) Score for impulse control, frustration tolerance, or perseverance where clearly in the service of moral or interpersonal ends.

Level 4

Principle: At Level 4 the person is capable of forming deep, committed relationships in which the other is valued for his/her unique qualities. Commitment to others often overrides personal desires, but actions on behalf of another are undertaken without a rigid sense of duty or a predominant desire to be liked for one's good deeds. Moral judgments, values, and modes of conflict-resolution remain relatively conventional. The person is concerned with doing the right thing, as defined by society or respected authorities, which is frequently expressed in more abstract terms and is often self-abnegatory. Relationships are seen as lasting over time and involving considerable commitment and intimacy.

(1) Score for long-term, committed relationships which are relatively elaborated affectively. Score for clear, nonstereotypic enjoyment of another's qualities or appreciation of another's unique characteristics. Score for devoted behavior by the subject toward a significant other when this behavior is clearly not undertaken to gain praise or reward, fulfill a perceived duty, or compensate for guilt. Do not score all lasting marriages Level 4. To score a marriage or family relationship Level 4, it must evidence more than conventional closeness or intimacy.

(2) Score for obedience, compliance or altruistic behavior stemming from concern for others, not primarily from unilateral respect for authority or in order to gain praise or reward or to avoid guilt.

(3) Score for mature empathy, well beyond the ordinary, in which the person acts on the basis of a cognitive and affective appreciation of another's plight, particularly when this conflicts with the subject's own interests. Do not score for simple compassion for a

person's obvious pain (e.g., sadness for a person experiencing a loss); in that case, score Level 2 or 3. Do not score for cognitive complexity of perspective-taking.

(4) Score for deep and enduring relationships in which people confide their intimate thoughts or feelings. Do not score if the subject appears to confide in the other simply in order to obtain gratification or self-soothing. Do not score unless the subject elaborates enough on the content of shared thoughts and feelings to be certain that the relationship really involves considerable intimacy.

(5) Score for commitment to relatively abstract ideals, especially when sucn commitment involves self-sacrifice. If self-serving, self-righteous, or excessively rigid, score Level 2 or 3.

(6) Score for conflicts between people in committed or enduring relationships during which thesubject clearly expresses concern for the other. Score when an active effort is made to consider the other person's perspective and to take into account his/her wishes and desires, particularly under difficult circumstances (e.g., a heated argument).

(b<(7)> Score for postconventional values where there is probable indication of commitment to real relationships as well. If unclear whether specific others are really valued, score Level 3; if clear, score Level 5.

Level 5

Principle: At Level 5 the person treats self and others as ends rather than means. The person is interested in the development and happiness of both self anc others, and attempts to achieve autonomous selfhood within the context of real involvement with and investment in others. Conflicts between people with conflicting legitimate interests are understood as requiring compromise. Authorities and rules are not taken to be absolute; the person has a sense of the conventional nature of social rules and believes that a times these must be overridden or changed because they conflict with self-generated or carefully considered standards, or when they do significant harm to people in concrete circumstances.

(1) Score for creative compromise or mediation of conflict suggestive of a recognition of the legitimacy of competing interests and/or the inadequacy of rigid application of conventional solutions. Do not score for children growing to like what their parents want for them; in that case score Level 3 or 4.

(2) Score for sense of conflict between social norms and subject's own considered standards, or recognition of relativity of social norms and values, in the context of some evidence of emotional investment in concrete others. People may be seen as standing up for their principles (especially those that involve the welfare of others) despite adversity, social disapproval, unpopularity, or

contrary laws. Do not score if there are clear indications of Level 1 patterns of investment, with need-gratifying standards opposed to social standards; in that case, score Level 1. If unclear whether a seemingly "post-conventional" standard is motivated by a mature sense of relativity of tradition and conventions or, instead, by a self-serving disregard of community standards or by primitive and untempered aggression, score Level 3. Do not score Level 5 for intellectualized discussion of the limits of conventional morals <u>except</u> where the subject also evidences a capacity for relatedness to real people.

(3) Score for an elaborated depiction of pursuit of self-definition, self-development, or mastery within the context of mature, committed relationships.

Scoring Rules: Understanding of Social Causality

Drew Westen and Donna Silbert

Principle: scale measures extent to which attributions about the cause of people's actions, thoughts, and feelings are logical, accurate, complex, and psychologically-minded.

General Scoring Rules:

(1) Where the subject provides causal information only after prompting, score material after the prompt if it appears to have influenced the subject's initial understanding of the action. Do not score for post facto or unintegrated hypotheses motivated only by the interviewer's questions.

(2) If, upon inquiry, the subject gives a response two levels above the previous response, score the intermediate level.

(3) Illogical causal reasoning, inconsistencies, or unlikely attributions automatically bring the score down to a Level 1 or 2, depending on the degree of faulty logic. Do not score down when the subject intersperses tangents off the main narrative if the narrative itself does not have unexplained or illogical sequences. In other words, score for causal relationships, not for the quality of the subject's narration.

(4) In scoring responses with this scale, the coder should first ask, "Is the action in this vignette logical?" If so, she/he should then ask, "What is causal?" Finally, if there are implicit or explicit causal statements, the coder should then ask, "Is it internal? And is it complex?"

Level 1

Principle: At Level 1 the subject does not understand the concept of causality in the social realm. There is either no sense of necessity to understand why behaviors, feelings, or situations emerge, or explanations that ar advanced are grossly illogical.

(1) Score for noncausal or grossly illogical scenarios, or for large unexplained transitions or transformations. Score for multiple minor unexplained transitions. Score where the only causality is physical not social, as when a subject explains how a gadget works.

(2) Score for unexplained affects, which simply seem to come and go, or for absence of any indication of how people came to conclusions in order to act.

(3) Score if the subject explains actions, motives, or personality traits on the basis of an illogical set of assumptions. For example, "he had a wedding ring on, so I knew he must have a really stable sense of self."

(4) Score where motives are clearly attributed inappropriately or peculiarly or where motives are ascribed animistically to various forces (e.g., "the world is trying to teach me a lesson for what I did").

(5) Score for attribution to univalent traits where no other attributional hypotheses are entertained. For example, "he just acted that way because he's an asshole."

Level 2

Principle: At Level 2 the subject has a rudimentary understanding of social causality. Actions are explained as resulting from simple, often global feelings or are explained as responses to environmental stimuli. Explanation of behaviors, feelings, or interactions frequently have mild logic errors or inconsistencies.

(1) Score for action seen as stemming from simple unexamined or global feelings; e.g., "I got into a fight with Jane because I was in a bad mood that day."

(2) Score for actions or feelings viewed as caused by environmental stimuli. The people in the subject's interactions behave in response to behaviors of other people, without significant mediation by their psychological states or processes. For example, "I confronted him because he was talking behind my back." Impersonal events may evoke simple affects, which in turn influence action. For example, "they left because they were bored and there was nothing to do."

(3) Score for sense of causality where only minimally elaborated or implied but readily inferred. For example, "he was really mad and went out and kicked the dog." This statement is distinguished from Level 1 since anger is the implied cause of kicking the dog.

(4) Score for minor logic errors or minor unexplained events or transitions in a set of otherwise clear causal relationships; e.g., an argument inexplicably blows over. Score for incongruity between thoughts, feelings, and actions; affect does not fit action or is somewhat incongruent with the person's thoughts. To score for minor logic errors, the coder must be confident that an error in logic occurred; do not score if ambiguous. To score for minor unexplained transitions, score if an explanation could be inferred but many other explanations could equally be entertained. For example, "we were fighting like cats and dogs. Then we went to the store and bought some candy."

(5) Score where the subject describes the same experience for both self and other (i.e., for parallel causality), and where the causality is behavioral; e.g., "we both got mad because we thought he was lying to us." If it seems highly unlikely that the two people in the interaction could have the same experience, score Level 1 for faulty logic. If the parallel causality is complex and internal, score Level 4; if internal but not complex, score Level 3.

(6) Score for episodes which would otherwise score Level 3 in which it is unclear whether large unexplained transitions result from the subject's logic errors or from irrational behavior in the person described. If the subject does not in some way acknowledge that the behavior is irrational, score Level 1. Score where the subject recognizes that a causal attribution of inexplicable behavior is necessary but cannot even generate any hypotheses.

Level 3

Principle: At Level 3 the person has a relatively complex understanding of some causal processes in social life, where behaviors, feelings, and their causes are still conceived largely in stimulus-response terms. The person recognizes that psychological processes may influence action, but causality is still in many respects external to the person.

(1) Score for minor elaboration of psychological causes of feelings or behavior in an account that is primarily focused on environmental or behavioral causes.

(2) Score for complex multidirectional behavioral causes, that is, when the subject describes a complex network of interacting causes but evidences little understanding of the role of internal states in motivating action.

(3) Score for behavioral causes where the subject points to the influence of the broader social system on thought, behavior, or consequences for actors. For example, "she did that because that's how she's been socialized" or "they got drunk because that's what people do when their jobs don't mean anything to them." If very complex, score Level 4.

(4) Score at least Level 3 for a subject's perception of how others' thoughts and feelings affect their actions. Do not score for simple emotions leading to behaviors.

(5) Score for somewhat complex mental states that are evoked but do not cause behavior unless there is a complex understanding of what led up to the mental state psychologically, in which case score Level 4.

(6) Score for behavioral causality where multiple causes produce a single action.

(7) Score for responses that would otherwise score Level 4 or 5, i.e., with complex internal causality, in which it is unclear whether large unexplained transitions result from the subject's logic errors or from grossly irrational behavior in the person described. If the subject does not in some way acknowledge that the behavior is irrational, score Level 1.

(8) Score where the subject describes the same psychological experience for both self and other where the causality is internal. If complex and internal, score Level 4.

(9) Score for responses that would otherwise be scored Level 4 or 5, in which there are minor unexplained transitions or "stretching" logic that appear to be caused by a defensive disavowal of feelings, impulses, or unacceptable thoughts.

(10) Score for responses in which there is internal causality and in with the subject recognizes an unexplained affect or behavior.

(11) Score for spontaneous causal generalizations, e.g., "this is the kind of experience that cements friendships." If very complex, score Level 4.

(12) Score for psychological understanding of the causes of changes in relationships, e.g., "I think they started doing less things with each other because they started getting on each other's nerves by spending too much time together." If understanding is relatively simple and focuses on behaviors, score Level 2 (e.g., "we got closer because we played together on the same team"). If understanding is more complex and psychologically-minded, score Level 4 (e.g., "we just sort of drifted apart--things change sometimes between people because they grow in different directions--it's not either person's fault, just each one changes in ways that makes them less compatible").

Level 4

Principle: At Level 4 the person has a basic understanding of the role of psychological events in motivating action. There is considerable recognition of the importance of people's thoughts and perceptions in mediating social behavior and experience, though understanding of psychological causality is incomplete or applied only irregularly.

(1) Score for unidirectional complex internal causes; i.e., one person's actions, feelings, or thoughts stem from elaborated psychological causes (usually this is the subject's actions or thoughts). For example, "I told him off but it was really because I was angry at myself for how I had treated him. He just said it was okay, and left it at that." If the subject also has a psychologically-minded understanding of how the

other's thoughts and feelings affected his or her actions, score Level 5. Actions are not perceived as simply reactive to behavior without much thought or feeling, and may reflect a sophisticated understanding of others' wishes or perspectives which may differ from one's own. Do not score for emotions elicited by environmental or behavioral causes. Mental states must themselves be causal, not just caused, unless the subject describes the psychological processes leading to these states (e.g., "I was feeling really anxious, like I didn't want to be there even though I did. I think the situation must have reminded me of the way I used to feel with my mother"). If unclear whether the psychological state or processes are complex enough, score Level 3. Do not score for simple intentions. If unclear whether the psychological cause is elaborate or is a simple intention, score Level 3.

(2) Score for recognition that behaviors are influenced by people's construal of the situation. People's actions result in part from their perspective on, or understanding of, the situation, which could differ from the perspective of others in the same situation. Do not score if people's different perspectives are simple and stereotypic. For example, "we were fighting because he wanted the candy and I thought I should get it" should be scored Level 2.

(3) Score for awareness of simple unconscious motivational processes.

(4) Score for multidirectional internal causes (i.e., where more than one person's behavior is understood as internally motivated) where the causes are not particularly complex.

(5) Score where the subject describes the same experience for both self and other and where the causality is complex and internal. If it seems highly unlikely that the two people could have the same experience, score Level 1 or 2, depending on the degree of faulty logic.

(6) Score for complex understanding of the way social forces influence individual motivations, e.g., "she didn't want to stand up to her parents on that because she thought it's not right; it's a cultural thing--her family's first-generation American, and they think that way."

Level 5

Principle: At Level 5 the person understands feelings and behaviors as causec by psychological processes, which may or may not be elicited by environmental stimuli. Complex thoughts, feelings, and conflicts are seen as mediating action.

(1) Score for elaborated multidirectional internal causes; i.e., multiple people in an interaction act on the basis of complex perceptions, thoughts, wishes, or conflicts. The subject

describes both his or her own and others' actions as stemming from complex motives. To score Level 5, at least one person must have internal motivation <u>and</u> at least one other person must have complex internal motivation (even if not particularly complex). If one person's actions are described in a psychologically complex way but all other people's actions are simply reactive and behaviorally caused, score Level 4.

(2) Score for actions based on introspection, even if internal causality is unidirectional.

(3) Score for awareness of complex unconscious motivational processes in oneself or others, even if internal causality is unidirectional. Score for awareness of how an action can represent a compromise among conflicting desires (within the same person).

APPENDIX 7.1

MEANS AND RANGES OF RATINGS FOR SCORS MEASURES

IN RESPECT OF MOTHERS

MEANS AND RANGES OF RATINGS FOR SCORS MEASURES

IN RESPECT OF MOTHERS

AFFECT-TONE		COMPEXITY OF REPRESENTNS		CAPACITY FOR EMOTIONAL INV.		SOCIAL CAUSAL	
Mean	Range	Mean	Range	Mean	Range	Mean	Range
3.3	3-4	4.4	4-5	3.3	2-4	3.7	3-4
3.1	2-4	3.0	2-5	3.1	2-4	2.8	2-4
3.4	2-4	3.3	3-5	3.2	3-4	3.2	3-4
3.6	3-4	2.7	2-3	2.5	2-3	2.6	2-3
3.1	3-4	3.1	3-4	3.2	3-4	3.2	3-4
5.0	5	6.3	5-7	4.5	4-5	4.4	4-5
3.4	3-4	2.9	2-4	2.8	2-3	3.0	2-4
3.6	3-4	2.7	2.4	2.7	2.4	2.8	2-4
3.5	3-4	3.1	2-4	3.1	2-4	3.1	3-4
2.8	2-3	3.0	2-4	2.6	2-4	2.9	2-4
2.1	2-3	1.8	1-2	2.0	2	1.9	1-3
3.7	3-4	2.5	2-4	2.3	2-3	2.3	2-3
3.5	3-4	3.2	3-4	3.4	3-5	3.0	3
3.0	2-4	3.2	3-4	2.9	2-4	3.0	2-4
3.4	2-4	4.9	3-6	3.5	3-4	4.0	3-5
3.3	2-4	3.3	3-4	4.4	4-5	4.0	4
3.9	3-5	4.2	3-6	3.8	3-4	3.6	3-5
2.8	2-3	2.3	2-3	2.1	2-3	2.2	2.3

3.7	3-5	4.3	2-7	3.6	2-5	3.7	2-5
4.2	3-5	5.9	5-7	4.6	3-5	4.6	4-5
3.1	2-4	2.4	2-3	2.8	2-3	2.2	2-3
3.9	3-5	5.1	4-7	4.1	3-5	4.3	3-5
3.0	2-4	3.0	2-6	2.9	2-4	2.5	2-4
3.4	3-4	5.0	3-6	3.3	3-4	3.8	3-4
3.4	3-4	3.2	2-3	2.9	2-3	3.2	3-4
3.9	3-4	2.2	2-3	3.0	2-3	2.3	2-3
3.2	2-3	3.0	3	2.9	2-3	2.7	2-4
3.3	3-4	3.0	2-4	2.6	2-3	2.8	2-3
3.2	3-4	3.2	3-4	2.6	2-4	3.1	2-4
3.0	3	3.0	2-4	2.1	2-3	2.9	2-4
3.0	2-4	2.4	2-3	2.4	2-3	2.4	2-3
4.0	4	4.0	3-5	3.8	3-4	3.8	3-4
3.6	3-4	3.5	3-4	2.9	3-4	3.7	3-4
3.3	3-4	3.7	2-5	2.5	2-3	2.3	2-3
1.7	1-2	3.6	3-5	2.7	2-3	2.3	2-3
2.7	2-4	2.9	2-5	2.6	2-4	2.9	2-4
3.9	3-4	4.1	2-6	3.9	2-5	3.6	2-5
3.5	3-4	2.8	2-4	2.9	2-4	3.2	2-4
3.6	3-4	3.7	3-4	2.9	2-4	2.7	2-3
3.4	3-4	4.2	3-6	3.1	3-4	3.9	3-5
3.9	3-4	3.2	2-4	3.2	2-4	3.5	3-4
3.1	3-4	3.9	2-6	2.9	1-4	2.8	2-4
2.8	2-4	2.7	2-4	2.4	2-3	2.7	2-4
2.9	2-5	2.8	2-4	2.6	2-3	2.8	2-4
2.9	2-3	2.8	2-4	3.0	3	2.7	2-3

3.3	3-4	3.0	3	3.0	3	2.8	2-3
2.5	2-3	2.2	2-3	2.1	2-3	2.1	2-3
3.0	2-4	2.7	2-4	2.3	2-3	2.6	2-4
4.5	4-5	3.1	3-4	3.9	3-4	3.3	3-4
3.8	3-5	4.1	3-6	3.6	3-4	3.4	3-4
2.9	2-4	2.7	2-4	2.8	2-3	2.7	2-3
4.0	4	3.5	3-4	4.0	3-4	3.6	3-4
4.0	3-5	3.9	3-5	3.8	3-5	3.7	3-4
3.8	3-4	3.7	3-4	3.4	3-4	3.6	3-4
4.0	4	3.5	3-5	3.2	3-4	3.9	3-5
4.4	4-5	4.3	3-6	3.5	2-5	3.5	2-5
3.3	2-5	3.3	2-4	3.4	2-4	3.5	2-4
3.5	3-4	3.1	2-4	2.4	2-3	2.0	2
4.1	4-5	3.8	3-5	4.0	3-5	3.9	3-5
4.1	4-5	4.6	4-6	4.2	4-5	4.5	4-5
3.1	2-4	2.7	2-3	2.3	2-3	2.2	1-3
3.7	3-4	3.9	3-5	3.6	2-4	3.9	3-5
4.0	4	3.4	3-5	3.6	3-4	3.3	3-4
4.0	4	3.7	3-4	3.8	3-4	4.0	4
3.4	3-4	3.2	2-4	2.9	2-3	2.4	2-3
3.5	2-4	3.6	3-5	3.1	2-4	3.1	3-4
3.6	3-4	3.6	3-5	3.5	3-4	3.2	3-4
3.5	3-5	3.6	3-5	3.5	3-4	3.5	3-4
2.8	2-4	3.0	2-5	2.5	2-3	2.6	2-3
3.5	3-4	4.0	2-5	3.7	2-5	3.4	2-4
4.0	4	3.5	3-4	3.1	3-4	3.3	3-4
3.7	3-4	4.2	3-6	3.3	3-4	3.3	3-4

2.8	2-3	3.3	3-4	3.0	2-4	2.8	2-3
2.8	2-4	2.4	2-3	2.1	2-3	2.5	2-3
3.9	3-4	2.6	2-4	3.1	2-4	2.6	2-3
2.4	1-4	3.3	2-6	2.6	2-4	3.4	2-5
2.7	2-3	3.1	3-4	2.3	2-3	3.3	3-4
3.1	2-4	3.5	3-6	2.8	2-3	3.2	3-4
3.0	2-4	2.8	2-4	2.7	2-3	2.9	2-4
2.9	2-4	3.3	2-6	2.8	2-4	3.0	2-4
4.0	4	4.2	4-5	4.0	4	4.2	4-5
3.0	2-4	4.3	3-5	3.5	2-4	3.6	3-4
2.7	2-3	3.3	3-4	2.8	2-3	3.2	3-4
3.1	2-4	3.9	3-4	3.1	3-4	3.6	3-4
4.6	4-5	5.4	4-6	5.0	5	4.9	4-5
5.0	5	6.7	6-7	5.0	5	5.0	5
3.4	2.4	3.4	3-4	3.1	3-4	3.4	3-4
3.9	3-4	3.0	3	3.0	3	3.0	3

APPENDIX 7.2

MEANS AND RANGES OF RATINGS FOR SCORS MEASURES

IN RESPECT OF FATHERS

MEANS AND RANGES OF RATINGS FOR SCORS MEASURES

IN RESPECT OF FATHERS

AFFECT-TONE		COMPEXITY OF REPRESENTNS		CAPACITY FOR EMOTIONAL INV.		SOCIAL CAUSAL	
Mean	Range	Mean	Range	Mean	Range	Mean	Range
3.5	2-4	3.7	3-4	3.2	2-4	3.6	3-4
3.6	3-4	3.1	3-4	3.2	3-4	3.2	3-4
4.0	4	3.5	3-5	4.0	4	3.5	3-4
2.5	1-4	3.2	3-5	2.7	2-4	3.1	3-4
3.1	2-4	2.3	2-4	2.3	2-4	2.4	2-4
3.5	3-4	3.1	2-3	2.9	2-4	2.9	2-4
3.4	3-4	3.4	3-4	3.1	3-4	3.2	3-4
3.5	3-4	3.7	3-4	3.1	2-4	3.3	3-4
3.2	3-4	3.2	2-4	2.9	2-4	3.0	2-4
3.0	2-4	3.4	3-5	3.1	3-4	3.2	2-4
3.4	3-4	3.3	3-4	3.1	3-4	3.1	3-4
3.4	3-4	3.4	3-5	3.2	2-4	3.2	3-4
3.8	3-4	4.2	3-6	3.6	3-5	3.7	3-4
2.9	2-4	4.0	3.5	3.3	2-4	3.3	2-4
2.4	2-3	2.8	2-4	2.2	1-3	2.2	2-3
2.4	2-3	3.3	2-4	2.5	2-3	3.2	2-4
2.9	2-4	3.5	3-4	3.0	2-4	3.3	3-4
3.9	4	3.9	3-4	3.8	3-4	3.7	3-4
3.3	3-4	2.3	2-3	2.4	2-3	2.2	2-3

3.2	3-4	3.2	3-4	3.1	3-4	3.1	3-4
2.7	2-4	3.1	3-4	2.6	2-3	2.6	2-3
2.4	2-3	2.2	2-3	1.7	1-3	2.1	2-3
3.0	3	2.1	2-3	2.2	2-4	1.9	1-2
3.4	2-4	3.8	3-6	3.3	3-4	3.4	3-4
3.5	3-4	3.4	3-4	3.1	3-4	3.2	3-4
3.1	3-4	2.5	2-3	2.7	2-3	2.4	2-3
2.8	2-3	3.0	2-4	2.3	2-3	2.8	2-3
3.4	3-4	3.3	3-4	2.6	2-3	3.2	3-4
4.0	3-5	4.3	3-6	3.8	3-5	3.7	3-4
3.9	3-4	3.3	3-5	3.2	3-4	3.4	3-4
3.4	3-4	3.5	3-4	3.0	2-4	3.0	2-3
2.7	2.4	3.3	3-6	2.4	2-4	3.0	2-4
3.3	3-4	4.2	3-6	3.3	3.6	3.6	3-4
3.4	3-4	2.9	2-4	2.9	2-4	2.7	2-4
3.2	3-4	2.6	2-3	2.8	2-3	2.6	2-3
3.3	3-4	3.1	3-4	3.0	3	3.1	3-4
3.0	3	2.2	2-3	2.1	2-3	2.2	2-3
2.9	2-4	2.7	2-4	2.5	2-3	2.7	2-4
3.1	3-4	2.3	2-3	2.8	2-3	2.3	2-3
3.1	3-4	2.6	2-3	2.2	2-3	2.0	2
4.3	4-5	5.6	3-7	4.2	3-5	4.6	3-5
4.1	4-5	3.6	3-6	3.7	3-5	3.4	3-5
4.1	4-5	3.9	3-5	3.8	3-4	3.7	3-4
2.5	2-3	2.7	2-3	2.3	2-3	2.8	2-3
3.3	3-4	3.3	2-5	2.8	2-4	2.8	2-4
4.1	3-5	4.1	3-6	3.9	3-5	3.7	3-4

2.9	2-4	3.4	2-6	2.5	2-3	3.1	2-4
3.0	2-4	4.1	3-6	2.6	2-3	3.3	3-4
3.6	3-4	4.3	3-6	3.5	3-4	3.7	3-4
3.9	3-5	3.3	3-4	3.4	3-4	3.3	3-4
2.8	2-3	2.1	2-3	2.7	2-3	2.2	2-3
3.3	3-4	3.0	2-6	2.6	2-3	2.8	2-4
4.0	4	3.9	3-5	3.0	3	3.6	3-4
3.2	3-4	2.2	2-3	2.2	2-3	2.1	2-3
3.1	3-4	3.6	3-5	2.9	2-3	3.3	3-4
2.6	2-3	2.8	2-4	2.4	2-3	2.8	2-4
3.0	2-4	3.7	3-5	3.0	2-4	3.3	3-4
3.3	3-4	3.7	3-4	3.2	3-4	3.7	3-4
3.4	2-4	4.3	4-6	3.8	3-4	3.6	3-5
3.5	2-4	3.0	3	2.9	2-3	2.9	2-3
3.3	3-4	2.8	2-4	2.9	2-4	2.9	2-4
2.8	2-4	2.4	2-3	2.1	2-3	2.5	2-3
2.9	2-3	2.7	2-3	2.6	2-3	2.5	2-3
3.5	3-5	4.2	3-7	3.6	3-5	4.0	3-5
3.5	3-4	2.3	2-3	2.3	2-3	3.0	3
3.4	3-4	4.6	3-6	3.7	3-5	4.0	3-5
3.6	3-4	3.6	3-6	3.4	3-4	3.2	3-4
3.3	3-4	3.3	3-4	3.2	3-4	3.3	3-4
2.7	2-3	2.5	2-3	2.0	2	2.4	2-3
3.9	3-4	3.5	3-4	3.5	3-4	3.0	3
3.3	3-4	3.4	3-4	3.0	3	3.1	2-4
3.8	3-4	2.5	2-3	2.7	2-4	2.3	2-3
3.8	3-4	3.7	3-4	3.6	3-4	3.8	3-4

3.8	3-4	3.4	2-4	3.3	2-4	3.6	2-4
3.4	3-4	2.8	2-3	2.8	2-4	2.9	2-4
3.2	2-4	2.7	2-4	2.7	2-3	2.7	2-3
3.9	3-4	3.5	3-5	3.4	3-4	3.3	3-4
3.1	3-4	2.2	2-3	2.4	2-3	2.1	2-3
3.5	3-4	3.6	3-5	3.2	3-4	3.2	3-4
2.9	2-4	2.3	2-3	2.3	2-3	2.3	2-3
4.4	4-5	5.6	3-7	5.0	3-5	4.7	3-5
3.3	3-4	3.0	2-4	3.1	2-4	3.1	2-4
2.9	2-4	2.9	2-4	2.6	2-3	3.0	2-4
2.6	2-3	3.5	2-4	2.7	2-3	3.4	2-4
3.4	2-4	3.5	2-4	2.7	2-3	3.4	2-4
3.4	2-4	2.6	2-3	2.6	2-4	2.8	2-3
4.8	4-5	5.6	4-6	4.6	4-5	4.5	4-5
3.2	3-4	3.6	3-5	3.3	2-4	3.2	2-4
3.8	3-4	3.8	3-4	3.5	3-4	3.5	3-4
2.3	2-3	2.7	2-3	2.3	2-3	2.7	2-3
3.7	3-4	3.2	3-4	3.2	3-4	3.2	3-4
3.2	2-4	2.3	2-3	2.1	2-3	2.4	2-3
3.2	2-4	4.1	3-5	2.9	2-3	3.8	3-5
3.5	3-4	3.6	3-5	3.1	3-4	3.4	3-4
4.2	4-5	4.7	4-6	4.0	3-5	4.2	3-5

APPENDIX 7.3

CORRELATIONS FOR INTER-RATER RELIABILITY OF SCORS RATINGS

FOR MOTHERS

CORRELATIONS FOR INTER-RATER RELIABILITY OF

SCORS RATINGS FOR MOTHERS

	R1-R2	R1-R3	R2-R3
Affect-Tone	0.95	0.95	0.94
Complexity of Representations	0.86	0.78	0.86
Capacity for Emotional Inv.	0.92	0.89	0.91
Soc. Causal.	0.95	0.90	0.88

APPENDIX 7.4

CORRELATIONS FOR INTER-RATER RELIABILITY OF SCORS RATINGS

FOR FATHERS

CORRELATIONS FOR INTER-RATER RELIABILITY OF

SCORS RATINGS FOR FATHERS

	R1-R2	R1-R3	R2-R3
Affect-Tone	0.94	0.81	0.73
Complexity of Representations	0.79	0.87	0.79
Capacity for Emotional Inv.	0.87	0.96	0.83
Soc. Causal.	0.86	0.96	0.80

APPENDIX 7.5

KAPPA RELIABILITIES OF SCORS RATINGS FOR MOTHERS

KAPPA RELIABILITIES FO SCORS RATINGS

FOR MOTHERS

	R1-R2	R1-R3	R2-R3
Affect-Tone	0.39	0.69	0.61
Complexity of Representations	1.00	0.55	0.45
Capacity for Emotional Inv.	0.73	0.93	0.86
Soc. Causal.	0.54	0.49	0.56

APPENDIX 7.6

KAPPA RELIABILITIES OF SCORS RATINGS FOR FATHERS

KAPPA RELIABILITIES FO SCORS RATINGS

FOR FATHERS

	R1-R2	R1-R3	R2-R3
Affect-Tone	0.66	0.45	0.41
Complexity of Representations	0.55	0.57	0.47
Capacity for Emotional Inv.	0.24	0.27	0.22
Soc. Causal.	0.15	0.84	0.35

APPENDIX 7.7

CORRELATIONS BETWEEN AAI VARIABLES FOR MOTHERS AND SCORS RATINGS

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
LOVINGMA	.4858	.2804	.3910	.2638	.0569	.0409
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .000	P= .008	P= .000	P= .012	P= .590	P= .699
LOVINGFA	.3889	.1685	.3629	.1837	.0558	.0390
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .000	P= .115	P= .000	P= .085	P= .597	P= .712
REJECTMA	-.4039	-.1323	-.2546	-.1154	-.0491	-.0396
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .000	P= .216	P= .016	P= .282	P= .642	P= .708
REJECTFA	-.3236	-.0892	-.2558	-.0905	-.1020	-.0950
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .002	P= .406	P= .016	P= .399	P= .333	P= .367
NEGLCTMA	-.3466	-.0927	-.2134	-.0912	.0096	.0426
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .001	P= .388	P= .045	P= .395	P= .928	P= .687
NEGLCTFA	-.3188	-.0384	-.1646	-.0223	-.0559	-.0799
	(86)	(86)	(86)	(86)	(89)	(89)
	P= .003	P= .726	P= .130	P= .838	P= .603	P= .457
REVRSLMA	-.2624	.0200	-.0212	.0223	.0554	.0310
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .013	P= .853	P= .843	P= .835	P= .600	P= .769
REVRSLFA	-.1161	.0908	.0156	.0745	-.0555	-.0056
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .279	P= .397	P= .884	P= .488	P= .599	P= .958
PRESSRMA	.1445	.2846	.2331	.2772	.2054	.1205
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .177	P= .007	P= .028	P= .009	P= .050	P= .253
PRESSRFA	.0825	.2774	.2124	.2421	.1300	.0489
	(86)	(86)	(86)	(86)	(89)	(89)
	P= .450	P= .010	P= .050	P= .025	P= .225	P= .649
OVRPRTMA	.2017	.1201	.2103	.1934	.2087	.0963
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .058	P= .262	P= .048	P= .069	P= .046	P= .361

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
OVRPRTFA	.1572	.1309	.1290	.1463	.1474	.0016
	(86)	(86)	(86)	(86)	(89)	(89)
	P= .148	P= .230	P= .237	P= .179	P= .168	P= .988
IDLIZEMA	.1311	.0781	.0463	.0266	-.0817	-.0095
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .221	P= .467	P= .667	P= .805	P= .439	P= .928
IDLIZEFA	.1458	.0956	.0737	.0893	-.0914	-.0619
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .173	P= .373	P= .493	P= .405	P= .386	P= .558
DERGTNMA	-.3880	-.1989	-.2723	-.2075	-.0278	-.0545
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .000	P= .062	P= .010	P= .051	P= .792	P= .606
DERGTNFA	-.2627	-.0684	-.1907	-.0804	-.0808	-.0884
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .013	P= .524	P= .073	P= .454	P= .444	P= .402
ANGERMA	-.2878	.0694	-.0763	.1116	-.0308	-.0794
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .006	P= .518	P= .477	P= .298	P= .771	P= .452
ANGERFA	-.2453	.0500	-.0919	.0943	-.0525	-.0197
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .021	P= .642	P= .391	P= .379	P= .619	P= .852
GUILTMA	.0999	.2056	.1789	.2826	.0903	.0209
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .352	P= .053	P= .093	P= .007	P= .392	P= .843
GUILTFA	.0140	.1178	.0932	.2048	.0237	-.0288
	(83)	(83)	(83)	(83)	(87)	(87)
	P= .900	P= .289	P= .402	P= .063	P= .827	P= .791
RELTNSMA	.5084	.2456	.4867	.2334	.1539	.1072
	(82)	(82)	(82)	(82)	(85)	(85)
	P= .000	P= .026	P= .000	P= .035	P= .160	P= .329
RELTNSFA	.3855	.0546	.3623	.0968	.1027	.0353
	(73)	(73)	(73)	(73)	(76)	(76)
	P= .001	P= .647	P= .002	P= .415	P= .377	P= .762

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
RECALLOA	-.3090	-.4151	-.4709	-.4391	-.1817	-.2278
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .003	P= .000	P= .000	P= .000	P= .083	P= .029
RECALLSA	-.3678	-.4254	-.4436	-.4000	-.2116	-.2094
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .000	P= .000	P= .000	P= .000	P= .043	P= .045
COHMINDA	.3171	.2119	.3612	.2199	.0884	.0845
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .002	P= .046	P= .001	P= .038	P= .402	P= .423
COHTRNSA	.3170	.1446	.2669	.1454	.0434	.1177
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .002	P= .176	P= .011	P= .174	P= .681	P= .264
PASSTHGA	-.1675	-.1109	-.1586	-.1024	-.1041	-.0797
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .117	P= .301	P= .138	P= .340	P= .323	P= .450
METACOGA	.1804	.2297	.2699	.2311	.0314	.0697
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .091	P= .030	P= .011	P= .029	P= .767	P= .509
FEARLSSA	.1775	.2285	.2300	.2648	.0862	.1733
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .096	P= .031	P= .030	P= .012	P= .414	P= .098
AGGRESSA	-.3084	.0636	-.1272	.0631	.0584	.0700
	(89)	(89)	(89)	(89)	(92)	(92)
	P= .003	P= .554	P= .235	P= .557	P= .580	P= .507
MAF	1.0000	.6269	.7698	.6646	.1376	.2148
	(89)	(89)	(89)	(89)	(81)	(81)
	P= .	P= .000	P= .000	P= .000	P= .221	P= .054
MRE	.6269	1.0000	.7986	.8437	.0735	.1614
	(89)	(89)	(89)	(89)	(81)	(81)
	P= .000	P= .	P= .000	P= .000	P= .514	P= .150
MEM	.7698	.7986	1.0000	.8558	.1992	.2954
	(89)	(89)	(89)	(89)	(81)	(81)
	P= .000	P= .000	P= .	P= .000	P= .075	P= .007

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
MSO	.6646	.8437	.8558	1.0000	.1283	.2457
	(89)	(89)	(89)	(89)	(81)	(81)
	P= .000	P= .000	P= .000	P= .	P= .254	P= .027
FAF	.1376	.0735	.1992	.1283	1.0000	.5987
	(81)	(81)	(81)	(81)	(92)	(92)
	P= .221	P= .514	P= .075	P= .254	P= .	P= .000
FRE	.2148	.1614	.2954	.2457	.5987	1.0000
	(81)	(81)	(81)	(81)	(92)	(92)
	P= .054	P= .150	P= .007	P= .027	P= .000	P= .
FEM	.1974	.0942	.2589	.1947	.8165	.8614
	(81)	(81)	(81)	(81)	(92)	(92)
	P= .077	P= .403	P= .020	P= .082	P= .000	P= .000
FSO	.1629	.1364	.2591	.1935	.6278	.9402
	(81)	(81)	(81)	(81)	(92)	(92)
	P= .146	P= .225	P= .020	P= .084	P= .000	P= .000

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
LOVINGMA	.0789	-.0101
	(92)	(92)
	P= .455	P= .924
LOVINGFA	.1006	.0202
	(92)	(92)
	P= .340	P= .848
REJECTMA	-.0750	.0225
	(92)	(92)
	P= .477	P= .832
REJECTFA	-.1140	-.0790
	(92)	(92)
	P= .279	P= .454
NEGLCTMA	.0105	.0911
	(92)	(92)
	P= .921	P= .388
NEGLCTFA	-.1405	-.0562
	(89)	(89)
	P= .189	P= .601
REVRSLMA	.0049	.0639
	(92)	(92)
	P= .963	P= .545
REVRSLFA	-.0753	.0082
	(92)	(92)
	P= .476	P= .938
PRESSRMA	.1428	.1284
	(92)	(92)
	P= .175	P= .222
PRESSRFA	.1031	.0470
	(89)	(89)
	P= .336	P= .662
OVRPRTMA	.1381	.0682
	(92)	(92)
	P= .189	P= .518

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
OVRPRTFA	.0635	-.0205
	(89)	(89)
	P= .554	P= .849
IDLIZEMA	-.0162	-.0005
	(92)	(92)
	P= .878	P= .996
IDLIZEFA	-.0725	-.0429
	(92)	(92)
	P= .492	P= .685
DERGTNMA	-.0807	-.0298
	(92)	(92)
	P= .445	P= .778
DERGTNFA	-.1180	-.0904
	(92)	(92)
	P= .263	P= .392
ANGERMA	-.0788	-.0420
	(92)	(92)
	P= .455	P= .691
ANGERFA	-.0652	-.0543
	(92)	(92)
	P= .537	P= .607
GUILTMA	.1098	-.0029
	(92)	(92)
	P= .297	P= .978
GUILTFA	.0555	-.0337
	(87)	(87)
	P= .609	P= .757
RELTNSMA	.1858	.0493
	(85)	(85)
	P= .089	P= .654
RELTNSFA	.1615	.0113
	(76)	(76)
	P= .163	P= .923

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
RECALLOA	-.2538	-.2210
	(92)	(92)
	P= .015	P= .034
RECALLSA	-.2038	-.1632
	(92)	(92)
	P= .051	P= .120
COHMINDA	.0482	.0367
	(92)	(92)
	P= .648	P= .728
COHTRNSA	.0393	.0429
	(92)	(92)
	P= .710	P= .685
PASSTHGA	-.0616	-.0789
	(92)	(92)
	P= .560	P= .455
METACOGA	.0212	.0480
	(92)	(92)
	P= .841	P= .650
FEARLSSA	.1180	.0993
	(92)	(92)
	P= .263	P= .346
AGGRESSA	.0443	.1459
	(92)	(92)
	P= .675	P= .165
MAF	.1974	.1629
	(81)	(81)
	P= .077	P= .146
MRE	.0942	.1364
	(81)	(81)
	P= .403	P= .225
MEM	.2589	.2591
	(81)	(81)
	P= .020	P= .020

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
MSO	.1947 (81) P= .082	.1935 (81) P= .084
FAF	.8165 (92) P= .000	.6278 (92) P= .000
FRE	.8614 (92) P= .000	.9402 (92) P= .000
FEM	1.0000 (92) P= .	.8676 (92) P= .000
FSO	.8676 (92) P= .000	1.0000 (92) P= .

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

APPENDIX 7.8

CORRELATIONS BETWEEN AAI VARIABLES FOR FATHERS AND SCORS RATINGS

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
LOVNGMF	.3392	.0758	.2915	.2082	.4518	.3077
	(86)	(86)	(86)	(86)	(92)	(92)
	P= .001	P= .488	P= .006	P= .054	P= .000	P= .003
LOVNGFF	.1818	.0291	.1627	.1184	.4741	.1462
	(86)	(86)	(86)	(86)	(92)	(92)
	P= .094	P= .790	P= .134	P= .278	P= .000	P= .164
REJCTMF	-.0573	.3125	.1221	.2902	-.2566	-.0873
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .603	P= .004	P= .265	P= .007	P= .014	P= .408
REJCTFF	.1095	.1396	.0843	.1134	-.3489	-.0290
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .318	P= .203	P= .443	P= .302	P= .001	P= .784
NGLCTMF	-.0925	.1592	-.0051	.0719	-.3927	-.1878
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .406	P= .151	P= .964	P= .518	P= .000	P= .073
NGLCTFF	.1732	.2175	.2106	.1939	-.2994	.0698
	(81)	(81)	(81)	(81)	(91)	(91)
	P= .122	P= .051	P= .059	P= .083	P= .004	P= .511
RVRSLMF	.0799	.2013	.1260	.2088	-.1606	.1359
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .467	P= .065	P= .250	P= .055	P= .126	P= .197
RVRSLFF	.0746	.1262	.1017	.1237	-.0762	.0353
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .498	P= .250	P= .354	P= .259	P= .470	P= .739
PRESSMF	.0708	.0741	.1904	.0911	.2189	.2160
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .525	P= .505	P= .085	P= .413	P= .036	P= .039
PRESSFF	.0065	-.0345	.0253	-.0679	.0900	.1289
	(81)	(81)	(81)	(81)	(91)	(91)
	P= .954	P= .759	P= .823	P= .547	P= .396	P= .223
OVRPTMF	-.0373	.0547	-.0437	-.0109	.0077	.1212
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .738	P= .624	P= .695	P= .922	P= .942	P= .250

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
OVRPTFF	.0357	.0667	.0251	-.0032	.1215	.0406
	(81)	(81)	(81)	(81)	(91)	(91)
	P= .752	P= .554	P= .824	P= .977	P= .251	P= .702
IDLZEMF	.1369	.0311	.0991	.1195	.1723	-.0368
	(86)	(86)	(86)	(86)	(92)	(92)
	P= .209	P= .776	P= .364	P= .273	P= .100	P= .728
IDLZEFF	-.0862	-.0875	-.1102	-.0159	.1214	-.0711
	(86)	(86)	(86)	(86)	(92)	(92)
	P= .430	P= .423	P= .312	P= .884	P= .249	P= .500
DERGNMF	-.0309	.0064	-.0501	.0398	-.3008	-.2052
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .779	P= .953	P= .649	P= .717	P= .004	P= .050
DERGNFF	.0280	.0441	-.0159	.0019	-.3783	-.1836
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .799	P= .688	P= .885	P= .986	P= .000	P= .080
ANGERMF	.0274	.1936	.0661	.1272	-.1714	.2365
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .805	P= .079	P= .553	P= .252	P= .102	P= .023
ANGERFF	.1886	.1696	.1892	.1079	-.1973	.1151
	(81)	(81)	(81)	(81)	(91)	(91)
	P= .092	P= .130	P= .091	P= .338	P= .061	P= .277
GUILTMF	.0955	.1042	.1010	.0939	-.1947	-.0192
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .390	P= .348	P= .364	P= .398	P= .063	P= .856
GUILTFF	.0849	-.0573	.0383	-.0280	.0267	.0905
	(81)	(81)	(81)	(81)	(91)	(91)
	P= .451	P= .611	P= .734	P= .804	P= .802	P= .394
RLNSHMF	.1026	-.0832	.0860	.0157	.3508	.1620
	(78)	(78)	(78)	(78)	(85)	(85)
	P= .371	P= .469	P= .454	P= .891	P= .001	P= .138
RLNSHFF	.0950	.0186	.0545	.0925	.4137	.1479
	(61)	(61)	(61)	(61)	(69)	(69)
	P= .466	P= .887	P= .677	P= .478	P= .000	P= .225

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

3

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
ORCALLF	-.0809	-.1505	-.1963	-.1717	-.2471	-.3851
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .467	P= .174	P= .075	P= .121	P= .018	P= .000
SRCALLF	.0782	-.0665	-.0532	-.0590	-.2456	-.2523
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .477	P= .545	P= .628	P= .591	P= .018	P= .015
COHREMF	.3599	.1534	.2644	.2169	.2128	.2121
	(86)	(86)	(86)	(86)	(92)	(92)
	P= .001	P= .159	P= .014	P= .045	P= .042	P= .042
COHRETF	.2562	-.0058	.1169	.1831	.2274	.2527
	(85)	(85)	(85)	(85)	(92)	(92)
	P= .018	P= .958	P= .287	P= .093	P= .029	P= .015
PSSVTHF	-.1957	-.0125	-.0631	-.1175	-.2682	-.2682
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .076	P= .911	P= .571	P= .290	P= .010	P= .010
METCOFF	.2608	.0805	.2239	.1209	.2323	.2212
	(86)	(86)	(86)	(86)	(92)	(92)
	P= .015	P= .461	P= .038	P= .267	P= .026	P= .034
FEARLSF	.1010	.1609	.1526	.1336	-.0239	.1211
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .364	P= .146	P= .168	P= .229	P= .821	P= .250
AGRESSF	.0691	.0970	.0579	.0953	-.1931	.0622
	(83)	(83)	(83)	(83)	(92)	(92)
	P= .535	P= .383	P= .603	P= .392	P= .065	P= .556
MAF	1.0000	.6269	.7698	.6646	.1376	.2148
	(89)	(89)	(89)	(89)	(81)	(81)
	P= .	P= .000	P= .000	P= .000	P= .221	P= .054
MRE	.6269	1.0000	.7986	.8437	.0735	.1614
	(89)	(89)	(89)	(89)	(81)	(81)
	P= .000	P= .	P= .000	P= .000	P= .514	P= .150
MEM	.7698	.7986	1.0000	.8558	.1992	.2954
	(89)	(89)	(89)	(89)	(81)	(81)
	P= .000	P= .000	P= .	P= .000	P= .075	P= .007

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	MAF	MRE	MEM	MSO	FAF	FRE
MSO	.6646 (89) P= .000	.8437 (89) P= .000	.8558 (89) P= .000	1.0000 (89) P= .	.1283 (81) P= .254	.2457 (81) P= .027
FAF	.1376 (81) P= .221	.0735 (81) P= .514	.1992 (81) P= .075	.1283 (81) P= .254	1.0000 (92) P= .	.5987 (92) P= .000
FRE	.2148 (81) P= .054	.1614 (81) P= .150	.2954 (81) P= .007	.2457 (81) P= .027	.5987 (92) P= .000	1.0000 (92) P= .
FEM	.1974 (81) P= .077	.0942 (81) P= .403	.2589 (81) P= .020	.1947 (81) P= .082	.8165 (92) P= .000	.8614 (92) P= .000
FSO	.1629 (81) P= .146	.1364 (81) P= .225	.2591 (81) P= .020	.1935 (81) P= .084	.6278 (92) P= .000	.9402 (92) P= .000

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
LOVNGMF	.4270	.2675
	(92)	(92)
	P= .000	P= .010
LOVNGFF	.3025	.1357
	(92)	(92)
	P= .003	P= .197
REJCTMF	-.1764	-.1142
	(92)	(92)
	P= .093	P= .278
REJCTFF	-.1538	-.0531
	(92)	(92)
	P= .143	P= .615
NGLCTMF	-.2850	-.1776
	(92)	(92)
	P= .006	P= .090
NGLCTFF	-.0742	.0277
	(91)	(91)
	P= .485	P= .795
RVRSLMF	.0492	.0714
	(92)	(92)
	P= .641	P= .499
RVRSLFF	.0207	.0203
	(92)	(92)
	P= .845	P= .848
PRESSMF	.2701	.2632
	(92)	(92)
	P= .009	P= .011
PRESSFF	.2187	.1643
	(91)	(91)
	P= .037	P= .120
OVRPTMF	.0629	.0865
	(92)	(92)
	P= .551	P= .413

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
OVRPTFF	.0599	.0347
	(91)	(91)
	P= .572	P= .744
IDLZEMF	.0882	-.0845
	(92)	(92)
	P= .403	P= .423
IDLZEFF	.0342	-.1355
	(92)	(92)
	P= .746	P= .198
DERGNMF	-.2506	-.1957
	(92)	(92)
	P= .016	P= .062
DERGNFF	-.2622	-.1935
	(92)	(92)
	P= .012	P= .065
ANGERMF	.0705	.2208
	(92)	(92)
	P= .504	P= .034
ANGERFF	.0015	.1090
	(91)	(91)
	P= .989	P= .304
GUILTMF	-.0383	-.0006
	(92)	(92)
	P= .717	P= .995
GUILTFF	.0792	.1266
	(91)	(91)
	P= .455	P= .232
RLNSHMF	.3134	.1564
	(85)	(85)
	P= .003	P= .153
RLNSHFF	.2934	.1803
	(69)	(69)
	P= .014	P= .138

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
ORCALLF	-.3017	-.3883
	(92)	(92)
	P= .003	P= .000
SRCALLF	-.2471	-.2768
	(92)	(92)
	P= .018	P= .008
COHREMF	.2171	.2170
	(92)	(92)
	P= .038	P= .038
COHRETF	.2442	.2145
	(92)	(92)
	P= .019	P= .040
PSSVTHF	-.2236	-.2601
	(92)	(92)
	P= .032	P= .012
METCOFF	.2576	.2571
	(92)	(92)
	P= .013	P= .013
FEARLSF	.0917	.0603
	(92)	(92)
	P= .384	P= .568
AGRESSF	-.0168	.0733
	(92)	(92)
	P= .874	P= .487
MAF	.1974	.1629
	(81)	(81)
	P= .077	P= .146
MRE	.0942	.1364
	(81)	(81)
	P= .403	P= .225
MEM	.2589	.2591
	(81)	(81)
	P= .020	P= .020

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

- - Correlation Coefficients - -

	FEM	FSO
MSO	.1947	.1935
	(81)	(81)
	P= .082	P= .084
FAF	.8165	.6278
	(92)	(92)
	P= .000	P= .000
FRE	.8614	.9402
	(92)	(92)
	P= .000	P= .000
FEM	1.0000	.8676
	(92)	(92)
	P= .	P= .000
FSO	.8676	1.0000
	(92)	(92)
	P= .000	P= .

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed

APPENDIX 8.1

DSMIII-R (APA, (1987)

CRITERIA FOR PERSONALITY DISORDER, AXIS II

A. DSMIII-R (APA, 1987) Criteria for Personality Disorders, Axis II.

The diagnostic criteria for the Personality Disorders refer to behaviors or traits that are acharacteristic of the person's recent (past year) and long-term functioning since early adulthood. The constellation of behaviors or traits causes either significant imapirment in social or occupational functioning or subjective distress.

Many of the features characterisitc of the various Personality Disorders, such as Dependent, Paranoid, Schizotypal, or Borderline Personality Disorder, may be seen during an episode of another mental disorder, such as Major Depression. The diagnosis of a Personality Disorder should be made only when the characterisitic features are typical of the person's long-term functioning and are not limited to discrete episodes of illness (p. 335).

Personality Disorders		
Cluster A	Cluster B	Cluster C
Paranoid	Antisocial	Avoidant
Schizoid	Borderline	Dependent
Schizotypal	Histrionic	Obsessive Compulsive
	Narcissistic	Passive Aggressive

B. DSMIII-R Diagnostic Criteria for Borderline Personality Disorder

In order to receive diagnosis, a patient must satisfy five of the eight following criteria:

1. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of overidealization and devaluation.

2. Impulsiveness in at least two areas that are potentially self-damaging, e.g., spendinx, sex, substance use, shoplifting, reckless driving, binge eating.

3. Affective instability: marked shifts from baseline mood to depression, irritability, or anxiety, usually lasting a few hours and only rarely more than a few days.

4. Inappropriate, intense anger or lack of control of anger, e.g., frequent displays of temper, constant anger, recurrent physical fights.

5. Recurrent suicidal threats, gestures, or behaviour, or self-mutilating behaviour.

6. Marked and persistent identity disturbance manifested by uncertainty about at least two of the following: self-image, sexual orientation, long-term goals or career choice, type of friends desired, preferred values.

7. Chronic feelings of emptiness or bordom.

8. Frantic efforts to avoid real or imagined abandonment.

Gunderson's (1984) Semi-structured interview used diagnostic criteria that overlaps with but is not identical to the DSMIII-R; being more specific, defining a more homogenous sample, by the criteria including cognitive distorsions (paranoid expreinces, dissaociative experiences) and poor social adaptations. The prevalence of the syndrome based on the DIB appears to be 2-4%.

APPENDIX 9.1

PARENT-EXPERIENCE INVERVIEW

PEI QUESTIONS

1. What were the caregiving arrangements for the child during the first year

2. Did the family move home during the child' first year.

3. Did the father change job during the child's first year.

4. Was there a health problem within the family during the child's first year.

APPENDIX 9.2

RATING SCALES FOR PARENT-EXPERIENCE INTERVIEW

RATING SCALES FOR QUESTIONS IN PEI

Question 1

1 Mother principal caregiver throughout and not working

2 Mother had help but did not work

3 Mother returned to work at 3 months or later

4 Mother returned to work before 3 months

Question 2

1 Stayed put

2 Moved house

Question 3

1 Stayed in same job

2 Changed job

Question 4

1 Life-threatening health problem for child

2 Less serious health problem for child

3 Serious health problem for mother

4 Serious health problem for father

5 No serious health problem

APPENDIX 9.3

REPORTED AND CONTEXTUAL THREAT RATING

OF PARENT-EXPERIENCE INTERVIEW

REPORTED AND CONTEXTUAL THREAT RATINGS

1 Marked threat

2 Moderate threat

3 Some threat

4 Little or no threat

APPENDIX 12.1

MEAN SCORES AND STANDARD DEVIATIONS FOR DEMOGRAPHIC INDICES FOR MOTHERS AND FATHERS

Variable	Cases	Mean	Std Dev
MAGE	99	31.8687	4.2586
FAGE	99	33.6061	5.8324
WKSPREG	99	33.1313	2.7614
LRESID	99	5.3535	3.9726
EDUCM	99	3.8182	.9622
EDUCF	105	1.7524	.4337
SOCIALCM	99	1.9798	.7140
SOCECGPM	99	4.4444	1.9755
SOCIALCF	99	1.9596	.6839
SOCECGPF	99	4.5657	2.3481
ETHNCBM	99	2.0505	.5025
ETHNCBF	100	2.0300	.3611
MAF	89	3.4034	.5849
MRE	89	3.4551	.8793
MEM	89	3.1213	.6550
MSO	89	3.1809	.6635

Variable	Cases	Mean	Std Dev
MAGE	99	31.8687	4.2586
FAGE	99	33.6061	5.8324
WKSPREG	99	33.1313	2.7614
LRESID	99	5.3535	3.9726
EDUCM	99	3.8182	.9622
EDUCF	105	1.7524	.4337
SOCIALCM	99	1.9798	.7140
SOCECGPM	99	4.4444	1.9755
SOCIALCF	99	1.9596	.6839
SOCECGPF	99	4.5657	2.3481
ETHNCBM	99	2.0505	.5025
ETHNCBF	100	2.0300	.3611
FAF	92	3.3380	.4753
FRE	92	3.3272	.7439
FEM	92	2.9946	.5884
FSO	92	3.1152	.5678

APPENDIX 12.2

MEAN SCORES AND STANDARD DEVIATIONS OF MOTHERS AND FATHERS

ON LANGNER-22

Variable	Cases	Mean	Std Dev
PSYPATHM	96	2.9688	2.4385
PSYPATHF	93	2.3226	1.9845
MAF	89	3.4034	.5849
MRE	89	3.4551	.8793
MEM	89	3.1213	.6550
MSO	89	3.1809	.6635

Variable	Cases	Mean	Std Dev
PSYPATHM	96	2.9688	2.4385
PSYPATHF	93	2.3226	1.9845
FAF	92	3.3380	.4753
FRE	92	3.3272	.7439
FEM	92	2.9946	.5884
FSO	92	3.1152	.5678

APPENDIX 12.3

MEAN SCORES AND STANDARD DEVIATIONS OF MOTHERS AND FATHERS

ON E.P.Q.

Variable	Cases	Mean	Std Dev
MAF	89	3.4034	.5849
MRE	89	3.4551	.8793
MEM	89	3.1213	.6550
MSO	89	3.1809	.6635
EXTROVM	83	14.0000	4.8915
NEUROTM	83	12.0482	4.7109
PSYCHOTM	83	2.3133	2.1123
LIEM	83	6.8554	3.2087
EXTROVF	84	13.7024	5.0582
NEUROTF	84	9.1071	4.9236
PSYCHOTF	84	3.7262	2.9833
LIEF	84	6.6190	3.5429

Variable	Cases	Mean	Std Dev
FAF	92	3.3380	.4753
FRE	92	3.3272	.7439
FEM	92	2.9946	.5884
FSO	92	3.1152	.5678
EXTROVM	83	14.0000	4.8915
NEUROTM	83	12.0482	4.7109
PSYCHOTM	83	2.3133	2.1123
LIEM	83	6.8554	3.2087
EXTROVF	84	13.7024	5.0582
NEUROTF	84	9.1071	4.9236
PSYCHOTF	84	3.7262	2.9833
LIEF	84	6.6190	3.5429

APPENDIX 12.4

MEAN SCORES AND STANDARD DEVIATIONS OF MOTHERS AND FATHERS

ON MILL HILL VOCABULARY SCALES

Variable	Cases	Mean	Std Dev
VOCABMT	97	11.1443	2.5041
VOCABMA	97	10.0825	2.6836
VOCABFT	90	12.2444	2.5187
VOCABFA	90	11.0000	2.7519
MAF	89	3.4034	.5849
MRE	89	3.4551	.8793
MEM	89	3.1213	.6550
MSO	89	3.1809	.6635

Variable	Cases	Mean	Std Dev
VOCABMT	97	11.1443	2.5041
VOCABMA	97	10.0825	2.6836
VOCABFT	90	12.2444	2.5187
VOCABFA	90	11.0000	2.7519
FAF	92	3.3380	.4753
FRE	92	3.3272	.7439
FEM	92	2.9946	.5884
FSO	92	3.1152	.5678