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**ATTACHMENT REPRESENTATIONS AND PARENTING:
THE ASSESSMENT OF COGNITIVE COMPLEXITY AND
EMOTIONAL SECURITY WITH THE ADULT
ATTACHMENT INTERVIEW**

**A thesis presented in fulfilment of the requirements for the degree of
Doctor of Philosophy in Education (Human Development)
at Massey University**

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ABSTRACT

This study examines the relationship between parent characteristics assessed before the birth of their baby and their Adult Attachment Interview (AAI: George, Kaplan & Main, 1985) classification to investigate the role of cognitive development as a key indicator of attachment classification. Data from the Washington University Sentence Completion Test (Loevinger, 1976), Reflective Functioning Scale (Fonagy, Steele, M., Steele, H., Moran & Higgitt, 1991) and Conceptual/Integrative Complexity (Baker-Brown et al., 1992) are examined in relation to adult attachment classification of Secure/Autonomous and the construct of Coherence of Transcript. Other self-report instruments are used to add further information to the examination of constructs underpinning the coding of the AAI. It was found that autonomy requires a necessary level of cognitive development but cognitive development is not sufficient for coherence or attachment representation as secure. Distinguishing between autonomy and security needs in new parents may assist community practitioners provide better focussed support for the parents themselves and for their children.

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CHAPTER ONE

INTRODUCTION

Internationally there has been increasing attention being paid to the extent of violence in society, ranging from wars and threats of violence from superpowers to the violence being inflicted on infants, children, spouses and elderly parents in families. For a century now psychology has been investigating the phenomenon of callous and cruel behaviour, creating new theories to try to find an explanation and then to find a way to prevent the repetition of destructive family violence. Of all the recent sociological and psychological attempts to find explanations for violence in society and the home, as well as describe the conditions for optimal development of infants, attachment theory has gained increasing recognition (Marris, 1991). Schore (2001) summarised the recent work in neuroscience that emphasises “that the development of the infant’s emotional brain is directly and actively influenced by his [sic] transactions with the animate social and not the inanimate physical environment” (p.2). Schore (2001) points out that the rapid recent advances in the theory and technology in the neurosciences have paralleled the expansion of attachment theory, which he calls “the dominant theory of human ontogeny in international developmental psychology” (p.2). Attachment theory has the considerable strength of being a developmental and an ecological theory, so findings from genetics and biology, as well as from history, sociology and psychology can all contribute to an attachment theory-based understanding of how infants are shaped by the social and material world that constitutes the ecological settings which they inhabit from before birth and throughout their individual autobiographical histories.

In this chapter, first there is a brief review of attachment theory, the research instruments that have been important for the testing of the theory and their contribution to the elaboration of attachment theory. Then the background to the present project is provided, followed by an explanation of some philosophical issues that arise because of the mixture of methodology in this type of research.

Attachment Theory

Attachment research is based on the testing of a well-developed theory. Attachment theory began with the work of John Bowlby (1951 to 1988) and extensive programmes of research have been examining the key postulates. A comprehensive documentation of this is in Cassidy and Shaver (1999). The main tenets, now active, which have come from Bowlby's writings, first focus on the child. These are:

- Attachment is an affectional bond between an infant and caregiver. It is a relationship, not a personality characteristic of either the caregiver or the infant.
- Attachment has an evolutionary basis – it is necessary for the survival of an infant to be protected and cared for.
- Infants are therefore equipped at birth with ways to elicit care from adults and parents are primed to respond to the infant's call for care.
- When alarmed the attachment "system" is activated and the infant will turn to the caregiver for protection.
- When feeling secure the infant will interact with the world, i.e., explore.
- Continuity of caregiver is important - separations and changes of caregiver in infancy can cause major disturbances.
- Developmental processes such as language and cognitive development will change the ways that a child will interact with caregivers but the early pattern will become increasingly resistant to change unless there is a major change in the relationship with the principal caregiver or later significant attachment figure such as a spouse.
- Through these early interactions a child will begin to form a representation of self as lovable or not and of the world as safe or not. These representations are called Internal Working Models and will act as filters in processing interpersonal data.
- Self-representations influence behaviour and interactions with others.
- Secure attachment is seen to be optimal and to contribute to resilience.

Aspects of the theory that are especially pertinent to the present project focus on the parent. These are:

- Attachment has an ethological basis - the principal caregiver becomes the interface for an infant with the world, the mediator of the environmental niche.

- The nature of the responsiveness of the caregiver to the needs of the infant shapes the physical, social, emotional and intellectual development of the infant.
- If the caregiver is not secure within him- or herself and sensitively responsive, a child will develop strategies in order to maintain closeness to a caregiver.
- These strategies may be adaptive in the environment in which they are created but become less viable in later settings. Consequently, insecure attachments are considered less adaptive in the long run, and may lead to psychological disturbances.
- Parents' histories of being cared for influence the care they receive and can give but is not determined by that experience
- Later attachment experiences can change or modify an individual's expectations with regard to intimate relationships.

The Strange Situation Procedure and Attachment Patterns

Attachment theory has prospered through research with two instruments in particular, beginning with the behavioural observation procedure called the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978) which has provided the means to describe three, and later four (Main & Solomon, 1990) types of attachment relationships of an infant with a principal caregiver, usually the mother. The description of Secure, Insecure-Avoidant and Insecure-Ambivalent or Resistant relationships (B, A, C organized patterns and D - Disorganised), derived from careful analysis of videotapes of the behaviour of toddlers with their mothers, became codified and available to trained researchers. From this has come a vast programme exploring parents' behaviours, beliefs and experiences which influence their interactions with their infants in a systematic way that has the effect of producing the type of relationships found with their children in the Strange Situation.

Early in this process George, Kaplan, and Main (1985) developed the Adult Attachment Interview which found that the classification of infants' responses to their mothers in the Strange Situation was strongly associated with the results of a narrative coding system which appeared to reflect the parents' current state of mind with respect to their own attachment experiences (Main & Goldwyn, 1991, 1998). Maternal representations regarding attachment patterns were found to parallel the infant groups, Secure-Autonomous, Dismissing and Preoccupied, and Unresolved regarding loss or

abuse (F, Ds, E and U).

Since then there has been a great deal of activity using both the Strange Situation procedure (SS) and the Adult Attachment Interview (AAI), testing their psychometric properties and studying the implications of the results of research in which they have been used (Bakermans-Kranenburg & van IJzendoorn, 1993; Crowell, Waters, Treboux, O'Connor, Colon-Downs, & Feider, 1996; Sagi, van IJzendoorn, Scharf, Koren-Karie, Joels, & Mayseless, 1994). Other instruments have been constructed and tested, but tested against these two as the “gold standard”. This process of investigation in order to improve the measuring instruments and to better specify what each measures, continues. The present research is intended to contribute to this process.

The Adult Attachment Interview

On the basis of the categories assigned to toddlers from the early Strange Situation procedure, interviews with mothers were examined to try to find what might emerge that distinguished mothers of children with the different attachment patterns (George et al., 1996; Main, Hesse & Kaplan, 2005). It was found that there were patterns observable that conceptually matched the infant patterns. It was not the content of the interviews that was significant in the classification criteria although life experiences were important to the narrative. What Mary Main and her colleagues found significant was the communicative competence exhibited in the interview. Later, having discovered the criteria for effective communication described by Grice (1975), and the description of metacognition of Flavell (1979), Main (1991) created the notion of “coherence” to capture what it was that characterised the mature, “secure” script. The mother who provided what could be called a coherent interview was assigned the classification of Autonomous (or F for Free to examine past relationships). This seemed to be the pattern characterising the parents of babies classified as Secure. Mothers who were classified as Dismissing (Ds) had interview transcripts described as being restricted, presenting either an idealised, or normalised version of parenting despite also slipping into hints that the parenting received was distant or even cruel, or were abruptly and angrily brushing aside any desire to talk about parenting, a topic that they deemed not worth talking about. Their babies tended to be Avoidant. Those mothers who still were caught up with resentment of past injustices by parents and the emotions were still alive in the present, or who seemed to

be embedded in a vague sense of family importance with no sense of self, were classified as Preoccupied (E for Embedded). Their babies similarly were insecure Ambivalent/Resistant. These features which originally specified differences between “state-of-mind regarding attachment” of the mothers first studied have proved to be remarkably robust for examining the transcripts of fathers and other caregivers. Only slight modifications have been introduced to the coding system of the AAI over the past three decades (see Table 1.1).

Over and above the three organised attachment patterns, it was found that if in the discourse about experiences of loss or abuse in the interview there were lapses in logic, or the person became lost in the memory of the incident being talked about, it related to disorganisation in the children. Consequently, transcripts were examined for the breakdown of coherence and this was thought to be because of lack of resolution of the loss or trauma. A classification “Unresolved with respect to loss or abuse” (U/d – Unresolved/Disoriented) was assigned if present. This classification is the subject of a lot of recent research since it is highly associated with clinical and high-risk populations.

In both Strange Situation and AAI samples there remain some participants who cannot be classified in the above categories. In particular, adult samples from at-risk populations are producing numbers of Cannot Classify (CC) transcripts suggesting processes more conceptually consistent to the infant Disorganised category than the U classification. The scripts which end up classified as CC are clearly incoherent in several senses. They have inconsistencies, contradictions that are ignored, changes of tone from derogation to sentimentality, and possibly several anomalous presentation features. The adult is therefore demonstrating a breakdown in the ability to deal with an interview situation in the context of the topic that produces intense negative affect, in a similar way to the infant being unable to use the parent as a way of calming the fears associated with being left in a strange place.

Intergenerational Transmission of Attachment

On the basis of van IJzendoorn’s (1995a) meta-analysis of research which used both the Strange Situation and the Adult Attachment Interview, that found a 75% correspondence between AAI classifications of mothers and their infants’ Strange Situation classification, the question must then be asked, what is the mechanism operating that transmits a parent’s particular attachment type to their child? What is it

that shapes an infant's relationship to a particular parent so that a parent classified as Autonomous will most likely have a relationship classified as secure with the toddler, a Dismissing parent an avoidant relationship and an Unresolved or CC parent a disorganised relationship with the child? What are the implications if parents are found *not* to be Secure/Autonomous?

Table 1.1. Adult State of Mind with Respect to Attachment

Secure/autonomous (F)

Coherent, collaborative discourse. Valuing of attachment, but seems objective regarding any particular event/relationship. Description and evaluation of attachment-related experiences are consistent, whether experiences are favourable or unfavourable. Discourse does not notably violate any of Grice's maxims

Dismissing (Ds)

Not coherent. Dismissing of attachment-related experiences and relationships. Normalising ("excellent, very normal mother"), with generalised representations of history unsupported or actively contradicted by episodes recounted, thus violating Grice's maxim of quality. Transcripts also tend to be excessively brief, violating the maxim of quantity.

Preoccupied (E)

Not coherent. Preoccupied with or by past attachment relationships/experiences, speaker appears angry (E2), passive (E1), or fearful. Sentences often long, grammatically entangled, or filled with vague usages ("dadada", "and that"), thus violating Grice's maxims of manner and relevance. Transcripts often excessively long, violating the maxim of quantity.

Unresolved/disorganised (U)

During discussion of loss or abuse, individual shows striking lapse in the monitoring of reasoning or discourse. For example, individual may briefly indicate a belief that a dead person is still alive in the physical sense, or that this person was killed by a childhood thought. Individual may lapse into prolonged silence or eulogistic speech. The speaker will ordinarily otherwise fit Ds, E or F categories.

Cannot Classify (CC)

A small number of transcripts fail to meet criteria for placement in one of the three main categories, because of presence of two contradicting patterns.

From Hesse (1999, pp. 399, 405).

The standardised coding system for the AAI has five Experience scales, three scales for state of mind with regard to parent figures in childhood, and nine scales for overall state of mind with regard to attachment (see Table 1.2). These are given scores

Table 1.2. Adult Attachment Interview Coding Scales

Experience Scales	Description
Loving Mother/Father	Loving versus unloving mother/father in childhood
Rejecting Mother/Father	Actively minimising child's expression of attachment
Involving/Reversing Mother/Father	Parent tries to elicit caring from the child
Pressured to Achieve Mother/Father	Doing well at school or working beyond reasonable expectation for age
Neglecting	Inaccessible when physically available
States of Mind Respecting Parents (or other persons)	
Idealising Mother/Father	Unsupported or contradictory accounts of normal or excellent parents
Involving Anger Mother/Father	Involved anger towards parent expressed in interview
Derogation Mother/Father	Cold dismissal or derogation of parents
Overall States of Mind	
Overall Derogation of Attachment	Active derogation of attachment experiences or relationships
Insistence on Lack of Recall	Frequency and insistence on inability to remember childhood
Metacognitive Processes	Monitoring interview and reporting processes of thinking
Passivity of Thought Processes	Passivity of discourse, not keeping on topic
Fear of Loss	Fear of loss of child through death with no apparent justification
Unresolved Loss	Unresolved or disorganised mourning for attachment figures who had died
Unresolved Trauma	Disorganised discourse about abusive/threatening behaviour of attachment figure
Coherency of Transcript	Coherency of transcript
Coherency of Mind	Overall coherency of mind

Scores assigned from 1-9, in exceptional cases, -1.
From Main and Goldwyn (1984).

from 1 to 9, with 1 usually meaning there is little or no evidence of this aspect and 9 signifying a very high amount.

Background to this Project

This project has come about from being impressed by first reading about the London Parent-Child Project (Steele & Steele, 1994) which found that classifications of attachment derived from the AAI before the birth of a child has the capacity to predict the nature of attachment that will be found in an assessment of that child's behaviour at 12 to 15 months in the procedure called the Strange Situation. Van IJzendoorn's (1995a) meta-analysis which produced the striking figure of a 75% correspondence between AAI classifications of mothers and their infants' Strange Situation classification, confirmed that this was a topic that demanded attention. Such a relationship between findings from instruments that are so different and derived from different individuals is amazing, and has important implications for individual lives and society in general.

There have been many studies using the AAI since it was first constructed, testing its predictive capacity and trying to discover what exactly it is measuring which gives it this power. Because the Adult Attachment Interview requires the use of trained interviewers, transcription of the interviews and then coding by trained coders, it is complex and expensive to use in research. There have been efforts to construct other instruments to assess adult attachment orientation or style, instruments that are not so demanding to use as the AAI, but of all the instruments so far available it seems that the AAI has the unique power to assess *something* that a parent is providing that is significant in shaping a developing child's expectations about that caregiver's reliability in times of stress (Roisman, Fraley, & Belsky, 2007). What this latent factor might be continues to be a tantalising puzzle for the attachment field.

However, when the present research project was conceived there were no trained and reliable researchers in New Zealand who could conduct a study of the efficacy of these instruments within the New Zealand culture. To acquire some of the knowledge necessary to address the task and complete it has taken almost fifteen years. Essential for this research is training in the use of the Adult Attachment Interview. This was achieved in 1997 in Canada at the University of Western Ontario with David Pederson, and subsequent reliability testing approved by Mary Main and Erik Hesse. To reinforce reliability, coding for research projects by Jude Cassidy at

the University of Maryland, for Catherine McMahon at the University of Sydney and for Brianne Barnett at the University of NSW, was undertaken. Undergraduate and post-graduate classes at Massey University in narrative research, adult development and attachment theory and research were developed and presented throughout these years. Attendance at the biennial international attachment and other conferences has extended knowledge and provided indications of where the proposed research can make a contribution.

The present project overall will be collecting various measures of parents' "state of mind with respect to close relationships" in the context of the preparation for parenthood. An attachment theory perspective would contend that this is the context in which an infant begins his or her developmental biopsychosocial journey. It seeks to examine the features of this state of mind which are captured by the use of the Adult Attachment Interview (George et al., 1985, 1996; Main et al., 2002), a tool which distinguishes some adults as likely to be sensitive and responsive parents to the baby they are yet to meet, and some who are at risk of providing less than "good enough" caregiving to their child. In particular, this project seeks to examine the proposition that it is cognitive development, a level of mature thinking, that is being assessed for the Coherence of Transcript scale of the Adult Attachment Interview.

Issues Arising

Cultural differences. When using for the first time an assessment instrument which consists of a set of questions and meaningful interpretation of the responses, and one which has been created in another country, there is the assumption that there may be language-use problems or inherent cultural meanings that may affect the validity or reliability of the instrument in the new social environment. It is assumed that culturally and linguistically New Zealanders are unlikely to find any problems with the intention of the AAI questions which were constructed originally in English and have been used successfully in many Western economically advanced countries even when translated into Dutch, Hebrew or Japanese. Since the underlying tenets of attachment theory are considered to be universal, although perhaps demonstrating their presence in different ways in different cultures, the rationale for judgments about the meaning of attachment behaviour patterns is expected to be justified in New Zealand cultural groups as well. This issue needs to be kept in mind throughout analyses.

Epistemology. Any psychological assessment has an epistemological basis. There are small and large misunderstandings about what attachment theory is because of differences in world views. Attachment theory is being pulled in several directions by different conceptions about attachment as a system or a style. This research does not intend to deconstruct the mixture of world views inherent in the development of the AAI instrument nor in the types of explanations that it uses. The statement here is intended to provide the reader with the paradigm within which this study is being investigated.

The AAI is assessing individual versions of a possibly universal human feature. This feature is conceived of as a “system”, rather than a “form” (Pepper, 1942), that has evolved over time within contexts: general, such as in ecosystems, and particular, as in response to non-normative events. This system is causal in its influence on actions but the so-called attachment system is interdependent with many other systems which make up the integrated whole. In addition, a person is an organism adapting to changing environments in accord with epigenetic processes in many systems and at different levels. So it is assumed that what is displayed in each particular attachment interview is not a “form” that remains the same over time, but is indicative of the form (a fuzzy form) that this system is taking at this point in time. The reason that an attachment pattern is considered stable is that once established it has a self-maintaining quality. In order for change to take place, it is thought, contextual features need to change to provide sufficient experiences for the attachment pattern to be disconfirmed and so to create a state in which change may occur. This position conforms to what Botella (no date) acknowledges could be called developmental constructivism, and what Witherington (2007) describes as the version of a dynamic systems perspective where proponents “adopt an integration of organismic and contextualist world views by considering both local context and higher-order form in their explanatory accounts” (p. 127).

Although the AAI may be used as a diagnostic instrument, justified for use in research and now in clinical work (Steele & Steele, 2008), use of the AAI does not assume truth in the responses to the questions. Accuracy is not assumed with memories reported. The AAI is an unusual psychological instrument in its approach to “truth”. Signs of trustworthiness are sought and are part of the evaluation, that is, of effort by the participant to answer truthfully within the context of the interview. The

coding of the AAI acknowledges that a key part of the assessment process is looking at how the participant is handling the interview, the quality of the responses made to questions on a topic which is likely to stir emotions, not necessarily positive ones, and the types of coping strategies used in the interview. This research is based on the view that the AAI is assessing an act which has intentional components even if it is not completely intentional. This act is in a particular setting of time and place. Context shapes the action. But the action is also shaped by prior shaping of the psychology of each person so that they will interpret this situation in the way they do. And, the overall significance of the use of the AAI is that it appears to discover a pattern of representation of personal identity that has consequences for individuals themselves as social individuals and for their caregiving of their children.

Individuals influence their own parenting in a meaningful way. In the period immediately prior to having a baby, what individuals say will depend on who they have become and how they understand themselves to be. What they say in interviews and how they answer items in questionnaires will be authentic to the individual at that historical point and in the situation in which they are responding to questions. While no response will be taken to represent a "fact", the various responses to the different questions will all contribute to a narrative held by the individual about who he or she is in their autobiography. It is this narrative which in its coherence and elaboration or incoherence and stereotyping which will be influencing unconsciously or deliberately the behaviour of that individual in relationship to the child that is born.

This thesis will maintain that it is the acquisition of a coherent and elaborate autobiographical narrative about individuals that is what is being answered in the AAI and this acquired facility is what is also providing the quality of the interpersonal environment in which an infant comes to feel security and the motivation to investigate the interpersonal and physical world around.

Outline of Thesis

In the following chapters the research literature of the possible transmission mechanisms and what it is that the AAI is capturing that relates to the formation of an infant's attachment pattern is examined. The coding manual for the AAI has formulated a complex set of concepts from which to interpret what is expressed by interview participants. This process has been shown to be robust by

many research projects. None-the-less there continues to be attempts to clarify and improve understanding of what it is that the AAI can discover about a parent that cannot be discovered by simpler to use instruments such as the self-report attachment questionnaires.

In Chapter Two the meaning of the title of the AAI classification to which more than half of the adults in non-clinical populations are assigned, Secure/Autonomous (F) will be examined. What is the meaning of “autonomous” in this usage? What is the connection between “autonomous” and “coherence”? Are these cognitive abilities or personality characteristics?

Chapter Three reviews theories of cognitive development that are relevant to the state of mind of adults experiencing the significant life event of becoming parents. Research using specific instruments is discussed to justify the selection of those instruments to provide measures for use in conjunction with the Adult Attachment Interview.

In Chapter Four other constructs that have been shown in previous research to contribute useful information towards understanding what it is that the AAI measures will be discussed. Here also previous research on characteristics of parents prior to the birth of their first child and their adaptation to parenthood is reviewed.

Chapter Five is the Methodology section in which the research design, instruments used and procedural issues will be explained.

Chapter Six, the quantitative results chapter, begins with AAI classifications and then reports the descriptive statistics and correlations between variables.

Chapter Seven provides qualitative results. First are case studies of examples of the different AAI classifications where the scores on other variables are brought together to show the extent to which all these measures converge on the AAI criteria for each classification. Then the different discourse analysis coding principles of aspects of thinking exhibited in the AAI transcripts and scores derived from them are compared to each other and attachment classifications.

In Chapter Eight, the Discussion chapter, the findings from this study will be brought together and reviewed. The focus will be to examine the proposition that the Secure/Autonomous classification is based on assessment of signs of the acquisition of mature self-management skills based on a level of cognitive development that is normative for adults in our population.

Finally, in Chapter Nine, the Conclusion, what this project has found will be reviewed, along with proposals for taking some of these ideas further in research, in order to better specify how attachment-based interventions might be more effective in helping adults make changes that will allow them to be more secure in themselves so that they can offer security to the children in their care.

CHAPTER TWO

ASSESSING COHERENCE AND AUTONOMY

From the early work by Bowlby on the universal nature of mother-infant attachment, there has been a sequence of research projects testing his theories and modifying them. The question that energises the present project is concerned with how we can assess what it is that a new parent brings to the relationship with a baby that has the result of shaping the baby's attachment behaviours in a way that reflects the parent's attachment representation. This is not a new question. Many people have sought to understand what it might be. Although social learning theory provides intuitive explanations, that it is parental behaviours that are copied or reacted against, attachment research has shed light on more complex processes. In this literature review, it is research based on attachment theory efforts to understand the mechanism for the transmission of attachment and the present focus on the concept of coherence in the Adult Attachment Interview which seems to hold the key for the transmission of attachment organisation from caregiver to infant.

Investigating Intergenerational Transmission of Attachment

Maternal Behaviour

The importance of maternal behaviour for the healthy development of a child has been associated with Bowlby since his 1951 monograph. In a presentation to a conference in 1971, the developmental psychologist, Bruner, who made meaningful the ideas of Vygotsky to a Western audience, also made reference to the importance of Bowlby's (1969) work which described how the helpless infant was reliant upon the caretaking by a mother (or someone in that role) in order to have the requisites for early skill development. "Without diffuse, affective yet critical support...sustained, intention directed behaviour flags" (Bruner, 1973, p.8). Fonagy and Target (2005) say in the introduction to an issue of the journal *Attachment and Human Development*, "If the attachment relationship is indeed a major organiser of brain development, it is even more important to understand the processes that underpin the transgenerational transmission of attachment patterns" (p. 333). This statement is an example of how the ideas of Bowlby and the social constructivism of Vygotsky (1978) have become assimilated into developmental neurology.

As early as 1995, van IJzendoorn had coined the phrase "the transmission gap". Because of Ainsworth's work observing mothers with their infants in the home (e.g.,

Ainsworth, 1970), at first the method of transmission of mothers' representation of attachment to her infant was thought to be "sensitive responsiveness". Maternal sensitivity has been found to be strongly related to infant security but the link between mothers' attachment classification and their sensitivity (the mediated route) is only modest (Pederson, Gleason, Moran, & Bento, 1998). If maternal sensitive responsiveness as measured cannot fully explain the strong correspondence between maternal representation of attachment and infant attachment, the search goes on for improved instruments or for other possible transmission mechanisms. Many efforts have been made to operationalise and refine the notion of sensitive responsiveness in research with mothers, fathers and their own babies and foster mothers and babies in their care.

Atkinson et al. (2005) in research with two mother/infant samples found that while both attachment state-of-mind and sensitivity had significant associations with infant attachment there was not a strong link between the two, which did not fit a mediator model of sensitivity depending on mother's state-of-mind and the infant's attachment quality. Looking into this further, they found that when the mother's attachment was inconsistent with that of her infant's, her attachment *behaviours* were more likely to be in accord with the attachment type of the infant. So these authors argue that sensitivity may be a moderator variable.

Research attempted to find out which maternal behaviours might be important in influencing an infant to become securely or insecurely attached. Grienberger, Kelly, and Slade (2005) used a measure called AMBIANCE (Atypical Maternal Behavior Instrument for Assessment and Classification: Bronfman, Parsons, & Lyons-Ruth, 1999) to assess the quality of maternal sensitivity and responsiveness, along with the Reflective Functioning measure (Fonagy et al., 1991, which will be discussed later) used with a parent development interview. The level of disruption in mother - infant affective communication was inversely related to the level of maternal reflective functioning and the AMBIANCE was shown to be a good predictor of infant attachment. Lok and McMahon (2006) in an Australian study used Emotional Availability scales (EA: Biringen et al., 1998) to assess sensitivity and maternal behaviour along with maternal mind-mindedness which Meins (1999) developed while exploring the Reflective Function coding of the AAI. The links found between sensitivity and maternal mind-mindedness by means of maternal behaviour were not strong. Just the same it is hard to believe that parental behaviours are not important to

the transmission of attachment. Before this line of reasoning about parental behaviour being the transmission mechanism is abandoned, researchers are sure to devise new assessment methods.

The important New Zealand child development longitudinal studies seem to have missed opportunities for a robust testing of possible transmission mechanisms even when they have accepted that attachment is important to investigate. Belsky, Jaffee, Sligo, Woodward, and Silva (2005) investigated the “Intergenerational transmission of warm-sensitive-stimulating parenting”, basing their research on attachment theory and citing findings from the use of the Adult Attachment Interview. However their study did not make use of any valid and reliable instruments for attachment either of children or the parents. Perhaps they were intentionally avoiding using memories or retrospective perceptions of parenting. Presumably they knew of the time and personnel requirements of the AAI and decided to use their own data gathering methods. They used the childrearing history data gathered over the lifetime of the participants and a procedure assessing parents’ interactions with their children under the age of 5. Thus it was a test of parenting behaviours rather than attachment. They also evaluated the relationship quality of the parents using Braiker and Kelley’s 25-item scale assessing intimate relationships. They found that parenting received by sample members influenced how they parented their own children, but the authors were not able to discuss this in terms of attachment. They needed to discuss the findings in terms of supportive or harsh parenting which was more in keeping with their data and so at some distance from attachment theory concepts.

If Not Parenting Behaviours Experienced, Then What?

If it is assumed that infants learn not only about relationships, but learn about themselves and the world in the context of interpersonal relationships, there are many levels of context of the infant in the family that can be implicated with regard to outcomes. Previous and current research in many discipline areas have found many characteristics of families that are associated, but that the particular significance of any one variable, although intriguing to try to isolate, is perhaps impossible to measure meaningfully. The AAI has suggested new approaches to this field of interest.

Genetics. If mother’s education is the variable that is the best predictor of a child’s educational achievement, it must be kept in mind that mother’s education is significant not only because it indicates facility to teach her children, but also because

it is associated with her socioeconomic status, health, intelligence, social support and other positively- or negatively-valenced variables which will provide the opportunities or lack of them for both herself and her children (Hortaçsu, 1995). The 50% of genetic component of many psychosocial outcome measures is also clearly implicated in the measure of the mother's education level (Bouchard, 2004; Plomin, McClearn, Pedersen, Nesselroade, & Bergeman, 1988). However, recent behaviour-genetic research into attachment patterns in young twins has shown little evidence of a genetic link involved with infant attachment patterns, although there is a weak link to maternal sensitivity as measured in that research (Fearon et al., 2006).

Temperament. The most vocal critics of attachment theory have been amongst those who study infant temperament. They argue that from birth infants display different characteristics which caregivers respond to. So they look upon attachment behaviours as those that come from the infant's biological makeup shaping the type of care they get from their caregivers (Kagan, 1989).

Early temperament/Strange Situation studies showed some connection between classification and proneness to distress in neonates and older infants but further studies indicated that it was not proneness to distress that distinguished infants in the SS but how they made use of the attachment figure when distressed (see Vaughn & Bost, 1999, for a review of this topic). This line of research was capped when van den Boom selected a sample of highly irritable newborns and assigned them to an intervention and control group. The intervention was designed to increase the mothers' sensitivity and responsiveness. In the SS at one year the majority of the intervention group were secure and the main classification of the control group was insecure/avoidant (van den Boom, 1994). Follow-ups at 24 and 42 months showed continuing more effective mother/child interactions with the intervention group. In particular it seems that it is the modulation of negative affect in infants by mothers in particular, but also fathers, that is important to the conditions for secure attachment (van den Boom, 1995).

None-the-less, attachment researchers accept that the temperament of an infant must be exerting direct effects and indirect effects on attachment. Infants will share temperament characteristics with their parents. On the other hand, that attachment might be the result of shared genes has been countered by recent research. Dozier, Linhiem, and Ackerman (2005) found that it was more important for an infant to have

a committed caregiver than a responsive one, and found that foster mothers' state of mind correlated with infants' classification nearly as strongly as for birth mothers. This supports the argument that while seeking attachment might be genetic, the type of attachment achieved is the result of experience.

Measurement artefacts. Research using the AAI is based in developmental psychology and is based on a performance criterion – coherence of discourse in the interview. Most of the studies investigating the relationship of attachment and personality have used self-reports because they require less effort, time and expense and can be easily used with other self-report instruments. The self-report measures that are used as attachment measures are themselves not necessarily measuring the same thing, nor the same thing as the interview-based attachment measures, all of which bear a considerable resemblance to the AAI (Crowell & Treboux, 1995; Shaver, Belsky, & Brennan, 2000). Some reported “attachment” measures have simply asked how attached to parents someone feels. Other instruments such as Armsden and Greenberg's (1987) Inventory of Parent and Peer Attachment and Parker, Tupling, and Brown's (1979) Parent Bonding Inventory are useful for some sorts of research but have been shown to have little predictive capacity for parents' relationships with their children. The instruments derived from the Hazan and Shaver's (1987) three item measure which now form the measures for Romantic Attachment do have validity in assessing consciously held beliefs and values about adult attachment to partners and spouses, but not to the attachment patterns of the children in their care. Despite the fact that statistical associations between the AAI and self-reports are weak or non-existent (Bartholomew & Shaver, 1998), conceptually there are parallels in regard to the behaviours and attitudes of those classified as secure/autonomous, dismissing or preoccupied (Riggs, Paulson, Tunnell, Sahl, Atkinson, & Ross, 2007).

Important attachment theorists and researchers, Main (1999) and Belsky (2002) have pointed out how the developmental and the social psychological approaches provide different information that contribute to a better understanding of attachment. Roisman, Fraley, and Belsky (2007) conducted three studies to clarify the overlap of the Adult Attachment Interview and measures of self-reported attachment style, because of concerns about the inconsistencies in results reported in earlier research. In the first study they did a meta-analysis of 10 empirical studies using the

AAI and a self-report attachment style measure. First they found there was only a trivial association between secure/insecure findings by Cohen's (1992) criteria, that self-reported "anxiety" (which is how the self-report attachment researchers generally refer to what is called Preoccupation in the AAI) did not discriminate between AAI preoccupied and dismissing states of mind, and that other comparisons produced insignificant findings. The second study required the conversion of discrete categories into dimensions. The AAI was coded using the AAI Q-sort (Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993) producing secure/insecure and the deactivating/hyperactivating dimension scores that result from that procedure. Several studies which purportedly assessed attachment by both the AAI and a self-report instrument were omitted because the self-report measures used are "now viewed as psychometrically dated" (p. 682). They also studied correlations of the derived dimensions with the Big Five traits, since self-report research had found that anxiety consistently relates to neuroticism, and that avoidance is strongly associated with extroversion and agreeableness (see Shaver, 2006). They expected there would be a stronger relationship between Big Five traits and the self-report measures than the AAI because of similarity of method and because validation research with the AAI had found no associations with personality measures. They found, as expected, self-report avoidance and anxiety were associated with extroversion and neuroticism, and that AAI security related "marginally" to conscientiousness and extraversion. As a result of these studies, Roisman et al. (2007) acknowledge that value remains in both methods of assessing attachment and can inform in different ways about the features of attachment, but they also advise that references to the findings from the two methodologies should not be reported as if they are measuring the same thing. In particular they call for more research investigating the childhood origins of adult attachment, and indeed whether the features found in the Strange Situation procedure are necessarily the most relevant aspects that influence adult attachment states of mind and styles. From this study, there is encouragement for the task of examining what the personality correlates might be of Secure/Autonomous attachment as assessed by the AAI and other cognitive competencies that new parents might have acquired by the time they have their first child.

The question remains, what is it that is captured in the coding of discourse of a caregiver in the AAI which produces the concordance of attachment pattern with the behaviour expressed by toddlers in the Strange Situation. Two different

methodologies and two different individuals, yet is the conceptual link provided by attachment theory adequately justified? This question has stimulated a great deal of research and different ways to conceptualise the issues.

Internal Working Model and the Prototype Hypothesis

Bowlby drew on cognitive psychology as it was in the 1960s and 1970s for an explanation of the reason for the acquisition of sets of expectations about relationships which apparently resist change in later life. Following Craik (1943), he used the notion of working models, cognitive maps of repeated experiences, which become internalised, to explain how a child constructs an internal model of self and the world which operates outside of consciousness, filtering what is observed and shaping how information is interpreted. This notion is compatible with Piaget's (1954) theory of representation. It also fits Vygotsky's sociocultural theory of learning, the notion that interpsychological processes becoming intrapsychological ones (Leont'ev, 1981, cited in Wertsch, 1997; Meins, 1997; Vygotsky, 1978).

The term "internal working model" has had considerable attention in the light of recent developments in psychology. As Bretherton (2005) elaborates in a review of the construct, the concept of internal working model also links to adjacent fields, object relations psychoanalytic thinking, social cognition and the social self, storytelling, event schemas, memory and trauma research. She quotes Bowlby as saying "in the working model of the world that anyone builds, a key feature is his notion of who his attachment figures are, where they may be found, and how they might be expected to respond" (1973, p. 229, cited in Bretherton, 2005, p. 16). Bretherton has been studying the construct for over 30 years. She notes (2005) the usefulness of the term but also the difficulties with it. In early attachment theory there was the assumption that early attachment relationship with the principal caregiver would lead to the development of an internal working model (IWM) that once formed would be involved in all interpersonal relationships from then on, shaping them in characteristic ways (the prototype hypothesis). Research has now provided the evidence that the type of attachment relationships infants have with each of their parents can be different (e.g., Steele, Steele, & Fonagy, 1996). That finding has led to the suggestion that attachment to caregivers is hierarchically organized, with one person, usually the mother as the principal attachment figure (Bretherton, 1985). Bretherton has been following the research that has investigated the associated

questions, whether the internal working model that is assumed to be involved in the toddler's behaviour exhibited in Strange Situation with one parent remains the same over time in child/parent relationships, whether a secure relationship with one but not the other has a protective effect, and when the child internalizes a representation of attachment that becomes the generalised "state of mind regarding attachment" that is assessed in the AAI. Bretherton (2005) points out that the view that the attachment relationship with the mother becomes the prototype for all other attachment relationships is no longer tenable because of the ample documentation that children can have different patterns of attachment to their mothers and fathers and other attachment figures in their lives. In addition, if the situation with the mother changes and she behaves in a different manner with her child, the attachment relationship can change in quality. For example, in the Minnesota poverty sample there was considerable change in the first 18 months indicating that stability of attachment is dependent on stability of environment (Main et al., 2005).

Main (1999) has also discussed how the notion of IWM is not adequate to encapsulate the meaning of their multiple attachment experiences with different individuals in developing children, or the current "state of mind regarding attachment" that is revealed in the AAI. Experience with transcripts of the AAI provided information that led to her effort to revise the terminology of "model of the self in overall relation to attachment" (which is conceptually similar to how the social psychologists describe attachment) which had "the problem of ignoring the multiple, contradictory models that are found in the transcripts of dismissing and preoccupied individuals ... and glosses over the problem that many disparate aspects of experience are being discussed at the same time" (Main, 1999, p.877). In his very comprehensive chapter on the AAI, Hesse (1999) makes no mention of the IWM. From this it can be surmised that the entire attachment research programme, along with cognitive psychology and recent research using advanced technology such as event-related potentials, EEGs, and functional magnetic resonance imaging to learn about brain functioning (Marshall, Reeb, Fox, Nelson, & Zeanah, 2008; Schore, 2000) has shifted the conceptualising of how early attachment influences ongoing "representations" of attachment and other relationships.

Thompson and Raikes (2003) discuss how the concept of IWM has been "among the most heuristically powerful and provocative formulations of Bowlby's theory" (p. 695). However, they caution us that it is a trap.

The difficulty is that Bowlby's concept of the IWM is a conceptual metaphor, not a systematically defined theoretical construct, and this poses several problems for theory development. First, it lacks the specificity required to guide its empirical applications... Second, basic conceptual questions about IWMs remain unclarified. Are they consciously accessible? How do they develop? What accounts for consistency or change in IWMs over time? *Do they relate to other aspects of cognitive processing?...* Third, because the IWM concept is a conceptual metaphor, its relations to other developmental and conceptual processes are also unclear..." (p.396, italics added).

They endorse Bretherton's work investigating the development of autobiographical memory, theory of mind and social-cognitive skills of children. They also consider important the work done on maternal discourse and language development and how that contributes to children's socioemotional understanding. They conclude that the way parents talk to their children in an age-appropriate way is a manifestation of parental "sensitivity", a formulation that has perhaps been overlooked in operationalisation of parental sensitivity in early attachment research.

Following on from that, the point can be made that many people state how important "communication" is for interpersonal relationships, and now adult attachment research is making use of communicative ability in order to decide whether individuals are secure in their state of mind about intimate relationships. This also sounds very Vygotskian and constructivist, that the culture is passed on by the cultural expression of those people around the child; through discourse in the family one learns how to understand socioemotional characteristics and behaviours in others and in oneself. With more capable scaffolding (Wood, Bruner, & Ross, 1976) individuals can develop greater understanding of these mental processes in self and others. So if there is more comfortable discussion of socioemotional topics with wiser and emotionally secure elders, individuals have the opportunities to gain these skills and understandings for themselves. Conversely without the opportunity to discuss and practice these skills, less flexible and effective strategies will be used when the attachment system is activated by danger, loss, pain and loneliness.

The Thompson and Raikes (2003) quotation above also contains the germ of the idea in this thesis: how might cognitive development relate to changes or consistency in representation of attachment?

Looking back on their four decades of work with attachment research, Mary Main (Main et al., 2005) and Everett Waters (Crowell & Waters, 2005) have both come to the conclusion that the amount of stability between attachment as measured in the SS and later in the AAI, and the amount of concordance between grandmothers', mothers' and babies' assessed representations (Benoit & Parker, 1994) favours the prototype hypothesis, that attachment experience in infancy is the major influence on later love relationships. On the other hand, the Grossmans' (Grossmann, Grossmann, & Kindler, 2005) longitudinal research has not shown the same strength of association between the SS and AAI as that recorded in much of the early attachment research, but they do show that other assessment in early life of parental responsive input provides a link to secure versus insecure representations in young adulthood. Sagi-Schwartz and Aviezer (2005) tell us the early attachment with mother seems to gain precedence, but over the years to young adulthood the attachment relationships with the father and other caregivers contribute to different areas of development.

It is still unclear whether or how much temperament of children and personality of adults contributes to bridging the transmission gap because a relation between adult personality and adult attachment appears to be absent, there is some suggestion of infant temperament influencing attachment, and there will be shared genes between child and biological parent. So, although research has shown long-term continuity in individuals' attachment orientation, change does happen.

Parental Support to Child's Cognitive Development

Belsky (2002) links the possibly different ways that parents contribute to attachment and to related areas, at the same time as linking the fields of developmental theory and social psychology with attachment measurement, when he points out that more than 15 years after Main, Kaplan, and Cassidy (1985, p. 77) astutely observed that internal models of relationships "provide rules for the direction and organization of attention and memory, rules that permit or limit the individual's access to certain forms of knowledge" and that "internal working models are best conceived as structured processes serving to obtain or to limit access to information", so few developmentalists have sought to link AAI or Strange Situation classifications with such psychological processes (p.169).

He suggests that the research done with the self-report adult attachment instruments at the same time as the AAI has shown that there are conceptually appropriate associations between the AAI categories and the AAI scales and the self-report factors. These show that adults classified as Secure/Autonomous are more likely to be more confident in their relationships, to be more willing to seek help when needed, to enjoy closeness and so on, than insecure adults, and similarly that Dismissing adults are deactivating and Preoccupied adults more easily aroused and negatively emotional. Thus he believes that there is a conceptual association between the meaning of the attachment categories in infancy and those in adulthood.

Other researchers have attempted to trace the developmental course of the different attachment categories, on the assumption that there is a link between infant and adult internal working models. As this field has developed, the discussion in recent times is not so much about “internal working model”, more usual is the word “representation” linking back to cognitive and social psychology and event scripts, procedural memory and automatization (Bretherton, 2005; Main, 1999). So the key in more recent attachment research is that attachment is a cognitive construct, something that is constructed in the mind of an infant, prior to the development of language, that is the beginning of a process of further construction (hence “working” model) in the child’s interactions with people throughout the lifespan.

Bretherton’s empirical work with children’s responses to story stems designed to elicit attachment representations in narratives has demonstrated the significant interrelationship of a child’s language development, attachment story production, and well-functioning social skills, with the experiences of co-constructing memories with mothers who vary in terms of supportive relationships (e.g., Bretherton, Ridgeway, & Cassidy, 1996). She points out how this links to what is called “coherence” in adult attachment narratives (Main, 1991), and how “theory of mind” in children links to mentalising or reflective function in adults (Fonagy & Target, 1997).

Howard and Miriam Steele (2005) also advise us that in the narratives of eleven year old children, the component of coherence which Main emphasizes, truth or credibility, relates to parents’ AAIs rather than to the children’s own attachment statuses in infancy. This thread is also in Cassidy (2001) when she is arguing that truth is necessary for intimacy in adult pair-bonding: She points out that a defining feature of a secure/autonomous transcript is that it is truthful. This quality means that being autonomous, an adult can be truthful about self and also be honest with spouse

and with children. Consequently the narratives of children of autonomous parents reflect the opportunities that they have had to similarly acquire “coherence”.

AAI as a Predictor of Parent/Child Attachment

Fonagy, Steele, Steele, Higgitt, and Target (1994) stated that their research with the London Parent-Child Project was aimed at addressing the following question: “is it possible to identify before the birth of a child, on the basis of the parents’ quality of attachment, the nature of the attachment they are likely to develop with their child during the first 18 months of life?” (p. 237). They went beyond the application of the AAI to parents and the Strange Situation to their infants, explored contemporary correlates and followed through to examine the continuity or change of attachment type between parents and children, and the consequences of early attachment experience on later behaviour of the children. They went on to exploring the possible transmission mechanism – the parents’ ability to understand the mental state of their children, and what the team first called the Reflective-Self Function, later simply Reflective Functioning. As will be discussed throughout this thesis, Reflective Functioning has become an important feature of recent adult attachment research. The evidence so far is that Reflective Functioning is the best bet for the variable that is more important than “parental sensitivity” as the agent by which attachment expectations are transmitted to infants from their caregivers. However, the attempts so far to find out if the Reflective Function scale can do better than the Coherence scale of the AAI to predict Strange Situation classifications has been disappointing. Just the same recent accounts of the methods by which attachment is transmitted have been based on the notion that this is a viable explanation (Corcoran, Phillips, & Pederson, 2001), and so interventions to promote reflective functioning are being developed and tested (Slade, Sadler, & Mayes, 2005).

Coherence in the Coding for the AAI

It has long been recognized that although some people repeat the type of parenting they received as infants and young children, many do not. Use of the AAI has demonstrated that it is possible to distinguish between parents who are likely to repeat the parenting they experienced and those that are unlikely to (Roisman, Padrón, Sroufe, & Egeland, 2002; Steele & Steele, 1994; van IJzendoorn, 1995a; Watson &

Sweney, 2003). This is a characteristic of the AAI which distinguishes it from all other assessment instruments that could be used to screen for adults who might endanger the children in their care. What seems to make the difference is that the AAI is based on the assumption that in an interview a person is presenting a self, an identity, to the interviewer. What the person will exhibit, however, will be more than is consciously intended. The person may be earnestly trying to answer questions truthfully and may therefore give the same good quality information that might be gathered in a self-report questionnaire – or, may, in either case, be deliberately trying to confound the interviewer. While there will be psychology researchers who hold that carefully constructed self-report measures are more reliable, and more valid, and therefore more suitable for robust statistical analysis than interviews, the data from which comes from “subjective” interpretations of statements, attachment research using self-report measures so far has not been able to demonstrate the same predictive potential that the AAI has (but see Belsky, 2002, for further elaboration). An argument for the AAI that is hard to discount is the statistical association between data derived from two different individuals – a parent and a child – using two different methods – observation of behaviour and a narrative analysis of an interview transcript. Further support comes from the failure of self-report measures of attachment experiences with parents or with romantic partners to produce the same conceptual links with the forms of attachment with children (Crowell & Treboux, 1995).

To go back to the beginning of work with the AAI, Mary Main reports (Main, Goldwyn, & Hesse, 2002) that in the original studies with the AAI, from amongst the several scales that had been created, *overall coherence of the transcript was found to have the strongest correlation to infant security of attachment*. It is not the content of the interviews - of good or bad experiences with parents as children - that determines the classification in the AAI which in turn predicts the Strange Situation classification of the relationship with a child; it is how the adults respond to the interview questions, how they organize their accounts of their memories and their understanding of what happened that predicts how they would be constructing their relationship with a child. The key aspect of classifying as “Autonomous” the transcript of a person who is reporting loss, abuse, neglect or otherwise negative experiences as a child, is captured in the term “coherent” in its commonly used dictionary meanings:

Coherent: “1. capable of intelligible speech; 2. logical, consistent and orderly; 3. sticking together” (Gordon, 1982, p. 215).

Coherence is defined in the coding manual as “a connection or congruity arising from some common principle or relationship; consistency; connectedness of thought such that parts of the discourse are clearly related, form a logical whole, or are suitable or suited and adapted to context” (2002, p.42). Elaborating this notion, coders are asked to look for

a unified, yet free-flowing picture of the speaker’s experiences, feelings and viewpoints within the interview. In addition, the interview transcript is considered coherent when speakers are able to point to principle and rationale behind the responses they give; seem relatively at ease in describing the past and its influence; and seem to examine and “explore evidence afresh” even while the interview is in progress (p. 42, italics in original).

To add support to this notion of coherence in discourse, Mary Main drew on the work of Grice (1975)¹. Grice elaborated the “Cooperative Principle” as the overriding principle of rational conversation that participants in a conversation are expected to observe. Four maxims contribute to this principle:

1. Quality – be truthful, have evidence for what you say
2. Quantity – be succinct, yet complete
3. Relation – be relevant or perspicacious
4. Manner – be clear and orderly (Main et al., 2002, p. 44).

Of these it is the first which is most relevant to rating for coherence with the AAI. Coders are asked to consider whether the discourse seems to be truthful (i.e., has internal consistency) and collaborative, in other words, is the cooperative principle engaged in this interview. The second maxim, quantity, is often a pointer to the classification eventually assigned but is not sufficient by itself to assign classification. Very short transcripts usually come from people who are not collaborative, either because they can produce few early memories, because the topic is one they do not wish to engage with or because it elicits angry comments rather than explanation and description. Very long ones often come from people who get lost in their past memories and forget the requirements of rational discourse in an interview. If there is inadequate quantity and quality it is often accompanied by failures in relevancy and in clarity, the third and fourth maxims – relation and manner (see Table 2.1). The coding

¹ Grice’s maxims have made an impression on other parts of academia – see 162,000 entries on Google, 14.9.07 and Haberland & Mey, 2002.

manual gives examples to guide the coders.

Table 2.1. State of Mind Scales Associated with Secure/Autonomous Adult Attachment Category

Coherence of Transcript.

For the highest rating, the speaker exhibits a “steady and developing flow of ideas regarding attachment”. The person may be reflective and slow to speak, with some pauses and hesitations, or speak quickly with a rapid flow of ideas; overall, however, the speaker seems at ease with the topic, and his or her thinking has a quality of freshness. Although verbatim transcripts never look like written narratives, there are few violations of Grice’s maxims of quantity, quality, relation and manner. The reader has the impression that on the whole this text provides a “singular” as opposed to “multiple” model of the speaker’s experiences and their effects (see Main, 1991).

Metacognitive Monitoring

For the highest rating, evidence of active monitoring of thinking and recall is evident in several places within the interview. Thus the speaker may comment on logical or factual contradictions in the account of his or her history, possible erroneous biases, and/or the fallibility of personal memory. Underlying metacognitive monitoring (Forguson & Gopnik, 1988) is active recognition of an appearance-reality distinction (the speaker acknowledges that experiences may not have been as they are being presented); representational diversity (e.g., a sibling may not share the same view of the parents); and representational change (e.g., the speaker remarks that what is said today might not have been said yesterday).

From Hesse, 1999, pp. 402, 403

Coherence Overlapping with Metacognitive Monitoring

Because the Adult Attachment Interview is asking people to think back to their childhood, it has the potential to stir up memories that are not necessarily welcome. It has the facility to “surprise the unconscious” (George et al., 1985) so it can be a challenge to maintain coherency and collaboration in the interview situation. This is where the concept of metacognitive monitoring comes in. An assessment of metacognitive monitoring contributes to another scale of the AAI (see Table 2.1). This

scale is difficult to assign numbers to because it seems to include several concepts, and as a result there have been efforts to clarify what is meant.

The AAI coding manual seems to be addressing two main ideas. First there is the thread of the speaker monitoring the interview process. It is clear that speakers are monitoring the needs of the partner in the interview process if they are careful to explain what the interviewer cannot be expected to know. They are monitoring the interview if they ask for clarification of a question – check what the interviewer is wanting to know. They are *metamonitoring* if they can make explicit remarks about what they have said earlier that they might want to clarify or revise later. This is what the examples given in the coding manual are pointing at. That the people being interviewed are capable of metacognition is something different. If they are making a statement that indicates they are thinking then and there about something that has been elicited by the interview and they make a comment such as “I have never thought of that before” or “I can remember thinking that ...” or, “I thought that then but I understand better now”... or other remarks that shows that they are reflecting on their own understanding and making fresh interpretations of why parents might have behaved as they did, they are displaying the ability to be metacognitive. Metamonitoring is a metacognitive skill being demonstrated. Being able to demonstrate that capability within the communicative process of the interview has the associated effect of providing evidence that the person is collaborative and cooperative, and in most cases will signal truthfulness leading to a high score for coherence because of the quality criterion.

The criteria for coding discourse under the metacognitive monitoring scale are metacognitive in the same way that “theory-of-mind” tasks are checking for ability to be metacognitive.

1. Recognition of an appearance-reality distinction (AR), i.e., *things may not be as they appear, and indeed appearances are never certain...*
2. Recognition of representational diversity (RD), i.e., *the same thing may appear different to different persons.*
3. Recognition of the occurrence of representational change in the self (RC), i.e., *what I think today I did not think yesterday – hence what I think today I might not think tomorrow* (Main et al., 2002, p. 56, underlining and italics in original).

Making statements that demonstrate the ability to reflect on the nature of knowledge (epistemology) is more than an ability to be metacognitive; it is at a higher hierarchical level of complexity. At a lower level, it is possible to operate metacognitively without being able to reflect on that mental activity. For example a person may provide information on the way they understood things as a child without explicitly stating that these thoughts were somehow inaccurate, or different to others or indeed no longer thought. An example of a higher level of metacognition where there is reflection on a metacognitive thought is a statement that even if the view held as a child was indeed wrong, at the time it had a reality that had consequences. So, trying to assign a score for metacognitive monitoring is likely to be quite unreliable across coders, depending on the coder's conception of metacognition. Just the same, when attempting to score the metacognitive monitoring scale, a coder can recognize the ability to reflect and make meaning of what has happened in the past in a logical and coherent way that has been appraised by the speaker.

Mary Main is aware that the Metacognitive Monitoring scale still needs revision and that the Reflective Functioning Scale of Fonagy et al. (1991) may capture something of what was intended here. However, Mary Main (2002) has been trying to devise a scale which will not give high scores to Preoccupied people who tend to go on about what they think, have thought and others think. This indeed is a significant complication.

Coherence as Narrative Form

Coding for coherence requires looking at the *form* of the discourse in the interview, but the *content* cannot be ignored. If the content does not make sense, is contradictory, or defies "the listener's understanding of how the world works and how human beings typically act, think, feel, and want [it] may seem as incoherent as one that violates structural norms" (McAdams, 2001, p. 112). As Hermans (1996) says a well-formed narrative identity should be able to include contrasting accounts of subjective experiences over time. "Stories that succumb to a single, dominant perspective, no matter how coherent they may seem to be, are too simplistic to be true; they fail to reflect lived experience" (McAdams, 2001, p. 119). In the AAI transcript where the "story" is that the parenting received was normal, nothing memorable, mothers were typical mothers, fathers typical fathers, or too perfect, the listener/coder realises that a screen is being put up, either to defend against the intrusive interview

questions or because the screen was up earlier and memories of parent/child interactions were screened out. So the theme of the interview may be coherent in the sense it coheres around an unelaborated presentation of a typical family in the society, but it does not subscribe to the AAI coding manual requirements of collaboration or Grice's notions of quality and quantity.

In the field of narrative or discourse analysis, a similar enunciation of the meaning of coherence in an interview setting comes from Polkinghorne (1988). He says:

The insights of discourse theory can help us to understand the dynamics that are involved in the production of narratives in the interview context. In discourse theory, the story is the result of the total situation - the teller of the story, the codes of the story, and the hearer of the story. The interviewee is the teller of the story, the interviewer the hearer. In this context, the story selected to be told can function to present a particular image of the teller; and the kind of interview the hearer undertakes can affect the kind of story told....Narratives are context-sensitive, both in their telling and in the meaning they give to events, and their form and content are responsive to the aims and conditions of the interview situation (p. 164).

Polkinghorne goes on explain how an episode of a story should relate to the general story, should "cohere" with the rest of the account. "Global coherence is achieved through the repetition of examples that relate to the theme uniting the whole story, such as the teller's general honesty in his or her business dealings" (p.165).

Polkinghorne's account of narrative analysis can also be related to that of coding of attachment interviews and the rationale given by Mary Main and colleagues. He cites Mishler (1986) as saying:

First, that whatever else the story is about, it is also a form of self-presentation in which the teller is claiming a particular kind of self-identity. The analysis can be directed to the content of this self-identity and to the various episodes and themes that interviewees selected in support of their identity and to the cultural values presupposed by it. Second, because "everything said functions to express, confirm and validate this claimed identity..." (pp. 165, 166).

How the AAI coding would vary from this is the expectation that the episodes produced as evidence in the overall story emerging from the AAI would have details

that would provide colour that would make them believable rather than stereotypical. A perfectly “coherent” story would transgress our understanding of real lives.

Coherence as a Sign of Psychological Health

Before assigning a transcript to a particular classification, there is another appraisal needed by the coder of the AAI. This is to consider “Coherence of Mind”. It is rare that this be different to the Coherence of Transcript score but it could be that the speaker may have been making statements that seem not to conform to reality despite being expressed “coherently”, and so should have a lower score for Coherence of Mind. Conversely, although expression is very passive, the coder might consider the speaker deserves a higher score for Coherence of Mind. So the coding of attachment does require the coder to make a judgment about Coherence of Mind as distinct from Coherence of Transcript.

The coherency of autobiographical stories has been an area for examination by developmental psychologists and psychotherapists. McAdams (for example, see 1993, 2006) has been using the collection and analysis of autobiographical stories in order to examine many questions about the development of a sense of identity. He holds to the view that in any society there will be a conventional story grammar and that children, over time, learn the key components that make a story coherent. First children learn to tell stories that link their discourse to a time and an incident. Over time they gain an understanding of the components of a good story and become aware that they can be seen as a character in their own story. It is during adolescence that young people should be able to perceive themselves as characters with a past, a present and a future, and should learn how to shape the stories they tell about themselves towards the purpose shaped by the context. By early adulthood individuals should be able to construct a “coherent” causal narrative, and recognise thematic coherence (McAdams, 2001, p.105). Holmes (1992) calls this “autobiographical competence”. Being able to construct a coherent narrative is therefore seen to be a developmental achievement of most people during adolescence. Being able to revise the narrative as life events occur as time goes on and more roles are taken on is perceived as a sign of healthy adaptation. Consequently there is convergence of this developmental view with the theory behind the nature of coherent and therefore autonomous classification in the AAI. This then is one of the justifications for using the concept of coherency as

central to secure/autonomous classification in adulthood and the interpretation that lack of coherence in the Adult Attachment Interview is a sign of insecurity.

The importance for psychological adaptation of the ability to construct a coherent story of oneself is argued by others. Arciero and Guidano (2000) note that, consciously or unconsciously,

one orders lived experience into a more-or-less coherent life story. One configures (and continually reconfigures) one's experience into a consistent plot that allows one to make attributions about self and others. This generates the boundaries between one's own identity and the identities of others.

Through this linguistic imposition on lived experience, people coconstruct their existence

(p. 94).

Mary Main (Main et al., 2002) has described the E1- Preoccupied adult as one who has not been able to construct a coherent story for self, but seems to be still passively accepting oneself as an amorphous, perhaps mindless, person within a family. The E2 adult is overwhelmed by resentments from the past that spill into the present and trigger rambling accounts of past and present incidents involving self and attachment figures.

Dimaggio and Semerari (2004), Italian psychotherapists, explain how they have been making use of the research with narrative coherence within their practice. They argue that representations of a multiplicity of relationship scenarios – what they call narrative complexity – need to be internally organised in order to have an adaptive function. They too cite Grice (1995), studies based on theory-of-mind and, because they are concerned with the opposite of coherent narratives, disorganised narratives, they cite Main (1991). They have come to the position that to be able to organise narratives, individuals need to have metacognitive skills. Examples of these are the ability to “reason in terms of intentionality, identify the mental states of ourselves and other individuals, and achieve a mastery of any problematical mental states” (Dimaggio & Semarari, 2004, p.269). Awareness of the need for these skills will therefore provide a place for therapists to start with people with chaotic internal narratives.

Because being able to relate a coherent self-narrative indicates “improvement”, a Greek team of family therapists have also constructed criteria for assessing the coherence of clients' life stories (Androutsopoulou, Thanopoulou, Economou, &

Tsabika, 2004). They took note of the AAI coding system and Grice's maxims, "reflexive" [sic] self-function (Fonagy et al., 1991) and the qualitative study by Fiese and Sameroff (1999). They were working with discourse from a clinical sample so their coding was more based on *incoherence* than coherence. Their coding criteria had two "core categories": "Comprehensibility" which comprised of acknowledging/explaining contradictions, and thinking in a relational manner, and "Evoking empathy" which comprised of acknowledging/responding to the needs of the audience, and being in touch with emotion.

The Fiese and Sameroff study (1999) of family narratives that Androutopoulou et al. (2004) consulted, also took note of the work done with the AAI for individual adults. For family narratives they identified three components: narrative coherence, narrative interaction, and relationship beliefs. For them, narrative coherence reflects the ways in which individuals, considered separately and together, organise the story: "The ways in which an individual's story makes sense, how clauses and thoughts are organised, the willingness of the individual to consider different perspectives, and the match between affect and content are all considered part of the coherence of an individual's story or narrative" (p. 4). They also justified their study using the works of Bruner (1986) and McAdams (1988) and other recent narrative researchers which have shown how coherent autobiographical stories are signs of a coherent personal identity which relates to health, adaptiveness (citing Antonovsky, 1979) and resilience. They also refer to the literary tradition that examines narratives such as Polkinghorne (1988).

Antonovsky's Sense of Coherence

Antonovsky's (1987) concept of "coherence" has emerged from the perspective that health is not something that individuals have or don't have but is a fluctuating phenomenon depending on organism/environment events and dynamics. Antonovsky argues that just as health may be affected by assaults from various "bugs", the human system is also operating towards countering those bugs. Antonovsky is looking for the mechanisms that promote health rather than those that cause disease, that is, a "salutogenic" approach. These are what are usually involved in the factors that aid "adaptation", the ability to change in response to changing conditions in a way that will ensure continuing survival and even success. He is arguing from a systems and contextualist perspective which is compatible with attachment theory, saying that we

must not disregard the power of history, the generational experiences of the macrocosmic events of war and depression, population shifts and revolutions... [and] ... there is no doubt that early socialization experiences in the family are crucial. But these experiences are shaped by the family structure, which in turn is shaped by the broader context (Antonovsky, 1998, p. 13).

So Antonovsky considers that a sense of coherence is related to the stability of the environment and the individual's sense that it is meaningful. Antonovsky turns around the usual way of looking at health research. The question that research must pursue is not what the typical causes of a disease might be, but what are the reasons for exceptions (1987, p.11).

The Sense of Coherence (SOC) is a characteristic of the individual, which Antonovsky says is unlikely to change after age 30 (1998) unless there has been considerable change in the context, and even then the amount of measurable change will be small. This statement has stimulated research, the most recent coming from Poland which found there was no difference in the stability of the SOC score over five years of groups under and over thirty (Gruscynska, 2006). According to Antonovsky and subsequent research, there are individuals who reach adulthood with a low SOC and others with the much more life-enhancing high SOC and these differences are signals for on-going quality of health.

Antonovsky argues that since stressors are ubiquitous, they are likely to be always present to some degree and may not necessarily be always pathogenic, so it is more profitable to look for what he calls "generalized resistance resources" (see Antonovsky, 1987). Others might call these coping resources. Some of these are easily recognised as being associated with health: "wealth, ego strength, cultural stability, social support" (Antonovsky, 1998, p. 22). His idea of the SOC is made up of three components, comprehensibility, the certainty by which one can reasonably anticipate events that occur in one's environment; manageability, the degree to which one believes that one's actions fulfil one's needs; and meaningfulness, the degree to which one believes the environment is worthy of personal investment.

The following quotation clearly demonstrates the convergence of his ideas with those behind attachment theory, although what he is calling a *sense* of coherence, is the other side of the coin from the assessments that need to be made to code for coherence on the AAI:

I can now formally define the SOC as follows:

The sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement. (Antonovsky, 1987, p. 19, italics in original).

It is interesting to note that Antonovsky (1998) was deliberately trying to distinguish this concept from other possibly culturally-sanctioned desirable adaptive characteristics like “self-efficacy, internal locus-of-control, problem-oriented coping, the challenge component of hardiness and mastery” (p. 22).

Al-Yagon (2003) investigated a multidimensional model of risk factors involved in adaptive functioning of young Israeli schoolchildren with mild developmental delays. Included in the instruments used with the mothers was the 13 item SOC, an attachment memories interview which was newly created for assessing the attachment relationship with the child but the coding was based on Ainsworth et al. (1978) and Main and Solomon (1990) criteria, and a version of Bates et al.'s (1979) measurement of child temperament. The mothers' sense of coherence correlated significantly only with measures of family and child coherence. However the child's coherence was explained by their attachment patterns in this at-risk group.

Because Antonovsky sees stability of the environment that an individual lives within as conducive to a strong sense of coherence, it might be that those who have had lives characterised by disturbances and change, loss and ill-health who score low. On the other hand there are those who suggest that difficult life events provide opportunities for developing coping resources. If a strong sense of coherence is a coping mechanism, a person with a strong sense of coherence is less likely to see life events such as having a baby as anxiety provoking, that is, perceiving that she or he has the resources to cope with whatever happens. Antonovsky and Sagy (2001) used the SOC, Spielberger's State Trait Anxiety Inventory and some questions about relationships with parents with an Israeli group of adolescents. They found a relationship between age and the SOC score (which links the concept to cognitive development) and to the stability of the relationship with the community. In a country such as Israel where belonging to the community depends on many things such as whether native-born, Hebrew fluent and where there are many physical dangers, there

may be much more range in the stability of environment than may be found in a group of New Zealand expectant parents. They found too that Sense of Coherence has an impact on state anxiety, but possibly not as much as might be expected in acute, communal stress conditions. From this it can be hypothesised that scores on SOC would correlate with age and with health status.

Engelhard, van den Hout, and Vlaeyen (2003) investigated whether a strong sense of coherence enabled pregnant women to perceive that a stressor is comprehensible, manageable and meaningful. Using the 13 item SOC and the Beck Depression Inventory (1979) early in pregnancy and other assessments later with a large sample of Dutch women, SOC correlated negatively but significantly with the BDI in early pregnancy and after pregnancy loss, and independently predicted postnatal depressive symptoms.

Flannery, Perry, Penk, and Flannery (1994) used the SOC with a variety of instruments including, Locus of Control (Rotter, 1966), the Beck Depression Inventory (1979), and the Social Support Index (Wilcox & Bickel, 1983) with 100 men and women attending an evening college. Higher scores on SOC related to fewer stresses in ordinary living and less depression, and SOC scores were associated more strongly with depression than locus of control and social support scores. These authors therefore consider that what it is that the SOC is assessing is more important than the traditionally accepted buffers of stress and trauma such as personality and social support, and deserves ongoing investigation.

Ryan and Deci (2000a), in a response to published critiques of an article about their self-determination theory (SDT), explained why they had the three “needs”, competence, autonomy and relatedness, and not others in their theory. It had been suggested that there is a need for meaning, that people have a fundamental desire to comprehend and make sense of their life experiences. They responded with acknowledgement that this is important and made reference to the work of Antonovsky (1987). They argued that this aspect was for them already taken care of through the processes of internalisation and integration, that meaning was achieved structurally “through the movement toward greater integrity or autonomy – that is, toward greater integration of a value, idea, or practice within the self” (p. 325). (Other aspects of SDT will be discussed later in connection to their concepts of autonomy and relatedness.)

Coherence as an Assessment Construct

Antonovsky's coherence measure has proved to be a robust self-report assessment tool strongly associated with psychological health. Assessment of psychological health via interview such as the AAI has the advantage of informing about the nature of the "dis-ease" of the speaker, not just that a person has a score that can be interpreted as a level of health. As noted above, many clinicians are supporting research to establish reliable and valid procedures for assessing coherence as an informative psychological health tool. Because of the success of the AAI coding for coherence in regards to attachment classifications and the association with infant classifications, other interviews have been created which are analysed according to the same ideas.

Also, because of the success of coding for coherence on the AAI, many scholars have become aware of how this way of gathering data has a value that breaks the impasse between views that what people say cannot be assumed to be true, and what interviewers interpret statements to mean may also be not what the speaker intended. Coding for form rather than content can make the data objective rather than subjective. As Granqvist (2006) says

... why attachment theory is favored is because it also makes understanding, not only explanation and prediction, possible. The potential for understanding stems from an emphasis on the organization, or pattern, or even "meaning" of behavior (Sroufe & Waters, 1977) and thought processes (Main, 1991, 1993). Nowhere is this more evident than in AAI coding, which primarily relies on an examination of coherence (e.g., internal consistency) of discourse, and not on its empirical referents as occurring outside of the interview context. Hence, Main (1993) explicitly acknowledged that the coding process is hermeneutical, resting on the principles of coherence, rather than empirical in nature and resting on a correspondence epistemology. However, after having made the classifications, the researcher moves out of the internal restraints of the hermeneutical circle, or the world of the humanist scholar, and into the natural scientist's real world of empirical events and regularities. The ability to utilize "the best of both worlds," and to move flexibly between the two, is, in essence, one of the principal strengths of attachment theory (p. 15).

In a recent article by the very active Leiden University attachment researchers,

Beijersbergen, Bakermans-Kranenburg, and van IJzendoorn (2006) tested whether Grice's maxims could be used for assessment of coherence with attachment transcripts by people who were not necessarily trained in attachment theory. They compared Q-sorts of items intended to capture the guidelines for scoring coherence in the AAI manual by attachment experts, linguists, and non-experts. They found that attachment experts conceptualised coherence differently to linguistic experts and non-experts. They put much more emphasis on Grice's quality maxim, as might be expected from the information in the coding manual. The authors concluded that training in the coding of the attachment interview remains necessary, thus putting aside the hope that a less intensive form of training might be developed for use in research with the AAI. On the other hand the authors say that the results of this study show that coherence is more multidimensional than is accounted for in the AAI coding. That brings the question back to the statement in the coding manual by Mary Main (Main et al., 2002, p. 9) "The present scale for coherence of transcript could, for example, be subdivided into five scales – one for positive indices of coherence – and four more for violations of each of Grice's maxims (1975, 1989, see below)." In the end, for coders assigning scores for what is meant by coherence of transcript in the AAI, it comes down to a consideration of Grice's maxims shaped by an awareness of the ways that people might express their willingness to think freely about attachment within the interview. The assignment to attachment category making use of the coherence score provides valuable information on the nature of a person's outlook on the world and their coping skills, information that can be used by mental health practitioners and social workers as well as researchers.

Summary of "Coherence" as Narrative Competence

Drawing together the various streams of theory and research referred to so far, Bowlby and the attachment theorists he inspired, Vygotsky and his explication of the interpersonal transmission through language of the culture of the society, Bruner and the place of the cultural narrative in the transmission of knowledge, and many current theories that are stimulating research, this thesis is seeking to examine a thread which seems so far to have not been focussed on. That is, that the acquisition of narrative ability with regard to intimacy and competence as a member of society, the emotional content of which depends on the quality of the attachment relationship in infancy and childhood, also depends upon cognitive development.

Attachment theory posits the positive influencing factors of secure attachment and the risk factors of insecure attachment, but cognitive development also depends on active engagement in thinking and learning. Conditions which produce secure attachment in infancy should enable an infant to actively explore his or her surroundings, to engage in conversations with adults that extend mental horizons and understanding, and gradually move with confidence into the wider world, thus optimising cognitive development. Infants with insecure or abusive conditions will be handicapped by needing to be observant in defence of their own safety, unexposed to the reflective conversations that support the development of interpersonal understanding, and generally will not have the conditions to move with confidence into the wider world.

The AAI allows an adult to demonstrate “communicative competence” which contributes to the score for Coherence of the Transcript, through the assessment of metacognitive monitoring. Not all coherent transcripts come from people who have had optimal conditions to learn through positive interactions with attachment figures. The existence of individuals classified as “earned secure” on the AAI, those who had childhoods significantly lacking in care yet whose statements in the AAI showed the ability to reflect on their childhood and the caregivers involved with a mature appreciation of situational and personality factors involved (narrative or autobiographical competence), shows that for some people, there has been active thinking and learning about people and circumstances and how the self can, in the end, become a mature regulator of one’s own behaviour. It is this concept of becoming an autonomous person, not a dependent person or an independent person, but one who perceives self in relationships and takes responsibility for his or her own actions, that emerges from the cognitive development literature as well as the attachment literature.

The Meaning of “Autonomous”

Cultural and Theoretical Differences

Because “autonomous” is the term given by Mary Main and her early associates to hold the meaning of attachment security in the assessment of adult attachment, the term needs examining. At first glance the connotations of “autonomy” and “autonomous” seem to be quite a distance from the connotations of “secure attachment”. Examination of the etymology and usage of the term in common usage

and in psychological literature suggests there has been a masculinist appropriation of the term. The term is derived from “auto” meaning “self” and “nomos” meaning “law”, and was originally used to mean self-government, that is, political independence. Later the term was used to mean the right or ability of an individual to be independent, free and self-directing. But over time this took on the connotations of individualistic, and separate, and perhaps self-serving. The term “autonomous” took on the meaning of “being independent” (see Ovid bibliographic subject headings), but that notion does not sit well with the concept intended to represent the most desirable form of adult attachment. The differences in meaning associated with the term “autonomy” can be seen to be located in different paradigms, the analytic, mechanistic, social and experimental psychology fields as compared to the organicist, developmental, dialectic ways of looking at the world, or, socioculturally, the American male ideal of responsible and competitive individualism, with decisions made on logical principles as compared with the supposed feminine approach of valuing relationships and problem solving on the basis of care.

Sampson (1988) explored these ideas. He asserted that it was not possible for there actually to be a self-contained individualist, a person with “firm boundaries, personal control and an exclusionary concept of the person” (p.15). He considers that a person cannot choose whether or not to be cut off from relationship with others. By being in the world a person is subject to cultural influences.

The notion of individualism sets up an opposition between autonomy and dependence, and the slightest tendency to “dependence” is viewed as negative. Yet this is a cultural concept. The Japanese concept of “amae” (Behrens, 2004; Bimler, Kirkland, Yuhara, Kurosaki, & Coxhead, 2005) tells us that dependence is not necessarily considered a negative condition. Suggesting that “autonomy” means “not dependency” leads to equating “autonomy” with “independence” and thence to “individualism”.

A feminist deconstruction of the term “autonomy” (Friedman, 2003) while describing several possible meanings of “autonomy”, takes the view that the self as autonomous is both procedural within a social framework and is also constituted by an autonomous agent’s choices, beliefs, values and motivations because the social environment provides the necessary causal conditions for the development of autonomy competence. (See discussion of the use of “autonomous” to label a high ego level by Loevinger in the next chapter.)

Kenny and Barton (2003) cite relational theorists like Gilligan (1982) and Miller (1976) who early on were critical of developmental models that emphasise the attainment of autonomy and independence, and neglect the importance of relationships (p. 374), when pointing out that many psychologists fail to recognise that increasing cognitive capacities especially in later adolescence provide the opportunities for updating and revising models of self and parents which can account for the attachment theory concept of “earned secure” (Pearson, Cohn, Cowan, & Cowan, 1994). This is when there is AAI coding as Secure/Autonomous of individuals who have had difficult or abusive childhoods but who conduct themselves in the Adult Attachment Interview with openness and reflectiveness and can be seen to value relationships and recognise their long-term influences. These individuals have moved beyond reactivity to be self-determining and apparently accepting responsibility for their actions. It is in cases like these that the term “autonomous” seems well used.

Although Erikson (1968) used the term “autonomy” to encapsulate one end of the continuum for his second stage of development, that of the toddler period from 18 months to 3 years, it can be argued that he was thinking of children realising that they had the ability to initiate their own actions and assert themselves as persons. The emphasis of the notion is the infant’s realisation of personhood, not the desire to be separated from caregivers. Many people tended to characterise the stage as the one where children learn to say “No” as a declaration of independence, and become increasingly agentic, wanting to do things like feeding themselves. Such people would also perceive that Erikson’s stage model of identity development was *ipso facto* individualistic and construe both “autonomy” and “identity” as focussing on an individual without context, and favouring the idea of a self-constructed individual, one who is on the journey of moving away from being dependent on others or from being susceptible to shaping by family or society.

For example, the cultural psychologist, Sweder (1991) described autonomy as being concerned with self-concept, an independent self, concern with self-enhancement versus social standing, ego-focussed affect and the exercise of primary control. This definition is seen as problematic in the field of medicine and patient’s rights. In psychiatry according to Korr, Encandela and Brieland (2005):

At times in psychiatric treatment practice in the United States, the notion of individualism or independence (an American ideal) is confused with autonomy (a rights goal). Client autonomy is defined as the ability of clients to make

their own choices. When the societal ideal of independence overrides individual autonomy, inclusion and client well-being may be jeopardized. ... We make recommendations for professional education to protect client rights through understanding the distinction between autonomy and independence (p.290).

Guisinger and Blatt (1994) recognised the cultural influences which value individuality in development rather than development within relatedness.

Western psychologies have traditionally given greater importance to self-development than to interpersonal relatedness, stressing the development of autonomy, independence, and identity as central factors in the mature personality. In contrast, women, many minority groups, and non-Western societies have generally placed greater emphasis on issues of relatedness... It is proposed that evolutionary pressures of natural selection result in two basic developmental lines: interpersonal relatedness and self-definition, which interact in a dialectical fashion. An increasingly mature sense of self is contingent on interpersonal relationships; conversely, the continued development of increasingly mature interpersonal relationships is contingent on mature self-definition (p. 104).

Such a comment fits well into an attachment theory-based philosophy.

Further discussion could follow about the effect on relationships and cognitive and emotional development of people in indigenous cultures in which sense of self is submerged within a group identity. The concept of autonomy might be denied or reconceptualised into a sense of responsibility and contribution expected by others rather than self-management in order to contribute and be responsible for the welfare of others. Those ideas are not pursued here. Similarly the implication of attachment representations as understood in attachment theory requires investigation by practitioners who have a deep understanding of those cultures. [For attempts to understand attachment in non-European or non-industrialised cultures, see True, Pisani, and Oumar (2001) and Zevalkink and Riksen-Walraven (2001)].

Self-regulation

Deci and Ryan in their many writings articulating their self-determination theory (SDT) clearly make the case for autonomy as meaning self-regulation and coherence. They, too, emphasise that it not to be confused with independence or

individualism (for example, Chirkov, Ryan, Kim, and Kaplan (2003), in an article entitled, Differentiating autonomy from individualism and independence: A self-determination theory on internalization of cultural orientations and well-being). In an earlier article they said:

...Autonomy... is not equivalent to either independence or freedom from external influences (Ryan, 1995) but rather refers to the holistic integrated functioning through which action is centrally regulated. Autonomy is an instance of organization par excellence, because autonomy entails the higher order gathering together of component systems into a relative unity and acting from that organized vantage point... The functioning roles of autonomy include stabilizing and boosting adaptation and action, for example, by facilitating the identification and efficient expression of goals related to predominant needs and shielding such goals from the competing impulses. The origins of autonomy are thus located in the more general problem of the development of behavioral regulation, which concerns the organism's selecting and sustaining behaviors that are intended to meet ongoing needs... (Ryan, Kuhl, & Deci, 1997, p.706).

This description - “the gathering together of component systems into a relative unity” - gets close to the definitions of coherence of Main, Goldwyn and Hesse (2002) and Antonovsky (1987), and of integrative complexity (Tetlock & Suedfeld, 1988). As well, “acting from that organized vantage point” links to the concept of ego as described by Loevinger, that it is the “master synthesizing *I*” (Adler & McAdams, 2007, p. 214) that interprets and makes sense of experiences, and involves impulse control, interpersonal relations, and conscious preoccupations, which develops over time through experience and the gaining of more cognitive complexity. So the Deci and Ryan Self Determination Model’s essential component “autonomy” is concerned with a self that is changing and developing in ways consistent with Loevinger’s model (see next chapter), and although the individual is perceived as the site of this development and the central agentic force, there is no need to perceive this as individualistic and a movement towards separation. To the contrary, other theorists such as Kegan can see a spiral movement in development with the ego being at some stages more inclined towards focus on the self and at other stages towards focus on others (Kegan, 1982, 1994).

Research into the Meaning of Autonomy

One way of looking at this is to realise that when psychology was trying to assert itself as a legitimate science by being analytic and “objective” to establish evidence-based research, in order to measure individual differences in personality, instruments were constructed based on definitions (constructs) of behavioural features that over time shaped understanding of concepts in general discourse as well as in the more precision-careful academic language use. Hmel and Pincus (2002) explored the meaning of “autonomy” in psychological literature and conducted a structural analysis of 15 self-report autonomy scales. Their discussion of the literature noted that the construct “autonomy” featured in many areas of applied research but that the operational definitions were so varied that they could be contradictory:

The autonomous individual has been described as both psychologically adjusted (Deci & Ryan, 1985) and prone to psychopathology (Beck, 1983), related to others (Blatt & Blass, 1996; Koestner & Losier, 1996) and indifferent to others (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977), self-ruling (Haworth, 1986) and defensively separated (Robins, Ladd, Welkowitz, Blaney, Diaz, & Kutcher, 1994) (p. 278).

For their own study of the self-report autonomy scales, Hmel and Pincus (2002) proposed that they would find two forms of autonomy, one based on the concept of self-governance and the other on individual differentiation and separation. In addition they set out to explore the possible form derived from Beck’s (1983) theory which seemed to conceptualise autonomy as a vulnerability factor in the development of depression. In the end they argued that “autonomy” in the literature is not the same construct. They derived three factors from their analysis. The first they called “Depressogenic Vulnerability” and decided that because this factor lacked agency it should not be thought of as being consistent with the notion of autonomy. The other two factors both contained agency but were different in their orientation to others. “Self-governance” was strongly and positively interpersonal in nature and was linked to markers of psychological adjustment. “Agentic Separation”, as its name implies was characterised by agency and interpersonal separation, and was not associated with markers of adjustment. These findings are relevant to the present study in the potential connection to the different adult attachment categories, and to the evidence that Secure/Autonomous state of mind regarding attachment is possibly the result of early

secure attachment and a protective factor for adjustment through childhood to adulthood. An understanding that “autonomous” is a level of “self-governance” rather than a personality characteristic of being actively agentic (or not) suggests that what is being assessed by the AAI is a developmental stage reached rather than an attachment orientation derived from and analogous to a childhood sense of security. If it is argued that the Internal Working Model (however conceptualised) is modifiable from experiences that counter the original model, when an individual is found in assessment in adulthood to be Autonomous, this “state” could be reached by experiencing continuously benign environmental conditions, or by challenges by negative events with figures in the past that have been overcome somehow.

Kagitçibasi (2005) suggests that “autonomy” can be conceptualised along two distinct dimensions, a model that might make research designs more relevant depending on the area of psychological enquiry, a view which links to Ryan and Deci’s tripartite self-determination theory. One dimension is agency, an individual might be placed along a continuum from heteronomy to autonomy. The other dimension is interpersonal distance, where an individual may vary from preferring a greater distance – separation, or little distance – relatedness. The degree to which an individual might be considered “autonomous” depends on the placing in the two dimensional space. This dimensional description looks rather like the two dimensional social psychology romantic attachment approach, but, while an AAI autonomous person values closeness and is agentic rather than passive or other-controlled, the AAI does not have a pattern that can be described as passive and disparaging closeness.

Deci and Ryan’s self-determination theory originated in an interest in education, learning and motivation, and is a developmental theory, explicitly organismic [they call it “organismic” (Ryan, Kuhl, & Deci, 1997)]. Learning is “based in the activities of assimilating, internalizing, and integrating [which] are basic characteristics of all animate entities or organisms, whose only invariant tendency is that of *organization*” (Ryan & Powelson, 1991, p.51, italics in original). They conceive that development for humans is “vitalized” by basic and intrinsic strivings of personality and of self. This momentum is experienced as needs – for autonomy, relatedness and competence. When their ideas of self-determination are elaborated it can be seen that these three needs interactively contribute to each other and the continual experiencing of self in the world. Autonomy encapsulates the experiencing

of self as an agent and can relate to locus of causality of one's behaviour and locus of control, not necessarily always being conscious of being in the position to make choices of what to do and assessing performance. Felt competence is also a need, which may be noticed more if it is absent, but felt competence will also contribute to a sense of autonomy and contribute to the range of choices that a person can have to exercise autonomy. The third need is consistent with Kagitçibasi's (2005) interpersonal distance dimension:

Relatedness concerns the emotional and personal bonds between individuals. It reflects our strivings for contact, support, and community with others...

relatedness refers to the experience of connecting with others in ways that conduce towards well-being and self-cohesion in all individuals involved.

Relatedness needs are not antithetical to either competence or autonomy (Ryan & Powelson, 1991, p.53).

Thus Deci and Ryan's (Ryan & Deci, 2000b) self-determination theory can be seen to be consistent with theoretical features of attachment theory, especially of the developmental theory of Bowlby, Ainsworth and Main. It also can be aligned with the concept of coherence described in the Adult Attachment Interview coding, and in that of Antonovsky (1987). Similarly, as the Secure/Autonomous category of adult attachment has been shown to be associated with coping strategies for individuals and for their children, it is conducive to psychological adaptiveness.

Research Linking Autonomy, Self-determination and Attachment

Considerable research has been conducted to investigate the relationship between autonomy and relatedness in the United States and in Europe, often based on SDT theory and more recently on attachment theory. La Guardia, Ryan, Couchman, and Deci (2000) challenged the attachment prototype theory, the idea that the early attachment pattern shapes the quality of all later relationships. Using self-report measures, "felt security" from the Inventory of Adolescent Attachment (Greenberg, 1982) as the attachment measure for one study, and Bartholomew's (Bartholomew & Horowitz, 1991) two dimensional measure for a second study with a sample of undergraduate students, La Guardia et al. (2000) found considerable shared variance across different relationships – to mother, father, romantic partner and friends. They found that the variance in the different attachment relationship as measured by these instruments depended on the degree to which each relationship promoted a person's

experienced satisfaction of the basic psychological needs - autonomy, competence and relatedness - not to prior experience of attachment. They attributed that to the satisfaction of the three variables of interest, that is, current autonomy, relatedness and competency needs. They also found that felt satisfaction with the three SDT variables predicted the Bartholomew attachment dimensions (model of self, model of other and overall attachment security).

Moving further to a conceptualisation of autonomy and relatedness as both being important for feelings of well-being and secure attachment in adulthood, the Allen and Hauser team (e.g., Allen, Hauser, Bell, & O'Connor, 1994) investigating adolescent psychopathology in relation to attachment, examined the narratives of securely and insecurely attached older adolescents for themes of autonomy and closeness. These adolescents were also administered the AAI. Security of attachment was not linked to the frequency of expressions of the need for closeness, but wishes for autonomy could be linked to the subtypes of insecure attachment. Waldinger, Seidman, Gerber, Liem, Allen, and Hauser (2003) considered those findings fit neatly into adult attachment theory, especially as defined by the AAI coding system. For the present study the point to notice is that those young people who expressed wishes for autonomy were those who were not secure.

Holmes (1997) looks at autonomy and relatedness from the point of view of psychotherapy. He says that:

Autonomy is possible on the basis of a secure inner world – we can go out on a limb, stand our ground, make our own choices, and tolerate aloneness if we can be sure that attachment and intimacy are available when needed. Conversely, intimacy is possible if the loved one can be allowed to be separate: we can allow ourselves to get close if we feel autonomous enough not to feel engulfment or attack, and also know that separation does not mean that our loved one is lost forever (p. 240).

This conception of autonomy relates to Bowlby's description of the development of security as a child gets older. In the preschool years the child develops the ability to internalise a representation of the caregiving relationship that provides security. Bowlby (1973) called this the "goal corrected partnership". The description fits better those children who have had supportive caregivers and who have confidence that their caregivers are available if needed. West and Sheldon-Keller (1994) elaborated further on this idea in relation to adult attachment. Although in adulthood

an individual has the ability to hold in mind the adult attachment figure so that contact need not be immediate, attachment in adulthood has similar properties to attachment in young children. In the face of stress they will seek contact with their attachment figures; they feel increased comfort and diminished anxiety in the presence of the attachment figure; separation or threat of separation from the attachment figure causes discomfort or anxiety if the attachment figure is inaccessible; the attachment figure provides a unique relationship that is expected to persist over time; loss of that relationship produces grief (West & Sheldon-Keller, 1994). Their description highlights the need for clinicians such as Holmes to work with people who lack autonomy, especially those who fear loss, who seek constant closeness, who do not feel that they can stand apart within a relationship.

These examples show that research based on developmental theory, social psychology and clinical psychology all find the concept of autonomy as conducive to intimacy and relatedness rather than indicating a need for separation and independence.

Narrative Studies and Autonomy

McAdams' (1988, 1993, 2001) studies of narrative as a window to individuals' understandings of themselves and others often centre on the expression of agency and communion in autobiographical stories. In a similar way to theory behind the coding of the AAI, McAdams recognises that "the structure or integration of life stories is closely aligned with the organismic need for autonomy" (Bauer & McAdams, 2000, p. 276). Drawing on Deci and Ryan's SDT, McAdams points out that autonomy fosters intrinsic motivation and psychological well-being, and that communal themes in life stories relate to well-being, but that the relationship between agentic themes and well-being is equivocal. The need for autonomy "spurs the perceptual process of trying to organize the complexities of one's daily life" (1993, p.278). He suggests that an agentic orientation may be the result of both intrinsic and extrinsic motivation, and consequences may depend on perceived competence and evaluation of importance with regard to significant others. McAdams (1993) describes how the orientation towards agency, or communion, or a balance of the two is revealed in life stories. Another feature of the structure of a life story is the degree to which it is told with complexity (the degree of differentiation and integration, which will be discussed further in the next section) which McAdams links to Loevinger's work and research by

Woike (1994). Thus, this work converges with that of Main and the coding of attachment narratives.

Maturing Executive Functions and Coping Strategies

Labouvie-Vief and Medlar (2002) investigated the concept of resiliency as part of a large study with a sample of adults aged from 15 to 86. Several aspects of this study can inform the present one. In their literature review they cited the attachment theorists and researchers (Bowlby, Schore, Sroufe, Main, and George), the cognitive complexity theorists and researchers (Loevinger, Kegan, Noam, Vaillant, McAdams, and Ryan and Deci) for their contribution to the conceptualisation of well-being. Their key proposition was that affect optimisation was related to affect complexity through having a greater range of coping devices through self-regulatory abilities. Their explanation links the line of thought in this section to that in the next chapter on cognitive complexity. They say:

cognitive–affective complexity (affect complexity for short), is the ability to coordinate positive and negative affect into flexible and differentiated structures (Labouvie-Vief, 1994, 1997, 2000; Lane & Schwartz, 1992). Much research suggests that along with positive affect, the capacity to form such complex structures also has great significance. For example, in development, as complex executive cognitive systems mature, individuals are better able to coordinate positive and negative feelings through processes of inhibition–disinhibition, evaluation, analysis, and so forth (e.g., Labouvie-Vief, 1994; Lewis, 2000; Piaget, 1980; Schore, 1994). As a result, individuals develop cognitive–affective structures that are complex and may present a mix of positive and negative affects. Such complexity is widely thought to constitute one hallmark of adaptive development (Fischer & Pipp, 1984) (Labouvie-Vief & Medlar, 2002, p.571).

Although Labouvie-Vief and Medlar (2002) used an interview to derive five levels of cognitive complexity and three levels of self-affect, they used a self-report instrument, Bartholomew's Close Relationship Questionnaire, a modification of the Hazan and Shaver (1987) measure for attachment styles, along with other self-report measures for depression and coping strategies. They also used Loevinger's Sentence Completion Test to assess ego development. A principal components analysis identified two dimensions, the first having high loadings of ego level, self-complexity and negative loadings on depression. This was labelled cognitive-affective self-

complexity. The second dimension had high loadings for positive, negative and blended affect about the self, and depression. This was labelled positive self-affect. They interpreted this as signifying that ego complexity and adjustment are independent dimensions. Adding the relationship scores to the hierarchical principal components analysis added little to the equation, but indicated that preoccupied individuals were less likely to have high scores on cognitive-affective self-complexity. From this analysis they derived four regulation groups based on the core strategy of affect optimisation which came from the capacity for integration of self and affect, along with the capacity of differentiation as indicated by affect complexity. If the ability to integrate was not present, high complexity is likely to result in *dysregulation*. This view of self-regulation is consistent with that view of hierarchical cognitive development of Tetlock and Suedfield (1988, see chapter 3). This finding may also be useful in the attempt to find a way to clarify methods to assess metacognitive processes when preoccupied transcripts contain excessive rumination about emotionally difficult relationships.

Autonomy, Attachment and Health

In the introduction to a recent journal issue devoted to autonomy as it relates to motivation and emotions, Reeve (2006) states that the experience of autonomy matters in people's lives, and as it functions as motivational support to people's positive functioning and emotional and physical wellness, its study will have "deeply meaningful and wide-reaching benefits" (p. 258).

Hmel and Pincus (2002) suggest that adjustment may reflect some optimal blend of agency and relatedness, and that autonomy with the meaning of separateness is inimical to adjustment. Once the concept of autonomy is distinguished in its definitions from cultural biases, the issue then is how does the notion of autonomy as self-regulation, but not separation and individuality, apply in different cultures. Ryan and Deci (2006) argue against cultural determinism. They acknowledge that conditional regard can be a form of social control, but say (p. 1564) "that security of attachment is the function of the degree to which the individual experiences autonomy with a relational partner", and that people feel most related to those who support their autonomy". Kagitçibasi, (2005) states that university samples in Turkey, the United States, Hong Kong and Sweden all agreed that "a person can be both autonomous and attached to someone" (p. 416). In the United States there may still be a belief that

separation from parents is a developmental goal, held by those who are concerned that adults should not be dependent, yet separation from parents and too great a distance from partners strains intimacy and prevents acknowledging need and seeking support when it is required.

Drawing these threads together, it can be seen that many theorists believe that the acquisition of cognitive and emotional complexity, and self-regulation, and positive self-affect, is what is meant by autonomy in adult attachment theory. Having these capabilities, having autonomy, means that self-management contributes to self-understanding and understanding of others. Having autonomy leads to mutually satisfying and supportive relationships which contribute to good health and psychological well-being. Consequently relationships between intimate partners are likely to be more satisfying and the adaptations necessitated by the arrival of a baby and the changes needed in the construction of a new family, are more likely to be achieved by an autonomous person.

In 1998 an issue of *Psychological Inquiry* was devoted to the meaning of “health”. An effort was made to get beyond a definition that is the absence of illness or dysfunction. Clearly this is a contested subject, overlapping with concepts of well-being, happiness and self-esteem. The lead authors, Ryff and Singer, discussed “‘Optimal allostasis’, or successful physiological adjustment to ever-changing environmental conditions, as a counterpoint to the prevailing focus on failures in the adaptation process” (Ryff & Singer, 1998, p.69). They suggest there are positive indicators of health which contribute to “cumulative advantage”, as well as illness-promoting factors that lead to cumulative adversity (p. 70). Amongst the positive indicators of health that are supported by research findings, they list self-assessed good quality relations with others, sense of accomplishment, experience of continuing growth, the acceptance of change and feeling that one is making a contribution (p. 70). “Quality relations with others” they consider “a *key defining feature* of positive human health” (p.72, original italics) because of its correlates with better health practices and emotional responses over time – extending the concept of social support.

In an earlier article, Ryff and Keyes (1995) reported research into “well-being”, that is, positive psychological functioning, in three age groups, young, middle and older adults, and produced a model of six factors, one of which was a sense of autonomy. Not surprisingly, Autonomy and Environmental Mastery increased with age. What is important to note from this article is that when we are using self-report

instruments with the purpose of exploring some underlying components of a construct such as “well-being”, there usually is the finding that overall there is one superfactor. In the Ryff and Keyes (1995) research that superfactor could be labelled “well-being” but the authors note that it was clear that respondents “answer questions to portray a positive self-image” (p.722). Distinguishing between the superfactor and the positivity artefact was achieved because of some sophistication in the research design and statistical analysis techniques. Ryff and Keyes’s model of Psychological Well-being has been found useful in later research (e.g., Bauer & McAdams, 2000).

“Adjustment” in research tends to be assessed by self-report measures of depression and anxiety or behaviour problems (e.g., Rubio, Aguado, Hotangas, & Hernandez, 2007). Panksepp (1998) suggests that general dimensional schemes such as Positive and Negative Affect Scales (Watson, Clark, & Tellegen, 1988) may need to have additional emotion items that tap positive engagement with the world and others. A construct relevant to the study of mind-body consistency or conflict, which relates to coping styles and has also been used in conjunction with attachment research is Vaillant’s (1993) hierarchy of defense mechanisms. For example, McMahon, Barnett, Kowalenko, and Tennant (2005) used Andrews, Pollock, and Stewart’s (1989) Defense Style Questionnaire; the Parental Bonding Instrument (Parker et al., 1979); and Feeney, Noller, and Hanrahan’s (1994) self report attachment instrument to investigate the relationships of depression, coping style and romantic attachment in an Australian sample. They found that using the Defense Style Questionnaire shed light on the persistence of depression that they believed could be associated with being less equipped to accept social support, a characteristic of the adult preoccupied attachment style.

A 1994 article by another Australian group (Kotler, Buzwell, Romeo, & Bowland, 1994) made the link between attachment and health via styles of coping which produce somatic responses. They listed research showing that the suppression of negative emotions was associated with anger and anxiety in many disorders such as asthma, rheumatoid arthritis and migraines, and was also involved with what has been called the “cancer-prone” coping style (Greer & Morris, 1975), the Type C coping style. A characteristic of this style is a high degree of dependence, a lack of “autonomous regulation [because] of great anxiety about being abandoned by a significant other ... [and an inability] to express negative affect for fear of displeasing the significant other” (p.238). Their research made use of the three item Hazan and

Shaver (1987) attachment style measure (now seen as inadequate for assessing attachment type) along with measures of emotional control, stress, ways of coping, psychological symptoms, and physical symptoms. They found that the avoidant attachment style was associated with high levels of emotional control which predict emotion-coping responses which are then linked to both physical and psychological symptoms of ill-health. However, they found that their measure for seeking social support was not adequate to throw light on the relationship between coping style and insecurity about support being available when needed. Just the same this study does point to avoidant attachment as a risk factor for health.

Maunder and Hunter (2001) describe how the attachment paradigm provides a truly biopsychosocial model of disease and ask whether secure attachment is associated with adult health, since there is a lot of evidence that insecure attachment is associated with disease. They describe the possible routes for attachment and health in adulthood to be linked. One of these is that insecure attachment alters the way people make use of protective factors such as social support and treatment adherence. They refer to Antonovsky's concept of coherence and note that the SOC measures characteristics overlapping with the positive, secure end of attachment dimensions, but the SOC does not assess an avoidant stance.

Maunder and Hunter (2001) cite Stuart and Noyes' (1999) finding that preoccupied individuals have acquired a sense of personal vulnerability and vigilance intense enough to interfere with normal perception of physiological operations leading to a low threshold for activating attachment behaviour and somatic responses. For the opposite case, they cite Mikulincer and Florian (1995) who found that all insecure young Israeli soldiers in a study following missile attacks during the Gulf War reported higher levels of hostility and somatization than secure subjects. They also cite the association of elevated salivary cortisol response in a study of attachment and subjects with idiopathic spasmodic torticollis (Scheidt, Waller, Malchow, et al., 2000).

Attachment theory, using a self-report attachment assessment, is becoming useful to consider in an amazing variety of health related research. Meredith, Strong and Feeney (2007) reviewing attachment links to chronic pain, cite a number of articles in which attachment styles are studied in relation to physical and mental disorders. These include depression (Parker, 1994), adherence to treatment for diabetes (Ciechanowski, Katon, & Hirsch, 1999), medically unexplained symptoms for sufferers of Hepatitis C (Ciechanowski, Katon, Russo, & Dwight-Johnson, 2002),

cancer (Hunter, Davis, & Tunstall, 2006), HIV (Koopman, Gore-Felton, Marouf et al., 2000), ulcerative colitis (Maunder, Lancee, Greenberg, et al., 2000), arthritis (McWilliams, Cox, & Enns, 2000) and eating disorders (Ward, Ramsay, & Treasure, 2000). It is hoped that funding may be found to investigate the relationship of AAI categories to these physical and mental conditions since the insecure attachment categories in particular are not adequately assessed with the self-report methods, and already there is a lot of evidence of the negative correlations of insecure attachment with most disorders.

Attachment State of Mind is not a Personality Trait

Many researchers perceive health or emotional adjustment in terms of personality characteristics, and argue for the pervasiveness of trait characteristics rather than temporary state conditions. There is a danger that state of mind with regard to attachment be understood in the same way. It is easy to slip into the habit of labelling a person as “secure” or “dismissing” implying a stable character trait, despite being fully aware that this characteristic is dynamic, having evolved over time and subject to possible future change. Important to note is that all the above research found that links autonomy and relatedness to health and personality characteristics has NOT used the AAI. Attachment concepts are used as explanations, but the actual research is using self-report attachment measures.

What autonomous means with regard to the coding of the Adult Attachment Interview may be something different. After all, it is derived from a performance in which participants demonstrate the valuing of relationships and the ability to reflect on how they were parented without being defensive or overwhelmed, and communication competence, assessed by someone else. With self-report measures participants assess themselves on their comfort with close relationships or their memories of parenting. The self-report attachment measures do not seem to be assessing autonomy as conceptualised in the AAI, or as in the research relating autonomy to health or psychological adjustment. Just the same, as discussed in Chapter Two, the differences between the behaviours and attitudes of those classified as secure, dismissing or preoccupied by the recognised self-report and interview methods can contribute to the better understanding of both the validity of the instruments and to the underlying organisations that each method is trying to assess (Belsky, 2002).

Summary of the Concept of “Autonomy”

In this present research, it is proposed that there is another necessary connotation in the use of the word “autonomous” apart from the ability to be self-managing, that a person has reached a level of mature thinking that can be called autonomous. Having reached that level there is a good chance that the person can conduct his or her affairs in a way that enhances participation in economic and civic life, and in particular has the ability to build strong, satisfying and loving relationships with parents, children and partners. Becoming autonomous also implies having the psychological and social supports that signal resiliency, a protective ability to weather adverse events in life.

In the next chapter, the emphasis will be on the demonstration of coherence or autonomy as a consequence of maturation of thinking processes.

CHAPTER THREE

COGNITIVE COMPLEXITY, COHERENCE AND THE AAI

Attachment theory as conceived by Bowlby was influenced by ideas about cognition that were emerging in the 1940s and 50s. Although he made use of Piagetian concepts (Inhelder & Piaget, 1958; Piaget, 1924, 1936, 1937, 1947, cited in Bowlby, 1969) and later researchers studying the development of attachment in childhood and adolescence inevitably found Piagetian concepts useful, the study of adult attachment has not made use of later developments of Piagetian cognitive theory, beyond adolescence, into adulthood. Just the same, cognitive developmental concepts have been made use of throughout attachment research as explanation but often without any assessment measures or without acknowledgment of the basis of the explanation. In this chapter, the ideas of a number of theorists working on the development of Piagetian theory through a range of inter- and intrapersonal fields of learning and reasoning are traversed (see Appendix 1) because these notions are relevant to the initial learning of infants, then to the developing of cognitive competencies through to adulthood. The acquisition of competence is deeply connected to the ways in which attachment organisation can express itself, and the possibilities of maintenance or change in attachment representation.

Theories of Cognitive Development

Piagetian Theory and Post-formal Thinking

One Piagetian concept which Bowlby used was that of the scheme (Bowlby, 1969, p. 48). He described how an infant builds on the basic schemes available at birth and goes on to acquire more elaborated schemes and other related mental organisations that are associated with relationships and self in relationships. These particular schemes Bowlby named “Internal Working Models”. (See earlier discussion.)

Another important aspect of Piaget’s model of cognitive development was that of developmental stages, aspects of which are relevant to attachment in adulthood as well as in earlier stages. Infants, according to Piaget, build sensorimotor schemes of increasing complexity. Logical thinking emerges around the age of 7. Concrete operational thinking remains in use throughout adulthood for some tasks, but an adult is considered limited if they do not develop the skills that Piaget called formal operational

thinking which usually emerge between the ages of 12 and 15. Formal operational thinking allows a person to reflect on more complex abstractions, causal dimensions and counterfactuals. With the ability to think in this way, individuals can compare the relationships that they have with idealisations they have constructed.

For understanding adult attachment we need to look to the work of those theorists who have realised that beyond the logic of formal operational thinking are further steps. Various theories have arisen, some based on cognitive stage theory, others based on skill theory. Fischer and Pruyne (2003) suggest that a general capacity for advanced abstract thinking emerges during early adulthood and this serves as the foundation for reflective thinking. Whether this capacity “emerges at all depends entirely on the individual’s experience” (p. 169).

The dynamic interaction of cognitive/brain capacities with the presence or absence of environmental demands for serious engagement in reflective thinking are largely responsible for the timing that characterizes the emergence of reflective thinking in each individual (Fischer & Pruyne, 2003, p. 183).

Without substantial environmental support or pressure an individual may not function beyond single abstractions but just the same can cope with ordinary life tasks. As society has become more complex, various authors have described how increasing demands require added coping skills (Kegan, 1994), and how increasing cognitive development assists in flexible adaptation.

Scholars have been working on the extension of Piaget’s stage model of cognitive development, describing higher hierarchical levels of logical thinking or cognitive complexity. Labouvie-Vief (Labouvie-Vief, Hakim-Larson, DeVoe, & Schoeberlein, 1989) constructed a model based on adult self-regulation, with stages named as presystemic, intrasystemic, intersystemic and integrated/autonomous. Kramer, Kahlbaugh and Goldston (1992) talk about absolute, relativistic and dialectical levels of adult thought. Commons (Commons, Richards, & Kuhn, 1982) presents evidence for four postformal stages: the systematic, metasystematic, paradigmatic and cross paradigmatic. These levels have certain features in common, for example, behaviours involving perceiving, reasoning, knowing, judging, caring, feeling or communicating in ways that are more complex or more all-encompassing than formal operations (Commons & Richards, 2003). Equipped with these mental skills, a person has more strategies for perspective taking, problem solving and thus is able to be more competent intellectually and emotionally. For example, observing that a characteristic of adult

thought is the recognition and acceptance of incompatible truths, and of ambiguity, theorists build a model of a hierarchy of skills which an individual may make use of and so construct more complex levels of understanding. Beyond formal operational thinking can be found the concept of relativistic thinking which provides the understanding that truths depend on context and the way a subject perceives them, and so there is no absolute truth to be looked for. In cases where action needs to be taken on the basis of inadequate or incomplete information, it is not the “right” solution that must be found, but the best amongst several possible solutions.

Cognitive development in relation to emotional regulation is relevant to how young adults perceive themselves in relation to the impending task of parenthood. Those young adults who have accomplished the developmental process of being able to differentiate processes of self, of context and of history, and hold them in mind, will be better equipped to make sense of the stresses that will challenge their adjustment to themselves, their relationships and their behaviours in response to the infants’ behaviours. They may have already acquired the capacity for advanced abstract thinking that Fischer and Pruyne (2003) were referring to. Whatever they bring to the demands of parenthood, these demands will challenge them to exercise their cognitive capacities.

The developmental stages of different postformal theories can be seen to be conceptually convergent though not identical. Use has been made in recent years of stage descriptions in interpreting the cognitive developmental level which is reflected in the responses of adults in interviews and other assessment measures (Kohlberg & Rynarz, 1990; Koplowitz, 1987; Labouvie-Vief, 1984; Pratt, Skoe, & Arnold, 2004). Sometimes these have been used in association with research into the development of attachment. For example, Allen and associates in an extended research programme with adolescents used the AAI and cognitive development concepts (Allen & Land, 1999; Allen et al., 2003). Other researchers have investigated the relationship using adult attachment assessment instruments other than the AAI (Diehl, Elnick, Bourbeau, & Labouvie-Vief, 1998; Shaver & Clark, 1996). However, these projects did not focus on the possible relationship of cognitive development level and its contribution to secure or autonomous attachment in adulthood because of a meaningful association with the concept of coherence or communicative competency.

The following section discusses how theories that excited systematic research projects in the last quarter of the twentieth century provide findings that can contribute

to current understanding of how the cognitive skills of parents or caregivers are significant features of the contexts from which infants and children can construct their emotional, social and intellectual development.

Kohlberg, Gilligan, Loevinger

Kohlberg's (1981) moral development stages were based on Piaget's stage concepts. Conceptually these can be linked to the way that people think about themselves in intimate relationships, and in particular how they interpret the behaviour of themselves, their parents, spouses and children. If adults remain egocentric, avoiding blame or seeking to advantage self under any circumstance, they can be assessed as being Preconventional moral thinkers, probably operating at a Preoperational Piagetian level. If they are unreflective rule-followers or motivated to feel good because they look good to others, they can be assessed as Conventional, which corresponds to early Formal Operational thinking. It is only when they move to later Formal thinking and beyond, to the post-formal level which Kohlberg describes as the Postconventional period, that individuals can reflect on the different meanings that may be influencing people's actions, realise that people are not always logical, not always self-serving and that problems can have many potentially valuable solutions. Then they can gain a sense of their own responsibility for their own values and actions.

Reflecting on Kohlberg's theory and the subsequent research, Gilligan (1982) realised that Kohlberg's hierarchy was a model based on the logical development of understanding of principles of justice, and that not all thinking and problem solving was conducted according to those principles. At first she interpreted this along gender lines – men tended to think in terms of logical principles and women in terms of relationships and the effects on people. Later she recognised that there was a convergence as it became apparent that both men and women could and did reason about moral and ethical issues with either or both logical and care principles and indeed that being able to operate with both was a feature of higher levels of mature thinking.

Gilligan's (1982) descriptions of the different levels of reasoning exhibited in her early research with women considering an abortion also can be useful when thinking about attachment theory and how well prepared young adults might be for becoming parents. She found that women with the very real problem of an unwanted pregnancy produced reasons for and against an abortion that could be allotted to three levels of complexity, as with Kohlberg's theory. The equivalent of Preconventional moral

thinking Gilligan saw as the level of individual survival, where the woman considered the problem only as it affected her; she did not exhibit the ability to consider how her decision might affect the baby or others around her. The woman at the Conventional level was concerned with how she might be transgressing rules or how others might be judgmental of her. Rather than being self-defensive, this woman because of her concern about how others would think of her, was self-sacrificing. This level of thinking is very aware of different perspectives but not yet able to reflect on different perspectives at the same time. At the Postconventional level, a woman becomes aware of herself as a person with rights and with responsibilities to care for herself as well as for others, and as a result she must take on the consequences of her actions or inaction rather than perceive herself always as the object of others' actions.

Gilligan's ideas contributed to the interpretation of the findings which emerged from the work of Loevinger (1976, 2002) who had begun exploring the concept of the authoritarian personality, and then moved to gathering data from mothers through the method of sentence stem completions. Through clustering types of sentence completion and statistical reiteration of data through years of research, the Washington University Sentence Completion Test assesses what Loevinger called ego-development, meaning the sequence of development of the ability to be self-managing by the maturing autonomous mind. These levels which are specified in detail in the coding manual (Hy & Loevinger, 1996) can be summarised in three levels similarly to Kohlberg and Gilligan models. The Preconventional stage characterises a person who is impulsive and self-defensive and demonstrates concrete operational thinking more appropriate to children. At the Conventional level individuals describe themselves and others in conventional terms and assert the primacy of following rules, even if the rules followed are sometimes antisocial or criminal codes. Maturing adolescents and adults can move to awareness that exceptions to rules and complexities of human personalities and motivations abound, and become less sure of the certainties of the world. It is in this level, called Self-Aware, that ego-development research has found the median in community adult samples (e.g. Holt, 1980). Beyond the Self-Aware stage of ego development, adults move into a focus on self as a type of person and a concern about ideals, including the failure to live up to ideals. Postconventional stages are described as showing evidence of being able to hold in mind and manipulate a variety of dimensions and higher levels of complexity which provide an individual with more flexibility and a greater array of coping skills, while at the same time increasing an

awareness of aspirations and perhaps failure to live up to them. Higher stages of ego development may make a person more capable but not necessarily happier (Loevinger, 1993). (Further discussion of the assessment of increasing ego maturity is in a following section.)

Perspective Taking

Selman's (1980) model of developmental stages in the acquisition of social awareness including perspective-taking abilities has also been incorporated into understanding of adult competencies. The highest levels of perspective taking are not attained until at least 15 years and, similarly to other stage theories, sometimes are never reached (Selman, Beardslee, Schultz, Krupa, & Podorefsky, 1986). Perspective-taking as a social competency has been explored in research into the development of friendships, communication skills, social anxiety, interpersonal aggression (Corcoran & Mallinckrodt, 2000), maltreated children (Burack, Flanagan, Peled, Sutton, Zygmuntowicz, & Manly, 2006), forming productive relationships with counsellors and in negotiations (Galinsky, Maddux, Gilin, & White, 2008). Perspective-taking ability is highly relevant to assessment of attachment especially in relation to ability to respond to infant's signals in a responsive and sensitive way. Using self-report attachment measures to investigate the linkage with perspective-taking, Corcoran and Mallinckrodt (2000) found that secure adults were more likely to explore the perspectives of partners in conflict situations.

Epistemological Development

Epistemological development has also been studied by different groups of scholars during the seventies and subsequently (Dawson, 2004). Perry's (1970) nine stage model of the epistemological development of university students and adults can be described in the same sort of shorthand way as other cognitive development models. Dualistic thinkers see things as black and white, good/bad, certain and uncertain. They like things to be concrete and become uncomfortable with abstract nuances. They assume conflicts can have a single correct solution. Relativistic thinkers are aware that meaning depends on context; perspectives can be different and need not be judged to be correct or incorrect. Likewise there may be many solutions to problems, some being more useful than others. The higher levels which are unlikely to be found in young

adults (Kitchener, Lynch, Fischer, & Wood, 1993; Labouvie-Vief & Diehl, 2000) involve the complexity of dialectical thinking.

Kramer (1989) frames her model of cognitive development in the traditions of Pepper (1942), Popper (1959) and Perry (1970) with regard to world views and what constitutes knowledge about the world. Kramer (1989) describes formalism-mechanism as being characteristic of adolescent thought:

analytic, construing the world as decomposable into its basic elements, whether these are ideal forms, categories or chainlike causal links. In an analytic framework the world is seen as stable and fixed, with any development being propelled by external forces. Contradiction is impossible, and principles and solutions are seen from only one perspective, as absolute entities (p.136).

She describes the contextual/relativistic world view as where

random change is basic to all reality, and knowledge is embedded in a broader context, whether this is the cultural/historical one, the cognitive framework, or the immediate physical and psychological context. Prediction is impossible... contradiction runs rampant (p. 141).

and this corresponds to the multiplicity or intersystemic stage that Perry describes.

Beyond that is the organicist/dialectical world view where

all phenomena are in continual movement or activity, characterized by the ongoing tension between events, their negation, and resolution of that negation into momentary structures that soon begin to create new tensions, initiating the cycle again...characterised by emergence ...and reciprocity ...reflections of the same underlying unity (Kramer, 1989, p. 141).

which corresponds to commitment within relativism or Labouvie-Vief's autonomous stage.

Belenky, Clinchy, Goldberger, and Tarule (1986) conducted an ambitious study linking the work of Kohlberg, Gilligan, and Perry to investigate the way women think about different areas of conflict and ambiguity. They specifically state that the different *ways of knowing* are not stages but it is clear that they can be understood as ordered in a hierarchy that is conceptually similar to other stage models (Fields, 2001). In later studies they made use of their ways of knowing to explain the different ways women understood their own and other minds, and how that related to their parenting practices (Bond, Belenky, Weinstock, & Cook, 1996; Bond & Burns, 2006). This work supports

the link between different attachment styles of mothers and how they understand the minds of others and especially their infants.

Task Complexity

Others such as Basseches (2003) and Commons, Trudeau, Stein, Richards, and Krause (1998) have been making models of sequences by which advanced cognitive abilities can be described. They have replaced the idea of developmental stages with the results of analysis of tasks – so they describe the hierarchical complexity of tasks. They claim that the “identical measures of hierarchical complexity underlie the development of any domain” (Commons et al., 1998, p. 239). Interpersonal relationships can be seen to be one domain (Gardner, 1983). Successful efforts have also been made to teach these skills (Magolda, 1999; King & Kitchener, 1984, 2004).

Links Between Domains of Thinking

Scholars interested in the complexities of adult development and the increasing differentiation of individual differences beyond adolescence, investigate the associations between assessments of cognitive level in different domains. For example Pratt, Pancer, Hunsberger, and Manchester (1990) gave Kohlberg and Gilligan interviews to adults and coded self-descriptions for connectedness and integrative complexity using Suedfeld and Tetlock’s model (Tetlock & Suedfeld, 1988). They also used the Suedfeld and Tetlock measure with the Concepts of Development measure using vignettes (Sameroff & Feil, 1985), another measure based on Piagetian stage theory, in a project investigating reasoning about parenting (Pratt, Hunsberger, Pancer, Roth, & Santolupo, 1993).

McAdams (Bauer et al., 2005) explored the connections between personality development, that is social-cognitive maturity, and well-being. They used the Washington University Sentence Completion Test (Hy & Loevinger, 1996) as the measure of maturity, Ryff and Keyes (1995) Psychological Well Being questionnaire and the Big Five Inventory (John & Srivastava, 1999) and narratives of high points, low points and turning points in life. They found that mature participants emphasized integrative memories (conceptual integration and learning). Growth memories were largely independent of Big Five traits in relation to maturity and well-being.

McAdams et al. (2006) investigating personality development in adulthood, used Deci and Ryan’s self-determination theory (Ryan & Deci, 2000b, discussed

previously in regard to the concepts of “autonomy” and “relatedness”) coding for agency and communion and Loevinger’s personal growth themes. They also coded narrative complexity using Suedfeld and Tetlock’s system.

Tetlock and Suedfeld (1988) had devised a system for analysing verbal material on structure rather than content. Key to their system, were the two dimensions, integrative and conceptual complexity. They define integrative complexity as the level of complexity in the verbal material, while conceptual complexity refers to a stable characteristic of a person. These definitions are heuristic rather than established (Tetlock & Suedfeld, 1988, p. 44). Baker-Brown et al. (1992) published a scoring manual for integrative and conceptual complexity, which is now accessible for training coders on the internet.

Woike (1994) linked together the concepts of differentiation and integration of Baker-Brown et al. (1992) and Belenky’s (1986) concepts of “separate and “connected” ways of thinking. Investigating this in a number of projects, Woike (Woike & Matic, 2004) came to the conclusion that certain aspects of personality might interact with environmental attributes to affect the degree of complexity of social perception. They suggest that people who might have the same levels of cognitive abilities may engage more effort when addressing topics that they are more motivated to attend to. In particular they address the differing amount of effort that people put into topics that elicit agency or communion motives depending on stable features of their personality that align with either of these motives. They found that individuals are more likely to use elaborated differentiation and elaborated integration for topics that were in line with their motivational stance. Thus they have come to a similar position to that of Mary Main and the adult attachment theorists in the use of the AAI coding systems and the interpretations assigned to certain features of discourse derived from it. For example, those adults who exhibit the ability to appraise positive and negative aspects of self and their parents are more likely to be interested in examining relationships, and these individuals are most likely to be assigned to the secure/autonomous category.

Brain Development

Fischer who has a somewhat different developmental theory to the Piagetian model of learning has recently been interested in reflective thinking (Fischer & Pruyne, 2003), and notes how it develops at different rates in different domain areas. He wonders why it does not necessarily generalise to other domains, and also why it does

not emerge before early adulthood. This is where recent study of brain development is offering new understanding of cognitive development. Just as it is now entering common acceptance that adolescent brains do not generally have the competency to efficiently evaluate danger situations and assess consequences, researchers such as Kitchener et al. (1993) find a spurt in reflective judgement at approximately 25 years of age. Labouvie-Vief and colleagues (e.g. Labouvie-Vief & Diehl, 2000) are finding that postformal levels of thinking are not common before 30 years of age and others, following Vaillant (1993), find that immature defence mechanisms become less common during the middle adult years (Irwin, 1991). So we can assume that people develop at different rates in different domain areas, and that in early adulthood, many people will not have achieved levels of cognitive complexity that they might later achieve. This does not, however, preclude the attainment of mature levels of complexity by some young adults, and this may be relevant to their revealed reflective ability (and/or reflective functioning) and to their ability to adjust to the challenges of parenthood.

Parenting as a Cognitive Challenge

Assumptions are made that life experiences cause further cognitive development because previous patterns of thinking have been inadequate for present challenges. Becoming a parent has been studied as one of these important developmental events (Belenky et al., 1986; Belsky, 1985; Pirttilä-Backman, & Kajanne, 2001). Azar (2003) points to parenting as having been seen to provide “a necessary and unique context for the development of cognitive maturity” but says that “it also has been seen as just one of the many stressors that adults encounter that lead to either personal growth or maladaptation” (p. 391). She argues that parenthood is a relational task which involves capacities from many domains of adult adjustment, especially social cognitive ones. It is a far from simple role. It is a chronic stressor, the tasks vary with context, and essentially it is socially constructed. She says

Assuming or even contemplating the role of parent may thus be viewed with trepidation because it is seen as having a narrow set of socially constructed tasks that even under the best of circumstances may be overwhelming to adults’ sense of autonomy (p.394).

Such insights come with postformal thinking capacities. Young adults approaching parenthood may not be thinking this way. That is one of the reasons it is

worth investigating the possible cognitive complexity levels of the responses to attachment interviews. The experience of pregnancy, birth and adjusting to the demands of an infant and reengaging with the ongoing issues of life will be stressful but in relation to the flexibility and competencies that the individual has already developed.

Non-Piagetian Conceptions of Cognitive Development

As well as extensions of the Piagetian paradigm there have been many critiques and reformulations of the skills noted by Piaget but not seen as requiring the sequencing that Piaget and others see as logically necessary. In a report using mathematical modelling to show that the hierarchical complexity of tasks can demonstrate the existence of stages, Commons et al. (1998) review the different criticisms of traditional stage theory. Case (1996) discusses the difference between Piagetian ideas of cognitive structures and attachment theory ideas of internal working models. He says that Piagetian structures are energised by curiosity, whereas IWMs are energised by love, fear and anger. He points out that early cognitive schemes as described by Piaget are inaccurate models of the world which are reorganised into more accurate models, whereas IWMs theoretically are constructed as relatively accurate models of the child's early world. Assumptions such as this about the accuracy and the continuity of early relational schemes/IWMs are being reevaluated as a result of the longitudinal data now coming in from young adults who were assessed with the Strange Situation as children. As noted previously, attachment theorists are unlikely to hold the view that an IWM in adulthood is currently operating with a representation of the real early view of the world that the child once held. The notion of "working" model contains the idea that it is possible for experiences later in life to provide information that counters the expectations of the IWM and can modify it. Hence, Mary Main's terminology – "State of Mind with regard to attachment"; what is operating in the Adult Attachment Interview is the current state. Between the infant and the current representations of adults are all the developmental changes, especially those connected to the focus of interest here, cognitive development.

Relating These Ideas to the AAI

This review of the way cognitive development has been studied is a preamble to the proposition that what is revealed in discourse in the Adult Attachment Interview is the frame of meaning of each individual. Part of this depends on the topic that they are

talking about and how it affects their engagement with memories and motivation to talk about the topic to a stranger. Part of it depends on their acquired repertoire of cognitive abilities. Making use of the descriptions of different ways of thinking derived from different cognitive theorists enables us to make reliable interpretations of the thinking processes apparent in the interview. This sort of interpretive engagement with discourse has become common over the last few decades, operating in a post-formal and relativistic academic climate. No claim is made that the assignment of descriptive characteristics to a passage of discourse represents a stable feature of the person who uttered the words. The discourse is emergent from the context. However, experience with many similar transcripts can produce evidence of patterns that can be linked to theoretical principles and features.

Just as Jane Loevinger and her associates have constantly fed new data into their analysis of sentence stems and revised their categories of ego-development and the data that classifies people, Mary Main and her associates working on the coding manual of the AAI have revised and refined certain features as pointing to certain types or styles of attachment organisation. Some aspects still appear to be less than satisfactorily accounted for, therefore challenging researchers to explore other ways of examining the data. Fonagy, Steele, Steele, Target, and Schacter (1997) have been working on the formulation of the reflective-self function, now called reflective functioning (n.b., this is in a different conceptual space to Kitchener and King's Reflective Judgement model) and their coding system is becoming well used in attachment-based research (e.g., Balbernie, 2003; Corcoran, Phillips, & Pederson, 2001; Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002; Lis, Zennaro, & Mazzeschi, 2000; Phillips & Chovaz, 1997.)

Attachment research can benefit from examining the cognitive complexity of discourse in the AAI and how differences in cognitive complexity might relate to attachment classifications. That is one of the aims of the present project. At the same time this project is going a small way to do what Feldman (2007) is calling for, a study of the characteristics of the couple and their setting before family patterns stabilise after the birth of the child (see Chapter Four). She says "The transition to parenthood may afford a unique window to assess the effects of maternal and child risk on the parent-child and family relationship before bidirectional influences have been consolidated" (p.295).

Assessing Cognitive Complexity of New Parents

Cognitive complexity is a variable that has not appeared in previous attachment research as important in the assessment of parenting skills or the interpretation of the categories of the AAI in relation to the attachment relationship of parents and their children. Some work has been done recently assessing cognitive complexity in relation to interpersonal communication skills (Weger & Polcar, 2000). That has used constructivist measures derived from the theories of Kelly (1955) and Werner (1957), centred on the number and complexity of role categories. As shown in the previous section, there is a wide field of approaches to cognitive development to choose from. In this section, three well-tried measures will be reviewed with the intention of using them at the same time as the AAI.

These instruments are intended to measure (1) overall maturity in concerns of importance to self (i.e., identity development), (2) particular interpersonal ability to articulate awareness of other minds (i.e., more affective development), and (3) demonstration of ability to differentiate and integrate ideas about parental relationships (i.e., more cognitive development in a content area). The specific instruments selected for this research are:

- The Washington University Sentence Completion Test (SCT: Loevinger, 1998; Hy & Loevinger, 1996).
- Reflective Functioning Scale (RF: Fonagy, Steele, Steele, Target, & Schacter, 1997).
- Cognitive Complexity (Integrative and Conceptual Complexity: Baker-Brown, Ballard, Bluck, DeVries, Suedfeld, & Tetlock, 1992).

The Washington University Sentence Completion Test

The description of the Secure-Autonomous adult from the coding of the AAI includes competencies which are not likely to be held by adults with immature levels of ego development. Ego development is the dimension of cognitive development which seems most applicable to be used as a proxy for cognitive development regarding self and interpersonal relationships. Ego development has been proposed as relevant to attachment classification (Hauser, Gerber, & Allen, 1998) and has been used in the Hauser and Allen studies of adolescents.

A careful search has found only one published account of research using the AAI and SCT with parents: Fineman, Beckwith, Howard, and Espinosa (1997), “Maternal ego development and mother-infant interaction in drug-abusing women”. Neither the Fineman et al. or the Hauser and Allen studies focuses on the relationship between the characteristics of each of the ego development levels and the characteristics which describe attachment state of mind. However, the SCT was used as a measure of psychological maturity in research into the effect of marital conflict on the attachment of parents and children (Owen & Cox, 1997). The present research project will be a test of whether adding the dimension of ego development as measured by the Washington University Sentence Completion Test has the ability to illuminate what was expected from the Metacognitive Monitoring scale of the AAI, which so far has been less than satisfactory in application (Main, 2002, personal communication). It is thought that this scale could reveal a key component in the Coherence construct of the AAI which in turn seems to be capturing a key characteristic of the environment of care that a parent offers a child.

Ego development as conceptualized by Loevinger, is a broad and richly articulated construct, which relates many aspects of moral, social and cognitive development (Einstein & Lanning, 1998). Broughton and Zahaykevich (1988) describe the model as collapsing “broad areas of personality structure into a single focus on organizational complexity” (p. 185), in short, “with development, egos become more active, self-aware, tolerant, objective, flexible, and autonomous” (p.184). Loevinger’s (1976) model includes the personality constructs of impulse control, interpersonal style, conscious preoccupations and cognitive style:

- Impulse control: movement to becoming more socialised, and then developing a conscience, tolerance, respect for individuals, coping with and reconciling inner conflicts.
- Interpersonal mode: egocentrism to altruism, becoming more cooperative and self-aware, valuing of individuality tempered with an awareness of the role dependence plays.
- Conscious preoccupation: things, desires, bodily feelings, progresses to a focus on adjustment, then reflective self-description, and ultimately to a preoccupation with understanding personality in general in a quasi-theoretical fashion. Two forms of conscious preoccupation – self-concept and social cognition.

- Cognitive Style: simple stereotyping gives way to complexity in the middle range then expands to a tolerance for cognitive ambiguity.

Aspects of what might be called self-regulation have been studied by many psychologists over decades (Damon, 1983; Kegan, 1982; Kohlberg, 1981; Labouvie-Vief et al., 1989, 2000; Lazarus, 1991; Piaget, 1932; Selman, 1980; Vaillant, 1993). These notable theorists describe the changes that are measurable in childhood and adolescence but become harder to measure later as the rate of change is slow and indeed many adults do seem to reach a level and not move on subsequently. The assumption is that humans can and do change throughout adulthood but what precipitates change is worthy of research. In addition there has been much discussion about whether change or progressive development is necessarily beneficial to individuals (Daloz, 1986; Kegan, 1994). Loevinger (1976, 2002) herself tells about how her ideas formed within the psychological period of the time. She refers to the ideas of Kuhn, Freud, Erikson, Piaget, Kohlberg, Perry, Sullivan, Baldwin, Mead and Cooley, Dewey, Isaacs, Peck, Kelly, Maslow, Rogers, Ricoeur, Gergen, and others. She was well aware from the beginning of the difficulties of the project she was undertaking (Loevinger, 2002).

Original data gathering (1976 to 1978) contributing to the manual was from a variety of adults, about half being college students. Nettles and Loevinger (1983) studied over 100 couples half of them in marriage counselling. The mean ego level was the same for men and women. The sample on which the first manual was based points to its appropriate use with couples in the conventional child-bearing years in New Zealand, even if Americans thirty years ago are obviously different in their language use and values to New Zealanders currently. The extensive international use of the SCT subsequently suggests that culture and language use make little difference to a robust instrument (Carlson & Westenberg, 1998).

The process by which the SCT was created, called microvalidation, evolved. First sentence completions were collected, and the team around Loevinger tried to find a way of classifying each. They made up an exemplar manual, collected more examples, and by a continual processing of the sentence endings and relating them to their tentative categories, they refined their manual and their categories. This process has led to the most recent coding manual (1998) with Le Xuan Hy, and a slight reframing of categories and what they might

mean.

Assigning a score for ego development (a TPR or Total Protocol Rating) has also evolved with the method of assigning completions to categories. Because any test will have completions which will be assigned ratings typical of a number of levels, the most appropriate solution was to apply a unique algorithm based on the cumulative distribution of item scores. This is called the ogive score. Once that had been developed it was also possible to work out how adding the ratings, the Item Sum Score, could be used also to assign a protocol to an ego development level. In trialling the most recent manual for coding and assigning a TPR by both methods, it is found that there are very few cases where the assignment of level is not the same (Loevinger, 1998).

Loevinger says “the weakness of the method lies elsewhere, in confounding factors. The universe, including the universe of interpersonal relations, does not present itself to us as a set of orthogonal variables. In life ego development is intertwined with socioeconomic status, intelligence and verbal ability” (1997, p. 206).

For Loevinger, the “ego” is an abstraction, not an extant structure; thus, she has defined the ego informally, referring to it as a “frame of reference” or “lens” through which individuals perceive their social world (ego development thus represents a change in one’s frame of reference) (Cohn & Westenberg, 2004, p. 761).

This has obvious similarities to efforts to define “internal working model of attachment relationships”, or “state of mind with regard to attachment” and includes the notion of expectation of change.

Cohn and Westenberg (2004) report that the SCT has been used in more than 300 studies, administered to more than 11,000 individuals, and translated into at least 11 languages, so this would make the SCT arguably the most extensively validated projective technique. Although there does seem to be some relationship between ego level and intelligence and socioeconomic status these appear to be minor (Muuss, 1996).

The fact that Loevinger emphasises the organisational complexity of responses at the expense of content makes it similar to the AAI. She makes use of the term “autonomous” for her eighth out of nine levels of ego development.

Ego development stages. The ego development stages according to the most recent formulation from Hy and Loevinger (1998) and Manners and Durkin (2000) are as follows:

- Presocial/Symbiotic (E1): This stage is acknowledged but not described in Hy and Loevinger (1998). The description in Loevinger (1976) is in Piagetian terms of object constancy and conservation, and Mahler's notion of symbiosis. It is preverbal, hence inaccessible to assessment via the sentence completion method.
- Impulsive (E2): demanding, impulsive, conceptually confused; concerned with bodily feelings, especially sexual and aggressive; no sense of psychological causation; dependent, good and bad seen in terms of how it affects self; dichotomous, i.e., good/bad, clean/dirty.

If this stage persists into adulthood "it is at best maladaptive and in some cases psychopathic" (Loevinger, 1997, p. 203).

- Self-Protective (E3): wary, complaining, exploitative, hedonistic; preoccupied with staying out of trouble, not getting caught; learning about rules and self-control, externalising blame.

"The emotional range is limited and the conceptual range simple... A person who remains at the Self-protective Stage can sometimes become a big success in adolescence and adult life" (Loevinger, 1997, p. 203).

- Conformist (E4): conventional, moralistic, sentimental, rule-bound, stereotyped, need for belonging, appearances important, superficial niceness; behaviour of self and others seen in terms of externals; feelings only understood at banal level; conceptually simple, "black and white" thinking.
- Self-Aware (E5): increased, although still limited, self-awareness and appreciation of multiple possibilities in situations: self-critical; emerging rudimentary awareness of inner feelings of self and others; banal level reflections on life issues such as death, relationships, health.

This stage appears to be the modal stage in community samples in many countries (Edelstein & Krettenauer, 2004; Holt, 1980).

"Although still basically a conformist, the person is aware that he or she does not always live up to the group's professed standards" (Loevinger, 1997, p.203). Loneliness or self-consciousness may be a sign of this stage. Self-

awareness means that sincerity and phoniness become important considerations (Blasi, 1988, p.237). Blasi (1988) also suggests that this stage marks “the birth of the *reflected self* and the beginning of identity. Prior to this stage, one’s identity is made up of one’s external appearance, social or family relations....” (italics added, pp. 235, 236).

- Conscientious (E6): self-evaluated standards; reflective, responsible, empathic, motives and consequences important; long-term goals and ideals; true conceptual complexity displayed and perceived, can see the broader perspective and can discern patterns; principled morality.

The elements of a mature conscience are present: in fact the person may be oppressively conscientious (Loevinger, 1997, p. 203).

- Individualistic (E7): heightened sense of individuality; concern about emotional dependence; tolerant of self and others; incipient awareness of inner conflicts and personal paradoxes; without a sense of resolution or integration; values relationships over achievement; aware of significance of role differentiation.
- Autonomous (E8): the key characteristic is recognition of other people’s need for autonomy (which is clearly related to the use of the term in AAI coding, as are other characteristics listed by Loevinger); capacity to face and cope with inner conflicts; high tolerance for ambiguity, ability to see conflict as an expression of the multifaceted nature of people and life in general; relationships seen as interdependent rather than as dependent/independent; concerned with self-actualisation; recognises the systemic nature of relationships; cherishes individuality and uniqueness; vivid expression of feelings.

Blasi (1988) describes this level as concerned with the realisation that one has “conflicting desires and irreconcilable goals... there is an attempt to free oneself from socially accepted ideas, ... a concern to protect one’s independence particularly in the context of close and intimate relationships” (p.238). But the self does not seem to be fragmented: there is a sense of searching for purpose, authenticity.

In her examination of the meanings associated with the term “autonomous” Friedman (2003) takes a view that seems in line with Loevinger’s position. She sees autonomy as developing a more complex individuality, a

greater individuation, but one that is still operating within social relationships.

- Integrated (E9): the theoretical highest point, estimated to be less than 1% of urban adults in the USA; so far the closest description is that of Maslow's (1954) self-actualizing person; wise, broadly empathic, full sense of identity; able to reconcile inner conflicts and integrate paradoxes.

Research using the SCT and AAI. In the Fineman et al., (1997) research with drug-abusing mothers mentioned above, the SCT was used with the AAI as a measure of maternal functioning which would provide a framework for studying how this might affect the mothers' caregiving. The AAI classifications were not used but the content analysis was used to make up a family deprivation cumulative risk factor. The dependent variable was the children's Ainsworth's Sensitivity score. In this high risk sample 41% of the mothers were Preconformist, 55% Conformist and 4% Postconformist on the SCT and there was a significant difference in the infant's behaviour by ego levels. The relationship of AAI classifications to maternal ego levels are not reported.

Hauser et al. (1998) give a well-argued case for the link between ego development and attachment based on the research programme with adolescents over the years, but the data on which this is based is not available in the article. They say that higher levels of ego development are associated with increasing nurturance, trust, interpersonal sensitivity, valuing of individuality, psychological mindedness, responsibility and inner control (p. 209). They report that adolescents with higher ego levels are classified as secure attachment status in young adulthood, in contrast to significantly lower adolescent ego levels for unresolved, preoccupied and dismissing young adults. This is the strongest case found for a link between attachment status and ego development scores. Their finding showed that 16% of the variance in adult attachment coherence is explained by adolescent ego development.

New Zealand research using the AAI and the SCT has been conducted in small scale research by graduate students supervised by the present author. Murch (2002) used the AAI and SCT with a sample of seven adults in treatment for substance abuse. All of these had extremely disturbing experiences in their childhood and up to the present. All except one were classified as Unresolved and in three cases Cannot Classify as well. The stories they told of the parenting of

their own children showed continuing disturbance, a claim of loving their children more than anything, which was why they sought help (but it was not for the first time). Just the same each one scored on the SCT at the ego level considered modal for the adult population (E5 Self-Aware) or higher. Three were assigned to E7 Individualistic. This small sample suggests that higher levels of ego development are no protection against trauma or mental health problems, as indeed Loevinger (1976) was careful to explain. She described how people at different ego levels might exhibit different types of concerns about the world, so maladjustment could be at any level.

Sweney (2000) used the AAI and the SCT with six New Zealand women who had succeeded in second chance education in social work and business at a polytechnic despite none or few previous educational qualifications. She hypothesised that they may have had childhood experiences that would classify them as insecure but that they had achieved a level of ego development which would be associated with an ability for reflective thinking which was why they had been able to take advantage of the opportunity for further education despite having multiple responsibilities as adults. The women ranged in age from 32 to 46 years and all had a number of adverse experiences. All six women were found to be F: Secure-Autonomous on the AAI with subscores from F1 to F5 and ego levels at E5, E6 and E7.

Research exploring ego development and related constructs. Labouvie-Vief et al. (1989) investigated the development of emotion language in a group aged from 11 to 67 using a semi-structured interview format and a number of other measures including the SCT and the WAIS vocabulary scale. They constructed an assessment scheme of four levels:

- Presystemic – the individual is not yet able to organize sequences of actions and states into a single abstract system (p. 288).
- Intrasystemic – the individual is able to coordinate the elements that comprise a single abstract system, a system that is grounded in conventional language, symbols and norms that emphasise certainty and stability. Although the individual can coherently function within those systems, he or she does not yet have a reflective language for them.
- The Intersystemic shows the acquisition of a language by which multiple

systems are acknowledged. Individuals can talk about the conflicts between mind and body, self and other, but they are still unintegrated.

- “At the Integrated level, historical change and contextual diversity are valued, resulting in an open flexibility tempered by responsibility and self-reflection. Self chosen principles result in the potential for mature action and self-regulation” (Vief et al. , 1989, p.289).

They coded transcripts on these four levels for two dimensions: Emotional Understanding and Emotional Control. There were significant differences between the scores of adolescents and adults on both dimension but not between younger and older adults. Correlations with overall emotion scores were .70 for ego level, .54 for verbal ability and .66 for age. This research informs us that ego level might indeed be significant for its contribution to AAI classifications, and verbal ability and age may also be relevant. In addition, it shows that the acquisition of “emotion language” is another aspect of development which interacts with self- and other-understanding and so could be an important feature of what caregivers offer children which will assist them acquire such language and its associated skills themselves.

Interest in the significance of ego levels for varying psychological constructs continues. Several are relevant to parenting. Higher levels have been shown to equip people to better cope with significant life events: healthier marital interaction style (Zilbermann, 1984), more nurturance and understanding of children (Biekle, 1979; Dayton, 1981). The Helson and Wink study (1987) found that the SCT offered other insights to interpersonal relationships. There was a curvilinear relationship between marital satisfaction and ego development and a complex interaction with scores of competence. Of more interest to the present research are the correlations of the sums of competence and ego development scores with scores of aspects of relationship with parents. The correlations were significant “for perception of the mother as having been available, not neglecting, not relaxed, and for feelings of love for her; and for perception of the father as having been conservative, available, not neglecting, not relaxed and for feelings of irritation and resentment but also trust toward him” (p. 537).

Cohn (1998) reviewed studies using the SCT up to 1995 and found age and ego level correlated positively during adolescence but there was no statistical relationship during adulthood, supporting Loevinger’s hypothesis that maturity increases in the adolescent years and stabilizes in adulthood. Cohn speculates about the lack of change

for most people during adulthood. He quotes Loevinger's (1976) statement 'that "the ego is a structure of expectations not about natural phenomena but primarily about interpersonal ones" (p.311). Development, she suggested, occurs when interpersonal environments disconfirm expectations that are characteristic of a specific stage' (Cohn, 1998, p.141). If this is how ego development takes place, then surely the period of transition to parenthood contains all the necessary elements: a challenge to previous beliefs about self, about one's competency, and especially about oneself in intimate relationships. What is more, there is an expectation that this challenge is normative, and that like learning to drive a car, everyone can do it if they try. If their levels of perfectionism or self-criticism are too high they will feel as incompetent as people who begin parenting unsure of their ability to cope.

Manners, Durkin, and Nesdale (2004) have demonstrated that adults who are at the modal levels of ego development can change following the hypothesized process by which ego development progresses, that is, that "stage transition occurs in response to life experiences that are structurally disequilibrating, personally salient, emotionally engaging, and interpersonal" (p.19). They provided an intervention project called "Building Better Relationships," which offered training in self-awareness, communication, conflict resolution skills, stress management, and goal setting. Working on the basis that effective learning comes from exposure to thinking that is one or two stages higher than the stage that individuals are currently at (cf. Blatt & Kohlberg, 1975; Turiel, 1966), participants were taught the four content areas of emotional discrimination, identity definition, understanding of relationships, and effective communication, from the structural framework of the Conscientious and Individualistic ego stages. They concluded that change in ego level from the modal Self-Aware stage in adulthood is dependent on experiences that challenge adults to find new competencies and new ways of thinking. This explanation for ego development is the same that can be made for change in the IWM or the state of mind regarding attachment.

Bauer and McAdams (2004) talk about two motivational goal trajectories followed by individuals: one towards thinking more complexly and the other dependent on how good one feels about self. They frame this as social-cognitive maturity (measured by Loevinger's SCT) and social-emotional well-being (Westenburg & Block, J., 1993) and claim these two dimensions are independent. AAI and its coding is not explicitly evaluating either of these dimensions, yet it is

both that are implicated in assigning categories of “state of mind” and are assumed to be relevant to the Internal Working Model of the caregiver and whatever it is in the caregiving that shapes the Internal Working Model of the child.

Other measurement issues. There has been much written that is examining both the unusual measurement method and the reliability of the interpretation of the sentence completions. The most common criticism is that there is cultural bias in interpretation of meaning. Ravinder (1986) was concerned about the cross-cultural applicability of the SCT but it seems to have worked well for Australian and Indian samples of students. This was an early study using the older level notation. They found a difference in the modal levels for the two cultural groups – Australian: I-4 (women I-4, men I-3/4), and Indian: I-3/4. Most of the study of the SCT has been done with United States and Australian samples but, as has been noted already, Cohn and Westenberg (2004) report it has been translated into at least 11 languages, and continues to be used in research internationally.

Jackson (1993) critiques assumptions in assigning statements to levels in the coding manual. He perceives evaluative overtones have remained from the early stages of Loevinger’s work when she was investigating the “authoritarian personality” in mothers. Broughton and Zahaykevich (1988) were concerned about the cultural bias inherent in interpreting swear words, with the SCT manual assuming that the use of swear words indicated lower levels of ego development. Such criticism is legitimate, especially considering the changes in language use over time in English speaking countries where there is considerable disagreement among and between populations about the acceptability of swear words, and especially in such a setting as a research interview or questionnaire.

Blasi (1993) has intensively examined the theory of ego development and its measurement. Blasi says that whatever one thinks about aspects of Loevinger’s methodological strategies, there is no doubt, Loevinger focuses on coherence and meaning in describing personality development and insists that the specific manifestations of a stage – traits or behaviours that they may be – acquire developmental sense from their relations to the whole, while the whole transcends in meaning each of its elementary components (p.18).

He critiques the concept of “conceptual complexity” and says that

Loevinger distinguishes conceptual complexity from sheer intelligence or intellectual level (1976, p.175) and emphasises instead the emotional and motivational implications of that construct. However, Blasi says, the theoretical validity of this decision is not yet clear. Just the same

the construct validation research – the hypothesis guided attempt to relate the measure to observations that are independent of it, external to the feedback loop between categories and total protocol scores... already [provides] a sizable body of research that, overall, supports the construct validity of the SCT (p.18).

Interestingly, deliberately quantitative research such as that by Newman, Tellegen, and Bouchard (1998) with their behaviour genetic analysis of personality in twins raised apart, has not seemed to have had a problem using this instrument. Their research has shown that the similarity in levels of ego development could not be accounted for only by similarity in cognitive ability.

They say

We found that genetic factors continued to account for a great deal of trait-level variability in ego development after general cognitive ability or specific verbal ability - both known to be highly heritable traits in their own right - had been controlled. These traits thus appear to be related, but not interchangeable, psychological attributes. Nor are they mere measurement redundancies. The remaining significant genetic influence lends credence to the argument that *ego development and cognitive development are separable functional domains*. Its distinctive genetic and environmental origins support the view that ego development, as measured by the SCT, is a psychobiologically distinctive attribute and does not compromise its construal as a master trait. In contrast to the lack of support found for discriminant validity of the Defining Issues Test in assessing moral development (Sanders et al., 1995), support was obtained through the current analysis for the ability of the SCT to incrementally identify a psychologically distinct function for ego development beyond that assessed for verbal ability. Nonetheless, the exact nature of the relationship of ego development to cognitive ability remains to be fully elucidated (Newman, Tellegen, & Bouchard, 1998, p.994, italics added).

This review of the SCT suggests that this method and this instrument could make a valuable contribution to an investigation of cognitive development, socioemotional status and identity issues with attachment representation of new parents.

Reflective Functioning Scale

The Reflective Functioning concept grew out of the Metacognitive Monitoring scale of the AAI coding manual. Main et al. (2002) were aware that the original ideas behind the Metacognitive Monitoring Scale required more work and that various attachment researchers were seeking ways to improve the definition of the construct and how it should be rated, knowing that it had the potential to contribute a great deal to the understanding of the Coherence of Transcript rating and why that was the best proxy for the state of mind regarding attachment of the parent that was predictive of an infant's Strange Situation classification with that parent.

The London Parent-Child research team (Fonagy et al., 1991) could see that the concepts behind the Metacognitive Monitoring scale related to the psychoanalytic concepts of psychological mindedness or "mentalising". Miriam Steele explains this as extending "the scoring of metacognition (awareness of one's own thought processes) to include awareness of mental states as motivators of behaviour in oneself and others" (Steele, 2003, p. 95). It was originally called the Reflective Self Function scale, allied to the idea of the internal observer, and the ability of a parent to understand another's intentionality, but when it became apparent that this was misunderstood as "self-reflection" the name was changed to Reflective Functioning.

Reflective Functioning (RF) is described as the ability to reflect on one's own and others' actions in terms of mental states such as intentions, feelings, desires, and beliefs (Fonagy et al., 1991). The London team proposed that "a caretaker with a predisposition to see relationships in terms of mental content permits the normal growth of an infant's mental function" (p.214). They believed that "cross-generational prediction is possible because attachment security in infancy is based on parental sensitivity to, and understanding of, the infant's mental world" (p.214).

In the Adult Attachment Interview, some questions "demand" reflection on their own or other's mental states. (See list of questions in Appendix 2) The Reflective Functioning coding manual (Fonagy et al., 1997) says that the responses to these questions must be rated for reflective functioning. The questions are:

8a. Did you ever feel rejected as a child?

8b/11. Why do you think your parents behaved as they did during your childhood?

10. In general, how do you think your overall experiences with your parents have affected your adult personality?

10b. Are there any aspects to your early experiences that you feel were a setback in your development?

13e/f. In relation to losses, how did you feel at the time and how have your feelings changed over time?

16 Have there been changes in your relationship with your parents since childhood?

All other questions are called “permit” questions. Reflective passages in response to these should be rated and considered in the final judgment, but non-reflective passages following these other questions should not receive as much weight as for the demand questions.

The coding manual (Fonagy et al., 1997) provides a long list of examples of types of statements that qualify as aspects of reflective functioning to give guidance for identifying passages in a transcript and rating them. As with other scales of the AAI, arriving at an overall score is not a simple arithmetic calculation. Judgments need to be made about each identified statement, the number of such statements in an interview and then a decision made about the one overall rating to be given to a transcript. First are a number of illustrations of statements that provide evidence that a person has an awareness of the nature of mental states. In here are some of the types of statements that Main et al. (2002) include as examples of metacognitive processes, such as it being apparent that the person is thinking fresh thoughts within the interview rather than replaying old responses, and that the speaker is acknowledging the difficulty one has of being sure what another’s intention might be – but not brushing the notion aside by saying it is impossible to know what another is thinking. Another way that a person can show an understanding of mental states is when making an effort to work out what mental states might account for a particular behaviour. Such statements may be identified as having higher levels of cognitive complexity, such as comparing several perspectives and commenting on them: “I saw him as behaving in an uncaring way but actually I was very angry with him at the time because of the way he treated my mother... So perhaps, that’s why” (Fonagy et al., 1997, p. 10). Another example would be reporting on transactional processes between people, such as “I think not only did my

mother hold on to me very tight, but I wrenched away very hard, and those two actions made it much more extreme than it might otherwise have been” (p. 12). Another way of demonstrating understanding of mental states is acknowledging the influences each generation has on each other or how an individual’s understanding changes over time by linking the idea to a specific example. Generalised statements, such as that parents behaved the way they did because of how they were brought up, does not rate as showing an understanding of mental states.

When coding the AAI, an ability of the participant to monitor the needs of the interviewer as listener, what might be called “metamonitoring”, needs to be noted. More likely it is the lack of monitoring that would be noted – when the speaker does not bother to consider what the listener might need to be told in order to make sense of what is being spoken about, that is, assuming knowledge that the interviewer cannot have.

The Reflective Functioning coding manual provides a clarification for what Main et al. (2002) suggest may be necessary for a statement of feeling or thinking to qualify as a metacognitive process. Using “I think” or “I felt” is using mental terms but to get to the level of metacognitive thinking, it needs to be a statement reflecting on thinking or feeling, e.g., “I was angry” would not be considered reflective, whereas the statement “I remember reacting to that by feeling angry”, is (p. 15).

Both the AAI coding manual and the Reflective Functioning manual caution coders to consider carefully the usage of phrases or terminology that sound as if they have come from counselling sessions or are cultural appropriations of psychological language, such as “She was co-dependent”, “We are too alike so we never got on”, “He was a little boy who never grew up”.

Each passage which is recognised to be related to reflective functioning is rated from -1 to 9. The ratings are not explicitly based on cognitive complexity. Negative ratings are given when there is hostility or active evasion to a demand for reflection or for bizarre or irrational explanations. More often an entire interview is classified as “1: Absent but not repudiated RF” because it may have no statements that are explicitly saying something about mental processes underlying behaviour and often give single causal statements with confidence, sometimes with arrogance. Sometimes the statement implies that there is a single cause for behaviour but that the speaker does not know the cause. Sometimes, too, the statement is that the other person’s reason for doing something is unknown because they have not said anything about that. Other research such as that of Bond et al. (1996) has shown how expecting understanding of

others' behaviour to come only from what they say has a significant impact on how mothers interact with and discipline their children. Such mothers tend to judge their infants' behaviour as intentional and difficult because the child does not tell them what is wrong. They do not have an understanding that the child does not have the conceptual or language development to say what is wrong nor the intention of being demanding. These mothers feel beset by incomprehensible behaviours from their children and from other adults.

To be given a classification of "5: Definite or ordinary RF", there must be several explicit mentions of the nature of mental states, or mental states in relation to their own or others' behaviour, or the need to explain for the benefit of the interviewer. These may not be very sophisticated but they should be more than social clichés. These individuals do have an understanding of the link between thoughts and feelings but it is still limited.

Higher level classifications will be from passages that are more original, showing active thinking within the interview. They will combine several features of those listed in the Reflective Functioning manual. To be given a classification of "9: Full or Exceptional RF" a transcript will have multiple examples of spontaneous use of reflective thinking using concepts of reflective functioning and in sophisticated and complex ways, demonstrating that this type of thinking is customary for this individual.

Research exploring the Reflective Functioning Scale in Association with the AAI. Early research using the Reflective Functioning Scale with the London Parent-Child Project sample indicated no gender difference, and that it is distinct from personality, verbal intelligence and education level (Steele, H & Steele, M., 2008). It had substantial correlations with secure and insecure AAI attachment classification, with the Coherence of Transcript score, and strong correlation with Strange Situation classifications of the infants with mothers at 12 months. The fathers' RF scores assessed from interviews conducted prenatally produced higher correlations with SS scores of their infants at 18 months than with their own AAI classification (Steele, H & Steele, M., 2008).

Later research by Corcoran et al. (2001) which examined the hypothesis that reflective functioning may guide the transmission of attachment by influencing maternal sensitivity, found significant correlation between RF scores and both adult attachment classification and maternal sensitivity. Path analysis revealed that although Reflective

Functioning had a modest impact on infant security, this relationship was significantly mediated by maternal sensitivity.

Language usage by the mother and the development of language by the child have been linked to cognitive development and to attachment relationships via the development of language, of narrative ability and exposure to mental terms in natural interactions of parent and child (Balbernie, 2003; Nelson, 1999). Balbernie (2003, p. 398) citing Hollway and Jefferson (2000) argued that one purpose of research using discourse analysis is that it provides a means to discover “who is the speaker behind the speech”. The use of the AAI and its analysis of the form of the response to the interview is designed to make such a process more reliable.

Steele and Steele (2008) and other research groups in North America, Israel and Europe have been following the developmental line – how attachment quality in infancy influences later development. There has been a variety of research examining other possible means of transmitting the attachment organization to the child, all of which contribute a little more to the understanding of what it is that parents offer their child as an emotional environment (Bailey, Moran, Pederson, & Bento, 2007; Bouchard et al., 2008; Slade, Grienenberger, Bernbach, Levy, & Locker, 2005). It is important that this line of research be pursued because the ways of thinking of the caregiver will guide behaviour with the child, and this mental and behavioural context will be the most important interpersonal, intersubjective environment in which the child is being raised. Fonagy and Target (2005) in arguing for the early caregiving environment being the setting for the organisation of brain development, assert the importance of understanding the role of reflective functioning in the processes that underpin the transgenerational transmission of attachment patterns. In this article they suggest that indeed reflective functioning is the missing ingredient in what van IJzendoorn (1995a) called the “transmission gap”.

Cognitive Complexity

Content analysis of texts and speech has become a widely accepted research method over recent years. While the AAI emphasises the coding of form rather than content of the interview, the Metacognitive Monitoring scale is concerned with making inferences about cognitive functioning. Earlier efforts to assess cognitive complexity used the concepts of differentiation (listing and comparing of attributes - Scott, Osgood, & Peterson, 1979) and integration (the ability to see connections between and among

divergent perspectives - Lee & Peterson, 1997). The scoring manual for Conceptual/Integrative Complexity (Baker-Brown et al., 1992) provides a way to assess the level of complexity in verbal material. To give individuals the opportunity to exhibit the higher levels that they are capable of producing, originally a challenging assignment was set for them such as the Paragraph Completion Test or the Topic Completion Test. However, the coding scale has been used with discourse that has not been elicited for the purpose of cognitive evaluation but for other purposes, such as political speeches, interviews and personal letters (Lee & Peterson, 1997). For the present research, complexity will be assessed at first from the same “demand” questions as for Reflective Functioning. These are questions that should elicit more complex thinking. It is assumed that higher levels of complexity are likely to be produced when the topic is one with which the individual is familiar and when there is more of a motive for engaging in discussion and reflection (see Woike & Aronoff, 1992, and the production of coherent discourse as described in the Adult Attachment Interview coding manual).

The following outline of the levels are abbreviated from the scoring manual (Baker-Brown et al., 1992)

- Level 1 is categorical, all or none thinking, which ignores or rejects alternative perspectives. Content flags are use of “always”, “never”.
- Level 2 Transitional. Slight signs of differentiation - some realisation of the possibility of looking at things in different ways or along different dimensions but does not specify how these might be different or what conditions might apply. Content flags are “but”, “however”, “though”, showing the possibility of exceptions, and “probably”, “almost”, “usually”, showing some doubt about things being certain.
- Level 3 Differentiation is the key element. To score a discourse unit at this level there must be clear specification of at least two distinct ways of dealing with the same information. So there is recognition of multiple alternatives and viewpoints, and an increased tolerance for ambiguity or conflict demonstrated. But there is no evidence of conceptual integration usually demonstrated by elaboration of the link between the two positions. Content flags are “alternatively”, “either-or”, “on the other hand”.
- Level 4 Emergence of Integration. There must be clear representation of alternatives and there must be an implicit recognition of a dynamic relationship

between or among them. Expression of tension between alternatives can be a pointer, as is the use of a superordinate statement.

- Level 5 Explicit expression of Integration. Alternative perspectives or dimensions are not only held in focus simultaneously but are also viewed interactively. At this level an individual can see that multiple alternatives are all to some degree legitimate but also can delineate the relationship between them. Synthesis – the generation of a novel product is evidence of integration. Language used is often abstract and sophisticated.
- Level 6 Multiple levels of schemata. Alternatives at this level are dynamic, expressed as plans, processes, or courses of action made up of several moving parts – systems or networks. For example, in discourse about experiences of parenting there could be mention of multiple interactive schemes such as types of upbringing, personality styles influencing behaviour and other factors that shape life outcomes.
- Level 7 Systemic analysis. The presence of an overarching viewpoint pertaining to the nature (not merely the existence) of the relationship or connectedness between alternatives, with perhaps the comparison of outcomes.

It is assumed that individuals' increasing levels of cognitive complexity will provide a wider range of abilities to recognise the implications of problems and find ways better to deal with them. Bruch, McCann and Harvey (1991) found that when processing social conflict information, students classified as Type A, that is characterised as having excessive drive and competitiveness, impatience and a need for control, used lower integrative complexity and less consideration of potentially relevant content, than Type B students, those characterised as having a relaxed, easy-going approach to life (Reber, 1985). They were therefore more likely to escalate conflict situations than manage them profitably. Porter and Suedfeld (1981) examined the autobiographical texts of five writers and found that integrative complexity changed in accordance with life stressors. Other research such as that of Hunsberger, Lea, Pancer, Pratt, and McKenzie (1992) explored integrative complexity in relation to psychotherapy and religiosity, and therapeutic outcomes. This same team examined the levels of integrative complexity of thinking of parents making the transition to parenthood and how this affected their adjustment. They found, like Porter and Suedfeld (1981) that complexity increased with the challenge of the life transition. Women were

assessed to be at higher levels of complexity than their partners at both times. It was also seen that women who began with more complex expectations about parenthood demonstrated better adjustment at six months postnatally than those with simpler expectations (Pancer, Pratt, Hunsberger, & Gallant, 2000).

Taking into account the similarity of these descriptions of cognitive complexity to aspects of Loevinger's ego development levels it is expected that the adults who are expecting their first baby, who will be between 20 and 40 years of age and have a mean age about 30, will have a median integrative complexity score of 3 or 4. This level would suggest that there is some anxiety or concern about self in the new role that is about to be entered into. On the other hand, an individual with a score of 5 or more is likely to be cognitively competent to generate a number of ways that will make the new roles of self and partner challenging with the arrival of a baby. These higher scores are also more likely for parents classified as Secure/Autonomous on the AAI – or with higher Coherence of Transcript scores.

Summary

The features of cognitive development that are relevant to the classification of Secure/Autonomous from the AAI can be seen to be related to ego development as conceptualised and measured by the SCT, awareness of influences of minds from the Reflective Functioning scale, and the ability to differentiate and integrate ideas from Conceptual/Integrative Complexity coding. It is hypothesized that an autonomous adult will be conformist or post conformist with regard to ego development, reflective, self-reflective, and will have an awareness of other minds and their reciprocal influences as found with the RF scale. If an adult is preconformist, unreflective, is unable to read unspoken intentions of other minds and does not provide evidence in the Complexity coding that he or she is able to generate several ideas to apply to a problem, that individual is expected to be classified as non-autonomous and classified as Insecure on the AAI. Education level, Sense of Coherence, verbal intelligence and age may also signal levels of cognitive competence that are consistent with autonomy.

There are other individual differences that are assumed to have some influence on how an individual will respond to an interview such as the AAI. These are discussed in the next chapter.

CHAPTER FOUR

OTHER INDIVIDUAL DIFFERENCES OF NEW PARENTS

This chapter outlines other variables that are relevant to what a new parent brings to the transition to parenthood that need to be investigated concurrently with attachment and cognitive development. As it stands at the moment, what is assessed by the AAI is attachment organisation or current state of mind. The present study is challenging this by suggesting that the assignment of the Secure/Autonomous classification by the assessment that the interview transcript is “coherent” may in fact be assessing some thing other than attachment representation, and this is probably cognitive development. The commonest challenge to the claim that it is “state of mind regarding attachment”, a distinct variable that is assessed by the AAI, is that it is a personality difference. Therefore it could be that a Secure/Autonomous adult will have internal locus of control, be resilient, have a medium level of self-control as compared to external locus of control, lacking resilience perhaps because of excessive under- or overcontrol. Although there has been research into personality traits and styles with the AAI and self-report instruments, the AAI research literature usually finds no difference between groups whereas the self-report research usually finds some differences. In addition, in this chapter, the importance of the attachment patterns of fathers as well as mothers will be acknowledged. What both parents bring to the formation of a new family is of critical importance to the development of the baby. Both parents will be constructing with the baby the emotional as well as the physical and social environment in which they will all be developing. In this chapter too is a brief review of the literature that links the AAI research with new parents to that of the transition to parenthood and adjustment to parenting.

Research Before the Birth of the Child

Cowan and Cowan have been researching relationships of couples for decades. In a review article (1995) they say

Parent’s individual symptoms, life stress, social support, and marital adjustment *measured before the birth of the child* account for a substantial proportion of the variance in both men’s and women’s adaptation to parenthood (Belsky & Rovine, 1990; Cowan & Cowan, 1992; Cox, Owen, Lewis, & Henderson, 1989; Fleming et al., 1988; Grossman et al., 1980; Heinecke, Beckwith, & Thomson,

1988). A baby's arrival is unlikely to destroy well-functioning marriages *or* generate closer, more satisfying relationships between already troubled partners (p.415, italics in original).

In examining the personal resources that young adults might bring to the new role of parent, what they feel about themselves, their situation and their changing roles and what they know about the tasks of parenting, are important to consider. These are becoming topics for research. Attachment researchers talk about parental representations of themselves as parents, their expected child and the family they will be forming but there is no research into those aspects which also uses the AAI and follows through to see how these other beliefs are associated with attachment category of the parent and might influence the outcome of child attachment with them.

Levy-Schiff, Dimitrovsky, Shulman, and Har-Even (1998) investigated cognitive appraisals of parenthood and coping strategies of first-time Israeli parents prenatally and at several times in the first few months after their children were born. There was no attachment measure used. All measures of cognitive appraisals and coping strategies revealed developmental changes, consistent with the proposition that the arrival of the first child is a major life event which promotes extensive personal changes. They found that maternal negative assessment of parenting is most intense immediately following the birth. Maternal positive assessment of parenthood as a challenging and controllable situation peaked later. Expecting parenting to be a challenge was considered a positive expectation and this was associated with positive adjustment outcomes; feeling that parenting was a threat was associated with negative adjustment outcomes. Social support was positively associated with maternal well-being but examination of the effect of this suggests it may be that those who need it least can access it more easily. This is consistent with attachment theory and to cognitive development theory.

In Australian research, Harwood, McLean, and Durkin (2007) considered one aspect of first-time mothers' expectations: What happens when optimistic expectations are not matched by later experiences? They sent out booklets prenatally and at 4 months postnatally which contained the same set of questionnaires, which included the Edinburgh Postnatal Depression Scale (EPDS), a marital assessment, and a parenting competence scale. They were surprised to find that on the whole the mothers' reported experiences exceeded their originally optimistic expectations. This caused the

researchers to consider the reasons for their unexpected result. They proposed that this research has different outcomes to earlier research like that of Belsky (1985) and Ruble, Fleming, Hackel, and Stangor (1988) perhaps because the situation in Australia is different to that in the United States, and since this research was conducted nearly 20 years later there may be significant changes in how mothers are prepared for parenthood.

Demographic Variables: Age, Gender, Education, Socioeconomic Status, Marital Status

In research using the AAI, the demographic variables of age, education, socioeconomic status and marital status have been examined. In some research, age differences between attachment groups have been found; for example, Bakermans-Kranenburg and van IJzendoorn (1993) found that the mean age of the secure/autonomous group of mothers was higher than that of the non-autonomous groups. From a meta-analysis of the distribution of different types of samples, van IJzendoorn and Bakermans-Kranenburg (1996) found justification for the earlier finding that there were no differences in the distribution of classifications of community samples of adolescents compared to community samples of mothers.

There have been no significant gender differences found in research with regard to distribution of classifications using the AAI as the attachment measure. This is in contrast to most of the research using self-report measures which find differences that are in line with gender stereotypes in society, that men are more likely to be dismissive, deactivating attachment, and women more likely to be preoccupied with attachment issues (Kirkpatrick & Davis, 1994).

Reports on the psychometric properties of the AAI rarely mention education. Since much research initially was with university students the range of education may not have been sufficient for differences to be found. The Bakermans-Kranenburg and van IJzendoorn's (1993) study found no difference between groups for the three organised groups in terms of educational level or hours of employment; however, the unresolved group were lower in education level. Crowell et al. (1996) found no differences among the AAI classifications and age, work status or socioeconomic status, but there was a significant difference between level of education and the coherence score on the AAI. Later research such as that by Riggs et al. (2007) with a sample from a trauma treatment programme has found that adults with high

school qualifications or less were significantly more likely to be insecure than those with a tertiary qualification, and suggested that less education and insecure attachment contribute to more severe psychiatric disorders.

Socioeconomic status and marital status tend to get confounded with the nature of the sample studied. Research with clinical samples and at-risk samples usually have low proportions of secure/autonomous parents and high proportions of low SES and unmarried mothers. Socioeconomic and marital status are unlikely to carry the same implications in New Zealand now since so many babies' parents will be cohabiting but unmarried². However, more and more research is being conducted into the playing out of attachment classifications by parents within the families they are forming. The research programme of Philip and Carolyn Cowan has been focussed on family interactions and has an explicit attachment theory perspective. They say:

A commonly held belief, supported by therapists' experience, theories of psychopathology, and systematic research, is that without intervention, troubling or negative intergenerational patterns will be repeated in the next generation. It is usually assumed that the mechanisms of intergenerational transmission involve (1) observable transactions between parents and children, and (2) individuals' internal working models about what can be expected in intimate family relationships, based on recollections of relationships with parents or other key attachment figures (Cowan & Cowan, 2005, p. 275).

Their 2005 report contains the useful information that not all insecure people were in insecure marriages and vice versa. What they did find was that if AAI for the mother is secure/autonomous but the father is insecure, interactions as a couple were negative, and parent-child relationships less good. If the AAI for the father is secure/autonomous but the wife's is not, interactions are indistinguishable from those who are both secure. Such findings indicate how AAI classifications can help in family interventions.

² The 2001 census (Statistics New Zealand, 2001) indicates that in the 25 -34 age group which is the group when most first babies are born, 46% are married and 17% partnered. As well, nearly 60% of first births were "ex-nuptial" in the late 1990s. In 1998, 80% of first births were conceived ex-nuptially, not very different to the proportion in the Pakeha birth cohort of 1936-49, but in the earlier period most babies were legitimated by marriage by the time they were born, or given up for adoption.

Personality

As has been discussed earlier, there has been considerable research investigating the association between infant attachment classification and infant temperament, some between personality of parents and attachment of infants but little of the relation between personality and attachment classification resulting from the AAI except in early work investigating the validity of the instrument.

Psychometric research for the AAI tested whether personality traits were confounds for the construct it was intending to measure (Steele & Steele, 1994). A variety of instruments has been used in association with the AAI. For example, Bakermans-Kranenburg and van IJzendoorn (1993) used the Emotionality, Activity and Sociability instrument (EAS: Buss & Plomin, 1984). Only sociability showed a slight trend in favour of autonomous participants. Van IJzendoorn (1995a) says that the AAI seems to be independent of general personality measures, such as the O'Brien (1988) Multidimensional Self-Esteem Inventory (Zeanah, Benoit, Barton, Regan, Hirschberg, & Lipsitt, 1993). He suggests that more research should be done, for example on the relation between the AAI and the Minnesota Multiphasic Personality Interview (MMPI). In a reply to Fox (1995), van IJzendoorn (1995b) acknowledges that the relationship of adult attachment with personality needs further exploration, referring to Block's (1995) article about the confusion in what personality questionnaires measure.

Pianta, Egeland, and Adam (1996) using the AAI and MMPI with a high risk sample found that "Attachment security was related to, but not equivalent with, freedom from symptoms" (p. 278). 68% of the sample was Secure/Autonomous but nearly half of these reported mental health symptoms, a finding which is consistent with the expectation that autonomous people are more likely to admit problems. Also, in accordance with theory, people with dismissing attachment were less likely to admit problems, and the preoccupied presented themselves as very vulnerable and distressed.

A considerable amount of research has used various self-report methods of assessing adult romantic attachment and personality measures such as the Big Five and the Block CAQ (Mickelson, Kessler, & Shaver, 1997; Onishi, Gjerde, & Block, 2001). Since the AAI combines a numbers of features into categories it has much in common with the Q-sort methodology and the personality types they describe. As well, coding the AAI as in the Kobak Q-sort method producing the two dimensions of security and deactivation/hyperactivation, has certain similarities with the two

dimension scores, ego-control and ego-resiliency, described by Block and Block (1980) from the California Adult Q-Sort (Block, 1971).

The dimension of ego-control is the individual's characteristic mode of monitoring impulse. It varies from overcontrol to undercontrol. Overcontrolled individuals are seen to be inhibited, delay making decisions and delay gratification. Undercontrolled individuals are expressive, spontaneous, easily distracted and do not delay the expression of impulse even when it is inappropriate (Funder & Block, 1989).

Ego-resiliency is the term given to flexibility of control. If ego-resiliency is high the individual can adapt behaviour to better fit the situation, and is more likely to have higher levels of confidence, psychological adjustment and be interpersonally effective. If ego-resilience is low, the individual is described as rigid, needing to stick to routines, or unable to find a way of coping with unexpected occurrences (Block & Kremen, 1996).

Kremin and Block (1998) investigated ego control as it related to parenting with the Block longitudinal sample. Children and their parents participated at a number of times points using the California Child Q-set (CCQ) and the California Adult Q-set (CAQ) and in standardized parent-child interactions. These were not attachment procedures. The findings were complicated by the differences between boys and girls over the different time periods. However the results are informative for attachment research.

In sum, positive, affectionate interactions and an autonomy-promoting rearing environment that respected the selfhood and developmental interests of the child – elements of parenting often characterized as optimal child-rearing practices, at least in middle-class, American society – were associated in young adulthood with relative undercontrol in women and with relative overcontrol in men. These seemingly counterintuitive results may be resolved if it is recognized that these parenting styles were linked with moderate levels of ego-control for both sexes, that is, with moderate levels of undercontrol in female participants and with moderate levels of overcontrol in male participants. Separately it has been observed that intermediate levels of ego-control are likely to be associated with psychological health, social competence, and ego resilience (...). The present results are thus consistent with the recognition that parenting that incorporates positive affective relations, child-centered guidance, parental involvement, and the promotion of autonomy is related to positive developmental outcomes in

children, such as behavioural competence, self esteem, and moral development (Kremin & Block, 1998, p.1072).

Details regarding the continuity of parenting environments from early to later years, the difference in control by parents of girls and boys, especially of *overcontrolled* young women, and *undercontrolled* young men, relate more to parenting styles (Baumrind, 1989; Maccoby & Martin, 1983) than attachment styles (Kremin & Block, 1998).

The concept of ego-resiliency has been explored as a measure of psychological health. Klohnen (1996) found that ego-resiliency

is a broad and superordinate construct that combines a number of distinct personality attributes. In particular ego-resilient individuals have a sense of active and meaningful engagement with the world. Their positive and energetic approach to life is grounded in confident, autonomous and competent functioning and a sense of mastery within a wide range of life domains. In addition, ego-resilient individuals are perceptive and insightful and have the capacity for warm and open relations with others. They also possess the necessary interpersonal skills and social poise to effectively negotiate the social world (p. 1075).

This description of ego-resiliency as a measure of psychological health is remarkably similar to a description of the prototypical individual who is classified as Secure/Autonomous on the AAI.

While the negative pole of the ego-resiliency dimension seems to be maladaptive, Block and Block (2006a) point out that evaluative labels are theoretically limiting and that although it may be psychologically undesirable to be extremely impulsive, it is also psychologically undesirable to be extremely controlled (p. 318). In an endnote, Funder and Block (1989) say that when

such powerful and readily available social gratifications as sex, recreational drugs and alcohol have been studied, precocious sexual experience, early drug use and problem drinking each have been found to be behavioural expressions of undercontrol... [and] that normatively delayed sexual experience, lifetime abstention from drug use, and complete alcohol avoidance each relate to the personality syndrome of overcontrol (p. 1049).

Block and Kremen (1996, p.350) note that psychological health could be said to

entail “a tolerable anxiety level, a tolerable mesh with situational impingements, and a tolerable level of impulse expression” and the point of ego-structures is to keep the personality system within tenable bounds. It is clear why Block found Loewinger’s ego levels useful as a way of describing the gradual movement towards more complex ego-differentiations as individuals adapt to self and environmental pressures (Westenberg & Block, 1993).

Social Desirability

Social Desirability and Locus of Control have often been assessed for their psychological and behavioural correlates, as if they are stable personality characteristics. It is common to include a measure of social desirability in a battery of psychological tests when there is doubt about the validity of a specific instrument or there is an interest in testing for correlations with other scores. As well as being a variable of interest in its own right, social desirability has been seen to be a nuisance variable that needs to be controlled (Helmes & Holden, 2003). A measure of social desirability is designed to assess a person’s tendency to distort self-presentation towards what he or she perceives as socially desirable. The most frequently used measure is the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960)

Bakermans-Kranenburg and van IJzendoorn (1993), de Haas, Bakermans-Kranenburg, and van IJzendoorn (1994) and Crowell et al. (1996) used the Marlowe-Crowne Social Desirability Scale in early AAI validation research. None of these studies found an association between the attachment classification and social desirability.

Just what is measured by the Marlowe-Crowne has received considerable attention. In the construction of the instrument (Crowne & Marlowe, 1960), a pool of 47 items was found to produce a mean rating that was “pathologically neutral”, that is, indicating neither exceptional adjustment nor maladjustment. Then 33 items of these items were found to discriminate between high and low total scores, high scores meaning a greater tendency to enhance self-presentation. Crowne and Marlowe (1964) interpreted the social desirability score in terms of need for approval. Need for approval is also the title given to one of the factors in the Feeney et al. (1994) adult attachment measure. High scores have been interpreted as evidence of under-reporting of undesirable qualities by persons with a high need for approval (Johnson & Fendrich, 2002).

Block, whose personality measure has been referred to already, was involved with the early debates on the construct of social desirability (Block, 1965, cited in Helmes & Holden, 2003), a debate which continues. Tangney, Baumeister, and Boone (2004) report that the Marlowe-Crowne indicated that people with high self-control are more likely to do things that are socially desirable and this is accompanied by “an overriding of selfish interests in order to do what is best for the entire community” (p.315). They argue that the concept of overcontrol should be changed to the notion that these individuals suffer from problems regulating and directing their capacity for self-control. They suggest a person who is genuinely high in self-control is similar to Block and Kremen's (1996) description of the ego resilient individual (p.314). This description also fits the description of a person who is autonomous as has been discussed earlier. In their research for an adult attachment measure, Tangney et al. (2004) used the Close Relationships Questionnaire (Hazan & Shaver, 1987) using a 7-point scale. They found that the secure group was positively associated with self-control and the other two attachment groups were negatively associated, but not when controlling for Marlowe-Crowne social desirability scores. This suggests that the construct of social desirability may play an important role in mediating or moderating the relationship between personality and attachment patterns, and that the construct may not operate as originally intended.

Redmore and Waldman (1975) in early research to establish the reliability of the Sentence Completion Test (Loevinger, 1976) as a measure for ego level, expected to find that there would be high Marlowe-Crowne scores for those who scored below the Conformist level for the SCT but this was not found. Andrews and Meyer (2003) note that McCrae and Costa (1983) criticised the construct validity of the Marlowe-Crowne and suggested that “it is not actually measuring defensive style of presentation, but a lack of neuroticism and perhaps a tendency toward extraversion” (Andrews & Meyer, 2003, p.485). The McCrae and Costa (1983) study of 215 individuals in the Baltimore Longitudinal Study had found that high scoring individuals were better adjusted, friendlier and more open-to-experience than those who scored low. They concluded that social desirability scales measured important individual differences in personality related to the traits of conscientiousness, agreeableness and neuroticism and were not indicative of response distortion. Smith and Ellingson (2002) quote Hogan (1991, p. 905): “There is a large and replicated literature showing *that well-adjusted people have positively biased self-images*; consequently, well-adjusted people

tend to ignore minor criticisms, discount their failures, avoid negative thoughts, and expect to succeed in most of their undertakings” (italics added).

From these research findings, it seems that the concept of social desirability as first envisioned may not be what is assessed by the Marlowe-Crowne. However, what it is assessing is something that may eventually be found to make clearer a factor that influences how personality interacts with situational appraisals. Since the AAI is a somewhat stressful situation and is coded on signs of how the individual is appraising the situation and the topic of the interview, the Marlowe-Crowne would be useful to include in a battery of questionnaires that examine the correlates of attachment characteristics.

Locus of Control

The concepts of internal and external locus of control seemed to be very relevant to interpretations of the different adult attachment categories. The instigator of this line of inquiry was Rotter (1966) who considered that people’s perception of their control over their lives ranged from internally to externally based. Some believe in their own capacity to direct their lives, while others believe that external forces or fate are in control. Locus of Control was a popular measure in the 1970s and 1980s since there seemed to be a logical connection between internal locus of control and educational achievement, and lack of a sense of self-agency being involved in clinical difficulties.

Rotter’s scale was shown to consist of two factors, belief in control of one’s own behaviour and belief in control over political institutions and world affairs. Various authors critique the ability of the instrument to comprehensibly measure what it was intended to measure, and efforts to create a more effective instrument were made (Craig, Franklin, & Andrews, 1984). Others have endeavoured to amalgamate Rotter’s items with Levenson’s (1973) measure (Judge, Erez, Bono, & Thoresen, 2002).

Mickelson et al. (1997), as mentioned above, included a locus-of-control measure, an abbreviated version of Levenson (1973), and a version of the Hazan and Shaver (1987) adult attachment style measure in their analyses of a very large household survey designed to produce data on the prevalence and correlates of psychiatric disorders. Consistent with attachment theory, external locus of control related negatively to the secure rating and positively to the two insecure ratings. Thus, the secure group are more likely to perceive themselves as having some control over their lives whereas the insecure are more likely to believe they are controlled by people

and things beyond their control. No research has been located which reports use of the AAI and a locus of control measure together.

Judge et al. (2002) were interested in studying the discriminant and incremental validity of what they called the three most widely studied traits in psychology – self-esteem, neuroticism and locus of control – along with the construct of generalised self-efficacy. They found that self-esteem, locus of control and neuroticism are strongly related but there is some variance unique to each of these traits. However, they found considerable weakness in the measurement of locus of control. As a result of this study they think that the measures of these concepts point to there being a higher order construct. This suggestion is in keeping with the argument that the Secure/Autonomous attachment classification may be pointing to a higher order construct that is potentially the same as that which studies of ego-resiliency, psychological adjustment, coherent narrative competence, and other positively valenced person characteristics are also finding. A locus of control measure along with other personality measures would also be useful to use in association with the AAI to test whether the correlates are similar to those when attachment is measured by self-report methods.

Affective Measures

Self-esteem and depression are assessed as possibly indicating state rather than trait aspects of personality.

Self Esteem

Common sense belief says that self-esteem is a measure of adjustment, but some authors suggest that caution be used with this assumption because “excesses of self-esteem can be detrimental” (Tangney et al., 2004, p.299). Efforts to measure self-esteem have been characterised by the difficulty of effectively defining the term, and separating it from associated terms like self-concept, self-efficacy and self-worth (Hattie, 1992). One approach is the Shavelson hierarchical, multifaceted model of self-concept that has influenced the measurement of self-esteem (Shavelson & Bolus, 1982). This assumes that there is a global self-concept which is comprised of two (or more) subgroups, for example, academic and non-academic self-concepts. If self-concepts are descriptive of aspects of the self, self-esteem is evaluative of those self-concepts.

Our conceptions of our self are relative to what we consider important, not necessarily our capabilities and/or knowledge... Only if I regard certain aspects of my self-concept as important will there be effects on my beliefs of self-esteem (Hattie, 1992, p. 53).

From the Block longitudinal study, Block and Robins (1993) found that self-esteem as measured by real-self versus ideal-self sorts of the California Adult Q-Sort items had qualitative gender differences in the personality traits associated with this construct. These differences were in the now well-known direction of females having a communal orientation, reflecting warmth and interpersonal characteristics, whereas the males had a self rather than other orientation. Blackman and Funder (1996), using the CAQ, however, found that their sample of female undergraduates had predominantly agentic traits associated with self-esteem as did the males. In their article of 2006 in which they summarise their research careers, the Blocks say there is a personality core to self-esteem that is common to both sexes, but

young women with high self-esteem impressed observers as happily, warmly extroverted and deeply concerned about interpersonal relationships, whereas young men with high self-esteem seemed self-focused and defensively critical, uneasy, and unready for connection with others (Block, J & Block, J.H., 2006a, p. 321).

They do not say what young men with low self-esteem are like. If these gender differences are consistent with the self-esteem of young New Zealand parents they may offer explanation for different responses of mothers and fathers to their new roles.

Fox (1995), critiquing attachment research, suggested alternate explanations for the relations found by van IJzendoorn (1995a) in the meta-analysis of AAI studies.

Narrative about personal memories may be a function of personal theories about developmental processes as well as current psychological state (e.g., personal self-esteem). There is currently no evidence that the coherency of discourse about early childhood experiences is a function of either actual early experience or reworkings of that experience (p. 404).

Fox's argument is based on the assumption that what the AAI is measuring is a direct link between early experience which presumes accuracy of memories and their emotional tone, and it is the accuracy that gets lost along the way. That indicates a lack

of understanding of the “state of mind regarding attachment” that is what is being assessed in the AAI.

More salient is the suggestion that mood during the interview will alter the coherency of the participant’s response. The test-retest reliability trials of the AAI (Sagi et al., 1994) would suggest that short term emotional states while they may have some influence on the coherency and tone of an interview, just the same produce relatively consistent results. After all the AAI’s power seems to be in its ability to stir emotions and that is an important part of the coding. More recently, interest in using skin-conductance levels and cardiovascular activity in association with the AAI, has taken the issue of emotional arousal to a new level. For example, Roisman, Tsai, and Chiang (2004) found increased electrodermal activity during the AAI with those classified as dismissing, which, as they say, is

a sign of emotional suppression, whereas preoccupied adults showed reliable discrepancies between the valence of their inferred childhood experiences and their facial expressive as well as reported emotion during the AAI. Results substantiate a case that the AAI reflects individual differences in emotion regulation that conceptually parallel observations of attachment relationships in infancy (p.776).

Depression

If we assume that the transition to parenthood is inevitably stressful, it may be that the level of stress is more than some parents can adapt to, and they may become depressed. Postnatal depression is a phenomenon that has had considerable research because of the seriousness of the consequences for the mother, the infant, and other family members. Attachment theory has added another dimension to the concern about depressed mothers of infants and the consequences for the infants’ intellectual, emotional and social development.

What is particularly pertinent to the present research is that recent research has found that the seeds of later depression can be found antenatally (Matthey, Barnett, Ungerer, & Waters, 2000; Murray & Cooper, 1997) so efforts are now being made to understand what in a mother’s life before the baby is born may predispose her to become postnatally depressed. Assessing depression antenatally and postnatally alongside the AAI should provide data to contribute to that project.

The meaning of the word “depression” is contentious. As Green (1998) says:

“Postnatal depression is a label which will quickly be applied to any unhappy woman who has recently had a baby” (p. 143). It is commonly used to mean down-in-mood, but in relation to giving birth it becomes important to distinguish between the “baby blues”, a temporary deeper disturbance, and a full-blown severe mental illness. Because “postnatal depression” is widely accepted it is particularly important to give care to mothers (and fathers) who are feeling low, perhaps temporarily distressed, or perhaps overwhelmed by the new responsibilities they face, and to watch carefully for more severe disturbances. In particular, the severe forms must be recognised as serious mental illnesses which need professional medical interventions both for the sake of the mother, and for the infant. Research suggests that 10-20% of mothers will experience a psychiatric illness. Barnett, Matthey, and Boyce (1999) consider a very small number will be easily diagnosed as having postpartum psychosis and for the safety of mother and baby emergency action must be taken. The rest of the 10-20% will have different sorts of depressive or anxiety disorders. There are a growing number of professionals preferring to view postpartum psychiatric disorders as post-traumatic stress disorder (Sloman, Gilbert, & Hasey, 2003) either caused by previous trauma or by the birth experience itself. These cases need to be attended to for appropriate interventions lest they not be taken seriously leading to increased severity and possibly years of misery.

As the topic is researched further it has become apparent that a considerable proportion of what is thought to be *postnatal* depression has actually begun before the birth, that birth may not be the trigger in many cases. The probability of a woman who was depressed antenatally being depressed in the year after the birth is 42%, compared to 18% for women who were not prenatally depressed (Matthey et al., 2000).

Green (1998) argues that women who are unhappy before delivery have their feelings minimised and are told that they will be all right when the baby arrives. She wonders why more notice is not taken of the research that has found that the emotional state of the mother during pregnancy does have an effect on the foetus. Recent research has demonstrated how stress affects the cortisol level in mothers and this has a direct effect on the foetus (Huizink, Robles de Medina, Mulder, Visser, & Buitelaar, 2002; Yehuda, Mulherin Engel, Brand, Seckl, Marcus, & Berkowitz, 2005).

In addition, researchers have become interested in the depression of fathers. Ballard and Davies (1996) reported a lower incidence of self-reported depression in fathers than mothers, but that 40-50% of fathers developed depression if their partners were severely disturbed. Matthey et al. (2000) found that of the small numbers of

fathers who were depressed antenatally, 50 % were depressed postnatally.

As a result of research with mothers and fathers antenatally and postnatally, “postnatal depression” is being differentiated beyond the three accepted forms – “baby blues” which is considered mostly hormonal and response to the stress of birth, moderate, which may include real stressors like lack of sleep or other domestic difficulties, and severe postnatal psychosis. It may be that what has been thought of as postnatal depression can include the same sort of depressive illnesses suffered at any time in adulthood, with the onset not connected to childbirth. Risk factors for depression may be very variable. Matthey et al. (2000), using the Parental Bonding Inventory (Parker et al., 1979) found that risk factors for mothers to be depressed in the early postpartum period were related to perceptions that their own mothers were overprotective (controlling), and for fathers that either their mother or father was overprotective. Antenatally, lack of care by their own mothers was a significant risk factor for depression for mothers. These researchers also found that extending their investigation to other forms of psychological disorders in the postpartum period produced evidence of other disturbances occurring in both mothers and fathers in the first year, a finding which highlights the need for more attention being given to the adjustment difficulties of new parents in the transition to parenthood (Matthey, Barnett, Howie, & Kavanagh, 2003).

Condon, Boyce, and Corkindale (2004) measured depression in fathers as part of the First-Time Fathers Study in Australia. They used a variety of instruments at four time points from 23 weeks of the partner’s pregnancy to 12 months postnatally. They were surprised to find that for fathers the pregnancy period was the most stressful, that there were improvements in the early postnatal period, and there was little change thereafter. They found that “relative to the postnatal period, expectant fathers drank more alcohol, were more depressed and irritable, had more negative affect and suffered more somatic symptoms” (p. 62) but that these differences, though significant, were relatively small. Although, not technically depressed, the changes in men’s relationship, health and lifestyle variables tended to deteriorate in the year following the birth.

It has been suggested that a causal factor for postnatal depression may be related to infant characteristics, especially difficult temperament. While research has shown that depressed mothers are likely to rate their infants’ behaviour as more difficult (McMahon, Barnett, Kowalenko, Tennant, & Don, 2001) no research suggests that

infant temperament is likely to cause postnatal depression. On the other hand, one Australian study suggests that maternal prenatal anxiety might contribute to infant difficult temperament (Austin, Hadzi-Pavlovic, Leader, Saint, & Parker, 2005).

As Sroufe, Egeland, Carlson, and Collins (2005) point out, studies that rely on self report for parenting and depression are subject to bias. This is based on the common observation that depressed people have negative perceptions. This is an issue when making use of mothers' reports of children's behaviour or temperament. The variety of data collected in projects like the Minnesota longitudinal study are useful for being able to shed light on, or correct for, potential bias. Using their rich database, they found that mothers' depression had different impact on children depending on the severity and time and stage of the children when the mother was depressed. Mothers' depression had more of an effect on boys than girls in childhood but on girls in adolescence. To add to the complexity of evaluating the effect of mothers' depression on children they also point out that if mother is depressed there may be a genetic link to produce the depression in their adolescent children.

Other research has been done investigating the link between attachment and depression in parents using adult attachment instruments other than the AAI, often in relation to the different ways that adults with different attachment styles approach or withdraw from their partners or seek social support when under stress. Because the data for these projects is derived from instruments that are based on somewhat different assumptions than the AAI, such projects are not discussed in detail here. Suffice it to say that research such as Simpson, Rholes, Campbell, Tran, and Wilson (2003) which investigated adult attachment, the transition to parenthood, and depressive symptoms, shows that depression is common in insecure men and women. They make a noteworthy comment citing Bowlby (1973, 1980): "the working models of persons with insecure attachment orientations bias perceptions of the social environment in ways that confirm or sustain the insecure person's fears, pessimistic beliefs, and negative expectations regarding attachment figures" (Simpson et al., 2003, p. 1183).

Parenting Received Measures

The Adult Attachment Interview has scales for experience with attachment figures. While it is taken for granted that experiences with parents in childhood will influence later development that is not the same as saying that parents cannot help

repeating the parenting they received. Adults who have had loving parents are in the privileged position of being highly likely to become loving parents. However, research has shown that some adults who have had difficult experiences in childhood with attachment figures can be classified as Secure/Autonomous and have secure children. Attachment theory holds that it is not witnessed behaviour which is copied but that early experiences shape the way intimate interactions are interpreted and the range of behaviours acquired to cope with stress in interpersonal exchanges. Research has shown however that these responses can be changed by experiences which counter the original patterns. Just the same, any research with an attachment basis in regard to parents will inquire into memories of the parenting they themselves have received and research using the AAI often uses a separate instrument such as the Parental Bonding Instrument (Parker et al., 1979) to provide a different source of information for comparison with that provided by the AAI.

Social Support

The whole issue of attachment orientation of parents and the effect that different types might have on their children is dependent on how secure the parent feels. This requires an examination of their social resources, especially support from partner and family. Attachment theory points to a particular need for social support – defined as “the presence of a network of individuals on whom one can count in times of need with regard to a variety of circumstances such as emotional, financial, social, or organisational problems” (Sarason cited in Tarabulsky, Bernier, Provost, et al., 2005, p. 214).

Some attachment research has considered social support as an important aspect of the ecology potentially linked to attachment processes during infancy and included a measure in their investigations. Cowan and Cowan (2003) discuss how becoming a parent can stretch the resources of young adults, promoting a crisis, the resolution of which requires the parent to rise to the challenges occurring. For some this will be a successful learning and adjusting process, but for some the challenges may overwhelm them. The Cowans’ research showed that intimate support proved to have the most general positive effects, but that social support in general moderated the adverse effects of stress on mother's life satisfaction, on several behavioural variables and on infant interactive behaviour.

Tardy (1988) attempts to clarify conceptions of social support. He points out that social support is both given and received. There are positive and negative aspects of both giving and receiving, there can be too much or too little, but that key to the effect of social support is how satisfied an individual is with what has been given. There are also differences with the type of support, whether it is available from family or social agencies, whether it is, for example, lending money or giving encouragement.

Research which included a social support variable is not unusual in the studying of parenting, and postnatal depression. In general, women who experience financial worries, lack of social support and losses and strains after childbirth show more symptoms of depressed mood (Astbury, 1994; de Souza, 2006; Priel & Besser, 2002; Seimyr, Edhborg, Lungh, & Sjögren, 2004).

Attachment research such as that of Atkinson et al. (2005) and Zeanah et al. (1993) shows there is variability in the strength of association between support and attachment security of mothers. They were particularly concerned with the inadequacy of measures of social support. However research such as that of Lyons-Ruth, Connell, Grunebaum, and Botein (1990) and Lieberman, Weston, and Pawl (1991) in which external social support is part of interventions being tested, shows advantages for those children whose mothers receive social support.

Use of the self-report adult romantic attachment scales has provided insights into reasons for lack of strong results for social support variables and attachment of mothers and infants and the common need for statistical reasons to combine dismissing and preoccupied groups as “insecure”. Florian, Mikulincer, and Bucholtz (1995) found that secure persons perceived higher levels of emotional and instrumental support from the assessed figures and reported seeking more emotional and instrumental support than avoidant and ambivalent persons did. Vogel & Wei (2005) found that avoidant individuals denied distress and were reluctant to seek help. Preoccupied and avoidant individuals perceived less social support which contributed to feelings of distress, but then heightened distress would promote an intention to seek help.

Negative Life Events

There are three different questions concerning negative life events and attachment. The first is the place of negative life events in the experiences of adults being interviewed with the AAI or responding to self-report instruments. The AAI

acknowledges the importance of loss and abuse to state of mind regarding attachment. The question of potential causes for change in attachment over time has also sought to detect the impact of negative life events. The third is to investigate how mothers' behaviours in interactions with their infants might be somehow influenced by their own experiences of being neglected or abused.

When Waters, Hamilton, and Weinfield's (2000) sample of white middle-class infants who had participated in the Strange Situation as infants reached 21, they were interviewed using the AAI. This was perceived as the ultimate test of the stability of attachment organisation under ordinary circumstances through childhood and adolescence. Overall 72% received the same secure or insecure classification as earlier. Waters et al. (2000) listed the negative life events that Bowlby had identified. These are death of a parent, foster care, parental divorce, chronic and severe illness of parent or child, single parent, parental psychiatric disorder, drug and alcohol abuse, child experience of physical or sexual abuse. The coders counted occurrences of these events before the age of 18 from the AAI transcripts. They found that both self experience of negative events, and the reporting of their parents of negative events at the time of the original Strange Situation procedure were more likely to lead to changes from secure to insecure attachment status. In another article, Hamilton (2000) added two other life events to the list in Waters et al. (2000), which she thought should be included in future research: prolonged physical separation of mother and child in early childhood (greater than 6 months) and parental drug use.

Parenthood Experienced

Child's Attachment

The classical attachment research with parents uses the AAI prior to the birth of a child or concurrent with the use of the Strange Situation procedure to assess the child/parent attachment relationship when the child is 12 to 15 months old. Just as there have been efforts to find a more economical method of assessing the attachment of adults using self-report instead of the AAI, there have also been many attempts to devise a procedure for use with toddlers that can be an alternative to the Strange Situation. A successful observation method has been Water's Attachment Q-Set (AQS: Waters, 1995). It uses a deck of 90 items which are designed to reflect the secure-base phenomenon. These items are sorted into nine piles which address how characteristic

that facet is of the child in relation to the parent. Usually the cards are sorted by trained observers but they can also be used by parents. By this method, toddlers can be classified as secure/insecure and dependent/independent. Others such as Pederson and Moran (1995) and Kirkland and Bimler (Kirkland, Bimler, Drawneek, McKim, & Schölmerich, 2004) have been experimenting with using the method for distinguishing between A, B, C and D infant attachment groups. Validation studies have shown moderate relationships between secure/insecure classifications on the AQS and the Strange Situation and between mother and observer sorts of the AQS (Solomon & George, 1999). In a genetic study using the AQS, Bakermans-Kranenburg, Schuengel, van IJzendoorn and Bokhorst (2004) found a reliability of .65 of the mothers' and fathers' sorts of twins' attachment to their fathers. As expected they found that security of attachment was mainly explained by shared environment but that the dependency, which they considered to be a temperament variable, was mainly explained by genetic factors.

Caldera (2004) used a variety of instruments to investigate the correlates of attachment security with fathers, using the Attachment Q-set (Waters, 1987). For the research a Father Care-Taking Questionnaire was developed. This assessed the father's accessibility for the child, that is the number of hours they were home with the child while the child was awake, engagement – the number of hours they spent playing with or reading to the child, the number of specific caregiving tasks like bathing, feeding and nappy-changing that they performed, and finally, whether key decisions on behalf of the child were the responsibility of one or both parents. Engagement in care was a significant predictor of attachment security with father, but the other aspects were not related to attachment security or insecurity.

A later article (Caldera & Lindsey, 2006) reports an observation measure, coding for co-parenting cooperation and competitiveness and relating that to mother-infant and father-infant interaction measured by the Caldera Father Care-Taking Questionnaire used for mothers as well. The correlation between mothers' and fathers' AQS descriptions was significant (.47). Competitiveness seems to make the child less secure - or at least the parents' judgment of the child's security. Mothers in more cooperative relationship were more responsive to infants. Mothers who also were more responsive and less restrictive in behaviour had more secure children.

Because there was no training available in New Zealand for the Strange Situation or the AQS, alternative methods to assess the attachment relationship were

sought. Kirkland and Bimler (Kirkland et al., 2004) have been exploring new methods of analysing data derived from the Attachment Q-Set (AQS: Waters, 1987) and other similar instruments. One method is using the TAS-45, using a computer programme to facilitate the sorting. Another method making use of the same bank of items is called the “trilemma” method where items are presented in groups of three where the task is simply to select the items most like the child and least like in each group of three. The results are calculated by a computer algorithm producing security and dependency scores and individual case profiles from which A, B, C and D attachment classifications can be derived. So far there are no published reports of the use of these instruments with New Zealand parents and children.

Temperament

Early attachment research was concerned that the infant behaviours which were coded in the Strange Situation as indices of different types of attachment to the mother might be temperament differences rather than the playing out of expectations about the mother’s caregiving. Groups of researchers that specialised in temperament research found that temperament did not predict Strange Situation attachment classifications but it did predict contact maintenance during reunion episodes (Bates, Maslin, & Frankel, 1985), the basis for Waters’ (1987) assumption that dependency as measured with the AQS was related to temperament. As time has gone on however, the measurement of temperament has become vigorously debated. Although instruments measuring infant and child temperament have become well validated, there is still concern about the reliability of those who are doing the assessments, trained observers or parents who might be expected to know a child more comprehensively, yet will be suspected of bias. Vaughn et al. (1992) argued that

despite the biases that have been found in mother’s assessment of their child’s attachment and temperament behaviour, they are still the most usual informants on the grounds that they have access to information about their child that is at least as useful as that which might be observed by others using laboratory protocols (p.470).

They also noted the common finding that mothers and fathers differ in their temperament assessments.

Rothbart’s (1981) Infant Behavior Questionnaire has been used in numerous studies of children’s temperament, and also in attachment research. Such

research is producing results that lead away from generalisations about attachment and temperament towards formulating conditional interactions, for example, the differential susceptibility of highly reactive infants depending on maternal sensitivity and attachment (Klein Velderman, Bakermans-Kranenburg, Juffer, & van IJzendoorn, 2006).

In the present project, it is the parents' frames of meaning that are to be examined. How parents with different attachment representations are likely to rate their child's temperament can be presumed to be related to their attachment category. For example, dismissing parents are more likely to rate their children closer to an ideal child than secure parents, possibly because they are uncomfortable with negative behaviour and tend to suppress it in their child and also because they may not be aware of the signs of negative feelings in their child. Because of the argument of critics that temperament is equivalent to attachment behaviour in infants, a measure of temperament is justified in any attachment research.

Edhborg, Seimyr, Lundh, and Widstrom (2000) conducted a Swedish study using the Experience of Motherhood Questionnaire (EMQ: Astbury, 1994) and the EPDS as well as a child temperament measure to compare families where the mothers were depressed for two months postpartum with families whose mothers were not depressed, to see how fathers and mothers perceived their children's temperament and rated their experience of parenthood at one year. The fathers did the temperament assessment and Experience of Fatherhood Questionnaire but not the EPDS. The results indicate that children of depressed mothers appeared to be more difficult to care for, that a child thought to be difficult was associated with greater stress for both parents at one year even if the mothers were not rated as depressed. They concluded that depressed mothers with a "difficult" child were a vulnerable group, as were fathers with depressed wives and difficult children.

Measuring Parent's Stress Levels Postnatally

It is apparent that following the birth of a baby, parents, mothers in particular, have suddenly to learn a lot of new skills. Life events, even expected and positive ones like having produced a healthy infant, demand change, and old routines and competencies no longer seem adequate. Any period when new skills are being demanded are stressful (Lazarus, 1991). For some reason postnatal distress and postnatal depression have been confused, and help for mothers with severe stress

reactions has often not been forthcoming. In an effort to identify the level of coping and well-being in mothers postnatally, but not to assess depression, Astbury (1994) developed the Experience of Motherhood Questionnaire (EMQ). This instrument could be used to measure several factors: maternal anxiety, personal autonomy, coping with baby, coping with life, maternal overload and extrinsic support, but essentially it could be used to measure the real feelings of stress or satisfaction/dissatisfaction that a mother might feel. Astbury explains that those who score above the median on the EMQ can be distinguished by their different scores on the subscores from those who scored under the median. She suggests that high scoring mothers are probably depressed, but depressed because they had real difficulties with their lives as mothers that reflect contemporary conditions, not because they had some hormonal imbalance. The correlations of the different factors with other measures such as social support, life experiences, toddler temperament and depression provided information that supported the construct validity of the instrument. Its practical value, she suggests, is as a screening device for community health workers who need to know whether a mother is distressed but not depressed. The EMQ has been used subsequently to provide before/after scores in research on treating reflux in crying babies (Jordan, Heine, Meehan, et al., 2006) and in research tracking the occurrence of postnatal depression in mothers and fathers in Sweden (Seimyr, Edhborg, Lungh, & Sjögren, 2004).

Ispa, Fine, and Thorburg (2002) used Tellegen's Multidimensional Personality Questionnaire to measure stress reaction along with infant attachment (AQS) and Rothbart's Infant Behavior Questionnaire for infant difficult temperament. They found that maternal susceptibility to stress predicts child attachment insecurity even with infant temperament controlled.

Coyl, Roggman, and Newland (2002) distinguished between economic stress and personal stress for mothers and their attachment relationship with their child. Both sorts of distress were associated with depression – and showed the degree via amount of spanking. These too affected infant attachment security.

The only significant research that investigates stress in relation to AAI classifications is that of Phelps, Belsky, and Crnic (1998). Because they had noted previous research that found that those mothers termed “earned secure” were more likely to become depressed, they divided their groups according to high and low stress. Their measurement of stress was based on self-reports of daily hassles. The attachment groups were “earned secures”, those who reported negative parenting experiences but

were classified as Secure/autonomous on the AAI, “continuous secure”, those who had memories of loving parenting, and “insecures”, those classified as Dismissing or Preoccupied. They found that that parenting in a community sample operates much the same way for parents whether they are secure or insecure under low stress conditions, but under high stress conditions, secure, including earned secure parents, can continue to be competent parents, whereas the insecure group may not cope well.

Summary

In this chapter some of the key variables that have been used in examining the characteristics of parents that impinge on their adjustment to parenting are reviewed. The interrelation of demographic variables such as age, gender and education, personality and self-esteem with experience with parents and negative life events influence the care-giving of new parents. How parents will cope with the demands for change and adjustment required by pregnancy, birth and learning to care for a baby is dependant on the resources, psychological, social and material that a couple bring to this significant life crisis. AAI theory and typology research has shown new ways of making sense of the different predictors that have been found in other social research.

This thesis intends to investigate how cognitive development might be implicated in parenting; is the level of cognitive development that is associated with mature adulthood what may be being assessed by the Adult Attachment Interview? The coding of Coherence of Transcript, and the concept of Autonomy, may both mean that the classification of Secure/Autonomous is a measure of demonstrated level of cognitive competence that enables a person to be a well-functioning adult. This may be the reason that the AAI in an assessment before a baby is born, has the ability to predict the quality of relationship of that parent and their baby, far better than the assessments of other features such as parental personality, or experience of care in childhood.

Aims of this Research

1. To invite parents preparing for the birth of their first child to think about how well prepared they are to become parents.

2. To investigate whether it is mature cognitive development that is primarily what the AAI classifies as Secure/Autonomous.

So, secondarily,

3. To use the Adult Attachment Interview as the key assessment tool in this process.

4. To assess at the same time, different ways of conceptualising and measuring cognitive development.

5. To select a number of other instruments to assess key characteristics of individuals at the beginning of the transition to parenthood.

6. To compare the correlations of cognitive, parenting, personality and parenthood variables with AAI Coherence of Transcript and AAI classification.

7. To examine the transcripts and variable scores of examples of different attachment classifications to see whether the cognitive measures add information to that already derived from the AAI coding.

CHAPTER FIVE

METHODOLOGY

The purpose of this study is to investigate whether it is cognitive development that is the key feature of what is being assessed in the coding of the Adult Attachment Interview. To test this, instruments that measure cognitive development in different ways are used with a group of expectant parents concurrently with the Adult Attachment Interview. Other instruments are also used to assess competing explanations for characteristics which contribute to the assignment of participants to attachment categories and to assess how different prenatal characteristics may be related to adaptation to parenthood.

This chapter begins with an outline of the research design and is followed by a description of the instruments used. This is followed by the research procedures, ethical consideration, the main research questions and planned analyses.

Overview of Research

The research was framed as an investigation of how well prepared expectant parents are to become parents, in effect, an overview of aspects of the transition to parenthood. Most of the data is collected prenatally around the time of the conduct of the interview, and there is a final collection of data when the expected infant was 15 months old. For parents the question is how well prepared for parenting they think they are, and how does that relate to their feelings when they have been parents for some time. For this thesis the question goes deeper: what does the Adult Attachment Interview help us to understand about how well parents are prepared for parenting? Within that framework, this thesis is assessing the conceptual issue of what the Adult Attachment Interview is capable of capturing in an interview with an adult that can predict important features of that adult's relationship with their toddler who is as yet unborn. Taking it to another level, the question is a validity issue: is it cognitive development that distinguishes between secure and insecure attachment groups when the Coherence of Transcript is assigned on the basis of the AAI coding?

This is a non-experimental, correlational study designed to explore the relationship between measured levels of cognitive development and other variables and classification of attachment from the Adult Attachment Interview. In essence it is part

of the tradition of examining the construct validity of the Adult Attachment Interview. As in earlier attachment research it uses the AAI alongside a battery of other instruments in order to assess the convergent and discriminant validity of the categories derived from the AAI. Because the AAI requires a narrative assessment of discourse and the cognitive development instruments also rely on discourse analysis, this research is also providing data to assess the validity and reliability of the qualitative methods used in comparison with scores derived from self-report instruments. The correlations of the variables will be examined for convergent validity, that is, for significant correlations to variables which conceptually should be related, and then discriminant validity, lack of correlation with variables that conceptually should be unrelated. Then, examples of different attachment categories will be examined to see if their scores on the different variables are consistent with the descriptions of the attachment categories according to the AAI coding manual. These other measures of variables related to descriptions of attachment categories will be used in order to provide a detailed account of the concepts of coherence and autonomy with regard to individual cases. Finally, the findings will be appraised for evidence that it is cognitive complexity that should be investigated further for being the latent variable that explains the link between AAI and Strange Situation measures of parent and child.

Research Design Outline

Mothers and fathers in third trimester of pregnancy, aged between 18 and 40, with good command of English were recruited to the sample.

Time 1: Recruitment questionnaires, interview, questionnaire booklet.

Time 2: Return birth notice, follow-up phone call.

Time 3: When infant is 15 months old, questionnaire booklet.

Selection of Instruments

Adult Attachment Instrument (George et al., 1996; Main & Goldwyn, 1984)

It is the London Parent-Child Project (Fonagy et al., 1991) that has provided the most information about the early findings testing the validity and reliability of the AAI. Later research led by van IJzendoorn, Sagi, the Grossmans, Crowell and others must be acknowledged. The early publications from the London project mostly relates to the convergence of AAI classifications of mothers and fathers and of each with their child's

Strange Situation classification. There are references to the use of an IQ measure which was found not to be associated with attachment classification, and the Mother-Father-Peer Scale (Epstein, 1983) which pointed to some construct validity of the AAI but showed no relationship with children's attachment classifications. In one article (Fonagy et al., 1994), we are informed that 18 months after the AAI, parents completed several measures, interview questions for indicators of deprivation – high, medium and low risk, husband's support, self-efficacy as parents, marital satisfaction, couples' experience with babies, infant temperament, psychiatric caseness, personality, self-esteem and Reflective Self Function. It is only the last listed that has been reported in any detail.

However, at the time the Parent-Child Project was being reported, others were trying to establish the psychometric properties of the AAI and replicate the association between AAI and Strange Situation classifications with studies in the Netherlands, Canada, Israel, USA and Germany. Several studies tested the stability of AAI classifications (Bakermans-Kranenburg & van IJzendoorn, 1993; Benoit & Parker, 1994; Benoit, Parker, & Zeanah, 1997; Sagi et al., 1994), and found there are no gender differences in distribution of classifications (van IJzendoorn & Bakermans-Kranenburg, 1996). According to Crowell and Treboux (1995), discriminant validity of the AAI had been demonstrated “with respect to intelligence, memory, cognitive complexity, social desirability, and overall social adjustment (Bakermans-Kranenburg & van IJzendoorn, 1993; Crowell, Waters, Treboux, O'Connor, Colon-Downs, & Feider, 1996; Sagi et al., 1994)” (p.6). Careful reading of these references finds no assessment of cognitive complexity per se.

In 1995, van IJzendoorn published the first meta-analysis of research on the predictive validity of the AAI (van IJzendoorn, 1995a). Looking back over the longitudinal programme of research which evolved, Crowell and Waters (2005) attest to the importance of the early investigation of the discriminant and construct validity of the AAI – correlating variables with AAI coherence scores of mothers. In their study (Crowell et al., 1996) of the discriminant validity variables, raw IQ ($r = .42$) and Social Adjustment Scale ($r = .46$) correlated significantly with AAI coherence, but education and social desirability did not. Of the construct validity variables which were tested by comparing the AAI to self-report attachment scales for partner and the Experiences in Close Relationships interview (ECR: Brennan, Clark, & Shaver, 1998), correlations were low and non-significant. Later research found that secure-base behaviours with

children and with partners were highly correlated with AAI coherence (Crowell & Waters, 2005).

As noted in Chapter One, the AAI has strict requirements for its use. To undertake a study of the AAI it is necessary to be trained in the conduct of the interview and the coding system, and to be assessed as a reliable coder. This was accomplished by the present author in 1997 and 1998, and followed up by participation in overseas projects using the AAI. Four postgraduate students have been trained to conduct the interview in the context of further study of attachment research presented by me.

In this research, participants were interviewed by two postgraduate students, those who were couples were interviewed at the same time in separate rooms, using the Adult Attachment Interview Protocol (George et al., 1996) (see questions in Appendix 2). Audiotapes of each interview were transcribed according to the AAI protocol with person and place names reduced to initials or replaced by descriptors like Person 1. Each hard-copy transcript (see Appendix 3a) was coded using the coding manual (Main & Goldwyn, 1996) and recorded on coding sheets as is the standard practice by the present author (see Appendix 3b). When a revised coding manual was received (Main, Goldwyn, & Hesse, 2002), each transcript was recoded by the same coder. Only slight changes were made as a result, not because of essential differences in the coding manual, but to five scripts which had been difficult to code the first time.

The proper use of the AAI requires 25% of the transcripts to be double-coded for reliability. Until recently there were no other New Zealanders who had gone through the AAI training and lack of funding for this research has prevented paying approved overseas coders. The resource requirements for using the AAI in research is why many researchers use self-report attachment assessment, but the point of this research is to examine the discourse of participants in the AAI for both attachment representation and for the cognitive complexity revealed. Double coding of all the qualitative assessments in this project would contribute immensely to the value of this research so it is regrettable that it cannot be done.

Feelings about pregnancy. At the end of the AAI twelve questions were added about how well equipped participants felt they were to become parents. These were intended to provide the participants with the opportunity to express feelings about present concerns, which could provide useful information not related to the AAI assessment of attachment but possibly providing more contextual information about the

pregnancy. These questions were trialled with the first two volunteers who were interviewed but who did not participate further. The responses to each question were collected in a document that separated them from the AAI transcript, tallied and a summary of the responses written. (See Appendix 2).

Negative Life Events. Those identified by Bowlby were derived from the interview (Hamilton, 2000; Waters et al., 2000). These are death of a parent, foster care, parental divorce, chronic and severe illness of parent or child, single parent, parental psychiatric disorder, drug and alcohol abuse, child experience of physical or sexual abuse, prolonged physical separation of mother and child in early childhood (greater than 6 months). If any of these were present they were counted as in the previous research cited.

Cognitive Development Measures

The measures for cognitive development are intended to assess (1) overall maturity in concerns of importance to self (i.e., identity development from the Sentence Completion Test), (2) particular interpersonal ability to articulate awareness of other minds (i.e., more appreciation of affective development from the Reflective Functioning scale), and (3) demonstration of ability to differentiate and integrate ideas about parental relationships (i.e., more cognitive development in a content area from the Conceptual/Integrative Complexity analysis). In addition, Verbal Ability, Sense of Coherence, Education and Concepts of Development will be completely different ways of assessing cognitive development. How all these may relate to Metacognitive Monitoring, the Coherence of Transcript score and subsequently attachment category will be analysed.

Reflective Functioning (RF: Fonagy et al., 1997). This scale, to be used with the AAI, is gaining importance in adult attachment research. See the discussion of its coding, its conceptual relationship with the Coherence scale of the AAI and its perceived connection to the intergenerational transmission of attachment, and the discussion on cognitive complexity in Chapter Three.

The Reflective Functioning Manual was given to this researcher by Miriam Steele in 1997. Efforts to find training courses in the UK or Australia to support the use of RF in 2005 and 2006 were unsuccessful. Contacting Miriam and

Howard Steele in 2008 informed me of a course but it was impossible to attend. By then the manual had been used to analyse the AAI transcripts as will be explained later. Howard Steele's email advice was welcomed.

A file was constructed of scorable statements extracted from each transcript and collected under headings for the examples of reflective functioning that are in the coding manual. Responses to "demand" questions were distinguished from others. This file permitted some consistency in the scoring of individual statements in relation to each other rather than to the context of the transcript in which they had been found. Then the scores for these statements were returned to the transcripts in order to judge the levels of statement and numbers of different levels in each transcript. There is no simple formula for aggregating reflective functioning ratings from the AAI into a single score. As the manual (Fonagy et al., 1997) says, it is not an arithmetical average but a judgment based on the indices in the manual, experience with coding and the extent to which reflective functioning is observable in the discourse in transcripts. (See Appendix 4).

Conceptual/Integrative Complexity (Baker-Brown et al., 1992). This instrument is also described in Chapter Three. The score is derived from the responses to the same demand questions in the AAI transcripts that were used for assessing Reflective Functioning. The coding manual of Baker-Brown et al. (1992) was used in conjunction with published references and a webpage (<http://www.psych.ubc.ca/~psuedfeld/Workshop.html>). Baker-Brown et al (1992) say that their scale of 1-7 assessing differentiation and integration can be used with any verbal material. Each transcript was examined for statements that could be assigned to levels of complexity. Each of these was colour coded to represent the scale score applicable (see example in Appendix 5), and then the number of codeable statements was examined in order to arrive at a summary score. The coding manual refers to averaging scores but doing so produced apparently anomalous ratings because there were transcripts with few scorable passages and in some cases this tended to allow them to look more capable of conceptual/integrative thought than some who had many lower level examples as well as some higher level. In the end, it was decided that a better global score could be arrived at if a similar method was used as with the summarising of the Reflective Functioning scores, by looking for the highest level demonstrated and then assessing from the other scored passages whether there was evidence to support the

placement of this transcript at this level. A global score for each was then added to the SPSS file.

As it stands, this coding system so far has not been used with attachment research but it has been adapted for psychosocial research. The best example is that of Pancer et al. (2000) who were investigating the proposition that becoming parents was a "developmental opportunity for maturation and new growth (Osofsky & Osofsky, 1980, p.45)" and so seems suitable to use in conjunction with the AAI with new parents.

Washington University Sentence Completion Test (SCT: Loevinger, 1998), Hy & Loevinger, 1996). As already discussed in Chapter Three, this instrument assesses a construct that is considered to reflect the central organising interest and preoccupations of an individual, changing with maturity. It should therefore be a good measure of maturity, related to ability to manage the challenges of the transition to parenthood. It has been used previously as a measure of "the degree of complexity an individual uses in making meaning of his or her lived experiences" (Adler & McAdams, 2007, p. 214). To reduce somewhat the load of questions that participants were required to respond to, the 18 item version was selected. The coding manual (Hy & Loevinger, 1996) suggests that the 18 item version is not as reliable as the 36 item version, but the 18 item version was shown to produce similar enough results to be valid alternative instruments (Novy, Blumentritt, Nelson, & Gaa, 1997) and has been used satisfactorily in many research projects (e.g., King, Scollon, Ramsey, & Williams, 2000). Outcome scores can be either Ego level which is the Total Protocol Rating, or Item Sum Score. The 18 item version has the same sentence stems for both men and women. This instrument is included in the handout given to prospective recruits to the research (see Appendix 6).

The SCT was coded by the present researcher who has conducted coding workshops in post-graduate seminars in adult development. Following the instructions in Loevinger (1998) all sentence completions were entered into an Excel file and then sorted into groups under the same sentence stem. Each statement was given a score according to the manual (Hy & Loevinger, 1996). Then the file was resorted so that all statements for a case were brought together and from that the Item Sum Score and Total Protocol Rating were calculated and both entered into an SPSS file.

This instrument has been used concurrently with the AAI in published research only in the research programme with adolescents in psychiatric care (Hauser, 1999). As expected those adolescents classified as secure scored higher on the SCT.

ACER Higher Tests (New Zealand Revision) - Verbal: Australian Council for Educational Research (1984). One of the reasons for using a verbal achievement/IQ test is to be able to statistically control for verbal fluency (Westenberg & Block, 1993). Another is a selection device for ability to respond to the AAI questions (Steele & Steele, 1994). Crowell et al. (1996) examined the number of items completed in the IQ test and the number answered correctly and found no significant difference between either score and the AAI classification. However women classified as Secure/ Autonomous scored higher than those classified as Insecure, and those classified as Dismissing higher than those classified as Preoccupied. It was found that this result was because the Preoccupied group had significantly lower scores than the women in the other three groups. Because this, as other AAI research, has found the number of Preoccupied cases very small in most research samples, this finding remains open to further investigation. In previous research (Bakermans-Kranenberg & van IJzendoorn, 1993; Rosenstein & Horowitz, 1993; Sagi et al., 1994; Ward & Carlson, 1995), there had been found to be no difference between AAI groups and IQ measures.

The ACER Higher Tests were designed for use with older adolescents and adults with items designed to contribute to a general ability factor (Spearman's g). This is the only standardised pencil-and-paper IQ test available for use with New Zealand adults (NZCER, 2002). For this research, Form PL, one of the two forms of verbal test, was used. This contains 35 items to be worked in 15 minutes including verbal analogies, vocabulary, similarities and verbal reasoning. Because it was included in a booklet (see Appendix 7) to be completed at home, no time limit was specified. Scores were not converted to IQ but used as raw scores, as in the Crowell et al. (1996) research assuming that the number of items correct indicated the best the participants could do and so would provide a range of scores of verbal abilities. It was decided not to conduct this test under supervision and time restriction because of negative sentiment about IQ tests and the view that it was more important not to make participants feel they were exposing themselves to failure than to have supposedly accurate IQ scores. Because of this the scores on this test are not considered to be valid IQ scores but can legitimately reflect verbal competence in thinking through problems.

Sense of Coherence (SOC; Antonovsky, 1987). The instrument was originally called the Orientation to Life Questionnaire and it has been enjoying considerable success in health research showing that people with high scores for Sense of Coherence do seem to have better health and well-being scores. Because of this large amount of research (discussed in Chapter Two), it seemed that there could indeed be some association between that concept as measured and the Coherence of Transcript scale as measured when coding the AAI. The only adult attachment related research found that has used this instrument is the Israeli longitudinal study reported by Sagi-Schwartz and Aviezer (2005). Secure attachment to mothers in infancy contributed to sense of coherence in early adulthood, a finding which reinforces Antonovsky's claim that early experience is important as well as attachment theory's claim.

The questionnaire was obtained from Antonovsky's (1987) book which provided the theoretical rationale behind it. The Orientation to Life Questionnaire (in Appendix 7) is a 29 item self-report measure which uses a 7-point Likert scale. The items ask about feelings and thoughts about being comfortable with people and the environment and accepting change, so it is demanding that respondents "mentalise" and be "metacognitive", thinking about the way they might customarily think. It is not hard to see that people who answer confidently and positively might validly be said to be high on whatever this measure is measuring. It can be assumed that such an outlook on life is likely to overlap with concepts such as self-esteem (Flick & Homan, 1998) and locus-of-control, and also with the quality that people are displaying in the AAI which enables them to be classified as secure-autonomous with a high coherence score.

Antonovsky (1987) reviewed the evidence from 26 studies for the reliability and validity of the Orientation to Life Questionnaire, hereafter called the Sense of Coherence (SOC) Scale (Antonovsky, 1993), listing the correlations with variables such as internal locus of control, self esteem, recent life events, health status, blood pressure, perceived stressors, psychological well-being and quality of life. A Swedish project (Eriksson & Lindström, 2005, 2006) reviewed over 450 publications of research in which the SOC had been used. They came to the conclusion that the SOC scale "seems to be a reliable, valid, and cross culturally applicable instrument measuring how people manage stressful situations" (2005, p. 460). Investigating how the SOC scale has the capacity to explain health and its dimensions, Eriksson and Lindström (2006) found it is strongly related to perceived health, especially mental health, regardless of the age, sex, ethnicity, nationality and study design. Therefore it seems that this instrument is very

useful in health research and in research investigating the promotion of good health. In the context of my research it seems therefore an appropriate instrument to use concurrently with other instruments which purport to measure variables that are related to adaptive capacities, and in particular to provide data on what Antonovsky's notion of coherence has in common with Main's concept of Coherence and Grice's maxims.

In the process of testing the OLQ, Antonovsky was concerned with very high SOC scores, what he called the fake SOC, one that is rigid or inauthentic, with the person claiming no doubt about anything (1987, p.24). Eventually he decided not to worry about such cases because some individuals with very strong identities in stable surroundings could indeed still have the flexibility to deal with unexpected problems. However, there are echoes here of what the AAI coding manual calls the idealising discourse which points to Dismissive attachment representations, and in another sense to J. Block's (1971) conceptions of lack of resiliency and overcontrol. This suggests that the relationships among the SOC, AAI category and personality would be interesting to explore.

Although the SOC was constructed with several conceptually relevant scales, research experience has found that the total score is more usually related to correlates of interest than any of the subscale scores (Antonovsky, 1998). It is the total score that is used here.

Concepts of Development Questionnaire (CDQ: Sameroff & Feil, 1985). The CDQ consists of 20 items which are coded for two levels of parental beliefs about child development, levels which are aligned with cognitive complexity. The categorical level measures a belief in single causes for a child's behaviour and these are either stable and uncontrollable internal factors in the child such as temperament or physical status or to stable and uncontrollable environmental causes. At the perspectivist level, parents acknowledge several factors interacting and hold that children and their caretakers are in constant development. Previous research has found that these levels are associated with cognitive complexity, age, education and culture (Palacios & Moreno, 1985; Pratt et al., 1993; Reich, 2005; Roskam, 2005; Sameroff & Feil, 1985).

This instrument is included in the first booklet (see Appendix 7). However, the expectations for this instrument were not fulfilled. Scores had little variance so are not reported on further.

Parenting Received Measures

Parental Bonding Instrument (PBI: Parker et al., 1979). The PBI contains 25 items for mother and 25 for father producing scores for mother care, mother overprotection, father care and father overprotection (see Appendix 6). This was an early effort to assess perceptions of parenting as they might relate to later developmental outcomes. Using this instrument Steele and Steele (1994) found no association with child attachment data, but some agreement with Experience Scales on the AAI. This instrument has often been used as an attachment measure as a validity check for memory of parenting received, although it has consistently been found not to have the ability to predict the relationship quality of parents with their children as was discussed in Chapter 2. From the PBI the scores for the variables of Mother/Father Care and Overprotection will be compared to the AAI scale scores for Mother/Father Loving, Rejection and the association between these memories of parenting received and attachment category and present satisfaction with social support will be investigated.

Social Support Inventory (SSI: Timmerman, Emanuels-Zuurveen & Emmelkamp, 2000). The importance of social support for each individual's well-being is widely recognised in social science (see Chapter Four). Atkinson et al. (2000) in a meta-analysis of correlates of maternal mental health and attachment security of infants found there was a strong effect for social support but advise caution because of the potential error in the various measuring instruments.

The Social Support Inventory (see Appendix 7) was selected because it has been used by a number of psychiatric investigations as a simple to use instrument which asked about a variety of different sorts of social support from presumably attachment figures (spouse and parents or friends) with a parallel assessment of satisfaction level which is thought to be more important than amount of support received, and it had satisfactory psychometric properties (Timmerman et al., 2000). The SSI has 20 items and assesses instrumental support, emotional support, informative support and social companionship separately for spouse and for parent or friend. It is administered twice, before and after the birth.

Personality Measures

California Adult Q-Sort (CAQ; Block, J., 1961). For this research the resiliency and (under)control constructs of Block are used because the description he gives of resiliency is markedly similar to descriptions of a Secure/Autonomous individual. This way of assessing personality has not previously been used with the AAI except for Kobak and Skeery (1988) using Block's CAQ and the AAI with a sample of first year college students whom they labelled as "late adolescents". This was the research where Kobak trialled his Q-sort method of coding the AAI. The secure group were rated by self and peers as more ego-resilient and less anxious, the dismissing group were rated low on ego-resiliency and the preoccupied rated more anxious by peers. Ego-control did not discriminate between groups.

The CAQ (see Appendix 8a) consists of 100 statements about personality, cognitive and social characteristics which are usually sorted by several observers in order to arrive at a summary score of a person's personality type or some characteristic of interest that is not able to be investigated using a trait methodology. These are sorted into five piles according to the instructions (see Appendices 8b and 8c). The number of piles into which the items were sorted was a modification of the original Q-sort method specified by Block. The distribution to piles of items was assigned to a computer file and analysed using a new algorithm by David Bimler (Bimler & Kirkland, 2007), resulting in a single score, a coefficient of the point in 3 dimensional space, for each dimension, ego-control and ego-resiliency.

The constructs of ego-control and ego-resiliency as separate scales to be used as self-reports have recently been evaluated against the entire 100 set of items (Letzring, Block, & Funder, 2005) but in the present project it is the original personality set that is used for self evaluation.

Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). (See Appendix 7 where it is called *Personal Reaction Inventory* as in the original publication.) The Marlowe-Crowne consists of 33 items, 18 of which are keyed true and 15 false which the authors claim make a response set interpretation of scores highly improbable. This instrument has been extensively used over many years and has engendered considerable debate about what it measures and how the results should be interpreted. In Chapter 4 there is discussion about disputes about what the instrument actually measures and the different implications that arise from that. The Marlowe-

Crowne has been used in previous AAI validity research (Bakermans-Kranenburg & van IJzendoorn, 1993; Crowell et al., 1996; de Haas, Bakermans-Kranenburg, & van IJzendoorn, 1994) which found social desirability unrelated to attachment classification. However, it may be related to personality or cognitive measures and so can be justified for use in the present project.

Rotter Internal-External Locus of Control (1982). (See Appendix 7 where it is called *Personal Beliefs Questionnaire*; also discussed in Chapter Four.) It has not been used in previous research with the AAI as far as can be ascertained. For similar reasons as using a social desirability measure, the opportunity to use a locus of control measure alongside the AAI should not be missed. The conception of autonomy in the AAI category as having a sense of agency and a sense of personal control can be tested for validity against this measure. This questionnaire consists of 29 pairs of statements, one which is designated as indicating an internal and the other an external locus of control. Amongst them are five pairs which are irrelevant to the scoring. There is a forced choice to be made. Scores are a simple tally of the number of internal scores and the number of external scores.

Affective Measures

Adult Source of Self-Esteem Inventory (ASSEI: Elovson & Fleming, 1989). (See Appendix 7 where it is entitled *Thinking About Myself Questionnaire*.) As was discussed in Chapter Four, self-esteem has been a popular measure in psychosocial research and was included in validity testing of the AAI (Zeanah et al., 1993). However, there are a variety of self-esteem measures. The ASSEI is chosen because it is constructed to assess how individuals evaluate their own self-concept as discussed in Chapter Four. The ASSEI consists of two parts: Twenty attributes are first rated on an 11-point Likert scale for their importance for self, and then for the level of satisfaction with those attributes in oneself. A global self-esteem score is calculated from the weighted scores of these twenty aspects. This instrument has previously been used in New Zealand by the present author in a cross-cultural study of self-esteem (Watkins et al., 1998) and has been shown to be a valid and reliable measure (Watkins et al., 2003). The ASSEI is administered prenatally and at the 15 month assessment.

Edinburgh Postnatal Depression Scale (EPDS: Cox, Holden & Sagovsky, 1987). A variety of instruments have been used to screen for postnatal

depression. Commonly used in general health screening research are the Center for Epidemiologic Studies - Depressed Mood Scale (CES-D: Radloff, 1977) and the Beck Depression Inventory (BDI: Beck, Steer, & Brown, 1996) but also used are clinical instruments, the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I: First, Spitzer, Gibbon, et al., 1994) and the Schedule for Affective Disorders and Schizophrenia–Lifetime Version (SADS-L: Endicott & Spitzer, 1978). The Edinburgh Postnatal Depression Scale was developed as an instrument that could be used by health workers specifically to screen for postnatal depression.

The EPDS was selected for use in this research because it has been validated in a large number of countries and languages after the original research in English by Cox and colleagues, for example, by Guédény and Fermanian (1998) in France and Luoma et al. (2004) in Finland. In addition, Matthey, Barnett, Kavanagh, and Howie (2001) in Australia have validated the EPDS for use with men in association with research with their partners, but in that case they acknowledge that depression might also include anxiety. Ballard and Davies (1996) in the UK found that the EPDS performed better than the General Health Questionnaire as a screening device for fathers. Reviewing the large amount of international research that has used the EPDS it is interesting to note that it has largely been the United Kingdom, Australia and other European countries that have used it. More recently Asian and African countries have tested it for validation. It seems that North Americans have only rarely taken an interest in the instrument, with published reports over the last few years using it along with the Beck Depression Index and the Hamilton Depression Scale to appraise its efficacy (e.g., Pearlstein, Zlotnick, Battle, et al., 2006).

The EPDS is a self-report questionnaire originally designed for screening depression in women during the postnatal period, not as a diagnostic instrument. When completing the EPDS the mothers are asked to choose from the options those that best describe their feelings during the previous seven days. The scale consists of ten items scored on a four-step scale from 0 to 3, the sum score of items thus ranging from 0 (no depressive symptoms) to 30 (high level of depressive symptoms). Almost without exception researchers have used a cut-off point of 12/13. With this cut-off point, sensitivity (proportion of depressed women correctly identified) for postnatal depression is reported variously between 64% and 96% and specificity (proportion of non-depressed women correctly identified) from 49% to 96%. For non-postnatal major depression, sensitivity of 88% and specificity of 80% have been reported (Luoma,

Kaukonen, Mäntymaa, Puura, Tamminen, & Salmelin, 2004). Ballard and Davies (1996) using a cut-off equal or greater than 13 in research with men found 85.7% sensitivity and 75% specificity for minor or major depression. Even at the highest cut-off point (Murray & Carothers, 1990) found some false positives, demonstrating that the EPDS is not a diagnostic instrument. The EPDS has the advantage of being able to be used multiple times and at frequent intervals to plot onset and persistence of depression (Boyce, Hickey, & Parker, 1991). However, the Sydney team, Matthey, Henshaw, Elliott, and Barnett (2006) argue for more caution when specifying the cut-off point for postnatal depression. After reviewing several recent research reports they recommend that:

- i) the validated score of 13 or more is used when reporting on probable major depression in postnatal English-speaking women, and 15 or more when reporting on antenatal English-speaking women; ii) that the wording used is "13 or more" (or equivalent), and not other terms that may cause confusion (e.g., '>12'; 'more than 12'; '13' etc); iii) if a different cut-off score to the validated one is used, a clear explanation is given as to why this has been done; and iv) that the scale should be worded and formatted as originally described by its authors.

This advice will be taken for the present research.

The EPDS is important to test for depressed mood at the time of the Adult Attachment interview. It is administered three times in order to track how depression might occur at different times in the transition to parenthood, and as a means to assess if any of the participants might be finding parenting overwhelming. It is included in the original recruitment material (see Appendix 6) and in the two subsequent booklets of questionnaires.

Parenthood Experiences

Experience of Motherhood (Fatherhood) Questionnaire (EMQ: Astbury, 1994. Participant parents are contacted when their infants are almost 15 months old and invited to complete some more questionnaires (see Appendix 9a). The EMQ is in the final booklet of questionnaires (see Appendix 9b). It consists of 20 statements of positive and negative dimensions of the experience of motherhood intended initially for mothers of children under 2 years. Later the same instrument was used also with fathers. Respondents rate each item on a scale from "Not at all like me" to "Very much like me". The items tapping the positive aspects of parenting are recoded so that all the

items are scored in the same direction. A high score indicates high stress. It was designed to be used with postnatal depression research to assess how mothers were coping and which aspects of their lives were causing stress. Women who had been scored as postnatally depressed at nine months were contacted again when the infants were two years old. They completed several instruments including the EPDS, and a social support measure, a temperament assessment, as well as the EMQ. Astbury comments that the high scoring women on the EMQ were probably depressed as well as stressed but the instrument is collecting information on their feelings about contextual aspects of their lives, not asking about postnatal or any other sort of depression. The fact that depressed mothers were more likely than non-depressed mothers to express negative feelings towards the baby and to find coping with the baby difficult is a concerning feature with regard to their overall caregiving behaviour when the babies became toddlers and might be expected to demand more effort from caregivers.

This instrument was intended to provide a way of assessing how each parent was feeling about the way their life was going now that their infant was leaving the baby stage and becoming more mobile. Any clustering of the parent's assessment of their own moods, the child's temperament and the relationship with the child could provide evidence of different effects depending on original attachment representation.

Attachment to Mother/Father Trilemma (Bimler, Kirkland, Yuhara, Kurosaki, & Coxhead, 2005). As discussed in Chapter Four, as an alternative to the Strange Situation to assess a child's attachment to a parent/caregiver, the AQS can be used following an observation session or by a parent to assess that parent's perception of the quality of their child's attachment to them. Developed from the AQS and similar measures, the "trilemma" method achieves the same ends as a traditional Q-sort or that achieved by multi-dimensional scaling, but requiring less time and effort by participants (Condon & Spieker, 2008). Items are presented in groups of three requiring selection of the card "most like" and "least like" (for example, "Eager to join in with new visitors, does not wait to be asked", "Turns away from new visitors and goes own way", "Tries to stop mother from giving affection to other people (including family members)" (see Appendix 9b). In this case the items have been selected from the TAS-45, the child-caregiver attachment measure derived from the AQS by Kirkland and Bimler (Bimler et al., 2005). Like the TAS-45, the Trilemma methodology produces scores for 9 "hotspots" which can give individual profiles that can be interpreted in relation to the

infant attachment classifications, A, B, C, and D. These hotspots have been mapped in three dimensional space from scores derived from multiple data sets using different versions of the AQS and the TAS-45. The hotspots are labelled 1) Warm, cuddly, 2) Cooperativeness, 3) Enjoys company, 4) Independent, 5) Attention-seeker, 6) Upset by separation, 7) Avoids others, does not socialize, 8) Demanding, angry, 9) Moody/Unsure about how to react/ unusual behaviours. In addition, an algorithm can produce scores for security and independence.

The trilemma data was processed with the analysis procedure by David Bimler and scores then graphed to show the attachment profile of the child with the parent as perceived by that parent.

The AQS correlates moderately but significantly with the Strange Situation (van Bakel & Riksen-Walraven, 2002). Validity research is presently being undertaken with the TAS-45 (Andreassen & West, 2007), and exploratory analysis has shown that the Trilemma methodology produces similar results (Bimler & Kirkland, 2002). In the present research the Attachment Trilemma provides scores which summarise parents' perceptions of their children's attachment behaviour in relation to themselves.

Co-Parenting Questionnaire (Caldera, 2004). It is also in the final booklet (see Appendix 9b). This questionnaire was developed for a study of fathers' attachment relationships and involvement with their children. It produces scores for Accessibility, that is, how many hours per week they are at home when the child is home and awake, Engagement in play, that is, the number of hours they spend playing and reading through the week, Engagement in care, how often the father is engaged in caretaking tasks like feeding and changing nappies, and Shared responsibility, the number of tasks said to be shared by both parents. The original study was with mothers and fathers of 14 month old children and used the Attachment Q-Set (AQS: Waters, 1987) to give security scores, and other measures including for self-esteem and for child-rearing practices. Engagement in care was a significant predictor of attachment security with father, but none of the other three variables related to attachment security or insecurity.

From the Co-Parenting Questionnaire, Accessibility is calculated by adding the scores for the number of hours per week and at weekends that the parent was at home when the child was awake. Engagement in play is the number of hours spent over 7 days reading or playing with the child. Engagement in care is the number of times that

the parent has dressed, bathed, fed, changed nappies, and put the child to bed. Because in the original research sample few fathers assumed primary responsibility for any of the tasks associated with making decisions about the child's life, Shared Responsibility is calculated by the number of tasks that the parent noted was a shared responsibility.

The final number of fathers and mothers who completed this booklet provided such extreme gender differences on these scales (e.g. all mothers spent most of their time with their children), and because there were so few fathers this data is not reported further.

Rothbart Infant Behaviour Questionnaire – Revised (IBQ-R: Rothbart, 1981). There is also a measurement of temperament in the final questionnaire booklet (see Appendix 9b). The measurement of temperament has been the subject of ongoing controversy, despite being recognised as an important concept to be explored because of its effect on children's behaviour and on how parents and others interact with a child. The difficulty lies with the inevitable bias but more extensive and intimate knowledge of parents about their children in contrast to the limited but presumably more objective assessment of trained observers. In this particular research, the aim is not to get a "real" measurement of temperament, but an assessment of the perception of the parent – or, indeed, the response they are motivated to give to the investigator about their child's temperament. How they rate their child on the IBQ will be seen in relation to their scores on the other instruments completed at the same time. It will be assumed that if the parent is stressed and depressed, the child's temperament scores may be less positive than if the parent is expressing enjoyment of being a parent. There is a certain inevitable circularity about the relationship of infant temperament and parental adjustment.

Rothbart and her colleagues have been fine-tuning instruments for the appraisal of infant and child temperament for many years and have well-documented validation studies. Items from the IBQ-R that assessed Distress to Limitations, Fear and Soothability scales were selected as best measurement of the construct Difficult temperament. This was construed as one of three broad temperament factors that Rothbart and colleagues called Negative Affectivity (Rothbart, Ahadi, Hershey, & Fisher, 2001). Other research also used these characteristics in this way (Izard, Haynes, Chisholm, & Baak, 1991; Komsu, Rääkkönen, Pesonen, et al., 2006). The degree of

positivity/negativity at the final assessment is hypothesised to be related to the state of mind of the parent with regard to attachment before the infant was born.

The Sample

The selection criteria for this project were first time mothers between the ages of 18 and 40 years and their partners. This age range was decided to emphasise the normality of parenthood as a challenge and a change for anyone and in order to avoid suggestion that the research was seeking deficits in prospective parents. A good command of English was also considered important because of the importance of language use for coding of the AAI and other discourse based assessments. The original plan was to recruit 50 to 100 couples in order to have an adequate sample size for robust statistical analyses.

Recruiting the sample

At first, posters and colourful handouts were provided to doctors' surgeries and midwives' offices in the small city in which the university was located (see Appendices 10a and b). Despite enthusiastic support from doctors and midwives it soon became apparent that some other method of recruitment was necessary. It was decided to visit antenatal classes to advertise the study in person. Since the time allocated by the organisations for visiting each class was very short, rather than just hand out brief information sheets, booklets containing the project information, the demographic questionnaire and three of the other instruments which had been planned to be given after the interview, were provided to potential participants (see Appendix 6) along with a self-addressed envelope in which to return their responses if they were willing to take part in the interview. The instruments in the booklet, the Parental Bonding Instrument, the Edinburgh Postnatal Depression Scale and the Sentence Completion Test were examples of the type of research questions that were outlined in the information material. Participants would thus be prepared for the topic of the interview. This fact could indeed have counted against the recruitment of insecure parents.

Participants

Participants were recruited from free antenatal classes conducted at the public hospital. It was assumed that these classes would give access to a wider variety of

young adults than other classes that charged a fee. In a period of nearly three years 27 mothers and 13 fathers volunteered. Of these, 21 mothers and 11 fathers were interviewed. At the 15 month assessment, 13 mothers and 7 fathers returned questionnaires.

Table 5.1. Numbers of Participants at Three Times

	Women	Men
Initial volunteers:	27	13
Interviewed:	21	11
Final participants:	13	7

Sample Obtained - Demographic Data

The mean age of the complete sample ($n = 40$) was 28.6, 25% were under 26, 25% over 32, 30.2% in 30+ age group. Of those who participated at the 15 month assessment (Time 3), the mean age of the women was 29 ($n = 13$, range from 20-38), and the mean age for men was 29 ($n = 7$, range from 24-32). In 2005 and 2006 the mean age of mothers in New Zealand having their first baby was 28 years (Statistics NZ, 2007). Of those who were interviewed 62.5% were married, 25% were couples and 12.5% were single. Of the women who originally volunteered ($n = 27$) 57% said that they were married, 24% that they were living with partners and 19% that they were single. One was in a gay relationship with a partner who already had children.

There was no direct question in this research about ethnicity or culture. However the people who volunteered for the research came from backgrounds which do reflect the cultures of young parents in New Zealand today. From the interviews the following information was revealed: 26/32 were born in New Zealand of (apparently) Pakeha³ mothers, two had Maori fathers, one English and one Irish/Cook Island father. One was born in England with a New Zealand mother and English father. One was born in England with British parents. One was born in Australia of apparently Anglo-Australian parents. One was born in Samoa of Samoan parents but her mother is now

³ The term "Pakeha" will be used throughout this document, following Pool, Dharmalingam & Sceats (2007), to name those New Zealanders of European descent who do not classify themselves as Maori, Pacific Island or some other group.

living in New Zealand. One was born in Japan of Japanese parents and has married a Pakeha New Zealander. One was Taiwanese, born in Korea, who came to New Zealand for her education and all her family of origin are overseas. Her husband was previously also a Chinese student in New Zealand. So although this small sample may not be a statistically representative sample it does contain participants who represent some of the variety of the New Zealand population of young adults in terms of origins. There was a

Table 5.2. Ethnicity of First Time Mothers in New Zealand and in Current Sample

In the interview (n = 21)		Maternity statistics (2003)*	
3 identified as Maori	14%	Maori	19.8%
2 as Pacific	10%	Pacific	10.5%
2 Asian	10%	Asian	8.6%
		Other	2.8%
14 European/Pakeha ³	66%	European	57.3%

*Statistics NZ (2007)

range of education levels. Table 5.3 shows the education levels of the initial group of volunteers alongside those who were interviewed and provided most of the data. Of those interviewed, two had no qualifications, ten had some secondary qualifications and twenty had some tertiary qualifications. Compared to the New Zealand population of adults in the 25 to 39 age-group this sample was better educated. Overall, it was the most highly educated group who remained available for the final round of questionnaires.

Table 5.3. Frequency Distribution of Education Level of Parents at Time 1 and Time 3

	Time 1 (n = 40)	Time 3 (n = 20)
No School qualifications	6	1
SC in 1+ subject or NCEA Level 2	2	1
University Entrance or completion of High School	7	4
Tertiary Certificate or Diploma	7	3
Tertiary Qualifications – degree	11	5
Postgraduate Qualifications	7	6

This sample turns out to be comparatively well-off in the local area, as well as in New Zealand as a whole. Income was assessed only prenatally when some of the women were still working. The mean level of individual income was \$41,250, ranging from \$8,000 to \$75,000. The mean level of family income was \$70,700. Some mothers with apparently low or no income were self-supporting or living with family of origin. All the men in the final sample were employed. Although those who were not interviewed tended to be those with less income, there were some who were not in the sample at the end who had income at the highest level.

Health data was also gathered only in the initial questionnaire. Overall the health of 97.5% of the sample was good or excellent. Of the 20 who participated to the end, four (all women) had specified a condition: depression, fibromyalgia, bipolar, and chronic fatigue.

Procedure

Booklets plus self-addressed envelopes were given out at antenatal classes (see Appendix 6). In the first booklet were demographic questions, the Parental Bonding Instrument (PBI: Parker et al., 1979), the Washington University Sentence Completion Test (SCT: Loevinger, 1998, Hy & Loevinger, 1996) and the Edinburgh Postnatal Depression Scale (EPDS: Cox, Holden & Sagovsky, 1987). If they were returned, an interview time and place was arranged to suit the volunteers (see Appendix 11a).

Interviews were conducted in different rooms with each parent at the same time by two trained graduate students. After making sure that the participants understood the nature of the research and their rights, consent forms (see Appendix 11b) were signed. First was the AAI which was audiotaped. This was followed by the questions about how well they felt they were prepared to become parents. Then the participants were asked to sort the personality item cards from the California Adult Q-Sort, first to describe themselves and then to describe their partner. This session took between one and one half to three hours. In some cases the interviews or the personality sorts had taken too long so all these were not completed.

Another booklet of questionnaires was given to the participant to complete before the baby was born, as well as a notice to send in to inform about the birth (see Appendix 7).

When the birth notice was received the parents were telephoned to ask about the birth and how they felt. This was not to gather data, but to maintain contact and show interest in how they were feeling (see Appendix 12).

When the baby was 15 months old, another notice and booklet was sent out inviting final participation (see Appendices 9a and 9b).

Ethical Issues

The protocol for using the Adult Attachment Interview has its own suggestions about ethics but both New Zealand and Maori cultures require additional points to be considered. It was decided that Maori concerns were no different to others'. All participants were informed about the nature of the research initially and before the interview was conducted, and signed consent forms. They were told they had the right to withdraw from the project at any time. Approval was granted by the Massey University Human Ethics Committee (#03/46) (See Appendix 13).

When contemplating conducting research using the AAI with young adults who live in the local area, ethical issues immediately arise. Lieblich (1996) tells of meeting individuals years after using their interviews as data and finding that statements made in publications of the research that participants had taken to be referring to themselves had retained influence down the years. She realised that it is not only implications of judgmental statements that affected people's understanding of self negatively, but also positive statement that were held important because they came from "experts". For this research, if young parents were to be used, it was essential that there should be no suspicion that an expert was approving or disapproving of the information provided. It was considered that, as in the London Parent-Child Project (Steele & Steele, 1994), if the sample was recruited from parents who were yet to have their first baby, and who were not adolescent which can connote deficit, there should be no negative implications.

In addition, as the Steeles had suggested, there should be a positive advantage provided to those who volunteered. The Steeles had noted that the interview itself provided the opportunity for parents to reflect on themselves and express to an interested listener aspects of their childhood that they would not think about under ordinary circumstances. This is likely to cause them to remember what it felt like to be the child they were and also to reappraise the behaviours of their parents from the perspective of adulthood rather than the age that they were remembering. Couples

having individually been interviewed might find talking together about issues that had arisen for them a communication that would support their understanding of each other as parents. The use of the AAI can be justified by the longstanding principles that the most efficient learning comes at the “teachable moment” (Havighurst, 1953), and that it is not what is taught but what is felt that most easily becomes learned. AAI provides an opportunity for parents to be reflective about parenting in the most powerfully educational way – in relation to themselves and at a time when they would need to take on the roles of parent.

Just the same it was expected that there would be some participants for whom the interview would be difficult. If anyone became upset they were asked if they wanted to switch off the tape recorder, stop the interview altogether, or be given time to recover. At the end of the interview they were asked if the interview had been difficult, were there any comments they wanted to make, and told that if there was anything that troubled them after the interview to get in touch with the interviewer or the researcher. Although some admitted the interview had been difficult in parts, no-one said that it was a problem for them. No-one made contact for assistance. Several stated later that they had found the interview interesting and helpful.

An ethical issue that arose that was not thought about previously was whether to contact those parents who did not send back notice of the birth. It was decided that the parents had to be left with the choice of not informing the research team, especially because there may have been aspects of the birth that they wished to keep private. However, this decision may have been too principled, since during the time that parents are coming to terms with a new baby, all they may have needed was a gentle reminder. Several participants were probably lost unnecessarily because of not being contacted after the expected date for the birth.

The outline of the research presented to the parents was that this was about the transition to parenthood, how well prepared parents are to become parents and to check for such things as depression. They were told that we would not be providing individual results but they could get a summary of the findings by ensuring that they had requested it and that we had a current contact address. In the end, taking this literally is not very ethical, since the parents by then are unlikely to have retained their information sheet. Parents will be sent a summary of the research which addresses those points. They will also be asked if they want their audiotapes and copies of the transcripts returned. This thesis however is about what is assessed in the AAI and the

implications for parenting depending on attachment classification derived from it. It is unlikely to be helpful to parents to become aware of the way that they may have unwittingly revealed aspects of themselves. Consequently, care is taken in the writing of this thesis that personal information be presented in such a way that even if participants read this thesis and think they recognise their contributions that they will not be sure that it is her or himself that is being referred to. If they do suspect that it is their case that is referred to it is hoped that they will realise that concern is being expressed not criticism or blame. In every case the researcher has high regard for each individual and is concerned for their emotional safety. In earlier research in which the present author was involved, using the AAI with participants whose interviews led to insecure classifications, the experience of the interview was commented on as being beneficial, as the first time they had been able to make a meaningful link between their experiences and how they felt about themselves in the present (Murch, 2002).

Research Questions

1. How does the distribution of attachment classifications in this sample compare to the standard non-clinical distribution?
 - 2a. Do scores on measures of Parenting Received distinguish between AAI classifications?
 - 2b. What are the significant correlations between attachment group, Coherence of Transcript and parenting received: AAI Loving Mother, Loving Father, Rejection, PBI Mother/Father Care, Mother/Father Control, Social Support, Negative Life Events?
- 3a. Do scores on measures of Cognitive Development distinguish between AAI classifications?
- 3b. What are the significant correlations between Coherence of Transcript score and the cognitive variables: ego level, reflective functioning, integrative complexity, metacognitive monitoring, education, verbal intelligence?
- 4a. Do scores on measures of Personality distinguish between AAI classifications?
- 4b. What are the significant correlations between Coherence of Transcript and the personality variables: CAQ resiliency, CAQ Control, locus of control, social desirability, self-esteem, depression?

5. What other variables significantly correlate with attachment groups and Coherence of Transcript? (Demographic data)
- 6a. Do scores on the Parenthood Experience distinguish between AAI classifications?
- 6b. What are the significant correlations between Coherence of Transcript and Parenthood Experience scores?
7. Do attachment classifications conform to the category descriptions in individual cases?
8. Is cognitive development a significant feature of Coherence of Transcript and does it distinguish between attachment categories?
9. What might the latent variable be in the coding for Coherence of Transcript?

Planned Analyses

Central to the analysis of these data is the distribution of attachment classifications. As it is expected that for a community sample there will be a large group of Secure/Autonomous, smaller groups of Insecure classifications, and possibly missing groups, so robust statistical calculations will be limited. In previous research it is common to put all the different insecure groups together to more closely approximate equal groups, but in this research it is more important to retain the separation of Dismissing and Preoccupied groups because this research is examining the different ways that coherence, autonomy and cognitive levels may be presented in these interviews and whether any differences are conceptually as well as statistically convergent with attachment theory. Attachment classifications are assigned numbers: 1 Secure/Autonomous, 2 Dismissing and 3 for Preoccupied, Unresolved and Cannot Code. In order to have a continuous measure of secure/insecure attachment for calculations examining the characteristics as represented by scores in the other variables of those in the different classifications, Coherence of Transcript is used.

Statistics

All data is to be entered into Excel databases and later to a master file in SPSS V.16. Using SPSS V.16, first the data will be explored using descriptive statistics and testing for normality of distribution using the Shapiro-Wilk test (if significance >

.05). These many measures will be grouped in four sets: cognitive development, parenting received, personality and affective measures, and parenthood experienced. Bivariate correlations will be calculated with the variables in each set with the Coherence of Transcript score and attachment category (1-3). Post hoc analyses will be done to examine those variables which seem most to share variance with attachment category or Coherence of Transcript. Multivariate statistics, with discriminant analyses in particular, were originally intended to be used but the sample size achieved precluded that level of analysis.

Qualitative Analyses

All the qualitative analyses are guided by coding manuals and produce a summary score which can be used in quantitative analyses. The AAI requires transcripts to have life events to be noted down the left margin and discourse features noted down the right margin, using a system of colour coding (see Appendix 3a). There is a standardised form on which to note evidence of features relevant to each scale and to guide through the final decisions on classification (see Appendix 3b).

The Reflective Functioning manual requires the identification of statements that fit with the descriptions of different sorts of thinking listed. These statements are extracted from transcripts and copied under the examples to facilitate reliability in scores given to similar statements (see Appendix 4). When all transcripts are rated the statements are returned to their own transcript and the overall score for that transcript assigned.

As with Reflective Functioning, Conceptual/Integrative Complexity coding requires the identification of statements relevant to the descriptions of different levels of thinking (see Appendix 5). These were marked on each transcript with colour coded ratings as noted above in description of the instrument.

Metacognitive Monitoring, Coherence of Transcript, Reflective Functioning and Integrative Complexity all are derived from the numbered AAI transcripts. The meaning of scores on these different assessments will be examined for evidence of parallel development of individuals across the different cognitive abilities. The bivariate correlations between the scores from qualitative assessment methods and the quantitative methods for cognitive development will be calculated to appraise convergent and discriminant validity.

Coding Issues

Mentioned above are the expected high standards of research leaders in the attachment field in regard to reliability of coding. This researcher has been trained to use and code the AAI by Dr David Pederson in Canada, completed the reliability trials and was approved reliable in 1998 by Drs Mary Main and Erik Hesse. Use of the Reflective Function scale requires authorised training. In this case the coding manual was given to this researcher by Dr Miriam Steele because of the AAI training, but it has not been possible to attend any RF training. In addition to training and reliability, best practice requires at least a quarter of the transcripts to be double coded and reliability statistics to be provided. In this case, lack of funding precluded double coding for any of the instruments. However, steps were taken to satisfy other procedural requirements where possible. The interviews were conducted by trained interviewers and transcribed by others. The transcripts with all identifying names removed were coded for the AAI in batches, and recoded more than a year later in most cases. All the coding was done by the one person, the researcher. Reflective Functioning was coded in a complete batch when all the data was in, followed by Integrative Complexity some time later. Coding for each interview for each of the measures was done from a “clean” transcript, that is, one that did not have the markings from previous codings. However, having all the codings done by one person had the advantage of clarifying the differences in the ways of thinking that each system was interested in, and how these did or did not overlap.

CHAPTER SIX

RESULTS – QUANTITATIVE ANALYSES

The central thesis of this research is that cognitive development, not personality nor education nor having had loving parents, but the achievement of an ability to think at a higher level of complexity about interpersonal relationships, is what the Adult Attachment Interview coding is assessing for Secure/Autonomous state of mind regarding attachment. The quantitative analyses will shed light on the relative overlap of the variables that have been assessed with the key variables, AAI Coherence of Transcript, and Attachment group. Because the sample size achieved is inadequate for robust multivariate analyses, some planned calculations were not carried out. The data was explored for what it might reveal, and for providing information about the validity of the various instruments used to assess the concepts being investigated in this thesis.

This section will begin with the results of the AAI coding. To organise the reporting of so many variables, they will be grouped in five sets: Attachment, Parenting Received, Cognitive Development, Personality measures, and Parenthood Experienced and organised according to the research questions as listed in the previous chapter. These correlations will be used to examine how they provide evidence for the convergent and discriminant validity of these variables in relation to the different AAI attachment patterns in the first instance and then the relative contribution of the groups of variables to the AAI scale Coherence of Transcript will be compared to test the proposition that it is cognitive maturity that is the key feature of the coding of a transcript as Secure/Autonomous. How the concepts that the variables represent play out in individual cases will be presented in the following chapter.

The research questions addressed in this chapter are:

1. How does the distribution of attachment classifications in this sample compare to the standard non-clinical distribution?
 - 2a. Do scores on measures of Parenting Received distinguish between AAI classifications?
 - 2b. What are the significant correlations between attachment group, Coherence of Transcript and parenting received: AAI Loving Mother, Loving Father,

Rejection, PBI Mother/Father Care, Mother/Father Control, Social Support, Negative Life Events?

3a. Do scores on measures of Cognitive Development distinguish between AAI classifications?

3b. What are the significant correlations between Coherence of Transcript score and the cognitive variables: ego level, reflective functioning, integrative complexity, metacognitive monitoring, education, verbal ability?

4a. Do scores on measures of Personality distinguish between AAI classifications?

4b. What are the significant correlations between Coherence of Transcript and the personality variables: CAQ resiliency, CAQ Control, locus of control, social desirability, self-esteem, depression?

5. What other variables significantly correlate with attachment groups and Coherence of Transcript?

6a. Do scores on the Parenting Experience distinguish between AAI classifications?

6b. What are the significant correlations between Coherence of Transcript and Parenting Experience scores?

Attachment

1. How does the distribution of attachment classifications in this sample compare to the standard non-clinical distribution?

The first concern in research with the AAI is to compare the distribution of attachment classifications with those for non-clinical groups in previous research. In this project, altogether 32 participants were interviewed, 21 expectant mothers and 11 fathers (see Table 6.1). The usual distribution quoted in the literature for a non-clinical sample is 58% Secure/Autonomous, 24% Dismissing, 18% Preoccupied. For a four-way analysis which separates the Unresolved group, the distribution is 55% Secure/Autonomous, 16% Dismissing, 9% Preoccupied and 19% Unresolved (Hesse, 1999). Of recent years, cases labelled CC – Cannot Classify have been included in research reports (e.g., Granqvist, Ivarsson, Broberg, & Hagekull, 2007; Lyons-Ruth, Yellin, Melnick, & Atwood, 2005; Riggs & Jacobvitz, 2002).

From the distribution of attachment categories we see that this sample of women has rather more cases in the Secure/Autonomous group than the standard distribution and has no cases in the Preoccupied category. The men on the other hand are more

Table 6.1. Distribution of Attachment Classifications at Time 1 and Time 3.

		Women n=21 Time 1 n=13 Time 3	Men n=11 n=7	Both n=32 n=20
Secure/Autonomous	Time 1	14 (67%)	5 (45%)	61%
	Time 3	9	4	
Dismissing	Time 1	4 (19%)	3 (27%)	23%
	Time 3	2	2	
Preoccupied	Time 1	0	3 (27%)	10%
	Time 3	0	1	
Unresolved	Time 1	1 (5%) (Secondary F)	0	3%
	Time 3	1	0	
Cannot Classify	Time 1	2 (10%)	0	3%
	Time 3	1	0	

heavily inclined towards Preoccupied – but with such a small sample these results are descriptive of this sample and cannot be generalised to the New Zealand population. Six out of thirteen of the insecure cases dropped out before the end of the project compared to six out of nineteen secure cases.

Despite the small sample size, it was decided not to join all the insecure categories together for most analyses as has been done in much previous research for statistical reasons. For conceptual reasons, since the stories, beliefs and responses of parents are so different for the insecure groups, and especially now there are recognised to be conceptual and theoretical differences between Dismissing and Preoccupied, and between organised and disorganised categories, it was thought important to maintain a distinction between the Dismissing group who would be deactivating attachment and the other insecure transcripts who were more likely to have a hyperactivating attachment style. Consequently, the Preoccupied, Unresolved and Cannot Classify cases were assigned together to Group 3, as a group where attachment issues are likely to be problematic. The Secure/Autonomous (F) category is numbered 1, Dismissing

(Ds) category is numbered 2 and the Preoccupied (E), Unresolved (U) and Cannot Classify (CC) are numbered 3.

Table 6.2a. Means and Standard Deviations for Adult Attachment Interview Scales by Attachment Classification, Women Only

	Att. Group 1(F) n = 13	Att. Group 2 (Ds) n = 4	Att. Group3 (E, U, CC) n = 3
Loving Mother	6.92 (2.33)	3.25 (1.26)	.33 (1.16)
Loving Father	4.73 (2.51)	1.67 (1.16)	3.33 (0.58)
Rejecting (M or F)	2.08 (2.66)	6.50 (0.71)	7.69 (2.31)
Metacognitive M.	3.65 (2.60)	1.75 (1.50)	2.33 (1.53)
Coherence of Trans	6.69 (1.44)	3.50 (0.58)	3.00 (1.00)

Table 6.2b. Means and Standard Deviations for Adult Attachment Interview Scales by Attachment Classification, Men Only

	Att. Group 1(F) n = 5	Att. Group 2 (Ds) n = 3	Att. Group3 (E, U, CC) n = 2
LovingMother	8.00 (1.00)	2.33 (1.16)	7.50 (2.12)
Loving Father	6.60 (1.67)	2.00 (1.73)	3.00 (0.00)
Rejecting (M or F)	1.40 (0.89)	6.00 (4.36)	7.00 (0.00)
Metacognitive M.	3.80 (2.41)	2.33 (1.16)	2.50 (3.54)
Coherence of Trans	6.80 (1.64)	3.00 (1.00)	2.50 (2.12)

Adult Attachment Interview Scales

A natural result of the coding of the AAI means that there is no evidence in many transcripts of some of the criteria for scoring some scales. For example, there may be no evidence in a transcript of Pressure to Achieve (and in fact there was very little evidence of this being an issue with the individuals in this sample), and some participants do not have anyone as a father figure. Missing, nil or 1 for some scale scores is essentially meaningless for statistical analysis. Consequently the most relevant for this study are summarised here (see Tables 6.2a and 6.2b).

It can be seen that the distribution of mean scores across attachment categories provides some information about the relationship between these variables and the assumed characteristics of attachment categories. One detail to note is the apparent

difficulties for Dismissing women with their fathers. However, the variables Loving Mother, Rejecting and Metacognitive Monitoring are not normally distributed making them inadequate for multivariate procedures. The means for the men are included for comparison although the few cases in each group mean are only useful to see that the most insecure men recall their mother as much more loving than the insecure women, the Dismissing men felt more rejected than the Dismissing women, and Coherence of Transcript scores are similar by gender.

When the complete sample is considered the lack of a loving father is highlighted, along with the general lack of love and high feeling of rejection by those in the insecure groups, 2 and 3. That the Dismissing group did not register such strong feelings of rejection despite greater lack of love than Group 3 is consistent with the theory of both groups.

Parenting Received

2a. Do scores on measures of Parenting Received distinguish between AAI classifications?

2b. What are the significant correlations between attachment group, Coherence of Transcript and parenting received: AAI Loving Mother, Loving Father, Rejection, PBI Mother/Father Care, Mother/Father Control, Social Support, Negative Life Events?

Parental Bonding Instrument

Sometimes used as a measure of attachment, the Parental Bonding Instrument is also used for perception of parental care. The scores for Mother Care and Father Care should correlate significantly with scores for Loving Mother and Loving Father on the AAI. The dimension measured by the Overprotection scales relates to under- and over-control by parents, neither which are assessed with the AAI. Attachment theory would expect most but not all of those classified as Secure/Autonomous to report good parenting by at least one parent.

Although the PBI has been used by a variety of different samples over the years, of different ages and from clinical and non-clinical populations, the mean scores of this sample were much lower than expected for both Mother and Father Overprotection. In Table 6.3 the mean scores of Parker's original samples of Australian young adults and Mallinkrodt's American undergraduates ($n = 283$) are compared with

the scores of this sample of young adults. The differences signal that cultural values and attitudes in child care (as well as sample size) may affect interpretations of these data.

Table 6.3. Mean Scores for Parental Bonding Instrument for Three Non-Clinical Adult Samples

		n=18 Women	n=8 Men	Mallinckrodt,1992		Parker et al.,1979 Both
				Women	Men	
PBI	Mother Care	25.33	27.00	29.6	28.1	26.8
PBI	Mother Overp.	12.17	9.56	27.00	27.00	14.7
PBI	Father Care	22.89	25.3	25.30	21.5	22.9
PBI	Father Overp.	11.15	6.9	27.30	27.6	11.9

Calculations showed that Mother Care and Father Overprotection are not normally distributed for the sample. However, as can be seen in Table 6.4, Mother Care is significantly and positively related to AAI Loving Mother, negatively with AAI Rejecting, and with AAI Coherence of Transcript and Attachment Category. Father Care, on the other hand, is not significantly related to AAI Loving Father. There is one other interesting correlation: Father Overprotection significantly related to Mother Overprotection and this appears negatively related to Mother and Father Care.

A Oneway ANOVA found a significant difference between means of Secure Group and Insecure groups for PBI Mother Care ($F = 3.92$, $p = .04$, $df 2/22$), AAI Loving Mother ($F = 11.52$, $p < .001$, $df 2/27$), AAI Loving Father ($F = 6.86$, $df 2/25$) and AAI Rejecting parents ($F = 12.65$, $p < .001$, $df 2/24$). Looking at the cases and counting the high scores on these variables shows that there is only one exception to the Secure group having had a loving mother, and in most cases having a loving father as well. It is noteworthy that none of the insecure group provided information in the AAI that would allow them to be scored as having experienced a loving father, and it was probably because the information on father often involved rejection (see Table 6.5).

Social Support

There is a significant difference between attachment categories and Support from Spouse in the Time 1 prenatal sample ($F = 9.93$, $p = .001$, $df = 2/22$) and from parent or friend in the Time 3 postnatal sample ($F = 8.43$, $p = .004$, $df = 2/15$). These scores are

not normally distributed. At Time 1, there was a tendency for participants to tick the middle of the scale reflecting the glossing over of need for support also seen in responses to questions at the end of the interview (see later). However, the responses to the instrument at Time 3 when the infant was 15 months old inform us that for some

Table 6.4. Bivariate Correlations of Caregiving Received

	AAI Group	AAIM Loving	AAIF Loving	AAI Reject	AAI Coh	PBI MC	PBI MO	PBI FC	PBI FO	SSI Spouse	SSI Others	Life Events
AAI Group n =		-.60** 30	-.49** 30	.70** 27	-.78** 30	-.50* 25	.35 25	.26 23	.07 23	-.63** 25	-.16 27	.44* 29
AAI Mother Loving n =			.55** 28	-.75** 27	.64** 30	.73** 25	-.22 25	.14 23	.001 23	.59** 25	.10 27	-.60** 29
AAI Father Loving n =				-.73** 27	.40* 28	.35 25	-.17 25	.25 23	-.07 23	.23 24	-.18 26	-.37 28
AAI Rejecting n =					-.63** 27	-.69** 24	.32 24	-.14 22	-.01 22	-.59** 23	-.27 25	.56** 27
AAI Coherence n =						.47* 25	-.44* 25	-.15 23	-.13 23	.35 25	.22 27	-.31 29
PBI Mother Care n =							-.32 33	.06 29	-.35 29	.51* 21	.19 23	-.70** 25
PBI Mother Overprotection n =								-.30 29	.67** 29	-.02 21	-.42* 23	.05 25
PBI Father Care n =									-.19 30	-.09 19	.15 21	-.11 23
PBI Father Overprotection n =										.20 19	-.18 21	.23 23
SSI Spouse T1 n =											.19 25	-.68** 25
SSI Others T1 n =												.05 27
Negative Life Events												

NB. AAI Group: Secure/Autonomous = 1, Dismissing = 2, E, U and CC = 3.

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

Table 6.5. Numbers of Cases with High Scores in the Secure/Autonomous Group (n = 18) and Insecure Groups (n = 12) on Caregiving Received Variables

	Secure	Insecure
AAI Loving Mother (5+)	17/18	3/12
AAI Loving Father (5+)	13/18	0/11
AAI Rejecting (5+)	2/18	8/10
PBI Mother Care (25+)	17/18	5/10

parents social support had become more salient and there was more variation in response.

Negative Life Events.

Fifty six percent ($n = 32$) had no untoward events mentioned in the interview, 13% had one, 25% had two, one individual had three and another had six. The most common negative event as found in previous research was parental divorce. Often the parents did not actually divorce until the participant was about to leave home, but the family disturbance is reflected in the difference between memories of a caring mother and an uncaring (or completely absent father). Alcohol was a difficulty for five participants with their father or father figure and this was compounded by one mother also being affected by drugs and alcohol. A Oneway ANOVA found there is no significant difference between attachment groups for negative life events.

Summary of Association between Parenting Received and AAI Classification

AAI Loving Mother, AAI Loving Father and PBI Mother Care are significantly and positively correlated as would be expected with AAI Group, which is negatively correlated with AAI Rejection. Experience of parental care significantly correlates with satisfaction with Social Support from spouse but not to that from parents or friends. AAI Group and Negative Life Events are significantly and positively correlated ($r = .44$, $p = .05$), Negative Life Events positively with AAI Rejecting ($r = .56$, $p = .002$, $n = 27$), and negatively with AAI Loving Mother ($r = -.60$, $p = .001$, $n = 29$) and PBI Mother Care ($r = -.70$, $p = .001$, $n = 25$). Also showing a strong association is the negative expectation of Social Support from spouse for those with higher numbers of negative life events ($r = -.68$, $p < .001$, $n = 25$).

Summary of Association between Parenting Received and AAI Coherence of Transcript

The Coherence of Transcript scores correlate positively and significantly as would be expected with AAI Mother Loving and Father Loving and negatively with Rejecting and PBI Mother Overprotection (see Figure 6.1). This latter signals a possible contribution to understanding an aspect of caregiving which has implications for an individual's development of autonomy. Overall, both Attachment Group and Coherence of Transcript scores correlate significantly with care and lack of care experiences as is consistent with attachment theory and the coding of the AAI.

Cognitive Variables

3a. Do scores on measures of Cognitive Development distinguish between AAI classifications?

3b. What are the significant correlations between Coherence of Transcript score and the cognitive variables: ego level, reflective functioning, integrative complexity, metacognitive monitoring, education, verbal ability?

Ego Level

Scores ranged from level E2 to level E7 in the initial sample (n = 37). As in previous research, the mean and modal level for both fathers and mothers was E5 – Self-Aware. However, the range especially towards the lower levels is extended for the fathers. Calculations assessed whether Ego Level (TPR) using the ogive score (see Chapter Three) or Item Sum Scores were better able to distinguish between attachment and other variables and although both were robust with regard to normality according to the Shapiro-Wilk test, an outlier was better included with the Ego Level score (see Table 6.6).

Table 6.6. Distribution of Ego-Level of Initial Volunteers, the Interview Sample and Sample at Time 3.

		Initial volunteers n = 37	Interview n = 29	Time 3 n = 20
E2	Impulsive	1		
E3	Self-Protective	5	4	1
E4	Conformist	5	3	3
E5	Self-Aware	12	10	7

E6	Conscientious	11	9	6
E7	Individualistic	3	3	3

If these scores are grouped in the way discussed in Chapter Three, with E2 and E3 as Preconformist, E4 and E5 as Conformist and E6 and E7 as Postconformist, it can be seen that the dropout in the Preconformist composite group is proportionately greater than in the Conformist and Postconformist groups. It had been expected that there might be sufficient numbers who scored at the Preconformist ego level, but six in the

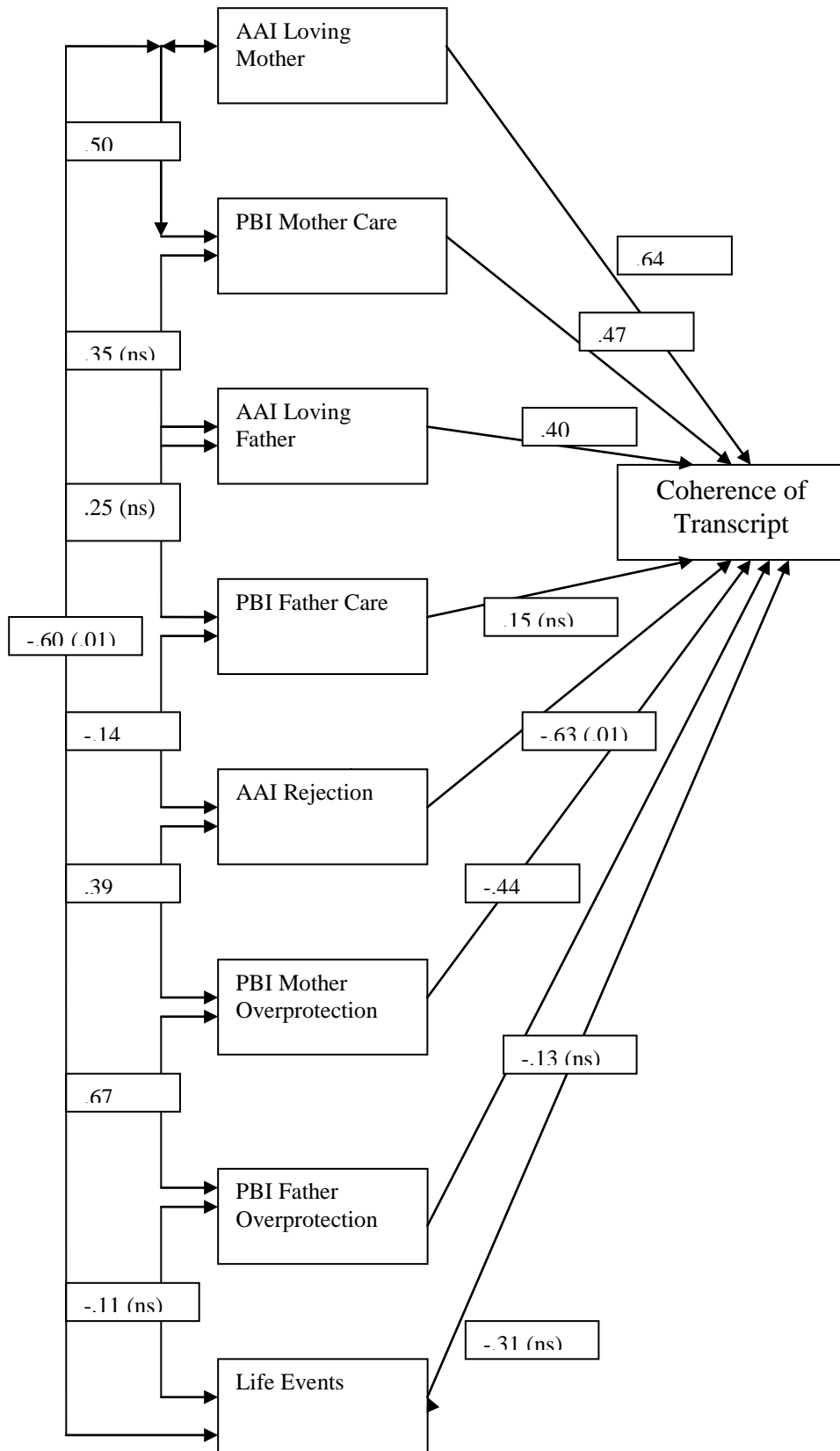


Figure 6.1

Bivariate Intercorrelations of Parenting Received and Coherence of Transcript

original sample was reduced to one who provided data at Time 3, so immaturity of ego level was not a topic that could be pursued.

Looking at potential differences with a one-way ANOVA between Conformist and Postconformist and the other cognitive variables, the only significant difference in means is for Integrative Complexity ($F = 4.97$, $p = .036$). As expected the Postconformist are higher scorers. As can be seen from Table 6.7 the mean scores for ego level are higher for the F-Secure/Autonomous than for the Insecure groups, although there is not a significant difference between means.

Table 6.7. Means and Standard Deviations for Cognitive Variables by Attachment Classification

	Group 1(F) n = 18	Group 2 (Ds) n = 6	Group3 (E,U,CC) n = 3
Ego Level	5.39 (1.04)	4.50 (1.13)	4.33 (1.50)
Reflective Functioning	5.17 (2.12)	3.33 (1.63)	2.33 (1.15)
Integrative Complexity	3.61 (1.54)	2.33 (0.82)	2.67 (0.58)
Metamonitoring	3.69 (2.42)	2.17 (1.33)	2.33 (0.53)
Sense of Coherence	148.22 (14.90)	133.00 (17.54)	130.00 (30.81)
Verbal Ability	24.61 (6.33)	23.83 (4.02)	17.33 (1.53)
Education	4.56 (1.15)	4.00 (.89)	1.67 (.58)
Coherence of Transcript	6.72 (1.45)	3.29 (0.76)	2.80 (1.30)

Reflective Functioning

The score for Reflective Functioning was derived from the Adult Attachment Interview transcript. Scores range from 1 to 6 with the mean 4.60 ($sd = 2.22$, $n = 30$). Distribution of scores meets assumption of normality according to the Shapiro-Wilk test. There is no difference in means between genders. Although there is an apparent difference (see Table 6.7) in the mean scores for the Secure/Autonomous group and the insecure groups, an ANOVA indicates this is not a significant difference with this sample ($F = 2.63$, $p < .05$, $df 2/27$).

Conceptual/Integrative Complexity

These scores were also derived from coding the AAI. Scores cluster below the mid-point of the scale, ranging from 1 to 8 with the mean 3.13 ($sd = 1.45$, $n = 32$). Again it is a normal distribution and there is no significant difference between male and female scores. As with Reflective Functioning the Secure group has the highest mean

and the Dismissing group the lowest, but there is no significant difference for Complexity between groups.

Sense of Coherence

Antonovsky's Sense of Coherence scores range from 97 to 173 with a mean of 142.81 ($sd = 18.45$, $n = 27$). Scores are normally distributed. There is no significant mean difference by gender or between attachment groups. As can be seen in Table 6.7 the means for Sense of Coherence by attachment group are in the expected direction.

Previous research has shown this instrument to be a reliable predictor of a variety of physical and mental health concerns. With this in mind the intercorrelations of Sense of Coherence with potentially related variables in this study was investigated (see Table 6.8). These correlations support the reputation of Antonovsky's SOC for being effective in measuring something important with regard to health in general, to depression, to self-esteem, and the personality construct of resiliency. Perhaps important to consider with regard to mental health, scores on the SOC for this sample are also associated with levels of education. Most salient for this research is that SOC correlates significantly with attachment categories with both men and women in the sample, but not significantly when men are not in the sample. The variables, Health, Depression, Self-Esteem, Resiliency and Education are measured by different assessment methods yet there is a great deal of intercorrelation with attachment group and with Coherence of Transcript. Above all, this amount of intercorrelation gives support to the proposition that the AAI Secure/Autonomous classification is an indicator of good health. These correlations also suggest that attachment representation is related both to cognitive factors such as education and sense of coherence, and indirectly with affective measures such as self-esteem, and with personality.

The intercorrelations for all these variables for males only in the sample are not significant with sample sizes of only 7 to 11, and some distributions not meeting assumptions of normality.

Verbal Ability

Raw scores rather than percentiles are used for this variable. These range from 9 to 34 with a mean of 23.63 ($sd = 5.89$). Shapiro-Wilk test shows the assumption of normal distribution of scores is accepted. There is no statistically significant difference between genders nor between the Secure/Autonomous and Dismissing groups, although

Table 6.8. Bivariate Correlations of Variables Associated with Health

	1	2	3	4	5	6	7	8	9	10
1.SOC n =		-.63**	-.44*	.57**	.17	.56**	.45*	.16	-.41*	.41*
2.Health n =	.67**		.45*	-.48*	-.16	-.42*	-.38*	-.27	.49**	-.30
3.EPDS –T1 n =	-.43	.60**		-.41*	-.33	-.47*	-.34	-.12	.38*	-.13
4.Self Esteem n =	.61**	-.58**	-.38		.05	.26	.43*	.39*	-.32	.14
5.Undercontrol n =	.21	-.24	-.31	.22		.56**	-.29	-.31	-.11	.05
6.Resiliency n =	.58*	-.54*	-.37	.38	.58**		-.06	-.08	-.05	.27
7.Education n =	.57**	-.51*	-.51*	.39	-.16	-.06		.41*	-.47	.35
8.Ego level n =	.16	-.41*	-.03	.48*	-.30	-.03	.45*		-.21	.44*
9.AAI Category n =	-.38	.64**	.38	-.38	-.03	-.11	-.74**	-.46*		-.78**
10. AAI Coher. n =	.27	-.41	-.20	.17	-.02	.31	.51*	.48*	-.77**	

Above the diagonal the complete sample. Below the diagonal, women only.

NB. AAI Security/Autonomy = 1, Dismissing = 2, E, U and CC = 3.

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

the third group mean is apparently much lower than the other two groups (see Table 6.7).

Of importance when considering the convergent or discriminant validity of assessment by means of an interview of “state of mind regarding attachment”, that is the assignment to attachment classification, it can be seen that the verbal ability score is not significantly related to Attachment Group. What is very relevant to this thesis is that Verbal Ability is not related to Coherence of Transcript ($r = .08$, $n = 27$), thus excluding the notion that communicative competence as assessed for the Coherence scale is possibly verbal ability.

Education

Education as measured on a six point scale provides useful information with regard to association with attachment group and the other cognitive variables. A Oneway ANOVA gives a significant difference between attachment groups and

education ($F = 4.94$, $p = .01$, $df 2/29$), Table 6.7 showing that that is because of the difference between Group 3 and the other two groups. Education is also significantly associated with Ego Level, Sense of Coherence and Verbal Ability, thus supporting the proposition that many aspects of cognitive development are developing in an interactive way, and contributing to various aspects of cognition that might be called increasing cognitive maturity (see Table 6.9). Education has the highest correlation with attachment group of all these cognitive variables except AAI Coherence which is the key AAI scale for assignment of AAI classifications, and is more highly correlated with AAI Coherence than variables such as Metacognitive Monitoring and Reflective Functioning which were scales devised to contribute to the AAI classification.

Metacognitive Monitoring

The Metacognitive Monitoring scale is significantly correlated with those cognitive variables which are derived as it is from a discourse analysis of the AAI transcript, Reflective Functioning, and Integrative Complexity, especially for women (see Table 6.9). This may be a confound from the method or from a bias of coding by a single coder, but it makes sense that the Metacognitive Monitoring score should be related in these ways to these other variables which are associated with the AAI Coherence score.

Examining the Intercorrelations of Cognitive Variables

The significant and positive correlates of AAI Coherence are Metacognitive Monitoring, which should occur in line with the AAI coding principles, and Reflective Functioning, which should also occur if the RF coding system and the way it was applied are working as required. In addition, Integrative Complexity which was intended to measure examples in the AAI of the continuum of ability to think in more complex ways, and Sense of Coherence which is purported to assess “stability of the environment and the individual’s sense that it is meaningful” (Antonovsky, 1987, p.11) are also significantly correlated with AAI Coherence.

Education correlates significantly with Ego level, Sense of Coherence, Integrative Complexity as well as AAI Coherence of Transcript, especially for women. Partial correlations of these variables with Education controlled, show that AAI Coherence retains significant correlations only with Ego Level ($r = .38$, $p < .05$) and Reflective Functioning ($r = .42$, $p = <.05$). When Education and Verbal Ability are

Table 6.9. Bivariate Correlations of Cognitive Variables, Attachment Group and Coherence of Transcript

	AAI Group	AAI Coh	Ego Level	SOC	RF	Integ Com	Verb Ability	Educ	MM
AAI Group n =		-.78**	-.21	-.41*	-.34	-.34	-.34	-.47**	-.29
AAI Coherence n =	-.77**		.44*	.41*	.41*	.38*	.08	.35	.39*
Ego Level n =	-.46*	.48*		.16	.33	.30	.32	.41*	.27
Sense Coherence n =	-.38	.30	.16		.10	.32	.12	.45*	-.03
Reflective Function n =	-.52*	.40	.21	.09		.67**	.38	.20	.68**
Integrative Complexity n =	-.26	.26	.32	.38	.63**		.25	.34	.53**
Verbal Ability n =	-.39	.10	.33	.20	.44	.38		.39*	.35
Education n =	-.74**	.51*	.45*	.57**	.41	.43	.40		.20
Metacognitive M n =	-.29	.39	.17	.02	.77**	.49*	.26	.19	

Above the diagonal the complete sample. Below the diagonal, women only.

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

controlled, AAI Coherence retains significant association with Reflective Functioning ($r = .50$, $p < .05$) but not Ego Level, and Reflective Functioning is shown to have significant correlation with Integrative Complexity ($r = .72$, $p < .01$). This amount of variance offers strong support for the proposition that cognitive maturity may be the latent variable in the assignment of individual AAI transcripts to the Secure/Autonomous category.

These correlations are deconstructed further with bivariate regression analysis. It is recognised that some of the following calculations are indicative rather than robust because of various weaknesses in meeting the assumptions about the data. Also, the independence of cases could be challenged because of data coming from partners. However, conceptually the key variables are accessing information that the couple do not share (unless theories of selective mating are held to be important here).

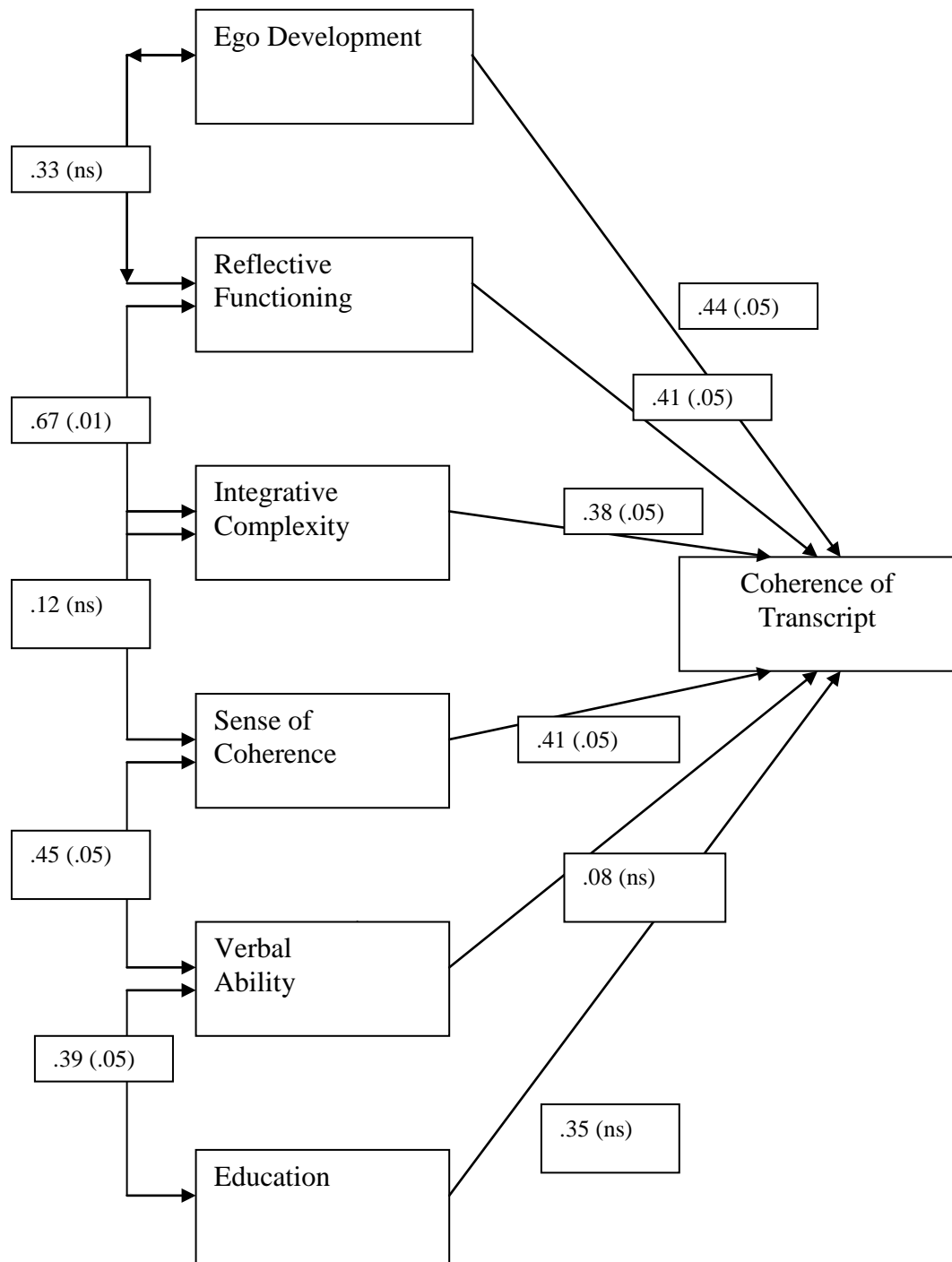


Figure 6.2

Intercorrelations of Cognitive Variables and Coherence of Transcript

After looking at the bivariate regressions (see Table 6.10), the variables of interest were entered in pairs to explore what the unique variance might be of these variables with Coherence of Transcript. The partial correlations signify that Ego Level, Sense of Coherence and Reflective Functioning each contribute meaningful unique amounts of the variance with Coherence of Transcript (see Table 6.11).

Table 6.10. Bivariate Regressions of Cognitive Variables with Coherence of Transcript

ANOVA	Adj R ²	F	Sig	df
Education	.09	3.96	.056	1/28
Ego level	.16	6.32	.018	1/27
SOC	.13	5.02	.034	1/25
Metamonitoring	.14	5.83	.023	1/28
Reflective F	.16	6.44	.017	1/27
Complexity	.09	3.98	.056	1/27

Table 6.11. Multivariate Regressions, Coherence of Transcript with Variables Entered in Pairs

	Adj R ²	F	Sig	df	Beta	t	Sig	Partial	Part
Ego Level	.321	7.14	.004	2/24		-1.43	.17		
SOC					.46	2.81	.01	.50	.45
					.34	2.05	.05	.39	.33
RF	.234	5.27	.012	2/26	.73	.47			
Ego level					.33	1.90	.07	.35	.31
					.33	1.87	.07	.35	.31

When the dependant variable is Attachment Group rather than Coherence of Transcript, a multivariate regression with Education, Reflective Functioning and Antonovsky's Sense of Coherence together account for 50% of the variance of attachment categories using adjusted R² to be conservative (Adjusted R² = .50, F = 9.61, p < .001) (see Table 6.12). Ego Level drops out because of considerable shared variance with Education. Education and Reflective Functioning together without Sense of Coherence only account for 20% of the variance of the attachment groups. These findings support the notion that cognitive development, if not cognitive complexity per se, is important to assignment of attachment classification from the AAI. The different

methods of assessing cognitive development indicate that the coming together of abilities from education, from awareness of other minds (RF) and from finding the world comprehensible, manageable and meaningful (SOC), allow a young adult to present themselves in an interview about their childhood relationships in a coherent way. All these abilities have individually been shown in research reviewed earlier to contribute to parenting behavioural styles and to coping skills. These results would encourage further investigation with a larger sample.

Table 6.12. Multivariate Regression with Attachment Group and Education, Reflective Functioning and Sense of Coherence.

ANOVA	Adj R2	F	Sig	df	Beta	t	Sig	Partial	Part
	.498	9.61	<.001	3/23	4.97	<.001			
Education					-.49	-3.13	.005	-.55	-.44
Reflective Functioning					-.40	-2.83	.010	-.51	-.39
Sense of Coherence					-.15	-.96	.347	-.20	-.13

Summary of Association between Cognitive Development Variables and AAI Coherence of Transcript

A factor analysis of the five apparently most highly correlated variables (Coherence of Transcript, Education, Sense of Coherence, Reflective Functioning, and Metacognitive Monitoring) shows that there are essentially two factors. The first appears to represent cognitive development because of variables that measure levels, and the second, environmental security or confidence of ability to cope as measured by the SOC.

When all the cognitive variables are entered, three factors are extracted (see Table 6.13). The first appears to be a complexity of thinking factor, comprising Reflective Functioning, Integrative Complexity, Metacognitive Monitoring, Coherence of Transcript and Ego Level. The second factor which takes in Sense of Coherence and Education level could be labelled a competency/knowledge factor and the third factor is centred on Verbal Ability. This is very much in accord with the main thesis of this research. Coherence of Transcript shares with the scores derived from cognitive complexity and awareness of other minds the factor of a continuum of thinking skills. It has to be recognised that these analyses are not well-founded because of sample size.

Table 6.13. Factor Analysis with Principal Component Analysis of Cognitive Development Variables

	1	2	Component 3
Reflective Functioning	.80	-.43	-.10
Integrative Complexity	.77	-.31	-.17
Metacognitive Monitoring	.72	-.51	.02
Coherence of Transcript	.71	.26	-.46
Ego Level	.61	.27	.12
Sense of Coherence	.37	.68	-.18
Education	.51	.61	.27
Verbal Ability	.53	.04	.77

Extraction method: Principal Components Analysis, unrotated, 3 components extracted

They do however provide support for exploring further the notion that it is cognitive development that is a major component of what is being assessed indirectly with the AAI coding.

Summary of Association between Cognitive Development Variables and AAI Classification

As can be seen in Table 6.7, the mean scores of cognitive variables of the three AAI groupings follow the expected trend of higher scores for the Secure/Autonomous group compared to the others two groups. Also, as has been found previously, the Dismissing group have mean scores not very much lower than the Secure/Autonomous group. In this small sample however there are some more complex thinkers in Group Three than Group Two, elevating the means for Integrative Complexity and Metacognitive Monitoring. This affected other results. Ego level and education are significantly associated with AAI categories in the analysis of the women's data, but when the men's scores are added ego level is no longer significant and the education /attachment group is not so strong, although still significant. The reason for this difference is the impact of several insecure but highly educated men. This will be elaborated further in the next chapter.

Verbal Ability is not significantly associated with the overall notion of cognitive development as can be seen from the correlations, and also because of there being no significant difference between Secure/Autonomous and Dismissing group means on this variable.

Personality Variables

- 4a. Do scores on measures of Personality distinguish between AAI classifications?
- 4b. What are the significant correlations between Coherence of Transcript and the personality variables: CAQ resiliency, CAQ Control, locus of control, social desirability, self-esteem, depression?

Some critics of attachment theory think of attachment classification as representing a style of personality. The data from the personality measures used in this research show little evidence that would support that view. Table 6.14 shows few intercorrelations of these variables.

Under/Overcontrol and Resiliency

These scores are derived by Q-methodology and analytic methods and represent points in three dimensional space for the two clusters, Under/Overcontrol and Resiliency. For this research the scores are those derived from self-descriptions. Although participants were invited to assess their partners' as well as their own personality, only seven pairs completed this task so statistical comparisons were not made. When scores are displayed in three dimensions, it is noted that many of the scores are spacially very close together which suggests an element of social desirability is influencing the self-descriptions. When the sample is split between high and low Social Desirability at the mean, there is a significant difference between groups for Resiliency ($F = 7.12, p = .014$) but not for Undercontrol. Social Desirability and Resiliency are almost significantly and positively correlated ($r = .39, p = .051, n = 25$). Correlations of Resiliency and Depression on the Edinburgh Postnatal Depression Scale are negative and significant both when assessed before the birth and at the 15 month point. The tests for normality show that Under/Overcontrol conforms but that Resiliency does not. These two variables are significantly and positively correlated ($r = .56, p < .01, n = 29$).

Locus of Control, Social Desirability, Self-Esteem

Each of these variables at Time 1 and Time 3 are normally distributed. Internal Locus of Control correlates positively with Self Esteem Time 1 ($r = .59, p = .001, n = 26$) and negatively with Depression at Time 3. Self Esteem at Time 1 is related to

Table 6.14. Bivariate Correlations of Personality Variables

	1	2	3	4	5	6	7	8	9	10
1.CAQ Resiliency n =		.56** 29	.31 24	.39 25	.26 25	.20 18	-.47* 25	-.67** 18	-.05 29	.27 27
2.CAQ Undercontrol n =			.09 24	.02 25	.05 25	.12 18	-.33 25	-.50* 18	-.11 29	.05 27
3.Internal Locus of Control n =				.07 26	.59** 26	.22 17	-.36 24	-.50* 17	-.01 26	.01 26
4.Social Desirability n =					.13 27	.17 18	-.29 25	-.10 18	-.00 27	.11 27
5.Self Esteem T1 n =						.55* 18	-.41 25	-.59* 18	-.32 27	.14 27
6. Self Esteem T3 n =							-.41 20	-.45 19	-.45 20	.17 20
7.Depression T1 n =								.69** 19	.38* 27	-.13 27
8.Depression T3 n =									.63** 20	-.36 20
9.AAI Groups n =										-.78** 30
10.AAI Coherence										

** Correlation is significant at the .01 level (2-tailed)

* Correlation is significant at the .05 level (2-tailed)

Internal Locus of Control and to Depression at Time 3, but not Time 1. None of these variables correlate significantly with Attachment group or Coherence of Transcript.

Depression

At Time 1 only four women (n = 19) scored above the usual cut-off point (>12) (see Chapter Four) and one (n = 13) at Time 3. However, the scores for minor indices of dysphoria on the EPDS of both men and women are useful in evaluating individual cases (see Chapter Seven). Depression at Time 1 is not related to Coherence of Transcript, but does correlate significantly with Attachment Group (r = .38, p < .05, n = 27) as well as Depression at Time 3 (r = .63, p < .01, n = 20) and negatively with CAQ Resiliency (r = -.47, p < .05, n = 25).

As noted above, only the prenatal EPDS score correlates significantly with the score for attachment group. None of the personality variables separately correlates significantly with Coherence of Transcript. A Principal Components Factor Analysis

was used to see if that could find some underlying pattern in the personality data including Coherence of Transcript. Without rotation three factors were extracted. Coherence of Transcript is the main contributor to Factor 3, indicating that Coherence of Transcript is measuring something other than personality as measured with these instruments. Factor 1 seems to relate to self-esteem and resiliency, Factor 2 to lower self-esteem and Undercontrol.

A Varimax rotation was used to try to clarify the factors. The result (see Table 6.15) is what looks like a method difference coming through. The first is a general self-awareness factor, self-esteem and internal locus of control from self-report questionnaires. The second is presentation factor, describing self with personality items. The third could be a performance factor, how individuals engage with the interview and how much there is a need for a socially acceptable performance.

Table 6.15. Factor Analysis with Principal Component Analysis of Personality Variables

Variables	Component		
	1	2	3
Coherence of Transcript	-.06	.06	.82
Social Desirability	.22	.09	.66
Depression T1	-.68	-.08	-.37
Internal Locus of Control	.86	.13	-.11
Self Esteem	.88	.03	.11
CAQ Undercontrol	.01	.97	-.07
CAQ Resiliency	.23	.85	.37

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 4 iterations.

Summary of Associations between Personality Variables and AAI classifications

The only personality variables to show any association with attachment group allocation are those assessing depression both before and after the birth of the baby. These strong associations are artefacts of one participant's extreme scores.

Summary of Associations between Personality Variables and Coherence of Transcript

There seems to be no significant correlations between scores on personality measures and Coherence of Transcript. The factor analysis confirms that.

Other Variables

5. What other variables significantly correlate with attachment groups and Coherence of Transcript?

A variety of demographic data was collected from the introductory questionnaire. Some of that is reported in the description of the sample in Chapter Five. However age is a variable that is hypothesised to be relevant to cognitive development and also may be related to gaining a Secure/Autonomous state of mind regarding attachment as a result of benevolent experiences and increasing maturity. Also health status may be relevant to ability to cope with daily hassles and life events, especially during pregnancy and when adjusting to caring for an infant.

Age

In Chapter Three reference was made to the findings of Kitchener et al., (1993) and Labouvie-Vief and Diehl (2000) about reflective judgment and postformal thinking being uncommon before the age of 25 to 30. Assuming that those over 30 may be more likely to have achieved higher level of cognitive complexity and greater psychological maturity, ANOVAs were conducted to test these assumptions. Interestingly, considering Antonovsky's claim that Sense of Coherence is unlikely to change after 30 unless there is a considerable change in an individual's context, the only variables where those over 30 were significantly higher scorers than those under 30, were for Sense of Coherence ($F = 4.32, p = .048$) and Integrative Complexity ($4.26, p = .048$). In previous research, Bakermans-Kranenburg et al., (1993) found a small but significant relationship between attachment coherence and age. Crosstabs shows that there is virtually identical assignment to categories for those over and under age 30.

Health

Health is assessed on a scale of 1 to 3. Half the sample rates their health at *Excellent* and half as *Good*. Only one woman said her health was poor. Health correlates significantly and negatively with Attachment group ($r = .49, p < .01, n = 32$), that is, insecure people are more likely to be less healthy. Health also correlates significantly and negatively with Self Esteem at Time 1 ($r = -.48, p < .05, n = 27$) and Time 3 ($-.52, p < .01, n = 20$) and Depression scores from the EPDS at Time 1 ($r =$

.45, $p < .05$, $n = 27$) and Time 3 ($r = .85$, $p < .01$, $n = 20$). Coherence of Transcript and Health are not significantly correlated.

Parenthood Experience

- 6a. Do scores on the Parenthood Experience distinguish between AAI classifications?
- 6b. What are the significant correlations between Coherence of Transcript and Parenthood Experience scores?

Experience of Parenthood

Experience of Parenthood is a measure of stress in the postnatal period. Thirteen mothers and seven fathers returned questionnaires at this time. Although there is a range of scores (26-74, $X = 38.1$, $n = 20$), there is no indication that these parents are particularly stressed. One mother in the most insecure group, however, has scores for this and for Depression at Time 3 which are extreme, and the other two remaining in the most insecure group also have much higher scores than the Secure/Autonomous and Dismissing group. There is no significant difference in mean scores for the Secure/Autonomous and Dismissing groups.

As can be seen in Table 6.16, the stress score correlates negatively and significantly with Education, AAI Loving Mother and PBI Mother Care, Satisfaction with Spouse Support at Time 1, CAQ Resiliency, and Antonovsky's Sense of Coherence. Experience of Parenting also correlates significantly and negatively with Self Esteem at Time 1 ($r = -.51$, $p < .05$, $n = 18$) and Time 3 ($r = -.56$, $p < .01$, $n = 20$). It also correlates with Attachment Group (n.b., negative correlation is correct because of the numbering of the groups) but the correlation does not reach significance with Coherence of Transcript. The relationship of these variables with "stress" is consistent with other medical and psychosocial research but this stress measure is asking about how one *feels* about life as a parent. So how one feels about being a parent when the child is about 15 months old, is significantly related to how one was parented, how much education one received, a personality style, an expectation of having support from an intimate person and a feeling that life was comprehensible and therefore safe. It should, and does, have a significant relationship with whether a parent was classified as Secure/Autonomous or not. In other words, these results provide evidence that prenatal

Table 6.16. Bivariate Correlations of Experience of Parenthood and Parent Characteristics

	1	2	3	4	5	6	7	8	9
1.ExpPar n=		-.46*	-.54	-.48*	.62**	-.73**	-.54*	-.31	-.67**
		20	17	20	20	16	18	20	18
2.Education n=			.53**	.43*	-.47**	.56**	-.06	.35	.45*
			25	30	32	25	29	20	27
3.PBI Mother Care n=				.77**	-.50*	.51*	.13	.47*	.40
				25	25	21	23	25	23
4.AAI Loving Mother n=					-.60**	.59**	.25	.64**	.51**
					30	25	27	30	27
5.AAI Group n=						-.63**	-.05	-.78**	-.41*
						25	29	30	27
6.SSI Spouse Time 1 n=							.07	.35	.57**
							23	25	25
7.CAQ Resiliency n=								.27	.56**
								27	25
8.AAI Coherence n=									.41*
									27
9.Sense of Coherence									

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

attachment classification can predict whether a parent is likely to be stressed by parenting. However, stress is not apparently related to cognitive development.

Infant Temperament

As noted earlier, infant temperament is considered to be one of the strongest influences on how a parent adjusts to parenthood. Three scales were used, Distress to Limitations and Fear to assess negativity and Soothability to assess how competent a parent felt to cope with the negativity perceived. A score labelled “Difficult” was derived by adding the two negative scores and subtracting Soothability as suggested by Izard et al. (1991). Conceptually, Distress to Limitations seems to point to demanding to be independent, and Fear seems to be pointing to dependency yet the two negativity scores are highly correlated so together make Difficult a stronger variable (see Table 6.17).

Table 6.17. Bivariate Correlations of Infant Temperament, Experience of Parenthood, and Attachment of Child, with Parents' Attachment Group and Coherence of Transcript

	1	2	3	4	5	6	7	8	9
1 Distress to Limitations		.55*	-.29	.73**	.13	-.26	-.47*	.26	-.39
2 Fear	.45		-.15	.69**	-.09	-.11	-.39	.07	-.21
3 Soothability	-.15	-.02		-.71**	-.22	.61**	.19	.05	.01
4 Difficult	.62**	.61**	-.74**		.14	-.48*	-.42	.08	-.19
5 Experience of Parent	-.04	-.28	-.17	-.03		-.32	-.13	.62**	-.31
6 Security	-.22	-.06	.83**	-.70**	-.22		.35	-.10	.21
7 InDependency	-.39	-.35	.18	-.18	.00	.36		-.27	.40
8 Attachment Group	.11	-.02	-.03	.03	.70**	-.11	-.15		-.78**
9 Coherence of Transcript	-.49	-.25	.17	-.33	-.42	.42	.38	-.77**	

Above the diagonal, fathers and mothers, (n= 20), below diagonal mothers only (n = 13)

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

The soothability and difficultness of their child is expected to be related to the parents' stress levels but these data do not show it. The parents', especially the mothers', assessment of their child's security of attachment to them is strongly associated with the assessment of soothability. Mothers perhaps perceive the soothability of their child is a function of the security of their relationship. A child assessed as Difficult is likely also to be assessed by the mother as relating in an insecure manner with the mother. The Difficult score does not correlate significantly with the Attachment (In)Dependency score, but the score for Distress to Limitations does ($r = -.47$, $p < .05$, $n = 20$).

Trilemma Toddlers' Attachment Dimensions - Security and Dependency

The Trilemma method of assessing attachment produces scores on nine characteristics which can be plotted on a profile: Warm and cuddly, Cooperative, Enjoys company, Independence, Attention Seeking, Upset by separation, Avoids others, Demanding, angry, Moody, unsure, unusual. There are clear pattern differences for the three organised attachment categories for toddlers, A - Avoidant, B - Secure and C - Ambivalent, and disorganised attachment behaviours can also be seen from the profile. Examples of individual profiles are given in Chapter Seven.

Table 6.18. Means and Standard Deviations for Infant Temperament, Experience of Parenthood and Attachment Security and Dependency

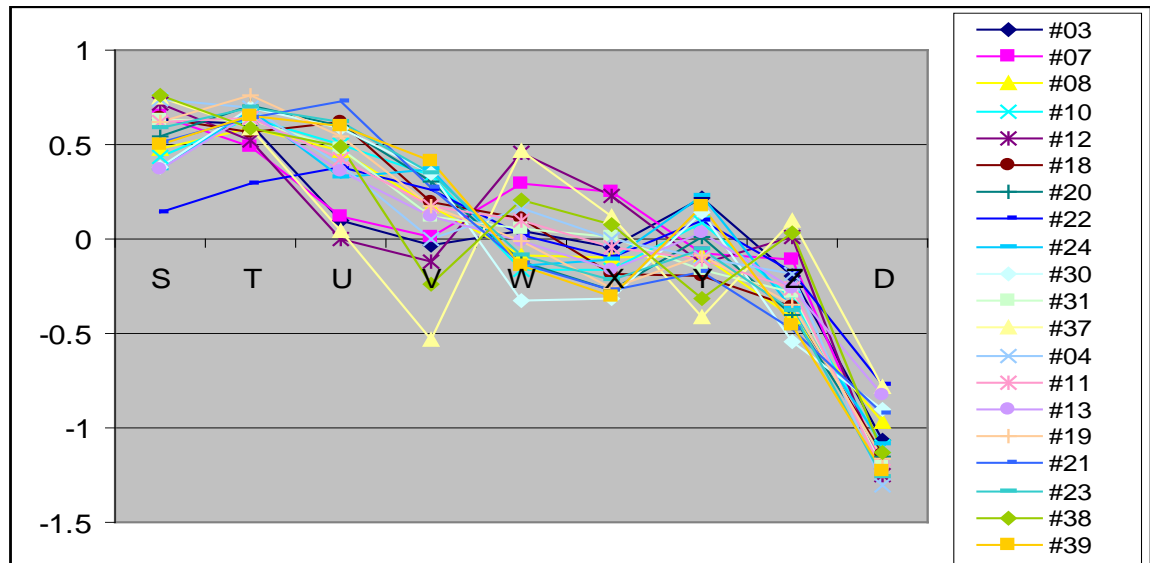
	N	Min	Max	Mean (sd)
Distress to Limitations	20	2.13	4.69	3.29 (.68)
Fear	20	1.27	3.81	2.48 (.82)
Soothability	20	1.90	6.67	5.00 (1.14)
Difficult	20	-2.8	4.86	.81 (1.9)
Experience of Parenthood	20	26	74	38.1 (10.20)
Security	20	.34	.84	.71 (.12)
(In)Dependency	20	-.36	.61	.25 (.25)

Scores can be calculated for overall security and dependency (high scores mean independency) and these are used in the following statistical analyses.

As with Q-sort scores for the CAQ personality measure, the data is processed to produce a coefficient that represents a point in three dimensional space. These coefficients were transformed into z scores for use in correlations but made very little difference to the correlation coefficients. For this small sample calculations therefore went ahead with untransformed scores.

The profile patterns from parents' trilemma reports shown together (see Figure 6.3) are very close to the typical Secure profile. No child is scored negatively for S- Warm and Cuddly and T – Cooperative. No child scores much above zero for X- Upset by separation which is one of the criteria for Insecure-Ambivalence, although several have elevated scores for W – Attention-seeking which also indicates Ambivalence. There is a flattening out of the profiles. It may be that there is an element of social desirability here; the Dependency scores correlate significantly with Social Desirability ($r = .59, p < .01, n = 18$).

Looking for differences in the profiles, #22, a mother classified as F2, scores the child as most insecure – the profile shows much lower S and T; #30 is a mother classified as Ds3/Ds1 who has scored the child as most independent because of lowest W and X and quite high for Y- Avoids others; and #37 is a mother classified as Ds3a scores her child as most dependent because of lowest V, highest W and Z- Demanding, angry.



- S – comfortably cuddly, enjoys and is comfortable by close physical comfort with M.
 T – cooperative, responsive to directions and suggestions, interaction with M is harmonious
 U – enjoys company, happy and friendly
 V – independent, little use or reliance upon M, self-sufficient, self-regulating
 W – attention seeker, reliant upon M's attention and affection, competes with other calls upon them
 X – upset by separation, easily upset, especially by M's actual or anticipated departure
 Y – avoids others, does not socialise, shows little interest in interaction with M or others
 Z – demanding, fusses, cries, becomes angry if M's responses are not immediate
 D – disorganised, disoriented

Figure 6.3 Infants' Attachment Profiles

The infant Attachment Security score does not correlate significantly with other parenthood or cognitive variables. The infant (In)Dependency score correlates positively and significantly with the parent personality scores, with (Under)Control ($r = .47, p < .05, n = 18$) and Resiliency ($r = .70, p < .01, n = 18$).

Summary of Associations between Parenthood Variables and AAI classifications

The parents who participated in this project fifteen months after their infants were born, on the whole were apparently coping well, they were not very stressed and their children were seen through their eyes as being securely attached and not “difficult”. However, those parents whose transcripts assigned them to the Insecure Preoccupied, Unresolved or Cannot Code group, only three in the final sample, have mean scores which indicate more problems than the Secure/Autonomous or the Dismissing groups (see Table 6.19). As is expected from Dismissing individuals, one of whose characteristics is a tendency to idealise, the mean for that group shows that

Table 6.19. Means and Standard Deviations for Difficult Temperament, Security and Dependency of Infants and their Parents' Experience of Parenthood by Attachment Classification

	Difficult	Security	Dependency	ExpPar
Sample (n = 20)	.81 (1.92)	.70 (.12)	.23 (.25)	38.10 (10.20)
F – Secure/Autonomous (n = 13)	.84 (1.91)	.71 (.13)	.29 (.19)	34.85 (4.24)
Ds – Dismissing (n = 4)	.11 (1.98)	.74 (.11)	.21 (.41)	36.25 (8.02)
EUC – Preoccupied, Unresolved, Cannot Classify (n = 3)	1.64 (2.32)	.67 (.02)	.11 (.27)	54.67 (17.21)

they are less likely to rate their child's temperament as difficult and more likely to say their child is secure than the Secure/Autonomous parents who, according to theory and previous research, tend to be more realistic about a child's negative as well as positive features. A child being "dependent" is also more concerning for Dismissing parents than it would be for Secure/Autonomous parents, because of their expectations about closeness in interpersonal relationships. However, Oneway ANOVAs indicate there are no significant differences between the groups on these variables.

Summary of Associations between Parenthood Variables and Coherence of Transcript

Coherence of Transcript score does not correlate significantly with any of the Parenthood variables. The Parenthood variables also do not correlate with the key cognitive variables, Ego level, Metacognitive Monitoring, Reflective Functioning or Integrative Complexity. However, Experience of Parenthood correlates significantly but negatively with Education ($r = -.46, p < .05, n = 20$) and Sense of Coherence ($r = -.67, p < .01, n = 18$). The stress measure, Experience of Parenthood, relates more to the Personality variables, Health ($r = .86, p < .01, n = 20$), Depression at Time 1 ($.62, p < .01, n = 20$) and Time 3 ($.89, p < .01, n = 19$) and Self Esteem at Time 1 ($r = -.51, p < .05, n = 18$). Consequently the Parenthood variables seem to be unrelated to the notion of autonomy and cognitive maturity being an advantage to adjustment to parenthood.

How Well Prepared for Parenting Did Parents Think They Were?

The pattern that seemed to be emerging from the responses to the questions at the end of the Adult Attachment Interview was centred on whether the baby was planned. If the baby was not planned, the responses were less positive. “Planning” to have a baby had two versions, trying to get pregnant but being unsure when it might happen, and not preventing pregnancy from happening so it happened when it happened (see Table 6.20). When responses are categorised as Planned (Planned to Unplanned: 1-3) and Expectations (Positive, Mixed, Negative:1-3), Expectations correlate significantly with attachment group ($r = .41, p < .05, n = 32$) and with Planned pregnancy ($r = .67, p < .001, n = 32$). Whether the pregnancy was planned is significantly correlated with the stress scores from Experiences of parenthood ($r = .50, p < .05, n = 20$). The group older than 30 were more positive about the pregnancy ($r = -.36, p < .05, n = 32$) and recorded less stress ($r = .73, p < .001, n = 20$). What is more, the higher the Expectations of parents the higher their Coherence of Transcript scores ($r = .38, p = .04, n = 30$) and this is reflected in an even higher correlation with Attachment group.

Table 6.20. Summary of Responses from Preparation for Parenthood Questions, at T1 ($n = 32$) and T3 ($n = 20$)

	Planned (trying) T1(T3)	Planned (not preventing) T1(T3)	Not planned T1(T3)
Positive	15(8)	4 (4)	
Mixed	1	1 (1)	6 (4)
Negative			5 (3)

Summary

The quantitative analyses in this chapter make use mainly of the data from the sample of 32 who were interviewed. It was shown that of the original volunteers who were not interviewed a greater proportion were slightly younger and less well-educated than the interviewed participants. In most of the reported statistics

the sample includes both male and female participants, because of the small number of males, especially in the sample at Time 3.

Although the insecure groups were too small for robust statistics, calculations were made to assess possible differences between groups on the variables of interest. Individual scores on these variables were used to assess how examples of different attachment classifications fitted the descriptions provided in the AAI coding manual.

In the sample of 32, the distribution of attachment classifications is quite similar to what is now considered to be normative for a community sample when both men and women are included in the sample, although there are slightly more women in the Secure/Autonomous group and none classified as Preoccupied, and more than half the men are classified as insecure.

Correlations between Coherence of Transcript and the Groups of Variables

Focussing on the correlations between Coherence of Transcript and the groups of variables to assess which characteristics are related to Coherence of Transcript, the following was found.

Convergent validity. Parenting care by mother and father as assessed by the AAI scales and PBI are highly correlated and are strongly related to Coherence of Transcript.

The significant intercorrelations of the cognitive variables with Coherence of Transcript signal convergent validity. Multivariate regression analyses shows Ego Level with Antonovsky's Sense of Coherence contributes 20% unique variance to the scores for Coherence of Transcript while SOC contributes 11%; whereas Reflective Functioning and Ego level together each accounted uniquely for about 10% of the variance they shared with Coherence of Transcript.

Scoring the responses to interview questions about whether they planned to become pregnant and to how positive they felt about the impending birth, both produced significant correlations with Coherence of Transcript. So those who perhaps were more autonomous were more deliberative about becoming parents and so better prepared.

Other correlations such as Experience of parental care which correlated significantly with satisfaction with support from spouse, contributes to the notion that positive memories of care in childhood tends to shape the representation of attachment in adulthood that is conducive to the establishment of security with an intimate partner and so provides the confidence and justification to form a family together.

Lack of convergent validity. Although Verbal Ability correlates significantly with Education it does not correlate significantly with the other cognitive variables or with Coherence of Transcript. None of the personality variables correlated significantly with Coherence of Transcript. This suggests that Coherence of Transcript is not the product of verbal ability, personality or affect at the time of the interview.

Distinctions between the Secure/Autonomous Group and the Insecure Groups

Focussing on how the different variables show distinctions between the Secure/Autonomous group and the insecure groups, the following was found.

Distinctions between groups. Social Support scores from Spouse at Time 1 distinguished between attachment groups and is an indirect indication of security with regard to attachment with spouse which would be highly salient in the period immediately before the birth of the baby. This pattern was not there at Time 3. However, at Time 3 parents who were insecure were significantly less satisfied by the support they were getting from parents and friends.

Education was significantly different between secure and insecure groups.

The cognitive variables Education, Reflective Functioning and Sense of Coherence together account for 50% of the variance when attachment group is the dependent variable.

Although most people considered themselves healthy, insecure individuals were more likely than secure to have health problems.

The Experience of Parenthood questionnaire produced a score for parental stress at the time of the third collection of data. This score correlated significantly with a number of other variables across the different groupings, parenting received, personality and education, with attachment group but not with Coherence of Transcript. So stress is not avoided by greater cognitive development, but those in the insecure groups are more likely to become stressed.

Scores on planning for pregnancy and expectations about becoming parents distinguish between attachment groups. Insecure individuals tend to have not been active planners to become parents.

Lack of distinction between groups. More than half the sample made no mention of a negative life event. There was no difference between groups on this variable.

With the cognitive variables there was no significant difference in means among groups for Ego Level, Reflective Functioning, Integrative Complexity, Sense of Coherence or Verbal Ability independently, despite many means indicating differences in the expected direction. The lack of statistical differences can be attributed to the difference between group sizes on the one hand, but also because of the presence of several highly educated participants in the small insecure groups.

The groups were almost identical with regard to age distribution.

None of the personality variables distinguished between attachment groups. Depression before and after the birth distinguished Group 3 (containing one woman who had a history of abuse) from the other two groups.

The Child Attachment profiles show that most parents considered their toddlers to be secure in relation to themselves so these scores do not point to a difference that would distinguish secure from insecure parents.

CHAPTER SEVEN

RESULTS - CASE STUDIES

In the previous chapter, the data has been treated as an exploration of the variables that are thought to be related to individual differences in attachment representations in a sample of young parents. In this chapter, examples of the different attachment categories found in this sample are given as case studies. A narrative account of the content and form of the interview is provided so that what is revealed can be seen to conform – or not – to the pattern expected from the Adult Attachment Interview coding manual (Main et al., 2002). It is assumed that some of the readers of this thesis will not be familiar with the detail of the standardised coding indicators that have been established for the Adult Attachment Interview and that these examples will convey both features of the transcripts that are noted for coding, as well as features of the discourse that are relevant to coding Reflective Functioning and Conceptual/Integrative Complexity.

So the research questions addressed in this chapter are

7. Do attachment classifications conform to the category descriptions in individual cases?
8. Is cognitive development a significant feature of Coherence of Transcript and does it distinguish between attachment categories?
9. What might the latent variable be in the coding for Coherence of Transcript?

Happy families are all alike; every unhappy family is unhappy in its own way.
(Tolstoy, *Anna Karenina*, Chapter 1, first line)

That famous quotation is rather too broad when examined from an attachment theory perspective. The AAI is not looking for memories of happy families, but for evidence that the individual can talk freely, reflectively and succinctly about memories of mother and father figures in early childhood. Stories of growing up in a happy family are not always classified as Secure/Autonomous which is the classification considered healthy and fostering the ability to be resilient in times of trouble.

It might in fact be difficult to find an account of a family that a sceptical outsider can believe was really happy. Attachment research has found that the AAI can elicit

stories of happy families which are sufficiently coherent and comprehensible for a listener to accept that this person really did have a happy childhood. Such interview transcripts will be classified as Secure/Autonomous, along a continuum from somewhat distancing to somewhat concerned about relationships in the family. However, there can also be accounts of happy families where the listener notes that there are inconsistencies, even outright contradictions, so that doubt resides in the listener mostly because of the lack of memories of good times, or lack of any memories to illustrate terms provided to describe close family relationships. The AAI coding system considers idealised accounts, and lack of memories and elaboration of family interactions as indicative of Insecure/Dismissing attachment representations.

Most transcripts that are coded Secure/Autonomous (F) are interpreted as accounts of families of origin which have been sufficiently supportive to allow the individuals to grow into mature functioning adults – and that would generally be taken to mean the particular families were happy-enough. At least one caregiver is remembered as loving and available when needed. Researchers tend to call these individuals F-Continuous. However, there are AAI transcripts which tell stories of serious disturbances in families in relation to the person being interviewed, yet the way the individual can talk about what happened and how it has shaped the adult he or she has become, is clearly “coherent” and believable, and often very insightful.

So most F representations emerge from within happy-enough families – but some do not. And similarly, some happy family stories do not get F classification.

Attachment Category F: Secure/Autonomous

Category F: Secure/Autonomous with Respect to Attachment: Freely Valuing Attachment, while Apparently Objective.

That is the heading which summarises the adult attachment category according to Main et al. (2002, p.151), the category which is associated with healthy adjustment and resilience. As was discussed in earlier chapters, attachment theory provides more satisfactory explanations for the link between childhood experience of being parented and later psychological health or ill-health than other theories such as the social learning explanation of reproducing as parents the behaviours of one’s own parents witnessed in childhood, or the psychoanalytic notions of fantasies about parental relationships.

The AAI coding system requires assessment of five Scales for Experience in the family of origin, which include making ratings for Loving, Rejecting, Involving/Reversing, Pressure to Achieve, and Neglecting for mother figure and father figure. Next assessed are Scales for States of Mind with respect to parents (or people in the position of parent). These are Idealizing, Involving Anger and Derogation, scales which record any indications of attitudes that point to Dismissing or Preoccupation. On the basis of the notion that in adulthood, experiences in a variety of relationships will contribute to an Overall State of Mind with regard to close relationships, it is necessary to assess Overall Derogation of Attachment, Insistence on Lack of Recall, Metacognitive Processes, Passivity of Thought Processes, Fear of Loss, Unresolved Loss, Unresolved Trauma, and finally Coherence of Transcript, and Coherence of Mind. A classification is assigned first with a top-down judgment of the tone or “feel” of the transcript and then the ratings of the scales are examined to determine how well, or if, the scores on the scales support that classification. Sometimes the final classification is difficult, requiring a lot of attention to careful coding in order to reconcile the two approaches to classification.

Dana’s Story (#8: F3)

Dana tells the story of growing up mostly with her mother because her father was often away in the course of his job. She says she “loved him unconditionally the whole way through” (#8, .1.352) but his absences, and it becoming increasingly apparent over her childhood that he had a problem with alcohol, meant that he failed to keep a clear place in the family, although it seems he tried. Her mother was very involved with her children, to the extent that she was seen as indulgent and maybe too involved. As Dana grew older she realised that her mother’s good points were not necessarily good for her children, and her father’s efforts to be a reformed father were appreciated more.

Dana told a story of being brought up by parents who were never rejecting or neglecting, although the family history was not one of “happy families”. In her childhood she was secure with her mother because she was reliably “always there”, “just put me first I think” (#8, 1.172) and “always wanting cuddles” (1. 226). Her mother, perhaps, was not really secure in herself since she “doesn’t really have any family, like there’s no aunties and uncles, brothers, sisters, nothing” (1.76).

Dana recalls only one time that her father hit her - at age 15 and she walked out and stayed with a friend until she finished school. Her father worked hard and repaired the relationship. She lived with him and his second wife for a while before she got married. Her parents separated when she was 17. These days she sees her mother needing help and advice and is uncomfortable with the amount that she disagrees with her.

Dana shows that she values relationships when she tells how, when her mother's father died when she was 8, she worried about her mother being alone and, when her sister was born when she was 11, she enjoyed helping look after her and appreciates the close bond they now have. To show that she also can think about her own inconsistencies, in response to the question about whether her father being away so often has had an affect on her as an adult, she laughs and says, "Yes, because I've married into the forces. I always swore I'd never do that... I don't want my husband to come home and the kids to like not give a toss that he's here and not run up to him.. Yeah I can see the way my dad was. I've learned from that..." (1.745 - 753).

She assumes that her parents behaved the way they did because of the way they were brought up "I think it is a preprogrammed thing (1. 795). She can think of her father in the forces, away from the children for a long time and not wanting to come home empty-handed. She is aware that times change and culture changes, and assumes there will be major differences between what her parents were probably doing at 14, what she did and what her child will do at the same age.

Dana comes through as clearly autonomous in the sense that she sounds as if she feels in command of her own ability to act rationally in the interests of her children, her husband and self. She knows her parents are available to her but is probably doubtful if she will ever again need to depend on them. She takes for granted that they will want to be available for her children.

With regard to coding her interview, the most indicative scores for Dana are a high score for Loving by mother as a child, no signs of Idealizing, Involved Anger or Derogation, some signs of Metacognitive Processes and a score of 7 for Coherence of Transcript. We can say that she is "autobiographically competent" (See Chapter 2).

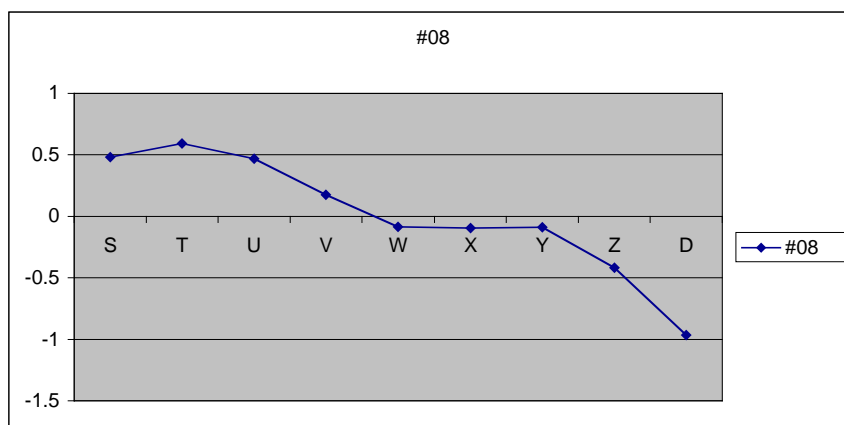
Relevant to the scoring for Reflective Functioning, for example, is that she is aware of other minds and that they can be apprehended without words.

Um, just a hug [mm] More than enough, she didn't need to speak. I always knew (1.507)

Go, always go to Mum first because she would know what to do and I always felt I could tell her what it was, not have to have her probe me because she could tell I was upset. Otherwise just go to her and tell her (1.518)

Table 7.1. Summary Scores for Dana

Demographic:	Under 30, married, together 3 years, the baby was planned
Cognitive development:	
Reflective Function:	5 (slightly above sample average)
Integrative Complexity:	3 (average)
Ego Level:	E5 (median)
Sense of Coherence:	135 (slightly below average)
Education:	Tertiary certificate
Personality:	
Resiliency:	0.57 (high)
Undercontrol:	-.05 (close to balance)
Self-assessed:	as sociable
Social Desirability:	22 (above average)
Self-Esteem Time 1:	7.36 (above average)
Depression:	some acknowledgement of feeling low at each time point with a slight increase over time
Experience of Motherhood:	27 (not stressed)
Self-esteem Time 3:	11.18 (much higher than T1)
Attachment Security:	.67 (moderately secure)
Attachment Independence:	.34 (moderately independent)
Attachment Profile:	typical B-secure toddler



S = Warm and cuddly	Secure
T = Cooperative	Secure
U = Enjoys company	Secure
V = Independence	rather high for Secure
W = Attention Seeking	Secure
X = Upset by separation	Secure
Y = Avoids others	Secure
Z = Demanding, angry	Secure
D = Moody, unsure, unusual	Secure

The most extended pieces of discourse for coding for Conceptual/Integrative Complexity comes from some of the questions at the end of the interview, for example, “Has your relationship as a couple changed since discovering you were going to have a child?” This question provides the opportunity for her to find several ideas and compare them, and to be on the way to integration with a superordinate idea.

I think you know our lifestyle is changing incredibly because we're very social [ahm] and we like to have parties and you know mingle with our friends and go out and stuff – always out having a good time and now it's had to stop and we've had to sit down financially reflect on things really hard [mm] about it because we don't really think before how much it would change your life [yeah] like going on one income and it's brought us closer in the aspect but before we were just like nothing but now we have to you know talk to each other about it you know things like that [ahm] but yeah it hasn't we don't love each other any more yet, I don't think [ahm], but um we definitely appreciate like quality time, like I've learned to slow down because you know at the weekends I'd be up at 7 doing this that and the other and I'm slowing down to sleep in for once [laugh]. You know I've learnt that you know usually like someone like yourself is coming I'll just springclean my house and like I don't care now, now some of my family what's that and It's like I don't care. It's changed my life and as well, we don't care [yeah]. Just learn to rest and enjoy it.

What support is there for the classification of F-Secure/Autonomous from the other instruments that Dana completed? (See Table 7.1.)

All these scores point to a person who is adapting well to her adult challenges, who is confident enough to acknowledge positive and not so positive aspects of her self and her situation and who seems to have acquired the maturity to make a secure base for her child.

Karen's Story (#20: F4b)

The description of an F4 transcript according to Main et al. (2002) is headed; “Strong expressed valuing of relationships, accompanied by some manifestations of preoccupation with attachment figures, or past trauma” (p. 158). What distinguishes an F4a script from an F4b script is that the former may be telling a story with some preoccupation but also sentimentality or fondness so that the impression is given that the difficulties expressed were probably slight. The F4b script is one where difficulties were probably not minor and at times there may be some

incoherence in the telling, but the “greater part of the interview...is ultimately both rational and convincingly conscious” (p.159).

Karen begins her account by telling about the constitution of her family and that her parents separated when she was 13. Her early childhood is described as being in a typical family; she calls it “traditional”. She provides well described memories of mother being caring and “teaching” her appropriate skills. Her father is described as loving and the disciplinarian, but that he repaired any rift that occurred after he smacked his children. She says that they were not a physically affectionate family and she remembers feeling that she was left to her own devices too much as a child and this had made her extremely independent from a young age. Expressions of independence are often pointers to a Dismissing classification, but in this case it can be seen that she can see several causes and independence is not necessarily a positive outcome. She shows she is able to reflect rationally on her parents when she says “I think they were doing their best and it was just the time factor in terms of not being able to give me more time” (1. 411). This is followed by a reflective statement about herself: “I’m probably just more time demanding than some children, and um, physically affectionate...” (1.412). The use of the present tense in such a context could be seen to be an indication of passivity pointing to preoccupation; however her statement continues in a forgiving strain, “I don’t think they came from physically affectionate families and so it was probably the result of that” (1.413).

What caused the dislocation in Karen’s life, she thinks, was the death of her father’s father. “He took it really hard...and our household changed a lot after that” (1.478-481). It upset him as a Christian that his father had not been one before he died. Her parents “drifted apart” and her father became “more aggressive and emotional”. The parents’ separation and later divorce “affected everybody, because we’ve all become different people out of that” (1. 495). In talking about the situation, Karen makes some very reflective statements, showing understanding and a sense of forgiveness for both her parents. She is credited with a high level of cognitive complexity and metacognition in these passages.

However, life following the separation was very difficult. Mother and children moved, mother worked and was having difficulties herself. They were frightened by a too friendly, too helpful church member. Karen’s discourse breaks down when describing that episode, giving a strong indication that this was indeed a very frightening time. She says she had a hard time at school and her mother was behaving

in a maliciously punitive way towards her. The stress of everything made her “pretty close to becoming anorexic and on and off depressed and things like that” (l. 593).

The next part of the interview asked about experience of abuse and she elaborated on her father being “aggressive and emotional”. Here you can see by the discourse, how the interview was eliciting emotional memories:

For those adolescent years I barely saw him and because he was really abusive before he moved. Um, he would get angry so quickly and he would be in a rage and almost not even think like a person. He would thrash us if he got angry with a strap, absolutely thrash us, and um so I spent half my time running away from him basically, just getting out of the house and running to get away. Um, so I detested him and I hated him for a very long time. (l.638-643)

Karen says now she “works on” seeing her mother on important occasions and that things are superficially civil. With regards to her father, she makes a very confused statement, but nevertheless showing ability to reflect at high levels.

That took a lot of work. It’s still really hard for me because having such a hatred for him for such a long time. Sometimes it tries to simmer up and, I don’t hate him any more and I’ve forgiven him for everything and I love him dearly really but um sometimes I just feel the tightness well up in me when he’s around. You know, that sort of thing you feel when you’re a teenager and your parents are embarrassing because they’re with you everywhere, just that sort of sensation and I have to really fight it off and just work it out, but he makes a lot of effort and we actually get along better and I really respect him for the decisions he’s made because he’s made a lot of effort to keep the family together... (l.669-679)

The end of this passage could be construed as finishing on an up-beat, a characteristic that the coding manual suggests is likely to occur in Dismissing transcripts after some vaguely negative comments about parents. However, as can be seen here, it is in the context of explaining why her relationship with her father has been and is now hard work. When asked about current sources of dissatisfaction with her parents, Karen provides a very high level account of how she understood her parents as a child and now as an adult reflects on the ethics of their behaviour. So it is her ability to think rationally about the breakdown in her family and the effect it has had on her, and her clear statements of autonomous thinking which now guides her behaviour which means she must be classified as F- Secure/Autonomous, even though there are aspects of her interview transcript which have features of Dismissing, Preoccupied and, indeed, Unresolved over Loss or Abuse.

Scale scores that contribute to the classification of this transcript are strong negative scores for Experience but no Involved Anger or Derogation, a high score of 8 for Metacognitive Processes, and a score of 7 for Coherence of Transcript. There is a

feel of Unresolved because of the painful experiences in her teenage years with both her mother and father, but there is not enough evidence of a traumatic incident involving either parent expressed with a breakdown of discourse sufficient to give a raised score for Unresolved.

The following passage is an example that is scored for metacognitive monitoring, but it is not overtly monitoring anything she has previously said. It shows that she realises that there is representational change in how she has been thinking, that she understands the meaning of events and responses to them differently now to how she thought about them as a child or adolescent. She believes that emotional responses have consequences in other aspects of self development, at the time, for example in adolescence, and may still exert some influence. This passage can also be coded for Reflective Functioning: *3.2.4 Taking into account one's own mental state in interpreting others' behaviour*

How would you say it's affected your adult personality?

I'm used to being independent and I'm used to not answering to anybody which is quite interesting to be married. Um, ar, more angry as a person as a result of having experienced that through a lot of my childhood. Um, probably potentially more emotional, definitely I have to deal with a lot of my past and all of the hurts and things. Um, it's harder for me to have a decent relationship with my parents because I don't feel very close to them compared to what I think I would have been otherwise. Um, it affected my education which affects my confidence in myself, now as well. Um and all those emotional build ups has affected the way I view myself for a long time[uhm] um, so I went through a more traumatic teenage, or more traumatic school years and everything.

Although Karen has high scores for Reflective Functioning, Metacognitive Monitoring and Coherence of Transcript, her score for Complexity is lower. For example in the passage above, although she generates several ideas and relates them, she does not quite reach the superordinate statement that would integrate them conceptually under the notion of relational distance. Similarly, in the following statement, which was referred to above in relation to AAI coding, for Conceptual Complexity she is generating a lot of ideas, but does not provide the evidence that she has synthesized these characteristics from different domains.

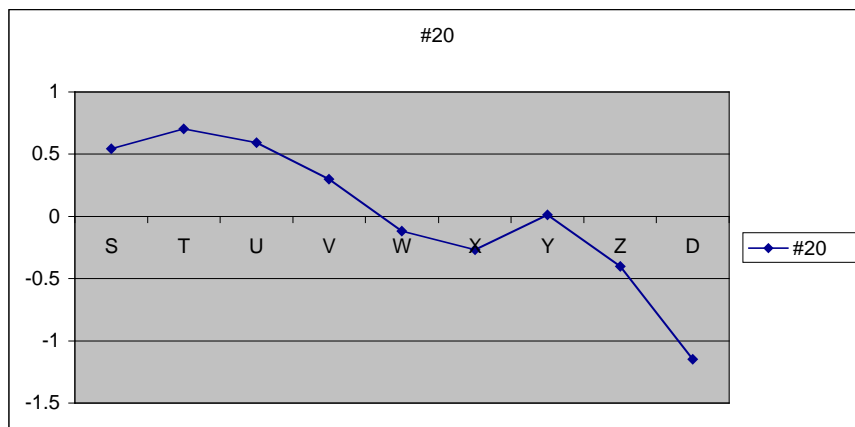
Um, I think they were doing their best and it was just um, the time factor in terms of not being able to give me more time. I'm probably just more time demanding than some children um, and physically affectionate, I don't think they came from physically affectionate families and so it was probably just a result of that 8 (l. 411-414)

Because of her high metacognitive score and her willingness to discuss the issues raised by the AAI questions, Karen is neither dismissing of the importance of

close relationships nor failing to register the dysfunctional nature of her family of origin in her teenage years. Although the interview has raised emotional memories that upset her, she does manage them in order to cope with the interview appropriately. She must be classified as F. In this case it is clear that she can be described as “autonomous” but

Table 7.2. Summary Scores for Karen

Demographic:	Under 30, recently married, planned pregnancy
Cognitive development:	
Reflective Function:	9 (highest in sample)
Integrative Complexity:	6 (well above average)
Ego Level:	E7 (high)
Sense of Coherence:	142 (average)
Verbal Ability:	24 (high)
Metacognitive monitoring:	8 (high)
Education:	Tertiary diploma
Personality:	
Resiliency:	.60 (high)
Undercontrol:	-.46 (quite controlled)
Her partner rates her	.40 and .29
Self-assessed:	as assertive
Social Desirability:	19 (above average)
Self-Esteem Time 1:	8.43 (above average)
Depression:	almost no acknowledgement of feeling low at any time.
Experience of Motherhood:	
Self-esteem Time 3:	37 (not stressed)
Attachment Security:	10.93 (much higher than T1)
Attachment Independence:	.79 (above average)
Attachment Profile:	.46 (above average) a B-secure toddler.



S = Warm and cuddly	Secure
T = Cooperative	Secure
U = Enjoys company	Secure
V = Independence	rather high for Secure

W = Attention Seeking	Secure
X = Upset by separation	Secure
Y = Avoids others	Secure
Z = Demanding, angry	Secure
D = Moody, unsure, unusual	Secure

the term “secure” may not be valid in her case. This is where it can be seen that in discussing adult attachment types, the use of “secure” is useful to associate the adult forms with the infant classification forms, but that Main’s terminology “State of mind with regard to attachment” enables us to understand that the optimal quality emerging from the coding of the transcripts is a mature coming to terms with intimate relationships regardless of whether they tell stories of happy or unhappy experiences within families. Karen has worked through her knowledge of how her parents did not give her what she needed, how what she experienced and how she responded to it has shaped the person she has become. She does not have the internalised sense of security that adults can have that their parents remain available if needed. Karen will probably be more alert than most to being responsible for the well-being of herself and her child, though also hoping to receive from her partner the type of husband and father for her children that her father failed to be.

What support is there for the classification of F-Secure/Autonomous from the other instruments that Karen completed? (See Table 7.2.)

Here too we have support for the judgment that this is a person who is adapting well to her adult challenges, who is confident enough to acknowledge positive and not so positive aspects of her self and her situation. Without the interview we may have assumed that this woman had a very positive background to bring to her parenting, and may not have realised how many challenges she has had to cause her to examine other minds and motivations prior to the transition to parenthood. Her cognitive development scores are higher than most in this sample, yet her highest education qualification is a tertiary diploma.

These two cases illustrate that many women who are classified as Secure/Autonomous on the AAI have had family environments that are not unequivocally “happy”. Indeed, as has been argued, an upbringing that has not required the individual to wonder about the difficulties that are occurring in their families might lack the conditions to stimulate higher level thinking especially about relationships and

the different perspectives held by different people and how attitudes and understandings might change over time.

The men in the sample also had early lives that were far from easy. This may have contributed to an interest in participating in research about parenting.

Rob's Story (#23: F3a)

Rob was the third of eight children. He presents a strong relationship with a loving mother whom he respects for her efforts towards her large family. He shows that his father was caring and dependable although away at work a lot. As he grew older he found his father's expectations for success in sport somewhat difficult to cope with. Just the same, sport has become important for him, even currently as he anticipates fatherhood. Rob says explicitly that he felt secure as a child in the environment of his family, but that any dissatisfactions stemmed from having hand-me-downs and other siblings getting presents which made him feel somewhat neglected. He specifically mentions aspects of fathering that he is determined not to reproduce himself, but says that he definitely did not suffer from abusive discipline. As a young adult he seems to have had some tough associates, and has experienced several incidents that could be called traumatic but these do not qualify for coding with the AAI. They can be interpreted as incidents that would cause a person to think about valuing life. He has also lost some close family members, which he speaks about with sorrow but not excessive emotion. He is proud of what he has managed to achieve in life so far, values his large family at the same time as acknowledging faults, and looks forward to the family he is now creating.

His Scales for Experience have high Loving for mother but rather more mixed scores for father. There is no sign of Idealizing, Anger or Derogation. He makes several perceptive and thoughtful reflections but only has a modest score for Metacognitive Processes.

In the following passage there are elements of monitoring, that is, trying to find a way to express the idea as it comes to him, but it is really seeking a synthesizing idea for the multiple examples of parental behaviour he is being asked to explain, so it gets a relatively high score for Complexity. As well, it gets scored as an example of what the Reflective Function manual lists as *Effort to tease out mental states underlying behaviour* and *Recognition of developmental aspects of mental states*.

Why do you think your parents behaved the way they did during your childhood?

Back then I don't think they actually had the, probably the, I was going to say the skills, probably the skills actually to bring the kids up but probably the skills to communicate and to um, understand you know the effects of their actions and what affect it's going to have on the kids and all that stuff. But I think they understand that now but they didn't really understand it when I was a young guy (L.555)

In the following passage, coding for Complexity, there is an integrating principle provided.

So in general how did you think your overall experiences with your parents have affected your adult personality?

Oh it's great, yeah um, if you can come away with a positive out of a negative, ar, you going to do well, [um] but as I said before you know there's a lot of things in my childhood that [?] I won't give to my kids, there are also things I want to, not try and to forget but just you know just try and remember um things I didn't enjoy in my childhood [yeah] and I don't want to actually give it to my kids. (Awareness of contradiction + integrating principle)(L..541)

What support is there for the classification of F-Secure/Autonomous from the other instruments that Rob completed? (See Table 7.3.)

Here too we have support for the judgment that this is a person who is adapting well to his adult challenges. His life so far has given him many opportunities to ponder on close relationships and appreciate their value. Examining his interview for aspects of complex thinking shows that he demonstrates a level of thinking about relationships that is at a higher level than might be expected from more conventional measures of cognitive ability. His assessments of himself as a parent seem to be honest appraisals, fitting in with the positive and negative appraisals of family interactions when he was growing up.

Attachment Category Ds: Dismissing

Category Ds: Dismissing of Attachment: Dismissing, Devaluing, or “Cut-off” from Attachment Relationships and Experiences (Main et al., 2002, p. 162)

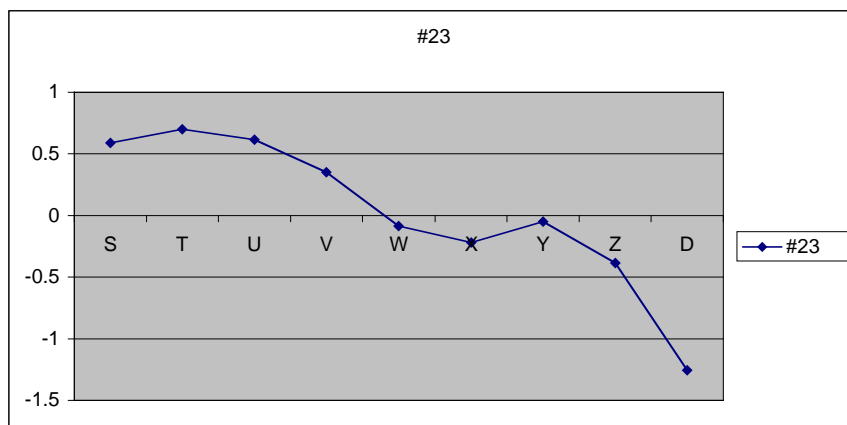
Transcripts which end up being classified as Ds: Dismissing are usually short, and often contain very little information apart from a vague story of the family being “normal”, or “typical”, suggesting to the coder some sort of inadequacy that the interviewee does not want to talk about, or providing a glossy presentation of wonderful parents, or a curt contemptuous dismissal of parents or the value of relationships, and endorsing the importance of being independent.

Ds transcripts often vibrate with the discomfort of the interviewee. This has the effect of causing the interviewers to find it difficult to probe or seek clarification. The

answers to questions are so brief that the interviewer has to pause to check if the question has been answered at all and then may find it hard to formulate the question needed to get information that gives a reasonable picture to a listener.

Table 7.3. Summary Scores for Rob

Demographic:	Under 30, with partner for four years, semi-planned pregnancy
Cognitive development:	
Reflective Function:	7 (high)
Integrative Complexity:	5 (above average)
Ego Level:	E4 (Conventional – below average)
Sense of Coherence:	173 (high)
Verbal Ability:	18 (average)
Metacognitive monitoring:	2 (low)
Education:	Tertiary diploma
Personality:	
Resiliency:	.60 (high)
Undercontrol:	.11 (close to balance)
His partner rates him:	.46 and .01.
Self-assessed:	as assertive and sociable
Social Desirability:	21 (above average)
Self-Esteem Time 1:	6.96 (average)
Depression:	some acknowledgement of feeling low at each time
Experience of Fatherhood:	31 (a little stressed)
Attachment Security:	.84 (highest in sample)
Attachment Independence:	.45 (above average)
Attachment Profile:	a B-secure toddler.



S = Warm and cuddly	Secure
T = Cooperative	Secure
U = Enjoys company	Secure
V = Independence	too high for Secure
W = Attention Seeking	Secure
X = Upset by separation	Secure

Y = Avoids others	Secure
Z = Demanding, angry	Secure
D = Moody, unsure, unusual	Secure

Ds3 (“Restricted in feeling”) transcripts are not clearly idealizing nor denigrating parents. Some feelings of hurt or resentment are mentioned but these are minimised or normalised. Just the same there are signs that there was a lack of closeness with parents, and less than positive episodes creep into the interview sometimes in response to a request for an example for a positive descriptor of the relationship with a particular parent. Inconsistencies in the stories are not noticed by the speaker. Theory behind the coding explains this as poor metamonitoring at a deep level – these stories are embedded in the individuals’ understanding of their identity and the contradictions in their self-understanding are not just the result of the momentary condition of being in an interview. As Slade (1999) describes it, “These are individuals who constrict rather than contain their emotional experience, and who are strangers to feelings, motivations, or inner life” (p.585). Often the interviewee emphasises the importance of being independent. The subgroup, Ds3b is similar to Ds3a but even moderately positive descriptors of parents lack support. It is the lack of support and the lack of overt references to anything that can be construed as valuing attachments or valuing closeness to anybody that points to a classification of Ds3b.

Ruth’s Story (#37; Ds3a)

Ruth was one of five children, and obviously found remembering childhood painful. She repeatedly said she could not remember childhood, and the memories she did produce were mostly centred on the lack of attention from her parents and sibling struggles to get their parents’ attention. Many Ds transcripts show some problem associated with separation in early life. In Ruth’s case it is unlikely she was separated from her mother for any length of time except possibly for the birth of siblings. However she does remember starting school.

I remember my first day. Yeah, yeah, must, yeah. The first day was pretty horrible.

Did you perceive that as being leaving your mother or just, what?

Um yep, I couldn’t let go of her and yeah, that’s quite, that’s one. That was [4sec] oh no that was right back at kindy. I used to have problems at kindy and Mum wasn’t allowed to leave [3sec] and she normally stayed. But at school she had to go, yeah, yep. (1.196)

She suggests she was a very resentful adolescent, “there were a lot of hard years to work through” – but “now, it’s completely fine” (1.245-247). She acknowledges that she was a difficult person for her parents to deal with. What makes the coder consider that this more mature reflection is not really a sign of acceptance of the interactive cause and effect of intimate relationships is her too glossy endorsement, often repeated, of how she now has a great relationship with her parents. She probably does now have a “good” relationship with her parents, but the internalised sense of security does not seem to be there yet. The pain is still being defended against. Interestingly when asked about her feelings about leaving her expected child she took an unusual perspective, one that took some effort to work out what she meant; she did not want to leave her child with family members if they, the family members, were not happy with the task. She believes the child would not be happy being left with someone who was not happy to be with the child. And she does not want to feel “worried about” the child:

I think worry’s going to be a big thing to deal with. I don’t like worrying parents. I don’t think it is healthy for the child. (1.439, 440)

Such a view before she has a child, surely will be hard to live up to without guilt. This section of the interview demonstrates an awareness of how others might feel but misses the consideration of more significant potential sources of worry for herself as a parent.

She turned her affections to animals. It was loss of pet dogs that stirs her strongest emotions, including twice losing pets in horrific attacks that she describes as traumatic. In the coding manual, Main et al., (2002) recommend that such losses should be probed and rated using the same principles as loss of attachment figures but that such losses should be analysed separately (p. 135). The way those pets were lost meant that an interviewer would not wish to probe, and this interviewer did not, so no score is given for either Unresolved Loss or Trauma.

Ruth does make some metacognitive statements: “I thought I hated them. I don’t know if I did” (1.337) and “some things that I thought in my childhood weren’t good but actually were necessary”. These can be interpreted as maturely reflective – or as examples of what Mary Main calls a “positive wrap-up”. An alternative coding of F1 which covers a purposeful setting aside of childhood was considered but the interview as a whole is one where there is a clear restriction of emotion or deactivation of attachment.

Because there were so few statements that could be evaluated for Reflective Functioning, a comment was made following coding for RF that this person seems to be

avoiding looking for explanation in other minds. With regard to Complexity coding, because there were so few elaborated comments, there were only 3 rateable statements.

What support is there for the classification of Ds - Dismissing from the other instruments that Ruth completed? (See Table 7.4.)

The coding system for the AAI alerted the coder to potential difficulties that this mother might have in coping with the challenges of becoming a parent, and that the form that these would take would be a desire to stand back from emotional demands. She has several indices of stress 15 months after the baby was born, and her appraisal of her child's relationship with her suggests that the child may be perceived as rather too clingy. A person with a Dismissing state of mind with regards attachment is expected to prefer a child who is not expecting a lot of attention from him or herself. Prior research has shown that a parent with a Dismissing classification is likely to have an Avoidant child as assessed using the Strange Situation procedure. If the SS procedure had been available for this dyad, this may have been found. Dependency is not a characteristic of an avoidant child, but a Dismissing parent may perceive as dependent small claims for attention that another parent may not construe in that way. The present instrument used by the mother is assessing how the child's behaviours seem in relation to herself.

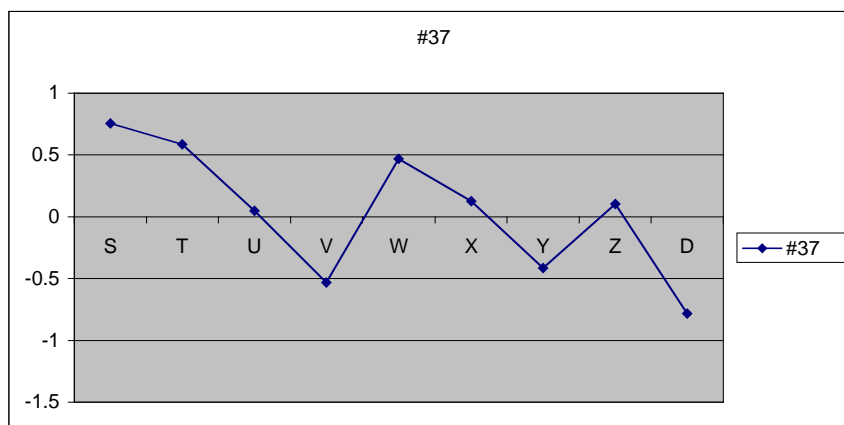
Only at the end of reviewing the data for cases was health examined since overall there were so few health issues mentioned. This mother had indicated in the antenatal questionnaire that she suffered from chronic fatigue. Consequently the disengaged tone of the interview, the general signs of dysphoria coming from the different instruments, indicates this mother may have needed active intervention to support her. This she may have been getting since she reported having live-in help in the house at about 3 months postnatally. Her response to the final phonecall in which she kept putting off the opportunity to talk about how the transition had been also makes better sense now her antenatal health condition has been noted.

If this mother had a clinical condition of chronic fatigue from before the baby was born, the demands of a baby may indeed have felt like more than she could happily manage. In addition, the tone of the interview may not have been Dismissing so much as lacking in energy and vitality. This case may be an example of coding accurately according to the coding criteria, but what is being assessed is not valid. The

attachment prognosis for this mother and her infant just the same remains valid. They need support in order to build a secure relationship together.

Table 7.4. Summary Scores for Ruth

Demographic:	Under 30, married, with partner for four years, semi-planned pregnancy
Cognitive development:	
Reflective Function:	5 (average)
Integrative Complexity:	3 (average)
Ego Level:	E5 (Self-Aware - median)
Sense of Coherence:	133 (low)
Verbal Ability:	23 (above average)
Metacognitive monitoring:	4 (above average)
Education:	Tertiary degree
Personality:	
Resiliency:	.12 (slightly under average)
Undercontrol:	-.30 (overcontrol)
Self-assessed:	Notably rates herself as making things complicated
Social Desirability:	8 (low)
Self-Esteem Time 1:	7.43 (above average)
Depression:	some acknowledgement of feeling low at each time prenatally, increasing T3 to just below the cut-off point that would signal depression.
Experience of Motherhood:	44 (stressed)
Self-Esteem Time 3:	4.79 (low)
Attachment Security:	.58 (below average)
Attachment Independence:	-.36 (lowest in sample - dependent)
Attachment Profile:	Mixed, secure and ambivalent characteristics



S = Warm and cuddly
 T = Cooperative
 U = Enjoys company
 V = Independence
 W = Attention Seeking
 X = Upset by separation

High - Secure
 High - Secure
 Neutral
 Characteristic of Insecure/ambivalent
 Characteristic of Insecure/ambivalent
 Neutral

Y = Avoids others	Characteristic of Insecure/ambivalent
Z = Demanding, angry	Slightly Insecure/Ambivalent
D = Moody, unsure, unusual	Secure

Paul's Story (#19: Ds3b/Ds2)

Paul's transcript has the classification Ds2 added to Ds3b because there are several places where closeness is disparaged. This transcript could also be labelled as Ds1 for clearly blocking childhood memories, but it lacks the idealisation of parenting that such a classification would require. Paul's responses to questions are very short; none go beyond six lines. He is clearly distancing himself:

Oh you know when you were a kid they fed you, they told you off, they took you somewhere. I mean yeah I don't know whether the experience was, I mean, how else do you, you don't know different. You get what you're dealt basically..." (1.54-56).

When pressed about the relationship with his mother, he says:

Oh I can't think of you know, yeah I don't know. When you are, nothing sticks out, out of anything, out of general. (l. 104, 105)

He is the eldest in his family, with a younger brother and twins nine years younger. It emerges that his father's favouritism for his brother was a big issue, although his father's disparaging remarks may have been particularly wounding. He feels both neglected and rejected by his father.

Relevant to a classification of Ds, Paul pushes away the idea of receiving physical care. When asked about remembering being held by either parent when hurt or ill, he said:

I guess they do the statutory try and rub it better, you know. I just couldn't cope with it. I just wanted, you know, why rub it around? It hurts enough. Why rub it around? Just want to yeah, basically. You know I can't recall hurting myself often, but no. (1.255-258).

Paul believes these experiences have made him "quite independent from quite early on I guess. Yeah, I guess it is not necessarily a bad thing" (l. 374-375).

I was independent from 14 or 15 so then I guess I became more and more independent as obviously things rolled on. By the time you baled out of the house that was pretty much it (1.449-451).

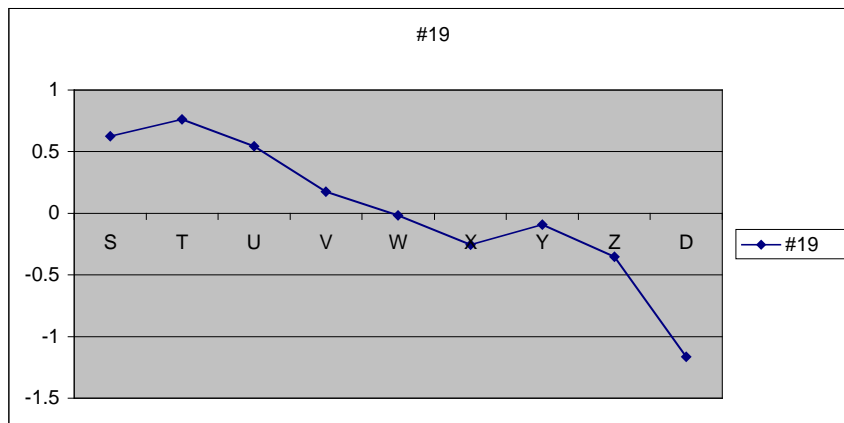
He says his mother in particular is excited about the expected baby, but this is not welcomed:

...obviously wanting to know all the bits and pieces and on a daily basis, but again being independent as you would describe it I guess inviting an element of frustration, um and all the well-meaning I guess advice on bits and pieces that we should be doing or whatever, but that's about it, that's yep. I guess they're looking forward to junior

landing. Um ... which means I'm pleased I'm not living in B- [his parents' place of residence] just now um (l. 477-481).

Table 7.5. Summary Scores for Paul

Demographic:	Over 30, with partner for five years, planned pregnancy
Cognitive development:	
Reflective Function:	1 (very low)
Integrative Complexity:	4 (above average)
Ego Level:	E5 (Self-Aware - median)
Sense of Coherence:	not available
Verbal Ability:	not available
Metacognitive monitoring:	1 (very low)
Education:	Professional degree
Personality:	
Resiliency:	.72 (very high)
Undercontrol:	.01 (close to balance)
His partner rates him:	.59 and .08
Self-assessed:	as assertive
Social Desirability:	not available
Self-Esteem Time 1:	not available
Depression:	nil
Experience of Fatherhood:	26 (not stressed - the lowest score)
Self-Esteem Time 3:	Not available
Attachment Security:	.84 (high)
Attachment Independence:	.35 (above average)
Attachment Profile:	a B-secure toddler.



S = Warm and cuddly	Secure
T = Cooperative	Secure
U = Enjoys company	Secure
V = Independence	Neutral
W = Attention Seeking	Secure
X = Upset by separation	Neutral
Y = Avoids others	Secure
Z = Demanding, angry	Secure

D = Moody, unsure, unusual Secure

Nowhere in this script is there a sign of feeling concern about another – even the question about separation from his child provides him with the opportunity to show he is not expecting child care to be his concern.

Coding for Reflective Functioning found no examples of mentalising apart from the above statement that acknowledges other people’s minds but dismisses the relevance.

When coding for Complexity, the highest score was for the following statement. There is the beginning of an integrating idea, but this is to reject the possibility of knowing about the effects of earlier experiences. This is clearly a cold logical statement rejecting the importance of feelings and of family relationships.

Are there any aspects to your early experiences that you feel were a set-back in your development?

..... No because as I say anything I wanted to do I did myself. It wasn’t like running [?] or anything, but you know but, I wanted to dive so I did my dive course. During my School Cert exam I just, I mean I had a job so I had money, so I just did things myself [right] um, so how do you know? You don’t know.

What support is there for the classification of Ds- Dismissing from the other instruments that Paul completed? (See Table 7.5.)

One could interpret these scores as that either this father is exaggerating the positive as is likely with those classified as Ds because of “idealising”, or he has found joys in fatherhood that he did not expect. He was also dismissing of the research initially although he did submit himself to the interview. However, at 15 months this father reported on the telephone how he spent a lot of time caring for his child because he worked from home a lot and his wife was required to travel away at times during the month. He expressed then a lot of joy in the child. It is to be hoped that this is really a turn-around in his feelings about intimacy triggered by experiencing parenthood

Karl’s Story (#11: Ds3/Ds1)

Karl’s mother was very young when she had him and she separated from his father when Karl was about two. His stepfather came into the picture when Karl was about 4. Throughout his childhood he visited his father’s family and occasionally went to Australia to visit him. He moved around a lot as a child. The stepfather was a constant presence in his childhood, may have been quite a

tough customer but is now characterised as being a “good guy”. Karl sees his mother and step-father as “young”, now identifying with them.

My mum was pretty tough, would tell me to piss off sometimes and stuff like that I mean you know. Yeah she was only 18 or going on 20 when I was 3 or 4 so (l. 248)

He acknowledges his own recent bad behaviour as similarly immature:

They both grew up quite a lot over the years, you know,... I remember being younger, but once again they dealt with their problems as I was, as a teenager, so um you can imagine, they went from bikies to the Salvation Army (l.652).

Just the same, in the latter part of the interview, he uses the phrase “cycle of violence” in relation to his extended family, especially his mother’s father. Karl says he used to fight a lot in his early 20s but then realised that did not solve anything.

just the violence and abuses growing up that I saw a lot of and that sort of thing and that made me like that. That didn’t help and held me back with relationships with people and that sort of thing.... (l.360).

This is in contrast to his description of individual relationships. The relationship with his father was “a good relationship I suppose” (l. 80) despite seeing him very infrequently and finding there was not much to talk about when they did see each other. His relationship with his mother was

...pretty fiery when we were young. I was a trouble maker a lot of the time, I just get bored quickly...but yeah it is a good relationship. My grandparents spent a lot of time in my life, so, no, it’s a good relationship too as well I suppose, yeah. There’s not a helluva lot of emotion in our family I suppose. It is how we interact with each other. (l.83).

I suppose she was pretty loving. We always liked each other, she always wanted me to do well, to help each other, but it wasn’t close, you know, it was kind of removed – wouldn’t be a bad word – or something like that you know – nobody says anything (laugh) so I suppose yeah so that might be part of it um. (l.109)

When asked about separations he immediately thought of his father but could not remember when he might have become aware of it. The only episodic memories in the transcript are an early one of travelling in a car with his father and later one of going on a plane to visit his father.

Karl says it is the deaths of some of his friends which made him feel “gutted” but that he put on a front which might make others think he was cold. At times like that he busies himself helping with the arrangements of the funerals and thinks he is better equipped to accept death now.

When asked about traumatic experiences, he jokes “Having a child (laugh), no not really ay. Don’t know. Not really, not really cruel, that anyone died” (1.591)

Karl was obviously wrestling with discomfort about the topic of the AAI. The topic of relationships was one he did not want to think about. Just the same the interview did get him thinking, forced him into thinking (“Jeeze I dunno”), especially the questions about what he learned from his childhood and what his child might learn from him. These questions brought out strings of conflicting ideas that related to things he liked about and did not like about and for himself. Despite some statements at various points in the interview that showed some perspective taking, it was confounded by confused standpoints and mixed conclusions.

Karl was classified as Ds3 because of lack of memories of childhood, especially lack of evidence for positive or mildly positive descriptors of parents, and attempts to brush away implications of either normal or dysfunctional family relationships. It is clear that he yet has to reconcile events and people in his childhood, his own personality and his own responsibility for his actions now he is an adult and soon to become a father. He does not admit to feeling rejection but it lies behind a lot of his comments. Joking about becoming a father being traumatic, may or may not be devaluing of attachment. It may be a way of handling the fear associated with demands for more intimacy from his partner and the baby. Just the same it cannot be interpreted as a comment made by a person who feels he can adapt to the new demands with only mild regret for the independence he once had.

The comment on the coding sheet that summarised the coding for Reflective Functioning was that he lacked the words for mentalising, although the interview was trying to elicit such statements. In the following statements he makes explicit his emotion control strategies.

So did you feel rejected when she told you to piss off?

I suppose so. Sometimes. That’s what people say hurts. Yeah...But I don’t know if I even understood the concept. I don’t think I’d ever end up thinking emotionally about those subjects sort of thing [yeah] dunno. Just try to forget about it or whatnot. (1.254)

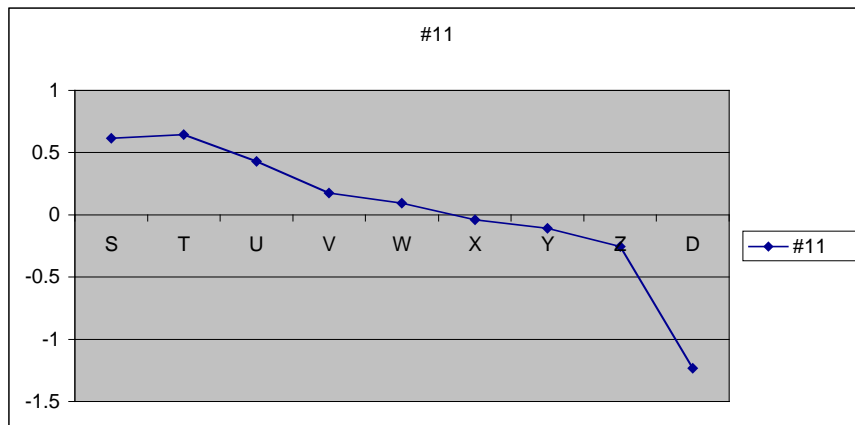
And I think I learned to understand that people say two things, if you know what I mean, so we um sort of get over those things but pretty quickly I suppose. (1.263)

The most complex statement was a rather roundabout discussion of how his mother had changed, how he had changed and how he could now see things he could not as a younger person.

What support is there for the classification of Ds- Dismissing from the other instruments that Karl completed? (See Table 7.6.)

Table 7.6. Summary Scores for Karl

Demographic:	Age 30, with partner for six months, pregnancy unplanned
Cognitive development:	
Reflective Function:	5 (above average)
Integrative Complexity:	2 (below average)
Ego Level:	E3 (Self-protective – low)
Sense of Coherence:	118 (very low)
Verbal Ability:	29 (high)
Metacognitive monitoring:	3 (average)
Education:	Tertiary degree
Personality:	
Resiliency:	.52 (above average)
Undercontrol:	-.09 (below average, somewhat controlled)
Self-assessed:	as practical, non-conformist
Social Desirability:	9 (low)
Self-Esteem Time 1:	6.38 (average)
Depression:	feeling somewhat low at T1 and T2, higher at T3
Experience of Fatherhood:	41(stressed)
Self-Esteem Time 3:	Not available
Attachment Security:	.76 (above average)
Attachment Independence:	.23 (below average)
Attachment Profile:	a B-secure toddler



S = Warm and cuddly Secure
 T = Cooperative Secure

U = Enjoys company	Secure
V = Independence	Neutral
W = Attention Seeking	somewhat
X = Upset by separation	Secure
Y = Avoids others	Secure
Z = Demanding, angry	Neutral
D = Moody, unsure, unusual	Secure

The AAI coding indicated that this father was struggling to become autonomous despite having good intellectual skills. His experiences in close relationships have made him wary and he has avoided emotions whenever possible. So parenting has been a challenge that he is struggling with. A characteristic of parents who are Dismissing is that they might not be able to acknowledge negative characteristics in themselves or their parents and children. Karl's appraisal of the child's behaviour seems to indicate an effort to respond honestly, and with that in mind we might take heart from the appraisal of attachment showing secure attachment with the child.

Attachment Category E: Preoccupied

Category E: Preoccupied with or by early attachments or attachment related experiences: Angrily preoccupied or involved with relationships with attachment figures; vague and passive/confusing while discussing past relationships; or overwhelmed and preoccupied by out of context references to frightening experiences.

In the opposite way to a Dismissing state of mind regarding attachment, a preoccupied orientation means an inability to manage the interview situation because the topic is one that is constantly at the forefront of the person's mind. The failure to cope with the requirements of a coherent conversation, albeit an interview situation which has an assumed standard social script, is the major indicator of the preoccupied category.

There are three subcategories. The E1 category is characterised by speech which has qualities of vagueness or poor articulation of ideas that Main et al (2002) describe as "passive". For E1 this can mean "passive" as lacking in ideas or lacking in energy, but it especially means lacking in effectiveness or agency. The E2 subgroup is usually very energetic, very talkative, but this also lacks effectiveness, having the appearance of a theme that has been constantly ruminated about, and which cannot be brought to a conclusion. E1 transcripts often have the sense that a person

feels no sense of self but requires the feeling of being surrounded by family. The E2 is often resentful of how he or she has been treated in the family. Family issues of the past are alive in the present and intrude into the interview without the individual being aware of the irrelevance to the question or the situation. The E3 script is one where the individual appears overwhelmed by fearful experiences which invade the script. These features can be confused with some that contribute to a classification of Unresolved.

When establishing the characteristics of the Preoccupied script, Main found that the attachment experience in infancy and childhood tended to be unfavourable, often because the mother or caregiver was inadequate, demanding care herself, and for example one who panicked in childhood emergencies. This characteristic is termed involving/role-reversing. The experience of a caregiver who is very attentive but often seeks care herself contributes to the insecurity of the child, who becomes the quiet, confused, passive child or the angry child who is continually seeking the security of care required from the caregiver.

Tony's Story (#38: E2)

Tony presents a story that is difficult to classify. His parents sound as if they were very caring. His mother was a secure base but his father was unpredictably angry which seems to have affected Tony deeply. He was born the youngest of four children, after quite a gap. He portrays himself as a clingy, tearful child desperate for father's attention yet fearful of his mood changes. If his mother appeared threatened by his father's outbursts, Tony felt threatened too. He has spent much time thinking about how this has affected him.

I don't know if he actually really realised the impact it actually had on my world at the time. That world was destroyed, completely destroyed, and that sort of stuff that I have now as well. When things get bad it's like the whole world is destroyed (laugh) yeah. Like it's hardly worth getting up in the morning because one thing's gone wrong, yeah. (l. 485)

He recognises an unhealthy anger in himself and wants to master it. He is not easy about his own imperfections but wants to talk about them. He attributes the way he is to past experiences but resentment remains despite speaking of having compassion and understanding towards his father. His storyline is one of a child victim becoming strong in adulthood. It may happen that Tony will gain the sense of security in an intimate relationship within his marriage and with his child and be able to accept the past, easing the preoccupation that permeates this transcript.

Tony has no trouble recalling specific incidents in his childhood, both positive and negative. He uses lots of feeling words and reflects on how these may be associated with developmental issues or may be construed differently by different people. Although he does not forget that he is in an interview, some of these responses are quite long.

At one point he gives an excellent example of what Main calls “metamonitoring”. He corrects himself as he responds. It shows he is thinking about what he is saying, one of the consequences of which is that his words gain truth value. When asked which parent he felt closer to and why, he replies:

At that time? Mum? And why, because ... ah why? Probably because I spent more time with her. Oh, that's not accurate. She was the one who picked me up from school. She was the one who kind of ah prepared the food, that type of thing maybe, put me to bed, read me stories... mm the one I could talk or cry to, and she would understand... (1.304-308).

Tony also has a vivid memory of separation from his parents. The first night away from home at night when he was 10 was for a school camp. He was really upset and says his mother responded “with tears and not really wanting it to happen but thinking it was for the best” (l. 388). He paints a picture of a very confused adolescent, angry, resentful and acting in a self-defeating way. He attributes this reaction to the result of “emotional abuse” from his father and from being “number one” for his mother.

The incident that seems to be the one that has turned him away from focus on the family situation is one where he uncharacteristically went to see a sick friend and found he was dying. This friend significantly had a specific message for him that he had seen Jesus and Jesus wanted Tony to become a Christian. It seems that this has been important for how he now leads his life.

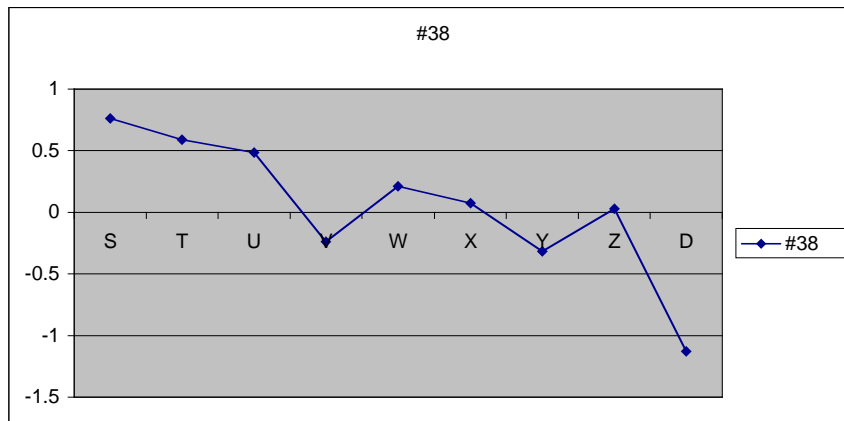
The way he expresses his relationship with his parents now is very ambivalent. He wants them, yet is irritated by them. He knows they are ready to support him but also knows the support they will offer is not what he wants.

Actual examples of Reflective Functioning coding and Complexity coding for Tony are not given here either because relevant passages are very long or because they are very emotional.

What support is there for the classification of E - Preoccupied from the other instruments that Tony completed? (See Table 7.7.)

Table 7.7. Summary Scores for Tony

Demographic:	Under 30, with partner for four years, semi-planned pregnancy
Cognitive development:	
Reflective Function:	8 (high)
Integrative Complexity:	5 (high)
Ego Level:	E7 (Individualistic – very high)
Sense of Coherence:	not available
Verbal Ability:	not available
Metacognitive monitoring:	5 (high)
Education:	Professional degree
Personality:	
Resiliency:	.41 (below average)
Undercontrol:	-.21 (controlled)
Self-assessed:	as thinking, reassuring
Social Desirability:	not available
Self-Esteem Time 1:	not available
Depression:	at T1: acknowledges some distress, at T3 nearing cut-off point
Experience of Fatherhood:	49 (very stressed)
Self-Esteem Time 3:	4.23 (low)
Attachment Security:	.68 (above average)
Attachment Independence:	-.06 (below average)
Attachment Profile:	Mixed - B with some C tendencies



S = Warm and cuddly	Secure
T = Cooperative	Secure
U = Enjoys company	Secure
V = Independence	Secure
W = Attention Seeking	somewhat Insecure/ambivalent
X = Upset by separation	slightly Insecure/ambivalent
Y = Avoids others	neutral
Z = Demanding, angry	neutral
D = Moody, unsure, unusual	Secure

Appraisal of the child's attachment scores fit with what might be expected from this father's scores before birth but are more positive than might have been predicted. His experiences within his family have left him very insecure in a way that has not been overcome yet by his high level of intellect and reflectiveness. There may be reasons for his stress levels that are beyond the pressures exerted by the demands of closeness in fatherhood before and after the arrival of the child, but the way he responded to the interview suggested that the transition to parenthood would be very difficult for him (and his child) even without external pressures.

Attached Category U/d: Unresolved/disorganised

Category U/d: Unresolved (Disorganized/Disoriented) Attachment Status

The Unresolved status is coded in relation to passages where loss of an attachment figure or abuse of or from an attachment figure are spoken about. The rating depends on the amount or degree of lapses of reasoning or lapses in the discourse when discussing such episodes. Sometimes the loss or trauma spoken about is not in relation to an attachment figure, but is obviously causing disturbance in the speaker's sense of security in relation to family and to the world in general. These latter instances are not included in the coding for U.

The Unresolved classification from the AAI has been shown in attachment research to be significantly related to the classification of Disorganised attachment with infants (van IJzendoorn, 1995a). Later, more refined analyses have indicated that disturbance in the security of the children of mothers with the primary classification of U, is more likely to be when the secondary category assigned is Insecure (Schuengel, Bakermans-Kranenburg & van IJzendoorn, 1999). It seems that the U classification in conjunction with an insecure but organised attachment strategy, must offer an infant a disorganised approach to care. As well it has been shown that Unresolved with regard to abuse is likely to be associated with greater risk for adult psychopathology (Stovall-McClough & Cloitre, 2006). This then indicates greater risks for relationships with children.

Tess's Story (#10: U/d/F4b)

In this sample is one case classified as U/d/F4b. To protect this participant her story will not be told in detail. Her story is one of extreme neglect and

multiple separations when very young, of continuing changes of caregivers through childhood and adolescence with neglect continuing because of alcohol and drug issues with the caregivers and physical and sexual abuse from those in the position of parents. Her early adulthood story shows she was very vulnerable and this included car accidents where she suffered injury, more than one unwanted pregnancy and the lack of opportunity to establish herself on a career path.

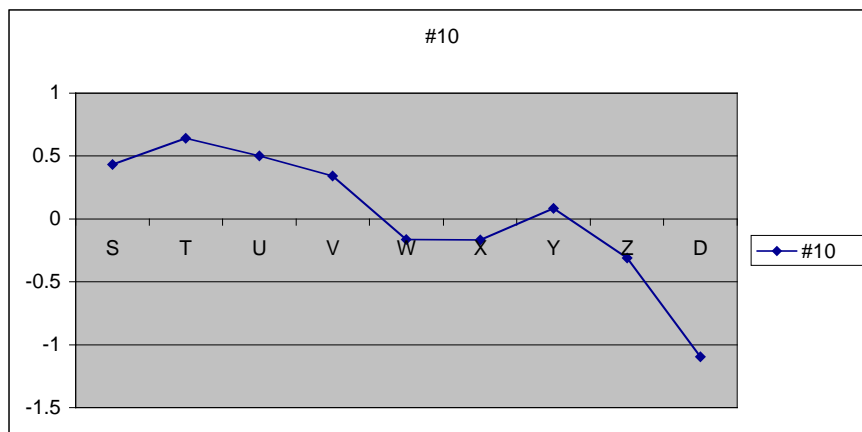
Her discourse in several places is sufficiently disordered for a primary classification of U for both loss and trauma. Nevertheless her secondary category is F4b. Her story is heavy with abandonment and she talks about hating but the emotion is at a distance. There is no insistence on lack of recall. This transcript cannot be assigned a Ds classification because she is very clear about the importance of relationships and caring and wants to talk about her experience and how it has affected her. She has done much ruminating and has received some counselling, but this is not an E script either. She sees herself as a victim and has not forgiven her mother for her initial incompetence, carelessness and lack of protection. She notes with alarm signs of neglect or abuse in the children of people around her and says she tries to befriend such children.

She is capable of metacognitive thinking, recognising appearance/reality distinctions and different perspectives on the same events. She understands that her own understanding has changed. She explains that her mother has also changed and put her life together. She is assigned the category of F4b because her account conforms better to that description than to F1a. As in F1a she has had a harsh upbringing with attachment figures, has apparently reevaluated and deliberately redirected her life and has sought out alternative parenting figures, but F1 implies more of a putting aside of thinking about attachment, closer to Dismissing, than F4. An F4b transcript can have incoherence and confusion in places because of some preoccupation with attachment related experiences, in this case very negative experiences, but in the end she can talk about most of her story with a mature acceptance of others' weaknesses and herself as having been treated in a way that no child should have to endure.

What support is there for the classification of Unresolved/disorganised but with secondary Secure/Autonomous classification from the other instruments that Tess completed? (See Table 7.8.)

Table 7.8. Summary Scores for Tess

Demographic:	Under 30, with partner for six months, unplanned pregnancy
Cognitive development:	
Reflective Function:	3 (below average)
Integrative Complexity:	3 (average)
Ego Level:	E4 (Conformist – below average)
Sense of Coherence:	97 (very low)
Verbal Ability:	16 (low)
Metacognitive monitoring:	2 (below average)
Education:	No school qualifications
Personality:	
Resiliency:	not available
Undercontrol:	not available
Her partner rates her:	Resiliency 0.12 (below average) Undercontrol: -.10 (very low – so highly controlled?), he rates her as self-aware, arty
Social Desirability:	21 (high)
Self-Esteem Time 1:	5.47 (low)
Depression:	very high at each point
Experience of Motherhood:	74 (high stress)
Self-Esteem Time 3:	4.92 (low)
Attachment Security:	.64 (below average)
Attachment Independence:	.42 (above average)
Attachment Profile:	B-secure tending to Avoidant



S = Warm and cuddly	Secure
T = Cooperative	Secure
U = Enjoys company	Secure
V = Independence	Avoidant
W = Attention Seeking	Secure
X = Upset by separation	Secure
Y = Avoids others	medium Avoidant
Z = Demanding, angry	Secure or Avoidant
D = Moody, unsure, unusual	Secure

The prenatal assessments altogether lead to the prediction that this mother would find becoming a parent very difficult. It could be assumed that the extent of her difficulties would depend on her social supports, and there were clues that these were not very reliable. Her Experience of Motherhood score indicates she is very stressed. This is in concordance with the very high EPDS score at the same time, which triggered contact from the researcher, who found she had recently had a second child. Checked a year later, this mother had married the father of the children, the children were doing well, they had good housing, she was surrounded by friends also with children, and felt her life was going well.

So this mother had real reasons for high depression scores at Time 1 of the research, and at Time 3. It is difficult to predict how her overall level of insecurity will ameliorate within a more stable relationship, which itself will be challenged by what the parties bring to it, and in respect of the developing personalities of the children. It is good to see that although her child's security score is low in relation to others in this sample, it is not really low on the profile. The AAI offers the information that she is able to be reflective about how others think and feel, and that she has learned from experience to take more care with her own safety.

Cannot Classify CC

Some transcripts cannot be fitted to any of the organised attachment patterns nor fit the guidelines for Unresolved with regard to loss or trauma. The CC classification is not intended as a place to put difficult to code transcripts. It is meant to be used for when a "text demonstrates a striking or unusual mixture of mental states (Hesse, 1996, 1999a, 1999b)" (Main et al., 2002, p. 187). It is assigned when there is no overriding pattern or two evident but conflicting patterns, and sometimes passages that are classifiable as U also.

Penny's Story (#7, CC/E3a/Ds3a)

One transcript has the feel of a Ds state of mind because of cool emphasis on hating mother and favouring father and no good examples of interactions, although there is no idealisation, nor derogation, nor involved anger. When she was almost three, because of an accident with her father coinciding with the birth of a sibling, she was sent to live with grandparents. About a year later she came back and

she says now that she did not know then who her parents were. Throughout her childhood her mother was the breadwinner and the father cared for the three children. So the scene is set according to attachment theory for a major separation to lead to an insecure relationship with parents, and subsequent events did not counteract that. How she has appeared to address this sense of dislocation is to find significant events to offset what seems to be a rather depressed personality. The story she tells is filled with high drama, and danger, against the backdrop of unsympathetic and non-supportive parents. Seemingly traumatic episodes are told with no breakdown in discourse. These sound like often told stories, and indeed may be the result of counselling through her high school years (for depression she says), and possibly recent counselling now that she is pregnant and has “escaped” from a drug-addicted boyfriend. There is a sense of the Ancient Mariner’s compulsion to tell the tale in detail and pleasure with the opportunity to have another person to hear the tale. The life-threatening experience told about is not consistent with responses to subsequent questions. The E3 coding is given to represent the intrusion into the interview of her frightening experiences with the boyfriend and feeling of abandonment by her parents, not to any obvious fear-inducing experiences with her parents.

The Reflective Functioning coding was summarised at level 1, with four examples of low level mentalising. Clearly she is still at a stage where knowledge of others’ minds depends on what they say. Her own mind interests her but so far she cannot reflect on it. She accepts what others say about it.

For complexity there was one statement that appeared to be differentiating and leading towards an integrating idea, but the sense of it was inconsistent with other aspects of the interview. She may indeed “bottle things up” and may not talk about emotions, but the striking thing to the coder was that the dramatic story presented had a life of its own which may have been to hide the real emotions.

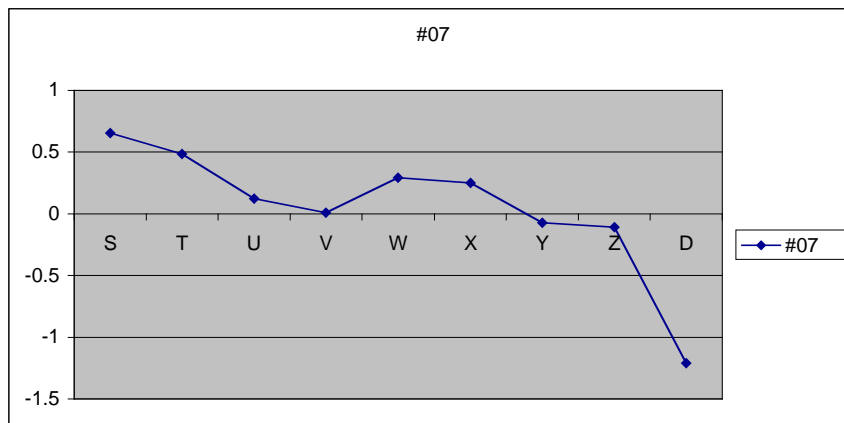
Right... So in general, how do you think your overall experiences with your parents affected your adult personality?

Um I tend to bottle up a lot of things, um and I got told by a doctor that that’s why I was having to see a counsellor right through school because I wouldn’t talk about anything to anybody, and because you know at home emotions weren’t things that you talked about. You didn’t show emotions, and so that was what entered in sort of you got to high school and that is what you did you sort of hid everything (nose blow). (1.312)

What support is there for the classification of Cannot Classify/E3/Ds3a from the other instruments that Penny completed? (See Table 7.9.)

Table 7.9. Summary Scores for Penny

Demographic:	Well under 30, no partner now
Cognitive development:	
Reflective Function:	1 (very low)
Integrative Complexity:	1 (low)
Ego Level:	E6 (Conscientious – above average)
Sense of Coherence:	135 (below average)
Verbal Ability:	17 (low)
Metacognitive monitoring:	1 (low)
Education:	some secondary school qualifications
Personality:	
Resiliency:	.20 (high)
Undercontrol:	-.32 (highly controlled??)
Self-assessed:	as protective
Social Desirability:	15 (below average)
Self-Esteem Time 1:	7.79 (above average)
Depression:	above cut-off point at T1, halved at T3
Experience of Motherhood:	41 (stressed)
Attachment Security:	.68 (below average)
Attachment Independence:	-.04 (below average)
Attachment Profile:	B with ambivalent tendencies



S = Warm and cuddly	Secure
T = Cooperative	Secure
U = Enjoys company	Medium Secure
V = Independence	Medium Secure
W = Attention Seeking	Medium Insecure/Ambivalent
X = Upset by separation	Medium Insecure/Ambivalent
Y = Avoids others	Secure
Z = Demanding, angry	Neutral
D = Moody, unsure, unusual	Secure

The prenatal scores for attachment as well as the other measures, could be interpreted as saying that this mother would have difficulty adjusting to parenthood. The demographic information by itself would say that a relatively young single mother would have more difficulty than older partnered mothers in adapting to motherhood. So the less than positive appraisals at 15 months are not surprising. She has care of the child all the time so that would contribute to stress. However, her depression scores indicate she is a long way from as distressed as she was when she was first interviewed.

An interview coded as CC signals that the person does not have a consistent strategy with which to respond to attachment situations. That implies that the perceptions of this young mother need to be looked at with interest but with the recognition that how she appraises things may be very different to someone else's. Of all the many assumptions that this research is engaged in, the information from an individual such as Penny must be accepted as tentative. Of course, more information needs to be collected about changes in Penny's circumstances in the 17 months since the interview. One would hope that she has found a stable place and person to support her and her child. Perhaps she has found her parents to be more supportive than she expected. Perhaps the challenges of being responsible for another human being has created the conditions for her reflective capacities to be developed. Attachment theory does not predict that Penny will remain insecure with regard to attachment for the rest of her life. It does predict that this child will be insecure while the mother is so insecure. The several telephone calls conducted with Penny always found her bright and positive, claiming everything was going well. Alongside her responses to Time 3 instruments these claims seem hollow but keep the researcher unable to interfere.

Attachment Classification and Category Description

7. Do attachment classifications conform to the category descriptions in individual cases?

This question is asking whether the variables assessed on measures other than the AAI reflect characteristics of individuals that fit the AAI descriptions of categories. These cases were selected from those who also completed the questionnaires when the infants were fifteen months old and they do fit with category descriptors well. As can be seen from examining Appendix 14, it was more likely that

those in the Secure/Autonomous group mentioned no negative events that would affect attachment in childhood, but in the case studies are two who had some disturbance. They were included to demonstrate how the way they could talk about those troubles was characteristic of the category description for F – Secure/Autonomous. The three individuals who were classified as F – Secure/Autonomous with respect to attachment (“freely valuing attachment while apparently objective”) also fit the description of “autonomous” as being self-regulated and feeling positive about themselves. They showed themselves to be “autobiographically competent” (Holmes, 1992), being able to acknowledge positive and negative aspects of themselves, their parents and their circumstances in a way that made their stories believable. Each of these individuals made reflective statements that showed that they valued relationships despite reporting family relationships that were not optimal. They did not gloss over difficulties or show themselves to be still immersed in those memories.

Most of the Dismissing classifications for this sample were Ds3 (“Restricted in Feeling”). Childhood was not a topic they wanted to talk about. They also showed indications of avoiding seeking memories of the past when pushed to by the interview questions. Ruth’s narrative was of a child who did not get enough love, in competition with siblings for attention from a mother who was too busy. As an adult the relationship with her mother was “completely fine”, but illustrative anecdotes were lacking throughout the interview. Paul’s discomfort with the topic meant that he was more motivated to demonstrate how independent he was from an early age. He said very little that could be coded for Metacognitive Monitoring or Reflective Functioning. Karl told a story of having a fairly tough family life that led him into situations that he now handled better. His father leaving when he was young was referred to several times but with no acknowledgment of feeling and no reflection on how that had had an effect. He made several comments about his mother and stepfather which showed that he cared for them but he also joked about them in a way that was hard to distinguish disparagement from humour. Throughout there was a tone of discomfort with closeness but perhaps a yearning for it.

The Preoccupied classification is given to transcripts where the interview has asked about experiences with parents in the past, but it is clear that this is a topic that continues to live in the present. Two examples of E1 – where passive speech makes each response endless and barely meaningful, were not used as examples. The example provided is E2 where the story told is believable but the recollection of

incidents causes emotional responses of hurt and anger that makes monitoring of the requirements for an interview difficult. This young man has spent a great deal of time in rumination about the effect of his experiences as a child but has still to reconcile the ambivalence felt for a mother who was experienced as loving but perhaps too much so and a father who was sometimes warm and attentive and other times expressing out-of-control anger. This case may be an illustration of Labouvie-Vief and Mellor's (2002) finding that if the ability to integrate is not present, high complexity is likely to result in dysregulation.

As can be seen in Appendix 14, all those in the Secure/Autonomous group were not as stressed at the assessment point when they had had fifteen months of experience as parents as those in the insecure groups. But the person with the least stressed score is Dismissing. This in itself does not conflict with the theory, because it has already been noted that Dismissing people are inclined to present an idealised picture.

Looking at the distribution of scores in the other variables that were shown to be associated with attachment category (see Appendix 14), it can be seen that there are two in the Secure/Autonomous group whose cognitive development scores do not look as if they are as consistent with the decision to assign them to the Secure group. Reviewing the transcript of one indicates that this was a difficult one to classify but it was decided it was not really Dismissing. What makes it understandable that this was a difficult decision for the coder is the context of the pregnancy for this young woman. She was very much in need of her parents' support at this time, and trying hard to sound positive about a sad situation. The other apparently doubtful case is an immigrant mother, so cultural difference and language use may have confounded the coding.

Different Types of Cognitive Development

8. Is cognitive development a significant feature of Coherence of Transcript and does it distinguish between attachment categories?

This section discusses the coding for different types of cognitive complexity and the relation of each type with the others and with the attachment classification. (See Appendix 14 for further examples). If in the coding of the AAI a

script is assigned to the Secure/Autonomous category rather than an Insecure category, could that be because the individual who was interviewed demonstrated a higher level of cognitive development? Does having a lower level of cognitive development as assessed by these instruments mean that an individual is not classified as Secure/Autonomous?

Ego Development

Ego Development is assessing overall maturity in concerns of importance of self measured by the Sentence Completion Test (Loevinger, 1998) (see Chapter 3). In this section the cases are examined based on high and low scores on the SCT to see how ego development is related to the other cognitive development scores and to the attachment classification.

E7: Individualist Stage. This stage is characterised by a differentiation of inner self and outer self, greater tolerance for individual differences, a particular concern for emotional dependence because relationships have become deeper. There is mention of people having different roles, and personality being importantly causative. These characteristics are not used in the description of a Secure/Autonomous person, but it would not be inconsistent for Secure/Autonomous person to have these characteristics.

Three of those who scored at this level were also participants at the end of the study, two fathers and one mother. For two of these parents the other measurements are consistent with the idea that Secure/Autonomous classification is associated with high cognitive development (see Table 7.10). But one father, classified as E2 Preoccupied, is not. His AAI transcript was rated as not coherent although there were signs of high awareness of other minds (Reflective Functioning), the generation of many ideas (Complexity) and metacognitive ability (Metacognitive Monitoring) (see Appendix 1). What the AAI coding distinguished was that he was not secure in himself. His personal autonomy was perhaps handicapped by increasing cognitive complexity which gave him more and different concerns to those he might have had if his ego level was lower. After all Loevinger makes no claim that higher levels signal better mental health (Kroger, 1989).

E3: Self-Protective Stage. This is the stage that is normal for children when they become capable of delaying impulses for immediate advantage. They see interpersonal relationships as exploitative, they will exploit others and will be wary of being exploited themselves. Hy and Loevinger (1996) note that although most adults get beyond this stage, there are probably many at this level who are operating successfully in normal society.

Table 7.10. High and Low Ego Development Scores and other Cognitive Scores

	AAI Class	Meta Coh	AAI Level	Ego	RF	Comp
Father	Fe3a/F5	7	8	7	9	5
Father	E2	5	4	7	8	5
Mother	F4b	8	7	7	9	6
Mother	Ds3b	1	3	3	4	3
Father	Ds3/Ds1	3	2	3	5	2
Mother	F4b	5	5	3/4	7	4
Mother	CC/E2/Ds1	4	3	3/4	3	3
Father	F4/F2	3	5	3/4	4	3

As Table 7.10 shows, in this sample there are two at E3 and three who are on the cusp of 3 and 4. The two who were assigned to E3 are both Dismissing, and this fits with the hallmarks of the Self-Protective stage. On the whole the other measurements support the idea that they have not reached sophisticated levels of thinking. It looks as if the mother classified as F4b on the AAI with an RF score of 7 and Metacognitive Monitoring score of 5 is rather more able to think at a higher level than the other mothers so perhaps she would be better assigned to the E4: Conformist stage.

Looking at the ego level results of individual cases indicates that the method of assessing higher levels of ego development is beset by the same problems that scores for Metacognitive Monitoring have: because some people are so wordy in their responses they are likely to produce more mature type sentence completions as well as apparently reflective statements that get scored for metamonitoring. So, ego level assessment, as a single measure, is not adequate to assess “autonomy” as it relates to the AAI coding, or to “security” as it relates to the state of mind that is protective in times of stress, that is, health-promoting. None the less as has been shown in Chapter

Six, Ego Level scores contribute shared and unique variance to the scores for Coherence of Transcript.

Reflective Functioning

For Reflective Functioning or interpersonal sensitivity and ability to articulate awareness of other minds, a score of 9 means Full or Exceptional RF according to the coding manual (Fonagy et al., 1997). To be scored as having more than “marked” examples of reflectiveness, there needs to be an appreciable level of complexity, especially in consideration of emotionally charged passages. The manual states that “The most common justification for an “exceptional” rating is the apparent full awareness of the subject of important aspects of mental states of all the protagonists within an interaction, where the protagonists are placed in relation to one another in terms of their feelings and beliefs and these are sufficiently complex and elaborate for the rater to be convinced of their accuracy” (p. 30).

As can be seen by the scores in Table 7.11 for those scored as Exceptional (9) there are many examples of complex thinking supporting the RF score. The score constellation of the Preoccupied father is explainable by the theory behind AAI coding (see above).

Three transcripts were coded with an RF of 1, signalling that reflectiveness is absent. Any mentalising statements that appear are judged to be banal, illogical, misapplied or contradictory. However, despite the examples in Table 7.11, low RF does not mean insecure classification. Of the four cases scored at 2 for RF, three were classified as Secure/Autonomous and one as Dismissing. So Reflective Functioning when examined case by case also is not sufficient to distinguish both autonomy and security in the AAI.

Table 7.11. High and Low Reflective Functioning Scores and other Cognitive Scores

	AAI Class	Meta Coh	AAI Level	Ego	RF	Comp
Father	F3/F4	7	8	7	9	5
Mother	F4b	8	7	7	9	6
Mother	F3a	5	6	6	8	5
Father	E2	5	4	7	8	5
Father	Ds1/Ds3b	3	4	5	1	1
Father	Ds3b/Ds2	1	3	5	1	4

Mother	CC/E3a/Ds3a	1	2	6	1	2
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Two transcripts were not rated for Reflective Functioning because they were so rambling and unfocused that searching for scoreable passages for the AAI classification or the other measures became intolerable. Neither of these participated in the research after the interview. However, the significance of reflective functioning as an aspect of a parent that would have an impact on the environment of a child became highlighted. The cognitive development of a parent may be irrelevant if that parent's communicative competence is so low. Both these parents were obviously kind and hardworking and were looking forward to being good parents. The effect on the cognitive development and the security of children in such an environment demands study.

Conceptual and Integrative Complexity

Conceptual/Integrative Complexity is concerned with the ability to differentiate and integrate ideas. Knowledge and interest in a particular field influences the engagement with thinking about it. In this study the field is parental relationships and how they might influence development. One mother, who has also appeared as a high scorer above, was scored as 6 (see Table 7.12). This is described as providing “multiple levels of schemata. The alternatives at this level are dynamic... expressed as plans, processes, or course of action made up of several moving parts...” (Baker-Brown et al., 1992, p. 415). There were several statements that gained her this score but since they are about the situation of her parents' divorce they are not quoted here. Seven parents were given scores of 5 because of some explicit expressions of integration, alternative perspectives or dimensions held in focus simultaneously and viewed interactively. Six of these were classified as Secure/Autonomous and one as Preoccupied.

Table 7.12. High and Low Conceptual/Integrative Complexity and Other Cognitive Scores

	AAI Class	Meta Coh	AAI Level	Ego	RF	Comp
Mother	F4b	8	7	7	9	6
Mother	F4a	1	5	5	2	1

Mother	F1b	1	5	5	2	1
Father	Ds1/Ds3b	3	4	5	1	1

Three parents were coded 1 which is described as Categorical – all or nothing thinking, often flagged with the words “always” and “never”. These parents are classified as F4, F1b and Ds1/Ds3b. Many Secure/Autonomous transcripts were at 2-Transitional because they made some statements that showed that they could see the potential for things to be viewed differently but did not offer explanations of what the differences might be.

The ability assessed by this measure, to generate ideas, perceive different perspectives, and hold in mind ambiguities and inconsistencies and think about them, is clearly a developing skill in adulthood. Increasing levels may improve problem solving flexibility and the competence level in the workplace, but may be less relevant to interpersonal competence than the cognitive measures of ego development and reflective functioning which seem to relate more directly to what it is that a parent offers the developing mind of a child. The Coherence of Transcript scores of those with scores of 1 for Integrative Complexity shows there may have been some difficulty in deciding whether the transcript was sufficiently coherent to support the assignment to secure or insecure category. If the scores on the other cognitive development variables are appraised it can be seen that these people with their low Complexity score may be on a developmental cusp. They are operating at a “good-enough” level as an adult, the median, modal level for adults regarding ego-level. At the beginning of the transition to parenthood they could have the foundations for rising to the challenge of parenting, or they might find it a really difficult adjustment. These scores suggest that although they may cope with the practical tasks of parenting, they may not yet have the skills to appreciate the developing mind of the child and its needs.

Summary

From the examination of the high and low scores on the main cognitive development measures used in this project, in relation to their classification from the Adult Attachment Interview, a pattern emerges. Those who score highly on these cognitive development measures are likely to be classified as Secure/Autonomous. The exception that has appeared in this sample is a highly complex thinker who is classified as Preoccupied. While it is likely that high scorers on the Reflective Functioning and

Ego Level measures will be rated secure and low scorers insecure, this is not so with Conceptual/Integrative Complexity. An individual who did not make differentiations and integrate ideas as specified in the coding manual in the interview can have a high score for Coherence of Transcript and therefore be classified as Secure/Autonomous. A deduction derived from the theory on which the AAI is based is that a Secure/Autonomous individual can offer a child cognitive skills that are conducive to care, attention and sufficient conditional responses to become a secure base for a child. The present data tells us that a Secure/Autonomous parent is not necessarily a complex thinker. However, further research should be conducted into the sorts of thinking skills that are “good enough” for “good enough” parenting.

The next chapter will discuss the issues that this research has raised, what has been uncovered so far, and what needs to be done next.

CHAPTER EIGHT

DISCUSSION

If AAI coherence is not necessarily equivalent to secure attachment, how then does one account for the predictive potency of AAI classifications particularly in predicting infant attachment status? (Eagle, 2006, p.1089)

At the end of Chapter Four the aims of this research project were listed. The first was to give some New Zealand parents expecting their first baby the opportunity to think about how well they were prepared to become parents, a life event that is always a significant challenge. In particular, being asked to think about how the experiences they had in childhood with their parents affected the person they have become is thought to trigger further thinking and perhaps initiate an important topic for communication between the two expectant parents at the beginning of their transition to parenthood.

One area of research into learning, that of cognitive development built on Piagetian concepts, promotes the idea that developing thinking processes depends on the exercising of thinking and in particular the engagement with problem solving. Expertise requires practice in the field of knowledge. Understanding the minds of others and oneself requires trying to make sense of the minds of others and one's own motivations, and to attend to one's own successes and difficulties with understanding. Perhaps asking prospective parents to traverse their own memories about how it felt like being parented as they were would allow those who had not done this previously to make the leap from thinking of parenting from the perspective of a child to understanding how their parents parented as they could because of how they were, and if they themselves were to do better it was because they could be aware of how their own behaviour and attitudes would be viewed by their own child. This therefore is a parenting education intervention that is presented at a critical moment (Havighurst, 1972, cited in Sheehy, 1976), a moment when learning about this should be most salient and completely depends on whether this finds a response in the individual. If a response is triggered, the individual, or better still, the couple, will engage in further thinking about how they best can become the sort of parents a child needs. Whether or how this learning opportunity was responded to, however, was not being researched; rather this provided the justification for asking young couples to be generous with their time and their private thoughts at an important time in their lives.

The Adult Attachment Interview (George et al., 1985; Main et al., 2002) provides the situation in which this type of reflective thinking can be elicited, as was first endorsed by Steele and Steele (1994). This is the chapter that was the motivation for me to begin to investigate the possible links between the minds of parents and the developmental opportunities of their children. That it might be parents' minds and the ability to provide an emotionally secure base that could be the "cultural capital" that made the difference to educational achievement and health outcomes of children, rather than income or books in the home, made sense to me and the attachment researchers, but did not seem to have much endorsement from other social scientists.

The second aim of this research was to investigate whether it is mature cognitive development that is primarily what the Adult Attachment Interview recognises that leads to the classification Secure/Autonomous. That required a sample of adults to be interviewed with the AAI and concurrently assessed with a number of instruments that purportedly measure different ways of thinking that might relate to greater competency of thinking, better regulation of emotion, lack of defensiveness and overall sufficient maturity to be responsible parents.

First in the following discussion is acknowledgment of some of the methodological issues of this as a research project. Then what was found from examining the data derived from the many measures is discussed, in the order of the research questions as reported in Chapter Six and Chapter Seven. Comment will be made on what has been learned about the measures from using them. However, the main discussion will be about what this project can tell us about the concepts of coherence, autonomy and security and how the state of mind regarding attachment is important for adult competency as parents.

Issues Concerning this Research

There are issues of method, procedure and analysis which need clarifying before discussing the findings of this research. Some of the issues were anticipated and are discussed in the introduction and methodology chapters, but others arose through the research process.

Sample Size

A difficulty with research using the AAI is that it is expensive and time consuming. Large enough sample sized projects can only be undertaken with considerable funding and a team approach. Research based on the “gold standard” attachment instruments has never been supported by funding organisations in New Zealand. With this project there was no funding support and no experienced team available. Just the same the topic and the method deserve to be explored in New Zealand. This project does test the effectiveness of a number of instruments with this type of subject in this context, and provides an opening for more rigorous attachment research in New Zealand.

It was anticipated that an invitation to couples to volunteer to be interviewed in the period just before their baby was due and followed up later might have few motivated enough to accept. Many antenatal classes were visited to gain forty volunteers, some of whom were too young to fit the sampling criteria. The recruitment of volunteers stopped in order for another 16 or 17 months to elapse for parents to be able to give feedback on their transition to parenting. At the point of stopping recruitment it was obvious that the sample was inadequate for complex statistics, but on the other hand there were participants who varied considerably on demographic variables, so there was promise of a range of attachment representations and cognitive development levels which could be examined closely to test the individual cases for concordance with adult attachment theory in general, and in particular of the coding criteria of the AAI. Within the sample were cases that allowed attention to be given to features of attachment theory as they can be seen in narratives of New Zealanders. Apart from providing a rich collection of data to contribute to a greater understanding of the implications of attachment theory, these narratives provide pictures of childhood in New Zealand from about 1970 onwards and the attitudes and values derived from that period.

Research Design and Procedures

It is difficult to answer many questions that arise from attachment theory in a strictly experimental research design and using instruments such as the AAI and the Strange Situation. Getting sample sizes large enough for rigorous statistical analysis has been a constant problem. This is why it is more common to find that adult attachment research uses self-report instruments because these can be used with other

self-report instruments to discover individual differences that can cause systematic variation in outcomes. However, since those instruments do not have the ability to predict Strange Situation attachment behaviours that the AAI has, it is the AAI that needs to be studied to find out what it is that does give it that power.

Since the measuring instruments used in this project consist of those which require qualitative analysis procedures as well as quantitative, it can be argued that the epistemological justification of both types of instruments is inconsistent. This inconsistency is the basis of controversy between scholars working within different paradigms but in this case the intention is to use the two methods in order to find what each can say about what it is that is being assessed in the Adult Attachment Interview. Quantitative, positivist approaches are used when dealing with numbers such as how many in the sample claim to have had loving mothers in childhood, and the differences between people with loving and unloving mothers. The relationship between variables via correlations can help us appreciate how different variables can be tapping something of the same thing, although in this case sample and cell sizes limit detailed investigation. Some statistical analyses are used however to test whether there are relationships between the variables derived from these different types of instrument.

Research using self-report questionnaires can produce sufficient sample size for instruments to be reported as reliable and validly measuring what they are supposed to measure. Such instruments often assume that such notions as “loving mother” are unambiguous and that “measurement error” will account for the misconstrual by some respondents of the meaning of items. However, the AAI coding and other qualitative ways of rendering data into themes or variables, require a discourse analysis/narrative methodology which finds the subtleties of meaning. The systematised coding, training and testing for reliability of coding of these instruments are attempts to persuade doubters that the data derived from these methods is as objective as that from psychometrically engineered questionnaires. In this research the different methodologies are perceived to be approaching the phenomena of interest differently, not better or worse.

The qualitative coding systems such as for the Sentence Completion Test (Hy & Loevinger, 1996) and the AAI accept that there will be a range of responses from one individual, some of which may be contradictory. Scoring systems such as that for the Sentence Completion Test and Reflective Functioning scale (Fonagy et al., 1991) take into consideration when arriving at a single score that the “level” score is a

summary of a range. This is in contrast with the expectation that many scores on Likert scale questionnaires or forced-choice instruments are an accumulation of responses that places the score as a definite quantity of something or in a specific place in a sequence. The scores derived by both methods are used in statistical analyses as if they are reliable measurements. The point being made here is that scores derived by “standardised” questionnaires are often considered by many authorities as more valid than scores derived from the “subjective” interpretations of discourse materials. In this research, the scores derived from both measures are used as if they are valid and reliable measures at least for the time when gathered, and their validity is examined in relation to each other. When trying to understand what is being said in interviews and how it is being interpreted by a standardised coding system, it is informative to put the various systems alongside each other. Therefore the value of this project is not in it being able to provide findings about causation, or even about correlation that is generalisable beyond the sample from which it is derived, but because of the consistencies and inconsistencies that might be discovered in different ways of gathering data about the same general topic.

Findings from this Project

Distribution of AAI Classifications

There are considerable similarities between the findings of this research project and those of the early psychometric examinations in the UK, USA, the Netherlands and Israel. In these early studies, recruitment of parents gathered healthy, relatively well-educated married parents. Later studies recruited various at-risk samples such as adolescent mothers and parents seeking welfare assistance. The expectant parents who volunteered for this project happen to provide a useful cross-section of the New Zealand population of new parents but cannot be said to be a representative sample. This sample tends towards better educated, presumably more motivated cases who were mostly in stable relationships. Some volunteers who were lost before the interview were potentially interesting cases because the initial questionnaire results had aspects about them that suggest future difficulties with parenting. The final sample consisted of parents who were mostly of European inheritance but there were other groups represented as in the New Zealand population. What differences in attachment

representation there might be within the different cultural groups in New Zealand is a question for future research.

Demographic Characteristics and Attachment Category

Previous discriminant validation research had shown that the AAI measures something that is distinct from personality, parental care, intelligence, cognitive complexity, social desirability and social adjustment (Crowell & Treboux, 1995). In the present research, analysis of variance finds that there are no significant differences between groups with regard to age, gender and socioeconomic status, as in some research, but has found there is a link between attachment category and education level ($F = 4.94$, $p = .014$, $n = 31$) and number of negative life events ($F = 3.68$, $p = .04$, $n = 31$).

To test whether age was related to the gaining of maturity the relation of cognitive development variables and age were examined. Because of the findings of Labouvie-Vief (1984) and others who had found that few people under the age of thirty are likely to demonstrate the ability to be post formal thinkers or have “affective-complexity” it seemed likely that those classified as Autonomous on the AAI might be those who were more cognitively mature, whether or not they were over 30 years of age. An age-related link was found for Antonovsky’s Sense of Coherence and Baker-Brown’s Integrative Complexity, variables that have not previously been used in connection with the AAI, and scores for which correlated significantly with Coherence of Transcript. However, other variables such as ego development which were intended to measure more mature levels of thinking did not show this age difference. Perhaps this is in keeping with Loevinger’s findings that ego development has measurable changes during adolescence but seems to reach a plateau in young adulthood, with only gradual measurable change from then on (Labouvie-Vief, 1984). However, it is important to note that the age distribution of ego levels between attachment groups in this sample were virtually identical thus failing to support hypotheses that age or ego level might be an adequate measure of maturity.

Most of the sample had good health, few negative life events and loving care from at least one parent, so the high proportion of cases classified as Secure/Autonomous is to be expected. Health problems and the presence of major life disturbances are none-the-less to be noted in individual cases (See Chapter Seven).

Experiences of Parenting and Attachment

Using the Parental Bonding Instrument (Parker et al., 1979) and the AAI, two very different ways of assessing how each participant views the care he or she received from parents or caregivers can be compared. We find only moderate levels of agreement about the relative amount of care experienced from parents as measured by the Parental Bonding Instrument and the scales for experience from the AAI. There are significant positive correlations between AAI Loving and PBI Care scores and negative correlations between AAI Rejecting and PBI Care, but the Overprotective scales have little relationship to the AAI scale scores.

What must be noted is that all except one of the individuals classified as Secure/Autonomous had above average scores for AAI Loving Mother and PBI Mother Care and 75% had AAI Loving Fathers as well, but only 50% had above average PBI Father Care scores. Eight out of ten of those who were classified as Insecure experienced Rejection and none were scored for having had a loving father. Here is evidence that for this sample experience of parenting has a very high element of differentiation between security and insecurity regarding attachment.

The Parental Bonding Instrument has been used in recent research as an attachment measure despite it being found early on that it did not have the power to predict how a person might parent, as the AAI does. PBI scores have been shown to be consistent with maternal postnatal behaviour and with postnatal depression and so are legitimately measures of parental acceptance-rejection (Crockenberg & Leerkes, 2003). Examination of the use of the PBI in research indicates that often it is only used to assess memories of parental warmth (Mallinckrodt, 1992) since the parental overprotective scale seems to have had little explanatory power on latter-day behaviours and disorders (e.g., Difilippo & Overholser, 2002; Luecken, 2000) and even as a measure of parental care it is inadequate in comparison to self-report or non-standard attachment measures (Gerlsma, 2000). The dimension of Care on the PBI is conceptualised to run from loving to rejecting. The AAI allows for there to be indices of both loving and rejection to be scored for the same individual, so retains more detailed information about memories of the past.

The mean scores for this sample for both the Mother and Father Overprotection scales seem very low compared to that found in previous research, especially for the men (e.g. Mallinckrodt, 1992, whose men's score for Father Overprotection is more the 3.5 times that of this sample, and more than twice the score

for the original main sample on which the PBI was constructed). This indicates cultural differences, since it is probable that parenting practices will be different in New Zealand, and indeed the import of the items may be interpreted differently by the respondents. It may be that New Zealand parents tend towards less restrictiveness, more freedom from parental control, and this is what is remembered.

On the other hand, it is worth considering that the dimension of Over- or Underprotection, which is usually held to mean over- or undercontrol, has been found to contain two dimensions, intrusiveness at the individual level and restrictiveness in the social context (Martin, Bergen, Roeger, & Allison, 2004). This may provide us with an aspect of parenting which stretches beyond infancy that does have a potential impact on the gaining of autonomy of the individual and might therefore be relevant to the coding of the AAI. It links to a concept that is only now emerging as requiring research. The early research was focussing on what behaviours a parent offered an infant in order for the attachment of the infant to be shaped by the parent's state of mind regarding attachment. As it has become clear that attachment organisation can be modified by later experiences of relationships that were different to the original primary model, other aspects of parenting should be considered as relevant, as the German longitudinal research has shown (Grossmann, Grossmann, & Waters, 2005). The attachment pattern that parents offer new infants is likely to also influence the way they might parent the children as they grow older. Whether or not the parent *did* protect, even if that was seen as being overcontrolling, could have contributed to attachment security (cf. Garbarino, Kostelny, & Barry, 1997, who showed that over-controlling parents were also desirably protective in high-risk environments).

Whether too the parent was restricting in the encouragement of autonomy in the child is also relevant. Here it is important to remember how theorists and researchers might get confused by the ambiguity of "autonomous" as discussed in Chapter Two. It is perhaps possible for a highly protective parent to provide security around the encouragement of exploration, intellectual curiosity, and initiative that will facilitate the development of autonomy. A self-report questionnaire may not deal with the issue of ambiguity in the meaning of autonomy, whereas in the coding of the AAI such information will add to the evidence evaluated for coding of changes in parenting in childhood, adolescence and the present, and the ability of the interviewee to provide a believable picture of parenting received, free of idealisation or involved anger.

Just the same, it would be a worthwhile exercise to review the value of including “restricting or encouraging autonomy” as a scale for the AAI coding manual. This would have implications for attachment different to “Pressure to Achieve” although it might turn out that these two concepts might be difficult to differentiate from interview discourse unless specifically probed. Similarly, it has already been shown that intrusiveness is at the opposite pole to sensitivity in caregiving and is associated with insecure attachment with children and memories of parenting that did not encourage autonomy (Kretchmar & Jacobvitz, 2002). Sensitivity and intrusiveness are not assessed with the AAI, but how a parent talks about how the parenting received affected their development seems to be a demonstration of the presence of competencies that should lead to parenting practices which will encourage autonomy, rather than push for independence which would lead to avoidant/dismissing representation, or stifle initiative and self-management leading to ambivalent/Preoccupied attachment patterns.

Personality Characteristics and Attachment Category

Of particular interest is the relationship between attachment styles and [personality disorders], given that personality refers to enduring patterns of thought, motivation, emotion, emotion regulation, impulse regulation, and interpersonal functioning, and attachment is related to all these domains. (Westen, Nakash, Thomas, & Bradley, 2006, p.1067)

This quotation by Westen et al (2006) highlights the interest in exploring the extent to which attachment may be an “enduring” characteristic or a mediating influence. Westen was addressing the issue of the value of the use of attachment assessment in clinical practice and found that attachment characteristics are related to particular disorders in meaningful ways. He was not necessarily implying that attachment representation is as enduring as other aspects of personality might be, but that is an issue that will remain contentious for a long while yet.

When this research was being planned it was expected that there would be an association between depression and self esteem as “state” conditions and resiliency, control, locus of control and social desirability as “trait” or relatively stable characteristics. In the present data Depression at Time 1 and Time 3 are not normally distributed with most participants acknowledging few depressive symptoms, and one participant rating very highly each time, thus distorting statistical generalisations. With that in mind, it is notable that Depression at Time 1 is significantly negatively

associated with Self Esteem ($r = -.50, p = .007, n = 27$) and also at Time 3 although the sample size had dropped to 18 ($r = -.59, p = .01$). Overall, the personality variables assessed at Time 1 are not related to attachment characteristics. Only Self Esteem at Time 3 correlates significantly with AAI category.

Internal Locus of Control similarly is associated with Depression and Self-esteem, correlating positively with Self-esteem at Time 1 ($r = .59, p = .001, n = 26$) but not at Time 3, and negatively with Depression at Time 1 ($r = -.49, p = .01, n = 26$) and Time 3 ($r = -.50, p = .04, n = 17$). Social desirability is not associated with any of the personality scores, although it approaches significance with the CAQ Resiliency score. These scores are as would be expected from previous research. Neither Locus of Control nor Social desirability correlates significantly with AAI Coherence.

Resiliency and Undercontrol. There has been considerable research with a number of instruments to find whether personality is associated with attachment category. The most recent research investigating this was Roisman et al. (2007) who were checking out the previously found associations of AAI attachment categories with the self-report instruments and the Big Five personality traits. They used Kobak's Q-sort to code the AAI into two dimensions. Avoidance and anxiety respectively were associated with the traits of extraversion and neuroticism, and security marginally with conscientiousness and extraversion.

The decision to use Block's California Adult Q-sort in the present research (see Chapter Four) was based on the conceptual similarity of his description of the resilient individual to the Secure/Autonomous individual (Block, J., 1971), to the conceptual continuity, if not stability of personality styles from preschool to adulthood (Block & Block, 2006b), and to the fact that it has previously been used with the AAI by Kobak and Skeery (1988). In that research individuals were scored on the CAQ by peers and resiliency proved to be significantly different across attachment groups. In the present research individuals scored themselves and their partners, but in the end there were too few partner scores to make use of them.

Overall Block's CAQ Resiliency score is the most disappointing of variables used in this research that might have an observable relationship with attachment category. Reading previous research it seemed likely that it could become a proxy for a range of constructs to do with psychological health or positive adjustment and therefore be a useful score to contrast with Secure/Autonomous attachment and

Antonovsky's Sense of Coherence. It is a variable that conceptually should not correlate significantly with Block's description of the Control dimension. Low "control" signifies too much control leading to brittleness, lack of adaptability, whereas high control signifies lack of self-regulation, impulsiveness. It is somewhere in the middle that control is a desirable, or effective, personality feature. Yet (Under)Control and Resiliency were significantly and positively correlated ($r = .56$, $p = .001$, $n = 29$). Resilience was negatively associated with Depression at Time 3 ($r = -.69$, $p = .002$, $n = 18$), as was Control ($r = -.50$, $p = .035$, $n = 18$). Although Resiliency correlated significantly with Sense of Coherence ($r = .55$, $p < .01$, $n = 27$) and Health ($r = -.42$, $p < .05$, $n = 28$), neither Resiliency or Undercontrol correlated significantly with Coherence of Transcript or Attachment group.

These results have to be considered as perhaps unreliable in comparison to results from other uses of the CAQ. It has mostly been used with several observers sorting the items to describe individuals, and the relationships found with various measures of adjustment and personality are therefore perhaps the result of how a personality appears to others. In the present case individuals assessed themselves. This was intentional, since it provided another insight into how these young adults wished to represent themselves, although it was also intended that self-scores would be compared to partner scores. Research that came out later than the decision for this research (van Bakel & Riksen-Walraven, 2002) had parents assessing themselves and they found that resiliency was the only characteristic that related to other parental characteristics and quality of parenting. However, the correlation coefficients in the present research tell us there is little connection between the CAQ dimensions and attachment group when the assessment instrument is the AAI. They do tell us that Resiliency is positively related to Health and Sense of Coherence, the other "health" dimension. Since Sense of Coherence is a self-report questionnaire and the health score is simply a rating out of three, the congruence of these scores around the notion of health which are derived so differently, is reassuring. We can say however that lack of health does not contribute much to the distinction between attachment groups or to whatever is significant in the coding of the AAI. This research, that of Roisman et al. (2007) and that of van Bakel and Riksen-Walraven (2002) is indicating that self-report attachment measures and self-report personality measures are likely to show links, whereas the "observer"-coded AAI may require an observer-assessed personality measure to be able to show links between attachment category and personality.

Impulse control. Impulse control was intended to be a variable extracted from Loewinger's Sentence Completion Test, where those assigned to the Preconformist group would be considered low in impulse control, which would be considered counterproductive for adaptation to parenthood. As it happened those who were assessed as Preconformist tended to drop out early so the contrast could not be examined. Since the Conformist level has been considered to be the level which included the median group for adults – E5- Self-Aware - it was expected that most of the sample would assign themselves to that group, and this was the case. However, having ego-levels beyond Conformist did not necessarily contribute to higher level scores on other cognitive dimensions or predict attachment group.

Overall, the data from this sample provided no indication that assignment to attachment category or Coherence of Transcript had much to do with personality. It did however provide evidence that the personality qualities clustered around the construct of Resiliency were associated with Health and the other health variable, Sense of Coherence.

Cognitive Development Variables and Attachment Category

The main question in this research is whether the Secure/Autonomous category is potentially a measure of cognitive maturity, an achieved ability to be able to think in more complex ways, thus enabling better understanding of self, of self in relationships, and to be able to appreciate the developing understanding and desires of a child. The evidence gathered here provides some important insights, and also requires examination of the instruments used.

Metacognitive Monitoring and Coherence of Transcript. First, taking into consideration that attachment category is arrived at by considering Metacognitive Monitoring and Coherence of Transcript, that is, assessing the thinking expressed during the conduct of the interview, the mean scores of these two variables in the three attachment groups verify that the scores are significantly higher for the Secure/Autonomous groups compared to the insecure groups. Although the correlation between Metacognitive Monitoring and Coherence of Transcript is significant ($r = .42$, $p < .05$, $n = 30$) there is obviously a lot of non-shared variance. Other cognitive variables

suggest other types of thinking demonstrated in the AAI that might contribute to the assessment of coherence.

Verbal Ability and Education. The early validation research for the AAI thought that Verbal Intelligence and level of Education might be variables which would have an effect on performance in the interview, but most research found that they were not significantly related to attachment category or Coherence of Transcript score (Crowell et al., 1996). In this research, Verbal Ability was assessed with a standardised IQ instrument but not using standard procedure. The Secure/Autonomous group had a higher mean level on both Verbal Ability and Education than the insecure groups but the difference between the Secure/Autonomous and Dismissing groups was small. The significant difference between groups for Education and Attachment category ($F = 4.94$, $p = .014$) was because of the contrast with Group 3, the most insecure group. Group 3, small though it is, contains those who have apparently had the most emotional conflict in their lives, and also physical and sexual abuse. That this would interfere with education is not surprising.

It makes sense that education would be an influence on how well a person can display thinking within an interview. That there was no association in the early research suggests that the range of education levels in those samples may have been too narrow. More recent attachment research which is being conducted with different population samples such as specified clinical or at-risk samples has found links to education (e.g. Riggs & Jacobvitz, 2002).

A more important consideration, however, is to note that attachment theory is used to explain why children who are securely attached are advantaged, or protected, by that status. Securely attached children are described as being free to explore, to be able to turn their attention to getting to know and take initiatives in the world, knowing that there are reliable adults watching over them and available if they need help or protection. This therefore enables them to take better advantage of their educational opportunities than their classmates who need to devote attention to maintaining physical and emotional safety. It would be expected therefore that adults who are classified as Secure/Autonomous will either have been continuously secure or will have gained autonomy by virtue of a variety of adaptive personal characteristics or the support of someone other than parents to whom they were not securely attached. Consequently they may have achieved educationally because of continuous support

from caregivers, or from challenges to their cognitive development that they have benefited from. Research on resilience (as distinct from Block's resiliency; e.g., Fonagy et al., 1994; Luthar, Cicchetti & Becker, 2000; Vaillant, 1993) supports the attachment theory explanation. Support from caregivers contributes to achievement but also challenging experiences with caregivers can foster depth of understanding of interpersonal and intrapersonal interactions that can enhance resilience.

In the early validation research it was possibly thought important to show that attachment representation as displayed in the AAI was NOT something to do with education or other intellectual competencies, that it was assessing emotional, relational security, but the later research which was tracking development of children previously assessed as infants on the Strange Situation was finding that there were educational advantages for children who had been assessed as secure. The present research as well as previous research is attesting to the robustness of the AAI as an assessment of attachment representation, even if it also shows that Secure/Autonomy in adulthood is more likely to be associated with higher educational qualifications and a more health-promoting, more "salutogenic" as Antonovsky would call it, childhood environment. It is the exceptions to these that make the AAI an important instrument.

Two out of six of this sample who have post-graduate professional degrees were classified as insecure – one Dismissing and one Preoccupied. All those with less than high school qualifications (4) were insecure. Three out of five whose highest qualification was University Entrance (completion of high school in New Zealand) were insecure. So having the ability to gain higher educational qualifications does not provide the ability to feel comfortable and secure with regard to intimate relationships, but an individual with education beyond secondary school level is more likely to be classified as Secure/Autonomous on the AAI.

Ego Development as Maturity. Previous research created the expectation that Ego Development would have correlations with many of the variables explored in this study and so be useful in understanding the construct of Coherence of Transcript. It was not significantly related to AAI Coherence, nor to Metacognitive Monitoring nor any of the other cognitive variables except Education in bivariate correlations. If entered into a multiple regression with Reflective Functioning together they contribute 24% to the Coherence of Transcript variable. With Sense of Coherence, Ego level contributes 32% to Coherence of Transcript. With Education in the regression Ego

Level drops out. This amount of overlap with education may be telling us that education should be considered not so much as an accrual of information, but, if assessed according to levels of qualifications gained, as representing the opportunity to engage with more ideas at progressive levels of complexity. If education was measured by number of years of schooling perhaps this developmental association with education would not be seen

The Secure/Autonomous classification was expected to be associated with Ego Level as an explicitly developmental assessment, a representation of the outcomes of experiences which allowed the acquisition and practice of more mature skills to take responsibility for one's own actions and become more alert to the thinking of others and multiple influences in people's lives. This research shows that the Secure/Autonomous group on average are more sophisticated than the others, but not as much as might be expected. In fact, two of the most insecure cases scored very high on the SCT. (These are not the same two who are insecure with high education qualifications)

This finding is a valuable one because it points to one of the reasons that developmentalists suggest as a mechanism for progressing cognitive abilities, and one that informs the thinking about why individuals who have had a difficult time growing up can demonstrate a high level of autonomy in the AAI. If people have challenges to overcome they will grow – if they are not overwhelmed by their failure to cope with the challenge (Labouvie-Vief, 2008). Those basically insecure people who have scored highly on the SCT may have spent much time and effort ruminating on the troubles in their lives, and be keen to express themselves on the SCT and in the interview. They are consequently writing relatively sophisticated sentence completions on the SCT but are then found to lack coherency in the interview.

None of the personality measures relates to Ego Level. These findings support the efficacy of the AAI with regard to evaluating state of mind, and are evidence of the discriminant validity inherent in the assessment of coherence. At the same time it does not negate the efficacy of the SCT to tap into ego development. It does suggest that ego development, like education, requires a level of maturity in order to be coded for attachment autonomy, but higher levels are not more likely to contribute to attachment security.

Conceptual/Integrative Complexity and Reflective Functioning.

Complexity, Reflective Functioning and Metacognitive Monitoring each correlated

positively and significantly with each other, but although RF and MM correlated with Coherence of Transcript, Integrative Complexity did not. The reliability of the scoring for each of these by the one coder on the basis of the same interview transcript may be seen to be a weakness of this research, however, there should be no doubt that there is a pattern emerging in these intercorrelations. The different instruments are not assessing the same aspects of thinking, but some latent factor of cognition is influencing the scores on the different instruments.

Exploratory factor analysis. Overall, exploratory factor analysis of the cognitive development scores provides a summary of the underlying factors that makes sense of the data from this sample. The first factor contains Coherence of Transcript, Metacognitive Monitoring, and the overtly developmental variables, Ego Level, Reflective Functioning and Integrative Complexity, the scores from which represent a progressive sequence, and indicates that Coherence of Transcript and Metacognitive Monitoring are developmental variables too. The second factor has Sense of Coherence and Education which can be characterised as the accumulating of knowledge and skills along with the confidence and competence that they might produce, and the third is positive Verbal Ability, interestingly along with negative Coherence of Transcript. So, here there is evidence that cognitive maturity is a factor that is being reflected in the coding of the AAI. But this project has to conclude as did the earlier studies – attachment classification is not associated with intelligence or verbal ability. However, neither can the hypothesis that AAI coherence is accounted for by assessing levels of complexity in thinking be supported by this data. The trend is there but it needs testing further with more and larger samples.

Attachment Classification and Parenthood Experience

The intercorrelations of many of the variables assessed before the baby was born, the AAI with parenting received, personality resiliency and cognitive development, all signal that the clues are there early that point to how well a parent will adapt to parenthood. Assessments when the infants were 15 months produced only one variable that relates statistically significantly with the antenatal variables, Experience of Parenthood, stress. Stress was lowest for those most satisfied with their partners' support at Time 1 and for those who were high on Antonovsky's Sense of Coherence.

Stress levels were higher for those cases included in the most insecure group than in the Secure/Autonomous and Dismissing groups.

Stress levels in the parents seem to be independent of the parents' evaluations of their children's temperament and their attachment behaviours from the evidence of correlations. Small and uneven cell sizes for attachment groups meant that differences between means were not significant for this sample, but the mean scores fit meaningfully into attachment theory. A Dismissing parent is much less likely to see their child as Difficult than a Secure parent, and a very insecure parent is likely to have a child rated more Difficult than a Secure parent. A similar pattern occurs with ratings for attachment security. On the other hand, these results show that a Secure parent is likely to rate their child as more independent than the other parents, and the most insecure will perceive their children as least independent. Just the same, in this sample these parents have judged their children to be relatively not difficult and to be securely attached.

If further research were to be conducted the Experience of Parenthood as an assessment of parenting stress is recommended. In this, as in previous research, it has shown good construct validity. Few in this sample showed they were feeling a lot of stress and dissatisfactions with being a parent but there was enough variation in the responses to suggest that they were considering how to rate each item realistically. The temperament measure, *Rothbart Infant Behaviour Questionnaire – Revised* (IBQ-R: Rothbart, 1981) although carrying a strong reputation for reliability and validity, may not be the best measure for 15 month old children. Rothbart and her team have been constructing different instruments for different ages of children. This instrument seems better suited to younger children. Quite a few items were marked by parents *Does Not Apply*. Any temperament measure also must be considered indicative only because of the lack of consensus about whether parents or trained observers produce the most accurate data. There is some mutual support for the IBQ-R and the Attachment Trilemma. Attachment Security correlated significantly and positively with Soothability and negatively with Difficult. Considering that the attachment patterns of all the children fitted the typical secure pattern that means that similar appraisals were being made through two different instruments focussing on different aspects of a child's behaviour. However, with this sample, the Attachment Trilemma has not provided an outcome measure that will substitute for the Strange Situation procedure for

demonstrating the transgenerational transmission of the attachment representation of the parent.

There were no significant differences for the parenthood variables and Coherence of Transcript and only one significant difference - between attachment group and the stress measure, Experience of Parenthood. This is an important finding, nonetheless, especially since this variable also overlaps with significant scores in the other groups of variables that distinguish attachment groups – including Education, Mother Care, Resiliency and Sense of Coherence.

Individual Narratives

It has been recorded by philosophers and psychologists that the human brain has evolved to find that stories are memorable and meaningful ways to store and access complex information (Bruner, 1990; Gardner, 1983). Research into human “expertise” in many fields has shown that those whom Pierre Bourdieu (1977) called “virtuosos” are those who “operate on the basis of intimate knowledge of several thousand concrete cases in their areas of expertise. Context-dependent knowledge and experience are at the very heart of expert activity” (Flyvbjerg, 2006, p. 222). The story summaries in the case studies in Chapter Seven are selected and given as examples to provide descriptions of recognisable people to demonstrate the meaningfulness of attachment categorisation from which the reader can assess the answer to Research Question 7. *Do attachment classifications conform to the category descriptions in individual cases?*

One of the virtues of narrative research is that it allows the recounting of stories alongside one another so that similarities and differences may be discovered. In much qualitative research the task of the researcher is to find the themes and discuss their import. The AAI coding system has already found the different forms of stories that characterise attachment interviews. In this research we are operating in the other direction. The interviews are coded according to the system and then the stories are told so that others can see how they fit the theory. This is a legitimate form of theory testing. Is there evidence here that these New Zealand cases fit the patterns that emerged initially from North American research?

As can be seen from the cases in Chapter Seven the stories revealed and the characteristics of each individual as assessed by the other instruments used do on the

whole converge forming clusters that fit the themes of the different attachment classifications and sub-categories. What they should provide evidence of is that stories of positive or negative experiences of parenting received do not assign individuals to attachment types, but how they can talk about them does. As psychotherapists can attest, it is necessary to listen for both the “narrative truth”, that is how individuals understand their story, and to the production anomalies, the repetitions, prioritising of features, use of words and images that provide clues to another story (Spence, 2003).

What we cannot tell is the extent to which these cases might replicate the findings of similar patterns in their children if the attachment relationships were assessed by the Strange Situation. What we can discern is how these different patterns might be starting points for different pathways. Those classified as Secure/Autonomous when they were expecting their first child tell stories that can be interpreted as showing that they are better equipped for parenthood than those who are not secure. That they are likely to be less stressed when their infants are 15 months old is some sort of corroboration. Those who were classified as insecure before the baby was born have signalled by means of the attachment Trilemma that their relationship with their child is somewhat further removed from the prototypical secure infant profile than those classified as secure, despite the probable bias towards the positive that would be expected from parents in this sort of research. The child temperament and attachment scores are the parents’ responses, not scores derived from observations, but asking for their perceptions. They require the gaze to be on the child rather than the parent, yet we expect that evaluation of the child will be intimately connected to sense of self as a parent. These scores are meaningful in relation to the assessment instruments and in relation to the individual stories which provide context.

Parental State of Mind as a Pervasive Influence on Family Context

This research has set out to tap into the feelings and beliefs of parents in the transition to parenthood. Some of their responses are direct answers to questions which are taken at face value. Other information is derived indirectly and this may or may not be knowledge available to the individual. Attachment research has become important because it is a biopsychosocial theory and so acknowledges the ongoing significance of context and the dynamic interaction of multiple variables that constitute the context in which a child is growing. Finding some constancies or continuities in the context in which a child is growing is necessary to enable us to describe and interpret

what might be happening for an individual child. Attachment research found that how a parent handles an interview about how he or she had been raised provided a way of describing the relationship quality that that parent would have with the child that was yet to be born. The child might have another resident parent and other family members from whom to learn about security and the working of other people's minds. But as has been noted in previous research, the relationship of the child with the principal caregiver is likely to be the experience that is most influential in the child's learning about how important, and safe, they are in the world.

From this sample at the end of the interview we learn that it is the mothers who expect to be the principal caregivers and fathers expect to have the responsibility of earning money to support the family. We learn too that fathers expect to have their sleep disturbed by the new baby and that the baby will take up a lot of time so their previous lifestyle will be changed. From Time 2, we learn that indeed the mothers are the principal caregivers and take most of the responsibility for decisions about the care of the child, even if several of the fathers have taken on some routine tasks of caregiving and also read to the child or play when they can with the child. How the father relates to the child in these windows of opportunity where he is establishing a relationship with the child will be influenced by his history of experiences of care himself, as revealed in the responses to the AAI. How he sees himself as a father will be shaped by the past as well as the present context in which there are many intersecting influences; beginning immediately with the new infant and then over time, with characteristics of the infant, the relationship with the mother, the way the mother allows him to share time with the child and take responsibility for the tone of the context in which the child is living and experiencing the world. With only seven fathers in the final sample this could not be teased out.

From this small sample it is possible to see that how involved a father might become with his child is not likely to be determined by his attachment state of mind alone. Some of the fathers were in occupations which took them away from their families for months at a time, so mothers had to take full responsibility. Other families arranged things so that the fathers were required to do child care with the mother absent. Contextual influences provide opportunities and constraints on how much time a father can spend in sole care of his child.

Responses at Time 3 came from seven couples, four mothers who had partners who did not participate in the research, and two single mothers. It seems that

one father may have been spending as much time with the toddler at 15 months as the mother since both worked and the child had been in part-time childcare for some months. One child had been in childcare for some days a week and in family care for other days while the single mother worked. In three families another baby had been born before the first was 15 months old. Three families had fathers in the armed forces who may have been away for 6 months in the period before the child was 15 months old. With the one exception, the tone of the Time 3 responses was that mothers were the caregivers and child spent most of his or her time at home with mother.

Five parents had high enough scores on the Experience of Mother/Fatherhood Scale to be called stressed at Time 3. There were external reasons for some of these. Two had been single mothers all the time, one was in the process of separating from the partner at Time 3. One couple were in difficulty at Time 1, had had a second child, and both scored “stressed” at Time 3 but with some positive indices at that time.

From the Time 1 interview, thirteen of the parents were classified as F – Secure/Autonomous, four as Ds – Dismissing, one E2-the resentful type of Preoccupied, one Unresolved with regard to Trauma, with F4 as the secondary category, and one Cannot Classify. Four couples were both classified as F, one was an F – Ds combination, and two both had Insecure classifications. These last two couples were finding parenthood stressful, clearly more stressful than other couples and even the single mothers.

The stress level of parents was not related to their rating of their children’s temperament, but examination of individual cases suggests that there is a link. An attachment theory perspective would expect to find that couples who are both insecure would find the demands of parenting greater than secure couples. Not only is their couple relationship likely to be insecure, but they also are likely to find it difficult to recognise that they need help and then ask for it. Perhaps the child has a more difficult temperament because of prenatal stress and/or because the parents who are stressed perceive the child to be more difficult than he or she would be to unstressed parents. The single mother classified as CC and the mother who is F3/F5 are the only other participants whose stress scores approach those of the two insecure couples. These AAI classifications may be providing evidence for medical research claims that prenatal stress levels in mothers affect the babies in utero. Insecure mothers are likely to be in contexts where they will be stressed, and after the babies are born they will

continue to carry with them the state of mind about attachment that will influence the relationships they have with the infant, their partner and any other people who might be around who might have provided care and support.

Can we find that the insecure parents have other characteristics which support the negative implications of the AAI classification that are not found in those who are secure? First, with the small sample of Dismissing classifications, do they have other characteristics which enables them to be described as “deactivating”, finding few episodic memories from childhood, valuing self-sufficiency and independence, suspicious of emotional displays, normalising or idealising what seem to be difficult or disengaged parents? Ruth who is described in Chapter 7 may have had a too busy mother and felt left out amongst siblings. Paul implies that his parents were caring but his father’s partiality for his brother may have alienated him when very young. Karl lost his father when young and may have been shuffled around to various family members for care when still young, leaving him with a strong sense of being off on his own and surrounded by tough customers who cannot be trusted to care for him. The other mother classified as Dismissing came from another culture where childrearing practices and the pressure for both parents to work could be said to be a situation where the social construction of an avoidant/dismissing attachment relationship is adaptive. In each of these cases it can be seen how the context shaped the child who is now the parent to cope with the context in which they were growing. That they are now willing to go to antenatal classes and also to volunteer to participate in this sort of research is a sign that they are intending to be better parents for their child than they perceive their parents were to them.

There was only one person who remained in the final sample whose interview was classified as E. He seems to have had the conflicting situation of a perhaps too devoted mother and a father who blew hot and cold, very warm and interactive sometimes but also having very angry outbursts. This continual uncertainty with regard to father has had long-term consequences that he is very aware of. We can hope that his superior intelligence and education level will give him the tools to deal with his feelings in order to build secure relationships with his own partner and child.

The mothers who were coded as CC and U/ F are concerning at different levels. Because attachment theory would predict that their children are likely to be Disorganised, it could be said that there is an ethical requirement to do something for those children and their mothers. In these cases mothers were asked whether they

would like access to further support, and were given opportunities several times to have long talks about how they were doing. Once the data gathering and coding was completed these mothers were visited to give them a gift. They presented themselves as doing fine. This is where the ethics of research come to a logical conclusion, but an emotionally unsatisfactory one. An ethic of care says these mothers and their children need ongoing support, but we also have to respect the mothers' right to manage their own affairs, and acknowledge that so far they seem to be coping well.

Comparing Metacognitive Monitoring, Coherence of Transcript, Reflective Functioning and Integrative Complexity

All these variables are coded from the AAI. Each of them was coded by the same coder. The need to have different foci required for coding these different features has proved to be an interesting exercise in itself. First comes the assessment of Metacognitive Monitoring which is recorded on the coding sheets for each AAI transcript (see Appendix 3a). Examples of metacognitive monitoring are underlined in green so that they can be found easily when reviewing the transcript. In the margins are noted whether this is an example of self-correction of something said or other evidence that there is fresh thinking and reflective thinking occurring. It may be an example of Flavell's (1979) theory of mind, metacognitive thinking as described in the AAI coding manual. The examples in the AAI manual are only a few of the possible aspects of thinking that are included in the assessment of Reflective Functioning.

When assessing Reflective Functioning there is an extensive list of possible ways that can be judged to be evidence of thinking about other minds, others' perspectives and the influences of thinking on interpersonal behaviour. To manage this, relevant passages were extracted and collected under the heading of particular types, scored together and at the end, scores returned to the transcripts (see Appendix 4). There the number and range of scores were evaluated to arrive at a final score. While doing this it is apparent that there is obvious variation in use of Reflective Functioning by individuals. The summary score from -1 to 9 is arrived at by a similar method to that of the AAI coding and so comparison is facilitated. The correlation of scores for Metacognitive Monitoring and for Reflective Functioning is strong ($r = .72, p < .01$) for the entire sample and higher for women only. If time spent coding is considered, the original metacognitive monitoring assessment might be considered adequate. However, if coding for Secure/Autonomous was dependent on the Metacognitive Monitoring

score, only a third of those coded Secure/Autonomous would have been correctly classified, whereas two-thirds would have been correctly assigned by the Reflective Functioning score.

It is apparent when coding for Metacognitive Monitoring and Reflective Functioning that some adults are reflecting at a sophisticated level. This raises the questions, are these more sophisticated thinkers more likely to be classified as Secure/Autonomous than less sophisticated thinkers, and, can this level of sophistication be assessed by some single criterion. There is a difference between noting the presence of reflective thinking and assessing the level of sophistication present. This was why the Conceptual/Integrative Complexity coding method was used in this study. It was the only method found which it could be argued was suitable for use with interview discourse not specifically designed to elicit advanced thinking skills. The way the coding system is constructed parallels other ways of conceptualising levels of logical thinking such as Kitchener and King's Reflective Judgment (King & Kitchener, 2004) and Loevinger's levels in coding the Sentence Completion Test. However, as it happened, this was more difficult to use with the transcripts from this sample. It was suspected that the potential level of many of the participants was far from being assessed adequately because of the topic of the interview. The interview was asking about the reasons for family interactions and behaviours, and there may be certain cultural prohibitions into going into too much detail about such personal things. It is possible too that going into too much detail would have transgressed Grice's maxim – be succinct, yet complete. Several codeable passages stopped before the explanation was worked through completely, thus preventing what seemed to be leading to a more sophisticated explanation. Just the same there were strong correlations between Integrative Complexity and Reflective Functioning ($r = .71, p < .01$) and Integrative Complexity and Metamonitoring ($r = .59, p < .01$) for the entire sample and, again, higher for the women only. However, although Reflective Functioning and Metacognitive Monitoring were significantly correlated with AAI Coherence, Integrative Complexity was not. Labouvie-Vief (2000) commented that if the ability to integrate was not present, high complexity is likely to result in *dysregulation*. With regard to attachment classification, only one case where the Integrative Complexity score was 4 or above was not classified Secure/Autonomous, but that too is not conclusive because equal numbers classified as Secure/Autonomous were under and over the score of 4 on Integrative Complexity.

Labouvie-Vief and Medlar (2002) had something else to say that is relevant to the link between attachment classification, coherence, cognitive development, education and to the present findings:

Rather than looking at education as a variable to be covaried, we would like to suggest another possible perspective of the role of education to our affect complexity construct. In our view, education is an intrinsic process variable involved in complex affect regulation, causing the correlation to be more theoretically significant. From both a cultural psychology and a neurobiological perspective on development, the importance of education to complexity makes strong theoretical sense. This is because education is one of the most important cultural means by which individuals adopt tendencies toward reflective awareness and critical thinking (Baumeister, 1989; King & Kitchener, 1994; Luria, 1976); furthermore, the development of the kinds of inhibitory and regulative functions that are involved in affect complexity are strongly influenced by formal processes of education (e.g., Schore, 1994). Thus, many theoreticians now suggest that education is part and parcel of certain developmental processes — especially ones related to intellectual functioning (p. 582).

These intercorrelations provide evidence that the ways of thinking that people are bringing to the Adult Attachment Interview are all engaged in influencing how they cope with the nature of the interview, a conclusion that will surprise no-one. However, the argument behind the AAI is that individuals who are capable of talking about memories of childhood and of interpersonal interactions with people handle the topic of their experiences with their parents differently – according to the nature of their attachment relationships and their present state of mind regarding close relationships. The question for this research was whether there is evidence of a level of thinking that can be summarised as mature, post-formal thinking, and then, did such a level point to Secure/Autonomous classification by virtue of the other coding system, the AAI coding of Coherence of Transcript. This variation in the levels of thinking assessed by these different conceptions of complexity compels us to accept that the AAI coding does assess maturity of thinking, but also something other than maturity of thinking. It seems that the awareness of minds as assessed by Reflective Functioning is the strongest cognitive variable, but that it fails to account for the abstract notion of Coherence of Mind that is captured in the Coherence of Transcript. Coherence of Mind

is perhaps what Labouvie-Vief was referring to with her discussion about “integration” being necessary in association with affective complexity. “Integration” however as assessed with the Integrative Complexity scale is looking for the integration of several ideas or perspectives under a superordinate notion. That is not the same as Coherence of Mind or integration in relation to affective complexity. The Coherence of Transcript score which is almost always the same as the Coherence of Mind score is a summary of the notion of “security” along with a certain level of cognitive development which contributes to “autonomy”.

Coherence, Autonomy and Security

The feature of the AAI that makes it different to other psychological assessment instruments (noting that other instruments of this type are now being created for clinical purposes, see Chapter Two) is that it is coded with a standardised coding system on criteria that are mostly based on narrative analysis rather than content analysis. Essentially transcripts of the interviews are classified according to compliance with the construct of “coherence” which is based on Grice’s (1975) maxims for rational conversation. In Chapter Two, this concept of “coherence” is explored in relation to other uses of the term in discourse analysis, everyday use, research, and as it is assessed in the AAI coding system. That discussion leads to the conclusion that the quality that “coherence” in a speech act is apparently capturing in these different approaches, is a state of mind that can be called “healthy” or at least “health-promoting”. Not being “coherent” is generally accepted to indicate a disturbance of mind, maybe minor or temporary, but also possibly “unhealthy” or “at risk”.

Main, George, Goldwyn, and the AAI development team gave the name “Secure/Autonomous” to the attachment category for interviews deemed to be coherent. At first glance, the links between “coherence”, “security” and “autonomy” are not obvious. When the concept of “autonomy” is deconstructed and emphasis is placed on the version that allows autonomy to be consistent with a mature identity, agency and an orientation to close relationships, rather than an individualistic desire for separateness, it can be seen that “autonomous” is indeed an appropriate title for what the AAI category “Secure/Autonomy” is looking for via the coding of “Coherence of Transcript”. There is a deal of literature which also uses the concept of “autonomy” *in relationships* as a sign of a “healthy” rather than “at risk” state of mind.

So what is meant by “secure” when talking about an adult? For a child, “secure” is held to mean a particular relationship that an infant has with a caregiver who has been reliably available, consistent and sensitively responsive so that the child expects care and protection if worried or sick and supportive interactions in the day-to-day exploration of the environment. Attachment theory holds that an adult too needs to have an attachment figure, but this figure does not need to be older and wiser nor constantly available. Parents might continue to be an adult’s attachment figure, but more usually it is expected that there will be a shift to another adult. Who the attachment figure of an adult might be has been explored (George & West, 2001; West & Sheldon-Keller, 1994) and although the attachment figure is often a partner or spouse and adult attachment is analogous in some aspects with children’s attachment to a caregiver, it is assumed that adults also may have internalised their sense of security, presumably derived from their experiences of security in childhood, and can be secure without having an available attachment figure. Crowell, Treboux, Gao, Fyffe, Pan, and Waters (2002) have investigated what “secure base” might mean for adults. The social psychologists investigating the phenomena associated with “romantic attachment” continue to find ways that adults with different attachment styles are likely to behave when worried or sick or in need of support (e.g., Shaver, 2006). These aspects of adult attachment require more research which will also contribute to a better understanding of what is important about the attachment classification of a parent in the creation of the relationship with a child.

Research using the AAI was not concerned initially with how secure attachment might manifest itself as an adult characteristic. It began by establishing a link between the type of discourse (“coherence”) in a mother’s interview and the classification given to the relationship that the behaviour of a non-verbal toddler gave evidence of in the observation procedure called the Strange Situation (Ainsworth et al., 1978). Over more than two decades this link has been examined. The present project is another attempt to test and observe what it is that “coherence” is manifesting. Because “coherence” is seen by many to be a sign of “autonomy”, the ability to be a mature, actively self-managing person, this thesis has been examining whether this ability has something to do with cognitive development and has been finding evidence that it does.

The other important dimension of attachment classification is “secure” versus “insecure”. The nomenclature does not have a category that is insecure/autonomous or secure/non-autonomous. Are these patterns impossible with

current definitions? What might a person look like who fits one of these patterns? After considering these questions in relation to the cases studied in this sample, it seems that the word “secure” in the title is telling us that such a person may or may not be in an intimate relationship that satisfies the need for attachment, but this person IS sufficiently autonomous to manage links to others that are valued and to offer to others reliable support. Such a person may be secure in the sense of having an unquestioned expectation of support from one or more family members or friends, if needed, but feels competent enough to manage alone if necessary. More importantly perhaps, that person will have what others call a sense of identity that is accepting of self and tolerant of others, so that they offer others a reliable and comfortable person to be connected to. The term used for parents of secure infants comes to mind – sensitive responsiveness. A “secure” adult has a way of being that eases relationships with others, whether these others are specifically in their care or not. So this use of “secure” is also linked to the notion of being relationally inclined, socially adaptive or “healthy”, more particularly “psychologically healthy”.

“Insecure/autonomous” would possibly be describing some Dismissing people, those who are agentic and self-managing, but avoidant of close links to others, suspicious of others’ demands. “Secure/non-autonomous” individuals could be those who have not achieved maturity milestones which enable them to be fully functioning adults, but just the same have no reason to doubt that they will be taken care of. With these considerations in mind, it can be concluded that the words “secure” and “autonomous” are indeed capturing what it is that a child would ideally need from the principal caregiver in order to feel the world is a safe and interesting place.

In the case studies examples with Secure/Autonomous classification, all three value relationships but none of them voices concern about whether parents are available if needed. There is a sense that they think that they are better able to cope than their parents were. There is an expectation that they will cope, that help will be available if needed, but they are not looking for it. Two of them seem calm, secure in themselves or their relationship, one more cautious. It is this relative ease talking about the topic that conveys the sense of “security”. This aspect could not be assessed in a self-report measure.

The other quality, or characteristic that can be assessed by interview, this interview especially, is the cognitive competency of the individual being interviewed. There does need to be a certain level of communicative competence that is dependent on

a certain level of cognitive development. The two E2 transcripts brought home how extreme passivity is antithetical to communication. It is too hard to find the message in the repetition and vagueness. One of these it turned out had a reading problem. Neither did the Verbal Ability test. Cognitive competence does not have to mean intelligence as measured by IQ or achievement tests but that these two both dropped out of the project after the interview may have been to avoid the other questionnaires. We don't know whether such parents can be "good enough" despite their classification as insecure by means of the AAI. Even testing that would be difficult since they both had wives who would have been the principal caregivers for the children and for their children's fathers as well.

In previous research it has been shown that in a community sample more than half are classified as Secure/Autonomous. In different sorts of risk samples, insecure groups predominate. There are sample selection issues obvious from this research. The community samples are likely to be those who are thoughtful, agentic, socially-oriented and cooperative enough to volunteer for research. There should be a larger proportion of Secure/Autonomous in the sample. Risk samples should have predominantly insecure individuals. They could be possibly immature, and handicapped in various ways from participating competently in society. Attachment theory and the underpinnings of the AAI would fail to be supported if such distributions were not found. The sample who volunteered for this project are mostly Secure/Autonomous, and those who were not classified as Secure/Autonomous are insecure in ways that can inform us about the meaning of these concepts.

Summary

This research has provided the opportunity to make use of the Adult Attachment Interview with a variety of other instruments. The data gathered has provided support for long-held common-sense beliefs about the origins of parenting, that good parents produce children who become good parents. It also provides examples of attachment theory's contribution to this topic, that bad parenting does not have to lead to bad parenting if an adult has become a reflective and autonomous thinker.

Although previous research has found little connection between attachment representations and personality measures, it was thought that perhaps the

typology of Block's (1971) the personality dimension of resiliency would capture something similar to attachment organisation. The self-assessment of this did not produce the expected outcome.

It was also thought that Loevinger's Sentence Completion Test (Loevinger, 1976) which is still producing research results that indicated that it was assessing aspects of cognitive development, personality reorganisation and self-identity understanding that signify what is thought to be progressively more mature, in industrialised, European societies at least, would perhaps correlate with Coherence of Transcript. This too was not strongly correlated itself with Coherence of Transcript, but was with other measures of cognitive development capturing something that the other measures did not measure.

CHAPTER NINE

CONCLUSION

This research project investigated the proposition that the level of cognitive development that is associated with mature adulthood is what is being assessed in the Adult Attachment Interview. The investigation was conducted in the context of a parenting intervention with New Zealand parents expecting their first child, which gave the parents the opportunity to think about how well they were prepared to become parents. In this chapter research conclusions are identified, implications are indicated and proposals are made for taking some of the ideas further in research.

Research Conclusions

The research conclusions are drawn from the findings of the quantitative analyses of research undertaken in this project, including the findings of those analyses comparing the correlations of cognitive, parenting, personality and parenthood variables with AAI Coherence of Transcript and AAI classification, and features of attachment theory as revealed in narratives of New Zealanders. These narratives provide pictures of childhood in New Zealand from about 1970 onwards and the attitudes and values derived from that period. These conclusions are:

- There are considerable similarities between the distributions of AAI classifications of the New Zealand parents in the present research project and those of the parents in the early psychometric examinations in the UK, USA, the Netherlands and Israel. A high proportion of cases classified as Secure/Autonomous. In the present research as in the early studies, recruitment of parents gathered healthy, relatively well-educated parents in stable relationships.
- In the present research, no significant differences were found between attachment groups with regard to age, gender and socioeconomic status, as in some research, but a link was found between attachment category and education level and between attachment category and number of negative life events.

- When the relation of cognitive development variables and age was examined, an age-related link was found for Antonovsky's (1987) Sense of Coherence and Baker-Brown's Integrative Complexity (Baker-Brown et al., 1992), variables that have not previously been used in connection with the AAI, and scores for which correlated significantly with Coherence of Transcript.
- For this sample experience of parenting has a very high element of differentiation between security and insecurity regarding attachment. Almost all of the individuals classified as Secure/Autonomous had above average scores for AAI Loving Mother and PBI Mother Care while most of those who were classified as Insecure experienced Rejection.
- Mother and Father Overprotection for this sample was very low compared to that found in previous research, especially for men. This indicates cultural differences, since it is probable that parenting practices will be different in New Zealand, and indeed the import of the items may be interpreted differently by the respondents. It may be that New Zealand parents tend towards less restrictiveness, more freedom from parental control, and this is what is remembered.
- Overall, the data from this sample provided no indication that assignment to attachment category or Coherence of Transcript had much to do with personality. It did however provide evidence that the personality qualities clustered around the construct of Resiliency were associated with Health and the other health variable, Sense of Coherence.
- Recognising that attachment category is arrived at by considering Metacognitive Monitoring and Coherence of Transcript, that is, assessing the thinking expressed during the conduct of the interview, the mean scores of these two variables in the three attachment groups verify that the scores are significantly higher for the Secure/Autonomous groups compared to the insecure groups.
- In this research, the Secure/Autonomous group had a higher mean level on both Verbal Ability (assessed with a standardised IQ instrument but not using standard

procedure) and Education than the insecure groups but the difference between the Secure/Autonomous and Dismissing groups was small.

- The present research as well as previous research attests to the robustness of the AAI as an assessment of attachment representation, even if it also shows that Secure/Autonomy in adulthood is more likely to be associated with higher educational qualifications and a more health-promoting childhood environment. Exceptions to these associations, including that two out of six of this sample who have post-graduate professional degrees were classified as insecure, show that having the ability to gain higher educational qualifications does not provide the ability to feel comfortable and secure with regard to intimate relationships and demonstrate the value of the AAI.
- This research found considerable overlap between ego level and education, but no significant relation with any of the other cognitive variables suggesting that education should be considered as representing the opportunity to engage with more ideas at progressive levels of complexity. None of the personality measures was found to relate to Ego Level. These findings suggest that ego development, like education, requires a level of maturity in order to be coded for attachment autonomy.
- Exploratory factor analysis of the cognitive development variables found evidence that cognitive maturity is being reflected in the coding of the AAI; analysis identified three factors, the first a complexity of thinking factor, the second a competency/knowledge factor and the third centring on Verbal Ability. But this research concludes as did the earlier studies that attachment classification is not associated with intelligence or verbal ability. However, nor does the research support the hypothesis that AAI coherence is accounted for by assessing levels of complexity in thinking although the trend is apparent.
- There were no significant differences for the parenthood variables and Coherence of Transcript and only one significant difference for parenthood variables and attachment classification that between attachment group and the stress measure, Experience of Parenthood. These results provide evidence that prenatal

attachment classification can predict whether a parent is likely to be stressed by parenting.

- Individual narratives showed that mothers expect to be the principal caregivers, and indeed are the principal caregivers, and fathers expect to have the responsibility of earning money to support the family. How involved a father might become with his child is not likely to be determined by his attachment state of mind alone, but also by his relationship with the mother and the way the mother allows him to share time with the child and take responsibility for the tone of the context in which the child is living and experiencing the world.
- Stress levels in the parents seem to be independent of the parents' evaluations of their children's temperament and their attachment behaviours from the evidence of correlations. However, examination of individual cases suggests that there is a link. The two couples where both parents had insecure classifications were finding parenthood stressful, clearly more stressful than other couples and even the single mothers.
- The present project has tested and observed what it is that "coherence" is manifesting through the Adult Attachment Interview. Because "coherence" is seen by many to be a sign of "autonomy", the ability to be a mature, actively self-managing person, this thesis has examined whether this ability has something to do with cognitive development and has found evidence that it does.
- The other important dimension of attachment classification is "security". In relation to the cases studied in this sample, it seems that the word "secure" describes a person who may or may not be in an intimate relationship that satisfies the need for attachment, but this person is sufficiently autonomous to manage links to others that are valued and to offer to others reliable support.
- The sample who volunteered for this project are mostly Secure/Autonomous, and those who were not classified as Secure/Autonomous are insecure in ways that inform us about the meaning of these concepts.

Implications for Practice

Implications for practice include:

- The intercorrelations of many of the variables assessed before the baby was born, the AAI with parenting received, personality resiliency and cognitive development, all signal that the clues are there early that point to how well a parent will adapt to parenthood.
- Assessments when the infants were 15 months produced only one variable that relates statistically significantly with the antenatal variables, Experience of Parenthood, stress. Stress was lowest for those most satisfied with their partners' support at Time 1 and for those who were high on Antonovsky's Sense of Coherence. Stress levels were higher for those cases included in the most insecure group than in the Secure/Autonomous and Dismissing groups.

Proposals for Future Research

This research puts forward the following proposals for further research to explore parenting in New Zealand using the Adult Attachment Interview and for research to further understand and develop the Adult Attachment Interview:

- This project tested the effectiveness of a number of attachment instruments with parents expecting their first child in New Zealand, and provides an opening for more rigorous attachment research in New Zealand. There is a need in particular for larger samples; in the present research the insecure groups were too small for robust statistics and few fathers were involved. Large enough sample sized projects can only be undertaken with considerable funding and a team approach.
- In the present research the final sample consisted of parents who were mostly of European inheritance. What differences in attachment representation there might be within the different cultural groups in New Zealand is a question for future research.

- The present research provides support for exploring further the notion that it is cognitive development that is a major component of what is being assessed indirectly with the AAI coding. Coherence of Transcript shares with the scores derived from cognitive complexity and awareness of other minds the factor of a continuum of thinking skills. It has to be recognised that these analyses are not well-founded because of sample size. The trend is there but it needs testing further with more and larger samples.
- It would be a worthwhile exercise to review the value of including “restricting or encouraging autonomy” as a scale for the AAI coding manual. This would have implications for attachment different to “Pressure to Achieve” although it might turn out that these two concepts might be difficult to differentiate from interview discourse unless specifically probed.
- Further research is needed on what is meant by “secure” when talking about an adult. Attachment theory holds that, as for a child, an adult needs to have an attachment figure but may have internalised their sense of security and can be secure without having an available attachment figure. These aspects of adult attachment require more research, which will also contribute to a better understanding of what is important about the attachment classification of a parent in the creation of the relationship with a child.
- Development of an observer-assessed personality measure may be necessary to identify links between personality and attachment category. This research indicates that while self-report attachment measures and self-report personality measures are likely to show links, the “observer”-coded AAI may require an observer-assessed personality measure to be able to show links between attachment category and personality.
- Stress levels in parents seem to be independent of parents’ evaluations of their children’s temperament and their attachment behaviours from the evidence of correlations. Small and uneven cell sizes for attachment groups meant that differences between means were not significant for this sample, but the mean scores fit meaningfully into attachment theory. For further research on this topic

the Experience of Parenthood as an assessment of parenting stress is recommended. The temperament measure, Rothbart Infant Behaviour Questionnaire – Revised (IBQ-R: Rothbart, 1981) although carrying a strong reputation for reliability and validity, may not be the best measure for 15-month-old children. Rothbart and her team have been constructing different instruments for different ages of children.

Summary

This research has provided support for common-sense beliefs about the origins of parenting, that good parents produce children who become good parents. It also provides examples of attachment theory's contribution to this topic, that bad parenting does not have to lead to bad parenting if an adult has become a reflective and autonomous thinker. The research found evidence that cognitive maturity is a factor that is being reflected in the coding of the AAI. This is very much in accord with the main thesis of this research.

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APPENDICES

Appendix 1.

Comparison of Developmental Sequences

	Piaget (1958) Cognitive Sensorimotor	Loevinger (1970) Ego	Perry (1970) Epistemological	Selman (1980) Perspective Taking	Kohlberg (1981) Justice Reason	Gilligan (1982) Care Reasoning	Labouvie-Vief (1982) Cognitive-affective	Kegan (1982) Self	Commons (1982) Post-formal	Saneroff (1985) Concepts of Development	Kramer (1989) Post-formal
		1. Pre-social					Concrete- Pre-systemic	Stage 1: Impulsive			
Pre-conventional	Pre-operational (Autonomy)				Stage 1: Heteronomous morality					Symbiotic	
		2. Impulsive	1. Simple dualism	Stage 1: Differentiated & Subjective	Stage 2: Instrumental purpose and exchange			Stage 2: Impenial			
	(Heteronomy)	3. Self Protective	2. Dualism		Stage 3: Mutual interpersonal expectations; conformity	Survival				Categorical	
	Concrete Operational			Stage 2: Self Reflective			Dynamic intersubjective	Stage 3: Interpersonal			
Conventional	Early Formal	4. Conformist	3. Subordinate multiplicity	Stage 3: Third person mutuality		Goodness		Interpersonal prosystemic			Absolutist
				Stage 4: In depth & societal symbolic							
	(Autonomy)	5. Self Aware	4. Multiplicity	Stage 4: Social System maintenance; conscience	Stage 4: Truth			Stage 4: Institutional		Compensatory	
				Stage 5: Second-order reciprocity							
Post-conventional	Formal	6. Conscientious	5. Relativism	Stage 5: Second-order reciprocity	Stage 4/5: Subjective relativism				Systematic		
				Stage 6: Second-order mutuality			Contextual Intersystemic		Metasystematic	Perspectivist	Relativist
	(Post-formal)	7. Individualist	6. Commitment foreseen	Stage 5: Social or utility		Non-violence					
		8. Autonomous	7. Initial commitment					Stage 5: Interindividual			
			8.9. Developing commitments	Stage 6: Universal ethical principles							
		9. Integrated							Metaparadigmatic		Dialectic (integration of contradiction)

Appendix 2.

Adult Attachment Interview Questions

1. Can we start with your early family situation, where you lived and so on?
2. Describe your relationship with your (parents) during (childhood). (Tell me about your family when you were growing up)
3. What are some adjectives you would use to describe your mother? (primary caregiver?)
Can you remember a specific case when your mother was --- ?
Can you think of an example of that, that will illustrate what you mean?
4. What are some adjectives you would use to describe your father?
Can you remember a specific case when your mother was --- ?
Can you think of an example of that, that will illustrate what you mean?
5. To which parent did you feel closest when you were a child?
6. I want to ask you about memories of emotional upset in your childhood.
Can you remember an incident when you were had an accident or were hurt?
Can you remember an incident when you were suffering an illness?
7. What is the first time you remember being separated from your parents?
8. Did you ever feel rejected as a young child?
9. Were your parents ever threatening in some way – maybe for discipline – even jokingly?
10. Do you feel your childhood has had an influence (either positive or negative) on who you are as an adult?
11. Why did your parents behave like that during your childhood?
12. Were there any other adults with whom you were close, like parents, as a child?
13. In childhood, did you suffer the loss of someone very important to you through death or permanent separation?
14. Did you lose any other important persons during your childhood,
....in your adulthood?
15. Did you have a traumatic experience - from physical abuse, for example?
Did you ever suffer from sexual abuse?
16. Has your relationship with your mother/father changed since childhood?

17. The next question is to do with your expected child. I'd like you to imagine him or her aged one year. How do you think you would feel if you had to separate from this child?
- Do you think you would ever feel worried about this child?
18. If you had three wishes for your child twenty years from now, what would they be.
19. Is there any particular thing which you feel you have learned above all from your own childhood experiences?
20. I'd like to end up asking you what you would hope that your child will have learned from his or her experience of being parented by you?

Extra Questions at end of AAI

To finish up the interview I would like to ask a few questions about this pregnancy.

- A. Was this baby planned?
- B. How do you feel about the pregnancy?
- C. How does your partner feel about the pregnancy?
- D. Has your relationship as a couple changed since discovering you were going to have a child?
- E. How do you think your relationship as a couple will change after the baby has arrived?
- F. What are you looking forward to about having a baby?
- G. Are there any things about the pregnancy that are worrying you?
- H. How well equipped do you think you are to be a mother/father?
- I. How well equipped do you think your partner is to be a mother/father?
- J. What sort of help do you think you will need in the first year after the baby is born?
- K. How do you think becoming a parent will affect your work or study?
- Do you intend to go back to work in the first year after the baby is born?
- When?
- Full time? Part time?
- What sort of child-care do you think you will use?

That is the end of the interview. Now, do you have any questions for me?

Has this interview been difficult for you?

If there is anything that continues to trouble you later, please feel free to call me at.....

or at

Appendix 3.

Adult Attachment Interview Coding

Appendix 3a.

#15

l. 148 *Right and the fifth one you picked was “shy”.*

Yes, my Mum’s really shy. I don’t know that that, I mean that was just a way to describe her. I don’t think that really describes our relationship but um, yeah, she stood back a lot yeah, um . . . doesn’t like to be the centre of attention or anything like that. And maybe that is just something that I remember [mm] rather than .. yeah. Rather than actually

Monitoring

Appearance/Reality distinction

l.404 *Now I’d like to ask you a few more questions about your relationship with your parents. Were there many changes in your relationship with your parents after childhood? We’ll get to the present in a moment but right now I mean changes occurring roughly between your childhood and adulthood?*

So in adolescence. [yes] Well yes. I mean I became a right brat and ah went through a period of resenting, growing up on the farm and resenting my parents for it. Because I felt isolated. All my mates were off doing stuff and I was living nearly an hour from town and I didn’t have a licence and all that so yeah, but the relationship changed and I became an absolute bitch quite frankly, and um (laugh) I remember my mother getting that frustrated with me. I just drove her to distraction. You know one day she chased me down the driveway throwing stones at me. (laugh) And I had to apologise to her before she apologised to me [laugh] but I had just, I had driven her I mean I am really frightened that maybe payback is about to maybe (both laughing) not that many years away (both laughing). But you know yeah, now it’s funny it changes again. I went through a real period of feeling that, and feeling I was missing out because I was out on the farm but.. I don’t know if you want hindsight but um my parents did, they were just so bloody good really because I got my licence the minute I turned 15 so I did have that independence, so I could get out, so they were trying to do the right thing by me but I just didn’t see it [laugh]

F-like

Represent diversity

Represent change

#16

l. 209 *OK and can you remember what you would do when you were hurt physically?*

.. um .. it would be Mum I’d go to. I never went to Dad when I was hurt [uhm] um, mind you saying that I now have a memory of when I was in Form 1, Standard 4, I had a fall and I actually broke my ankle on the cross-country run. It was Dad that actually took me to the doctors. [right] That surprised me. {right} Dealt with that.

Represent change

l.332 *Yeah OK, threaten you with the belt [yeah] OK, and um and some people have memories of threats or of some kind of behaviour that was abusive. Did anything like this happen to you or any one in your family*

No, this again comes under, I have lots of these memories of being given the belt when I was naughty [laugh]. According to Mum and Dad’s side of the story it was like I was a little bit threatened but never hit [right]

Appearance/Reality Distinction
Represents diversity

Appendix 3b.

SUMMARY OF RATINGS/CLASSIFICATIONS

ID: Taps ~~XXXX~~

Judge & Date Scoring Completed SW Interviewer & Date of Interview Helen
 24.1.07
 29.3.07
 8.12.07
 20.3.0

Scales for Experience

	M	F	Other
Loving	<u>5</u>	<u>5</u>	_____
Rejecting	<u>1</u>	<u>1</u>	_____
Involving/Reversing	<u>1</u>	<u>1</u>	_____
Pressured to Achieve	<u>1</u>	<u>1</u>	_____
Neglecting	<u>NI</u>	<u>NI</u>	_____

Scales for States of Mind Respecting the Parents (or other persons)

	M	F	Other
Idealizing	<u>3</u>	<u>3</u>	_____
Involving Anger	<u>1</u>	<u>1</u>	_____
Derogation	<u>1</u>	<u>1</u>	_____

Scales for Overall States of Mind

Overall Derogation of Attachment	<u>1</u>	
Insistence on Lack of Recall	<u>1</u>	Traumatic memory loss? <u>No</u>
Metacognitive Processes	<u>1.5</u>	
Passivity of Thought Processes	<u>3</u>	
Fear of Loss	<u>1</u>	
Highest Score for Unresolved Loss	<u>1</u>	
Highest Score for Unresolved Trauma ¹	<u>3</u>	(score by straps)
Coherence of Transcript	<u>5</u>	
Coherence of Mind	<u>5</u>	

CLASSIFICATION

F0
 Truly personality, claiming autonomy. Dissociation of relationships. Family stresses. Attach memories not of abusers.

¹ If this score is derived from (a) abuse and not directly related to attachment figures or (b) other potentially traumatic events, please note.

Appendix 4.

Reflective Functioning Rating – Collected Scores

ID	score	comment
01	4	7 5 Reflective but not at a high level
02	-	No rating done because he is clearly unable to mentalise
03	7	Marked RF Demand 5 6 5 5 6 7 –other 5 6 5 7 6 5 8 8 7 Has done a lot of ruminating.
04	3	No passage can be assigned a definite RF rating yet there is a reflective stance. The interesting thing is that it is so definite – there seems to be no doubting that his perspective is correct. He is describing others' feelings and reactions and appears to be glossing over things.
05	7	Demand 7 5 7 6 –other 7. having suffered brain damage makes her aware of how it is related to feelings and cognitions.
06	-	Unable to shift to the mental level involved in RF
07	1(B)	4 examples of low level mentalising. Clearly she is still at stage where others' minds depend on what they say. Her own mind is what interests her.
08	5	6 examples of 5 or more – uses mentalising language easily, but not very complex examples
10	3	RF passaged rated – 3 4 3 5 5 Uses psychological words like “dysfunctional”. Talks of emotions but not of minds. No real mentalising although trying to respond to interview questions.
11	5	3 5 3 3 7 obviously aware of mentalising but lacks words for it. Gets close but pulls back with “I dunno”.
12	6	4 5 5 7 definitely aware of her changing understanding of mental processes and role of parents in encouraging that
13	9	Exceptional RF. Demand 9 9 9 8 5 7 7 –other 9 7 8 8 9 9 5 5 5 RF spontaneous throughout interview.
14	2	One example of an awareness that perspective is unjustified if a developmental stance taken. Otherwise excessively concrete.
15	8	Demand 8 7 8 – Other 8 6. Complex statements re family interactions.
16	7	Demand 9 7 7 – other 6 6 6 7 7 . Reflective
18	4	5 5 very little mentalising – no doubt or mention of ambiguity or change
19	1	Lacking in R 1 example that looks like disavowal. No examples of mentalising.
20	9	Exceptional RF Demand 9 9 9 9 6 9 9 9 6 8 9 – other 8 Clearly has spent a lot of time examining motivation.
21	5	Demand 6 6 – other 6. Open and reflective but not much mentalising.

ID	score	comment
22	6	Demand 6 7 5 6 6 7 8 8 – other 5 Considerable reflection but not specifically mentalising enough to be rated higher.
23	7	Demand 8 8 –other 7 5 6 Considerable reflection
24	2	One rating of 5. Trying to be reflective but just not getting it yet.
27	3	Demand 6 –other- 6 6
30	2	One rating of 5. However language ability not up to understanding import of questions
31	5A	Demand 6 5 6 – other 5 5 Consistent view of parenting, mention of conflict but not at high level
32	3	one example 7 of understanding changing perspective /developmental. Tough conditions with mother – stories told too often.
33	3	one example 6 but sympathetic to parents and their efforts.
35	4	Demand 8 –other 6. Thoughtful but not really mentalising.
36	1	Lacking in RF No examples of mentalising- only descriptions of feelings in very banal terms
37	5	Demand 7 5 –other 5 Seems to be avoiding real reflectiveness
38	8	Demand 8 8 8 -other 8 7 7 7 5 very reflective – very interested in how he suffered emotional abuse and how it affects him now
39	2	No instances of RF but acceptance of positive features of her upbringing without idealising.

 Examples from Coding for Reflective Function
3.1.1 Opaqueness of mental states

- Demand 08 681 Because he just wasn't in a hurry to come home I guess. He didn't obviously miss us as much as we thought he did. I guess 6
- Demand 10 686 No, she blames it on the drugs. It was sort of touched on ever so slightly. She blames it on being an addict. [uhm] In my view, I don't know, I just felt that she didn't love me [mm] but she loved my sister, but she simply didn't love me[mm]. I mean I was always told I was put up for adoption [mm]. She always made it very clear to me that she didn't want me that it was my grandmother that convinced her to go get me.[mm] That was said to me quite a lot growing up so, it was pretty plain she didn't really want me around. 6
- 18 83 I can't see how they can't let it go 5
- Demand 21 580 no I think when people die it's um important not to make assumptions about what people are going through because you can never tell, what someone's going through [no] so um and at the end of the day 6
- Demand 22 491 she just seemed to have it all [yeah] and to not, not understand why someone in that sort of situation outwardly, could feel so bad inwardly 7
- Demand 22 600 and someone that I thought I could trust, I couldn't, so 5

3.1.2 Mental states susceptible to disguise

- 07 220 You don't show Mum that you are upset 2
- 11 263 And I think I learned to understand the people saying two things, if you know what I mean, so we um sort of get over those things but pretty quickly I suppose. 3
- 16 175 I think I used to hold things in. I would I wouldn't I know when, earlier I wouldn't let my parents see um .. yeah most times again I would I would find a a secret place or just somewhere out of sight basically [Uhm yeah] Have a good cry to myself [yeah] and when I was right I would go back out and join what everyone else was doing. 6
- 35 I didn't cry much publicly or anything like that because I'm, you know, a bit staunch, but [mm] probably because I'm the oldest and wasn't really expected, like I was always, had to look after my brothers and sisters [yeah, mm]. I sort of put on a bit of a you know, face I suppose. Yeah, and that's just the way it has always been. 6

3.1.5 Awareness of the defensive nature of certain mental states

- 10 1487 Um no it's just being active, like not having it in your head that you are sick [ok]. Like I mean I know that it still does affect me but I just ignore the fact that it affects me. 5
- Demand 22 341 Um, not now, [mm] but as an adult it has. I've done quite a lot of sorting in the last few years through bits and pieces and things that I've read and

listened to and people I've met and talked to have um, helped, you know, helped sort through those sorts of memories, and realise that it's a choice now that you have to dwell on things and live with them or just get on.

6

3.2 Effort to tease out mental states underlying behaviour

01 159 After my Dad died she cared for us a lot but I just resented her for that [yeah]. I actually blamed her, for a lot of years [yeah] blamed her for my Dad dying [oh right]. It wasn't anything to do with her at all but yeah like there are two years between me and my sister but she coped with it better than I did [mm] She could talk about it and that, whereas I bottled it up. Never talked to anyone, never cried on anyone [mm] for a long time [yes] but yeah

7

13 424 and that would be you know quite in-depth stuff about her relationships and how she was feeling and um you know did I think that was normal Did that sound right to me? You know not so much asking me what I'd do, although at times you felt like, you know, saying do this um.. I think sometimes she sort of just wanted to know somebody, you know, she wasn't going doolally, you know that the marriage wasn't right or that she shouldn't have had to put up with, not so much a matter of put up with something but you know, that there are better ways of doing something or something like that . Just you know, and that's being going on um quite a long time actually, and even now if you go to home, she'll be quite happy to sit down with most of the family and go through her problems.

8

18 573 I think um, certainly both mum and dad were trying to change things they they didn't like in their own childhood, so in terms of like mum was whacked quite a lot for things so [um um] because that was the way things were done and she didn't like it, so she was trying to um change that um, and dad I mean, dad is kind of withdrawn not as open way, always trying to be as good a dad as he could because he never had one [right um um] um, you know basically trying to give us everything that they could because they didn't have it.

5

Demand 20 Um, with my dad, our relationship really grew, grew ironically through the fact that my mother was trying to divorce him for all the wrong reasons and um I really learn to admire his character and his strength in trying to do what was right um, and what we both knew was right

9

3.2.2 Envisioning the possibility that feelings concerning a situation may be unrelated to observable aspects of it

Demand 13 1167 and it's a matter of trying to manage, not manage, but get him to think of things from a different angle,

9

Demand 16 419 I was very conscious at the funeral that I was the only one not crying. Like sorry before I even got to the funeral I remember going to the morgue. And I have the sensation of sitting and wanting to cry but I couldn't. The tears just wouldn't come [uhm] and I was looking around and thinking oh my God everyone's crying and I can't cry and I (?put this arm) around and thinking there was something wrong with me because I couldn't cry [uhm].. but um yeah

9

3.2.3 Recognition of diverse perspectives

demand 22 691 my dad and his wife have quite different ideas about what he's capable of and [yeah] and what he should be doing or not doing, um, and it's a case of them being very aware that they don't want to burden with me with a lot of these things, [yeah] but that there is that underlying well down the track somewhere it's going to be my sort of job [yeah] if you like, or my responsibility to be the support there 8

3.2.4 Taking into account one's own mental state in interpreting others' behaviour

03 311 I wasn't allowed to be upset as a child because um Dad wouldn't like, Dad didn't like us to cry Dad hated us to cry and in fact he um would ridicule, ridicule us a little bit if we cried [ahm]. Mum, Mum didn't want us upset because she was so co-dependent that she you know would rather we were happy [mm, so]. I suppose when I was upset I would cry in a room by myself? 6

Demand 05 641 Well, because of my accident, my mother has had the chance to become overprotective of me again, and its still very hard for her to let go, because I must admit my business acumen is not what it used to be. Um, my judgment of people is not what it used to be and naturally she worries a lot about me whether I'm doing the right things 7

37 118 I think I always wanted .. Mum's attention more than Dad's... Um .. maybe I thought she was more interested, and .. I just always looked up to her, I suppose. [Mm]. I don't know why. [mm]. I think dad used to tell us off and he was the discipline person really and I think maybe I was a bit scared and I used to get quite annoyed at the punishments, thinking they were not fair sort of thing 5

3.2.5 Evaluating mental states from point of view of its impact on behaviour of self and/or other

05 401 usual smack around the ears if you misbehaved (laugh). No, I remember one time my mother slapped me on the leg, because I, I don't know what I'd done, but I must have really really upset her, she she didn't usually smack you at all, nothing like that, and um I remember she came back two minutes later and apologised. You know she was so worried that she had actually hit me. 7

16 101 Mum was very overprotective of me, being the first child. I think she lost a child before I was born and sometimes she was she wanted to do everything for me, um and I wasn't and yeah I felt restricted in my freedom sometimes because she wanted to she meant well I know but like when I wanted to go places and that, she's only let me go for a short time 7

Demand 37 247 I suppose the main thing was that I did not like watching my Mum, it was her mother. I didn't like watching her being upset [mm] more than anything.[mm] But um I think I was OK and I think I probably felt guilty about being OK. 5

Appendix 5.

id#03

8a *Um, did you ever feel rejected as a young child, looking back on it you might perceive it wasn't rejection as such but but more that you felt rejected as a child*

Um it's hard I don't know whether it influenced. **I think it is more the other way, its more that now I see it as rejection but I did not really know what it was then.** and um yeah I regularly **felt rejected** from my Dad because um he was he was fine as long as we were really (working????) there were times when Mum, lots of times when, well, I had to do things I didn't want to do and and um **if I hadn't done them then I would have been rejected** [right] We had this we used to have this big this big um pit, it was called an offal pit and it was where all the bones [mm] and bits from the farm used to go. It was a very gross pit and my Dad um gave me a bucket of whatever to go in this pit. And it was a deep pit, it was scary as anything. **And I put it in, despite the fact that I didn't want to because if I hadn't [right] he would have been upset about it.** *Complexity 5- offers new perspective on question – and that is elaborated as providing a system where she made a trade-off between her fear of the pit and her fear of her father's anger.*

.....
OK. Why do you think he responded in that way

Because he **liked us to be tough** [*he wanted you to be*] **because he wanted us to be boys,mm**
categorical - 1

OK, and do you think he knew that he was rejecting you when he rejected you?

No, I don't, I think I think he was???? [mm] childhood as well

And did you feel pushed away or ignored?

Probably more overlooked. I felt um in my childhood I felt quite lonely at times, I felt like it was me and um animals the soft toys, and um we had um being on a farm we had calves and things like that, and um I sort of **would project a lot of love** on to them, and my teddy bear especially and things like that so

.....
10. Um in general how do you think all these experiences in your childhood had an effect on your adult personality?

I struggle sometimes with self-esteem, and um, I think and yeah I think it just things to be aware of like it has definitely affected my personality like maybe I'm I'm a bit of a people-pleaser like my Mum too [mm] and um, I think I'm I think I've got my bad temper from my Dad. It's not something I'm particularly proud of but *Transitional 2 – comments on clichéd reasons*

Um are there any other aspects of your childhood that you feel um are a setback to your development um that might have held your development back in some ??

Yes, because I had such low self-esteem growing up [right] so

And how did that affect you development?

Ah, like I got I think it was Bs for School Certificate and **um I didn't associate myself with being smart. I just thought I wasn't any good at it but I actually got great marks got good grades in School Certificate, so I didn't have as much confidence about my academic ability** [um] I didn't have any self-esteem about my looks and its its what (kept ?..)
Complexity 3

id#12

8. *Did you ever feel rejected as a young child?*

Um, I sometimes **felt overshadowed** by having an older sister who a lot of people **I thought** liked more than me, but **as I grew older I realised** that wasn't the case, it was just the little sister syndrome. [Differentiation 3](#)

So how old were you when you first sort of felt this way?

Probably about 8, because she was 2 ½ years older and I felt she could hold conversations better and she could talk to the adults and the kids and I would just sort of sit with Mum and Dad quietly [yeah] yeah

.....

10. *In general, how do you think your overall experiences with your parents have affected your adult personality?*

Um, I think in a very positive way because they were or they are so, you know, they are fun to be around and they're social and all that sort of thing so they've sort of passed that on to both me and my sister yeah we can both get on with people and yeah [Single reason 1](#)

So are there any aspects to your early experiences that you feel were a set-back in your development?

No, there is nothing that would be a setback. If anything they would have encouraged me to move forward [yeah] than anything else [yeah] [One dimensional 1](#)

Why do you think your parents behaved the way they did during your childhood?

Mm. I don't know whether they learned it from their parents or if it is just their personalities that were sort of coming through. I'm not sure since they oh they're both from big families and um on my mother's side her father passed away when she was 16 so I don't know if that had some sort of flow-on effect to how she's reacted with us, behaved with us. Yeah.

[Acknowledging multiple possibilities 3](#)

.....

15 *Were there changes in your relationship with your parents after childhood? We'll get to the present in a moment, but right now I mean changes occurring roughly between your childhood and your adulthood, so during your teenage years really.*

I suppose they talked to me a bit more about things that were going on with them, like in their adult world, what was going on at work a bit more, bit more involved than they had been in the past. You know you tend to gloss over things if you don't think the person is really going to understand what you were talking about, so they would. As I got older I started to understand their jobs more and the way that an adult has to you know cope with things. There's a lot, an adult has to put up with quite a lot so yeah I think they started to um ah yeah just provide me with more information. [Emergence of integration 4](#)

16. *Now I'd like to ask you what is your relationship with your parents like for you now as an adult? Here I am asking about your current relationship.*

Um, it's very good. It's ah it's not like how some people are more friends with their parents because they still do have that parenting sort of side to them. They still call us kids [laugh] but um it's really good really good and it's nice having them close by. Like I was living in Wellington, J- and I were in W- for the past three years, but I wanted to come back to P- because family's here and they were the major reason [yeah]

Appendix 6.



Transition to Parenthood

A research project on what it is like for new parents in New Zealand today

Information Sheet

Sue Watson, lecturer in Human Development at Massey University, invites you to participate in this research project which is designed to better understand the processes of adjustment that new parents must go through as they take on the responsibility of caring for an infant. This is a topic that is very important for New Zealanders as a society. Becoming a parent in 2006 will have challenges and advantages that are different to what has gone before.

You are invited to participate if you are a mother or a father expecting your first child.

What you will be asked to do:

Time 1: In the last three months of pregnancy

Fill in some questionnaires and post them in

Be interviewed at a time and place to suit you, mostly about your experiences of being parented

Time 2: After the birth

Let us know about the birth and the new baby, either by phone or in writing

Time 3: Three months after the birth

We will ring you to see how you are going. Included in this is a check for depression.

Time 4: When the baby is a year old

Repeat some of the questionnaires you have done previously

Arrange a visit so we can discuss how you and your baby have adjusted to each other.

If you are interested in taking part in this research, turn over the page and read how your rights will be safeguarded. Then look at the questionnaires. This will let you know the sort of information we wish to gather from at least 100 people. If you have further questions, ring:

Sue Watson, Department of Health and Human Development, Massey University College of Education, Ph. 06 356 9099, Ext. 8882, email s.a.watson@massey.ac.nz

We would like you to fill in the forms and send them back in the self addressed envelope.

If you have any questions about the project, please contact the researcher.

This research is supervised by:

Associate Professor John Kirkland, Department of Health and Human Development, Massey University College of Education, Ph. 06 356 9099, Ext.8954, email: J.Kirkland@massey.ac.nz, and Professor Gary Hermansson, Department of Health and Human Development, Massey University College of Education, Ph. 06 356 9099, Ext. 8970, email: G.L.Hermansson@massey.ac.nz

Participants' Rights

Massey University Human Ethics Committee has prepared a statement of Participants' Rights. You have the right to:

- decline to participate;
- decline to answer any particular question;
- withdraw from the study at any time;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher
- be given access to a summary of the project findings when it is concluded.
- ask for the audio-recorder to be turned off at any time during the interview.

If you are distressed by the interview or any of the questions you are asked and you would like further support, please let us know and we will provide appropriate referrals.

What will happen to your information?

Everyone involved in the research will sign confidentiality agreements which means they will not talk about your information to anyone apart from the researcher. The researcher will ensure that when the recorded interviews are typed out that all names of people and places that might identify you will be replaced by numbers or pseudonyms. From then on all your information will be only able to be linked back to your name by the researcher who will have that information separate from all other data in the project. That should ensure your anonymity. Although there may be people who know you have taken part in this research, no-one can find out any results.

It will take time to transcribe the interviews and code other information and so we will not be providing individual results as a matter of course. We will offer you the tape of your interview for you to keep but if you do not want it we will destroy it. However, if you would like to have a copy of the transcript, you can ask for us to send you it when it has been done. If in the course of any of the process we find something that concerns us, we will get in touch with you, for example, if there are possible signs of depression that needs following up.

Eventually, this information will be written up in PhD and masters theses and aspects of the findings will be written up for publication. During the research process, members of the research team can be invited to give talks to community groups about the research and what it can tell us, and later, what the outcomes are. Your individual contribution will be hidden amongst all the other information from other parents. Your particular story will not be able to be reported. You can get a summary of the findings by ensuring we have a request from you and a contact address after our last point of contact.

During the research process, care will be taken of your response sheets, to ensure that unauthorised people cannot read your responses or link your name to your responses. The research material will be kept in locked cabinets in at least two separate places. Five years after this research is reported, all the response forms and similar material from the research will be disposed of by the researcher by shredding or other appropriate ways to ensure the material will be destroyed.

 This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Protocol No. 03/46. If you have any concerns about the conduct of this research, please contact Professor Sylvia V Rumball, Chair, Massey University Campus Human Ethics Committee: Palmerston North, telephone 06 350 5249, email S.V.Rumball@massey.ac.nz

TRANSITION TO PARENTHOOD

- 1) **ID Number:** Please fill in the following items:
- 2) **Date:**
- Name:
- 3) **Date of Birth:**
- Address:
- 4) **What is your religion?**
- (Please specify)
-
-
- Phone No:

Housing:

- 5) Do you own or rent your house? Own Rent Other
- 6) How long have you lived in this place? years months
- 7) When the baby is born will you live in the same place? Yes No
- 8) How many people will be living with you after the baby is born? []
- (Tick all boxes that apply)
- | | | | | | |
|------------------|--------------------------|------------------|--------------------------|-------------|--------------------------|
| Partner | <input type="checkbox"/> | My mother | <input type="checkbox"/> | My father | <input type="checkbox"/> |
| Partner's Mother | <input type="checkbox"/> | Partners' father | <input type="checkbox"/> | Sister(s) | <input type="checkbox"/> |
| Brother(s) | <input type="checkbox"/> | Flatmates | <input type="checkbox"/> | Other | <input type="checkbox"/> |

Partner's name:

- 9) Your current marital status:
- 10) How long have you lived together?
- 11) **Education:** What is your highest secondary school qualification? (Please specify)
-
- Tertiary qualifications. (Please specify)
- 12) Your **Occupation:** Now:
- Full Time..... Part-Time..... Not in paid employment.....
- Past jobs or activities that you think show your capabilities:
-

- 13) Your Partner's Occupation: Now:.....
 Full Time..... Part-Time..... Not in paid employment.....

Past jobs or activities that you think show his/her capabilities:

.....

- 14) Your mother's occupation:.....
 Her highest education qualification:

- 15) Your father's occupation:

His highest education qualification:

Household Income

- 16) Your personal income for the last year from all sources, before tax:

- 17) Does your partner contribute to the family income? Yes No

If so: Partner's personal income:

Less than \$20,000 \$20-40,000 \$40-60,000 Over \$60,000

General Health Status:

- 18) Have you had any illness or disability that has lasted more than six months? Yes No

If yes, what was the illness or disability?

.....

Have you had any problems with:

- 19) alcohol 20) drug abuse 21) eating disorders?

- 22) Have you had professional assistance with these?

- 23) Over the last six months, would you say your physical health on the whole has been:

Excellent Good Fair Poor

- 24) Do you smoke? Yes No

- 25) How many cigarettes a day?

- 26) **Due date for baby's birth:**

The best times to ring to arrange the interview:

Parental Bonding Instrument

Female parent form

This questionnaire lists various attitudes and behaviours of parents. As you remember your Mother in your first 16 years would you place a tick in the most appropriate brackets next to each question.

	Very Like	Moderately like	Moderately unlike	Very unlike
1. Spoke to me with a warm and friendly voice	()	()	()	()
2. Did not help me as much as I needed	()	()	()	()
3. Let me do those things I liked doing	()	()	()	()
4. Seemed emotionally cold to me	()	()	()	()
5. Appeared to understand my problems and worries	()	()	()	()
6. Was affectionate to me	()	()	()	()
7. Liked me to make my own decisions	()	()	()	()
8. Did not want me to grow up	()	()	()	()
9. Tried to control everything I did	()	()	()	()
10. Invaded my privacy	()	()	()	()
11. Enjoyed talking things over with me	()	()	()	()
12. Frequently smiled at me	()	()	()	()
13. Tended to baby me	()	()	()	()
14. Did not seem to understand what I needed or wanted	()	()	()	()
15. Let me decide things for myself	()	()	()	()
16. Made me feel I wasn't wanted	()	()	()	()
17. Could make me feel better when I was upset	()	()	()	()
18. Did not talk with me very much	()	()	()	()
19. Tried to make me dependent on him/her	()	()	()	()
20. Felt I could not look after myself unless she/he was around	()	()	()	()
21. Gave me as much freedom as I wanted	()	()	()	()
22. Let me go out as often as I wanted	()	()	()	()
23. Was overprotective of me	()	()	()	()
24. Did not praise me	()	()	()	()
25. Let me dress in any way I pleased	()	()	()	()

Parental Bonding Instrument

Male parent form

This questionnaire lists various attitudes and behaviours of parents. As you remember your Father in your first 16 years would you place a tick in the most appropriate brackets next to each question.

	Very Like	Moderately like	Moderately unlike	Very unlike
1. Spoke to me with a warm and friendly voice	()	()	()	()
2. Did not help me as much as I needed	()	()	()	()
3. Let me do those things I liked doing	()	()	()	()
4. Seemed emotionally cold to me	()	()	()	()
5. Appeared to understand my problems and worries	()	()	()	()
6. Was affectionate to me	()	()	()	()
7. Liked me to make my own decisions	()	()	()	()
8. Did not want me to grow up	()	()	()	()
9. Tried to control everything I did	()	()	()	()
10. Invaded my privacy	()	()	()	()
11. Enjoyed talking things over with me	()	()	()	()
12. Frequently smiled at me	()	()	()	()
13. Tended to baby me	()	()	()	()
14. Did not seem to understand what I needed or wanted	()	()	()	()
15. Let me decide things for myself	()	()	()	()
16. Made me feel I wasn't wanted	()	()	()	()
17. Could make me feel better when I was upset	()	()	()	()
18. Did not talk with me very much	()	()	()	()
19. Tried to make me dependent on him/her	()	()	()	()
20. Felt I could not look after myself unless she/he was around	()	()	()	()
21. Gave me as much freedom as I wanted	()	()	()	()
22. Let me go out as often as I wanted	()	()	()	()
23. Was overprotective of me	()	()	()	()
24. Did not praise me	()	()	()	()
25. Let me dress in any way I pleased	()	()	()	()

Sentence Completion Test*Directions: Complete the following sentences:*

1. When a child will not join in group activities
2. Raising a family
3. When I am criticised
4. A man's job
5. Being with other people
6. The thing I like about myself is
7. My mother and I
8. What gets me into trouble is
9. Education
10. When people are helpless
11. Women are lucky because
12. A good father
13. A girl has a right to
14. When they talked about sex, I
15. A wife should
16. I feel sorry
17. A man feels good when
18. Rules are

Edinburgh Inventory

As you are preparing to have a baby, we would like to know how you are feeling. Please UNDERLINE the answer which comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:

Yes, all the time

Yes, most of the time

No, not very often

No, not at all

This would mean: "I have felt happy most of the time" during the past week.

Please complete the other questions the same way.

In the past 7 days:

- | | |
|--|---|
| <p>1. I have been able to laugh and see the funny side of things
As much as I always could
Not so much now
Definitely not so much now
Not at all</p> | <p>2. I have looked forward with enjoyment to things
As much as I ever did
Rather less than I used to
Definitely less than I used to
Hardly at all</p> |
| <p>3. I have blamed myself unnecessarily when things went wrong
Yes, most of the time
Yes, some of the time
Not very often
No, never</p> | <p>4. I have been anxious or worried for no good reason
No, not at all
Hardly ever
Yes, sometimes
Yes, very often</p> |
| <p>5. I have felt scared or panicky for no very good reason
Yes, quite a lot
Yes, sometimes
No, not much
No, not at all</p> | <p>6. Things have been getting on top of me
Yes, most of the time I have not been able to cope at all
Yes, sometimes I haven't been able to cope as well as usual
No, most of the time I have coped quite well
No, I have been coping as well as ever</p> |
| <p>7. I have been so unhappy that I have had difficulty sleeping
Yes most of the time
Yes, sometimes
Not very often
No, not at all</p> | <p>8. I have felt sad or miserable
Yes, most of the time
Yes, quite often
Not very often
No, not at all</p> |
| <p>9. I have been so unhappy that I have been crying
Yes, most of the time
Yes, quite often
Only occasionally
No, never</p> | <p>10. The thought of harming myself has occurred to me
Yes, quite often
Sometimes
Hardly ever
Never</p> |

Appendix 7.



Massey University

Transition to Parenthood

Time 1: Question Booklet

Orientation to Life Questionnaire	1
Personal beliefs Questionnaire	5
Personal Reaction Inventory	7
Thinking About Myself Questionnaire	9
Social Support Inventory	11
ACER Higher Test	13
Edinburgh Depression Scale	16
Concepts of Development Questionnaire	18

ID:.....

Date:.....

Please complete the following questionnaires over the next fortnight and return to the Transition to Parenthood team in the self-addressed envelope.

These questionnaires have been selected because it is expected that they will access aspects of young adults that will change in the transition to parenting period. Some of them you will be asked to repeat in the year after the baby is born. Please note that these questionnaires do not have right or wrong answers. The simply try to capture individual differences.

ORIENTATION TO LIFE QUESTIONNAIRE

Here is a series of questions relating to various aspects of our lives. Each question has seven possible answers. Please mark the number which expresses your answer, with numbers 1 and 7 being the extreme answers. If the words under 1 are right for you, circle 1; if the words under 7 are right for you, circle 7. If you feel differently, circle the number which best expresses your feeling. Please give only one answer to each question.

1. When you talk to people, do you have the feeling that they don't understand you?

1	2	3	4	5	6	7
never have this feeling						always have this feeling

2. In the past, when you had to do something which depended upon cooperation with others, did you have the feeling that it:

1	2	3	4	5	6	7
surely wouldn't get done						surely would get done

3. Think of the people with whom you come into contact daily, aside from the ones to whom you feel closest. How well do you know most of them?

1	2	3	4	5	6	7
you feel that they're strangers						you know them very well

4. Do you have the feeling that you don't really care about what goes on around you?

1	2	3	4	5	6	7
very seldom or never						very often

5. Has it happened in the past that you were surprised by the behaviour of people whom you thought you knew well?

1	2	3	4	5	6	7
never happened						always happened

6. Has it happened that people whom you counted on disappointed you?

1	2	3	4	5	6	7
never happened						always happened

7. Life is:

1	2	3	4	5	6	7
full of interest						completely routine

8.	Until now your life has had:						7
1	2	3	4	5	6	7	
no clear goals or purpose at all						very clear goals and purpose	
9.	Do you have a feeling that you are being treated unfairly?						7
1	2	3	4	5	6	7	
very often						very seldom or never	
10.	In the past ten years your life has been:						7
1	2	3	4	5	6	7	
full of changes without your knowing what will happen next						completely consistent and clear	
11.	Most of the things you do in future will probably be:						7
1	2	3	4	5	6	7	
completely fascinating						deadly boring	
12.	Do you have the feeling that you are in an unfamiliar situation and don't know what to do?						7
1	2	3	4	5	6	7	
very often						very seldom or never	
13.	What best describes how you see life:						7
1	2	3	4	5	6	7	
one can always find a solution to painful things in life						there is no solution to painful things in life	
14.	When you think about your life, you very often:						7
1	2	3	4	5	6	7	
feel how good it is to be alive						ask yourself why you exist at all	
15.	When you face a difficult problem, the choice of solution is:						7
1	2	3	4	5	6	7	
always confusing and hard to find						always clear completely	
16.	Doing the things you do every day is:						7
1	2	3	4	5	6	7	
a source of deep pleasure and satisfaction						a source of pain and boredom	

17. Your life in future will probably be:
 1 2 3 4 5 6 7
 full of changes completely
 without your consistent
 knowing what and clear
 will happen next
18. When something unpleasant happened in the past your tendency was:
 1 2 3 4 5 6 7
 “to eat yourself to say “OK, that’s
 up” about it that, I have to live
 with it”, and go on
19. Do you have very mixed-up feelings and ideas?
 1 2 3 4 5 6 7
 very often very seldom
 or never
20. When you do something that gives you a good feeling:
 1 2 3 4 5 6 7
 it’s certain that it’s certain that
 you’ll go on something will
 feeling good happen to spoil
 the feeling
21. Does it happen that you have feelings inside you that you would rather not feel?
 1 2 3 4 5 6 7
 very often very seldom
 or never
22. You anticipate that your personal life in the future will be:
 1 2 3 4 5 6 7
 totally without full of meaning
 meaning or purpose and purpose
23. Do you think that there will always be people who you can count on in the future?
 1 2 3 4 5 6 7
 you’re certain you doubt
 there will be there will be
24. Does it happen that you have the feeling that you don’t know exactly what’s about to happen?
 1 2 3 4 5 6 7
 very often very seldom
 or never
25. Many people – even those with a strong character – sometimes feel like losers in certain situations. How often have you felt this way in the past?
 1 2 3 4 5 6 7
 never very often

26. When something happened, have you generally found that:

1	2	3	4	5	6	7
you overestimated or underestimated its importance						you saw things in the right proportion

27. When you think of difficulties you are likely to face in important aspects of your life, do you have the feeling that:

1	2	3	4	5	6	7
you will always succeed in over- coming the difficulties						you won't succeed in over- coming the difficulties

28. How often do you have the feeling that there's little meaning in the things you do in your daily life?

1	2	3	4	5	6	7
very often						very seldom or never

29. How often do you have feelings that you're not sure you can keep under control?

1	2	3	4	5	6	7
very often						very seldom or never

Personal Beliefs Questionnaire

This is a questionnaire to find out the way in which important events in our society affect different people. Since this is a measure of personal belief, obviously there are no right or wrong answers.

Please select the one statement of each pair of alternatives lettered (a) or (b) and circle the letter for the one you more strongly believe to true.

In some cases you may discover that you believe both statements or neither one. In such cases, select the one that is slightly better for you.

I more strongly believe that:

1. (a) Children get into trouble because their parents punish them too much.
(b) The trouble with most children nowadays is that their parents are too easy on them.
2. (a) Many of the unhappy things in people's lives are partly due to bad luck.
(b) People's misfortunes result from the mistakes they make.
3. (a) One of the major reasons why we have wars is because people don't take enough interest in politics.
(b) There will always be wars, no matter how hard people try to prevent them.
4. (a) In the long run people get the respect they deserve in this world.
(b) Unfortunately, an individual's worth often passes unrecognised no matter how hard (s) he tries.

-
5. (a) The idea that teachers are unfair to students is nonsense.
(b) Most students don't realise the extent to which their marks are influenced by accidental happenings.
 6. (a) Without the right breaks, a person cannot be an effective leader.
(b) Capable people who fail to become leaders have not taken advantage of their opportunities.
 7. (a) No matter how hard you try some people just don't like you.
(b) People who can't get others to like them don't understand how to get along with others.
 8. (a) Heredity plays the major role in determining one's personality.
(b) It is people's experiences in life which determine what they're like.
 9. (a) I have often found that what is going to happen will happen.
(b) Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
 10. (a) In the case of a well-prepared student there is rarely if ever such a thing as an unfair test.
(b) Many times exam questions tend to be so unrelated to course work that studying is really useless.
 11. (a) Becoming a success is a matter of hard work, luck has little or nothing to do with it.
(b) Getting a good job depends mainly on being in the right place at the right time.
 12. (a) The average citizen can have an influence in government decisions.
(b) This world is run by the few people in power, and there is not much the little guy can do about it.
 13. (a) When I make plans, I am almost certain that I can make them work.
(b) It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway.
 14. (a) There are some people who are just no good.
(b) There is some good in everybody.
 15. (a) In my case getting what I want has little or nothing to do with luck.
(b) Many times we might just as well decide what to do by flipping a coin.
 16. (a) Who gets to be the boss often depends on who was lucky enough to be in the right place first.
(b) Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.
 17. (a) As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
(b) By taking an active part in political and social affairs the people can control world events.
 18. (a) Most people don't realise the extent to which their lives are controlled by accidental happenings.
(b) There really is no such thing as "luck".
 19. (a) A person should always be willing to admit his/her mistakes.

-
- (b) It is usually best to cover up one's mistakes.
20. (a) It is hard to know whether or not a person really likes you.
(b) How many friends you have depends on how nice a person you are.
21. (a) In the long run, the bad things that happen to us are balanced by the good ones.
(b) Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
22. (a) With enough effort we can wipe out political corruption.
(b) It is difficult for people to have much control over the things politicians do in office.
23. (a) Sometimes I can't understand how teachers arrive at the grades they give.
(b) There is a direct connection between how hard I study and the grades I get.
24. (a) A good leader expects people to decide for themselves what they should do.
(b) A good leader makes it clear to everybody what their jobs are.
25. (a) Many times I feel that I have little influence over the things that happen to me.
(b) It is impossible for me to believe that chance or luck plays an important role in my life.
26. (a) People are lonely because they don't try to be friendly.
(b) There's not much use in trying too hard to please people, if they like you they like you.
27. (a) There is too much emphasis on sports in high school.
(b) Team sports are an excellent way to build character.
28. (a) What happens is my own doing.
(b) Sometimes I feel that I don't have enough control over the direction my life is taking.
29. (a) Most of the time I can't understand why politicians behave the way they do.
(b) In the long run the people are responsible for bad government on a national as well as a local level.

 Personal Reaction Inventory

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *True* or *False* as it pertains to you personally. Circle either *True* or *False*.

- | | | |
|-----|--|-----|
| 1. | Before voting I thoroughly investigate the qualifications of all the candidates. | T F |
| 2. | I never hesitate to go out of my way to help someone in trouble. | T F |
| 3. | It is sometimes hard for me to go on with my work if I am not encouraged. | T F |
| 4. | I have never intensely disliked anyone. | T F |
| 5. | On occasion I have had doubts about my ability to succeed in life. | T F |
| 6. | I sometimes feel resentful when I don't get my way. | T F |
| 7. | I am always careful about my manner of dress. | T F |
| 8. | My table manners at home are as good as when I eat out in a restaurant. | T F |
| 9. | If I could get into a movie without paying and be sure I was not seen I would probably do it. | T F |
| 10. | On a few occasions, I have given up doing something because I thought too little of my ability. | T F |
| 11. | I like to gossip at times. | T F |
| 12. | There have been times when I felt like rebelling against people in authority even though I knew they were right. | T F |
| 13. | No matter who I'm talking to, I'm always a good listener. | T F |
| 14. | I can remember "playing sick" to get out of something. | T F |
| 15. | There have been occasions when I took advantage of someone. | T F |
| 16. | I'm always willing to admit it when I make a mistake. | T F |
| 17. | I always try to practice what I preach. | T F |
| 18. | I don't find it particularly difficult to get along with loud mouthed, obnoxious people. | T F |
| 19. | I sometimes try to get even rather than forgive and forget. | T F |
| 20. | When I don't know something I don't at all mind admitting it. | T F |
| 21. | I am always courteous, even to people who are disagreeable. | T F |
| 22. | At times I have really insisted on having things my own way. | T F |

-
23. There have been occasions when I felt like smashing things. T F
24. I would never think of letting someone else be punished for my wrong-doings. T F
25. I never resent being asked to return a favour. T F
26. I have never been irked when people expressed ideas very different from my own. T F
27. I never make a long trip without checking the safety of my car. T F
28. There have been times when I was quite jealous of the good fortune of others. T F
29. I have almost never felt the urge to tell someone off. T F
30. I am sometimes irritated by people who ask favours of me. T F
31. I have never felt that I was punished without cause. T F
32. I sometimes think when people have a misfortune they only got what they deserved. T F
33. I have never deliberately said something that hurt someone's feelings. T F

THINKING ABOUT MYSELF QUESTIONNAIRE

Using a scale of 0 to 10 where:

0 = “of no importance”

10 = “extremely important”

Please indicate how **IMPORTANT** to your self-esteem is your:

- | | |
|---|--|
| 1. Looks and physical attractiveness:
0...1...2...3...4...5...6...7...8...9...10 | 11. Meeting or having met your responsibilities to your family, i.e., being a good spouse, son or daughter
0...1...2...3...4...5...6...7...8...9...10 |
| 2. Physical condition, strength, and agility:
0...1...2...3...4...5...6...7...8...9...10 | 12. Intelligence, how smart you are:
0...1...2...3...4...5...6...7...8...9...10 |
| 3. Grooming, clothing, overall appearance:
0...1...2...3...4...5...6...7...8...9...10 | 13. Level of academic accomplishments, years of education
0...1...2...3...4...5...6...7...8...9...10 |
| 4. Being liked by others, your popularity and ability to get along, your social skills:
0...1...2...3...4...5...6...7...8...9...10 | 14. Being a cultured and knowledgeable person, knowing about art, music and world events:
0...1...2...3...4...5...6...7...8...9...10 |
| 5. Being a good person, your friendliness and helpfulness to others:
0...1...2...3...4...5...6...7...8...9...10 | 15. Having special talents or abilities – artistic, scientific, musical, athletic, etc.:
0...1...2...3...4...5...6...7...8...9...10 |
| 6. Having a loving, close relationship with someone: artistic, scientific, musical, athletic, etc.:
0...1...2...3...4...5...6...7...8...9...10 | 16. Earning a great amount of money and acquiring valuable possessions:
0...1...2...3...4...5...6...7...8...9...10 |
| 7. Being a law-abiding, responsible citizen:
0...1...2...3...4...5...6...7...8...9...10 | 17. Being recognised for your accomplishments earning the respect of others for your work:
0...1...2...3...4...5...6...7...8...9...10 |
| 8. Being an honest and truthful person in your dealings with other
0...1...2...3...4...5...6...7...8...9...10 | 18. Doing what you set out to do personally, meeting the goals you set for yourself:
0...1...2...3...4...5...6...7...8...9...10 |
| 9. Having the courage of your convictions, speaking up for what you think is right, even when it is not popular to do so:
0...1...2...3...4...5...6...7...8...9...10 | 19. Having influence over the events or people in your life:
0...1...2...3...4...5...6...7...8...9...10 |
| 10. Relationship with your family, being on good terms with your family, having good feelings for each other:
0...1...2...3...4...5...6...7...8...9...10 | 20. Belief in a higher power, your spiritual convictions:
0...1...2...3...4...5...6...7...8...9...10 |

Using a scale of 0 to 10 where:

0 = “not satisfied”

10 = “very satisfied”

Please indicate how **SATISFIED** you are with your:

- | | |
|---|--|
| 1. Looks and physical attractiveness:
0...1...2...3...4...5...6...7...8...9...10 | 11. Meeting or having met your responsibilities to your family, i.e., being a good spouse, son or daughter
0...1...2...3...4...5...6...7...8...9...10 |
| 2. Physical condition, strength, and agility:
0...1...2...3...4...5...6...7...8...9...10 | 12. Intelligence, how smart you are:
0...1...2...3...4...5...6...7...8...9...10 |
| 3. Grooming, clothing, overall appearance:
0...1...2...3...4...5...6...7...8...9...10 | 13. Level of academic accomplishments, years of education
0...1...2...3...4...5...6...7...8...9...10 |
| 4. Being liked by others, your popularity and ability to get along, your social skills:
0...1...2...3...4...5...6...7...8...9...10 | 14. Being a cultured and knowledgeable person, knowing about art, music and world events:
0...1...2...3...4...5...6...7...8...9...10 |
| 5. Being a good person, your friendliness and helpfulness to others:
0...1...2...3...4...5...6...7...8...9...10 | 15. Having special talents or abilities – artistic, scientific, musical, athletic, etc.:
0...1...2...3...4...5...6...7...8...9...10 |
| 6. Having a loving, close relationship with someone: artistic, scientific, musical, athletic, etc.:
0...1...2...3...4...5...6...7...8...9...10 | 16. Earning a great amount of money and acquiring valuable possessions:
0...1...2...3...4...5...6...7...8...9...10 |
| 7. Being a law-abiding, responsible citizen:
0...1...2...3...4...5...6...7...8...9...10 | 17. Being recognised for your accomplishments earning the respect of others for your work:
0...1...2...3...4...5...6...7...8...9...10 |
| 8. Being an honest and truthful person in your dealings with others:
0...1...2...3...4...5...6...7...8...9...10 | 18. Doing what you set out to do personally, meeting the goals you set for yourself:
0...1...2...3...4...5...6...7...8...9...10 |
| 9. Having the courage of your convictions, speaking up for what you think is right, even when it is not popular to do so:
0...1...2...3...4...5...6...7...8...9...10 | 19. Having influence over the events or people in your life:
0...1...2...3...4...5...6...7...8...9...10 |
| 10. Relationship with your family, being on good terms with your family, having good feelings for each other:
0...1...2...3...4...5...6...7...8...9...10 | 20. Belief in a higher power, your spiritual convictions:
0...1...2...3...4...5...6...7...8...9...10 |

Social Support Inventory

How satisfied are you with the support received from others? On this page, check out how satisfied you are with the support received from your **PARTNER**.

	Much too little support	Too little support	Enough support	Too much social support	Much too much social support
1. Cheers you up	()	()	()	()	()
2. Supports your actions	()	()	()	()	()
3. Pays you a social visit	()	()	()	()	()
4. Lends you small things or a little money	()	()	()	()	()
5. Says to you 'That's good'	()	()	()	()	()
6. Hugs you or cherishes you	()	()	()	()	()
7. Gives you advice on all kinds of small domestic problems	()	()	()	()	()
8. Calls you up just for a chat	()	()	()	()	()
9. Feels with you	()	()	()	()	()
10. Makes constructive criticism about you	()	()	()	()	()
11. Takes you somewhere	()	()	()	()	()
12. Shows affection for you	()	()	()	()	()
13. Takes care of leisure activities	()	()	()	()	()
14. Offers you help under special circumstances like illness, moving	()	()	()	()	()
15. Makes you understand why you did something wrong	()	()	()	()	()
16. Goes shopping, to the cinema, to a match or just a day out with you	()	()	()	()	()
17. Caresses you	()	()	()	()	()
18. Offers you practical help with daily matters, like housekeeping or a small job	()	()	()	()	()
19. Emphasises your strong points	()	()	()	()	()
20. Invites you to a party or to dinner	()	()	()	()	()

How satisfied are you with the support received from others? Who else is available to support you? On this page, check out how satisfied you are with the support available to you from a parent or a friend.

MOTHER/PARENT or FRIEND	Much too little support	Too little support	Enough support support	Too much social support	Much too much social support
1. Cheers you up	()	()	()	()	()
2. Supports your actions	()	()	()	()	()
3. Pays you a social visit	()	()	()	()	()
4. Lends you small things or a little money	()	()	()	()	()
5. Says to you 'That's good'	()	()	()	()	()
6. Hugs you or cherishes you	()	()	()	()	()
7. Gives you advice on all kinds of small domestic problems	()	()	()	()	()
8. Calls you up just for a chat	()	()	()	()	()
9. Feels with you	()	()	()	()	()
10. Makes constructive criticism about you	()	()	()	()	()
11. Takes you somewhere	()	()	()	()	()
12. Shows affection for you	()	()	()	()	()
13. Takes care of leisure activities	()	()	()	()	()
14. Offers you help under special circumstances like illness, moving	()	()	()	()	()
15. Makes you understand why you did something wrong	()	()	()	()	()
16. Goes shopping, to the cinema, to a match or just a day out with you	()	()	()	()	()
17. Caresses you	()	()	()	()	()
18. Offers you practical help with daily matters, like housekeeping or a small job	()	()	()	()	()
19. Emphasises your strong points	()	()	()	()	()
20. Invites you to a party or to dinner	()	()	()	()	()

ACER Higher Test (New Zealand Revision)

This is a vocabulary and reasoning test. You can take as long as you like but we suggest that you don't spend too much time on any one question. Try each question as you come to it. Make any corrections clearly. Please do not ask for help or use a reference book such as a dictionary.

On this page you will find a number of practice questions to help you in the test which follows. All questions require short answers. *The answer to each question is to be written in the brackets at the end of each question.*

EXAMPLE A

Car is to **land** as **ship** is to

(A) oar (B) sail (C) travel (D) sea (E) plane [**D**]

Question 1

Sun is to **day** as **moon** is to

(A) star (B) sky (C) night (D) clouds (E) satellite []

EXAMPLE B

Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets/
(A) coat (B) hat (C) ball (D) dress (E) cup (F) shoe [**C&E**]

Question 2

Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.

(A) walk (B) run (C) skip (D) sit (E) jog (F) sleep ... [**&**]

EXAMPLE C

Find the word that means *most nearly* the *same* as **join**.

(A) mend (B) connect (C) choose (D) like (E) scatter [**B**]

Question 3

Find the word that means *most nearly* the *same* as **slender**.

(A) loud (B) untrue (C) slim (D) smooth (E) young []

EXAMPLE D

Find the two statements which together prove that **PLANES TRAVEL FASTER THAN SHIPS**.

(A) Planes travel faster than trains.

(B) Some planes have jet engines.

(C) Ships travel on the water.

(D) Trains travel faster than ships.

(E) Some trains travel very fast. [**A&D**]

Question 4

Find the two statements which together prove that **BOB SMITH OWNS A CAR**.

(A) All employees at the Border garage are mechanics.

(B) Everyone who works at the Border garage owns a car.

(C) Bob Smith is a mechanic.

(D) Mechanics need to have a driver's licence.

(E) Bob Smith works at the Border garage..... [**&**]

1. Bird is to **feather** as **fish** is to
 (A) tail (B) scale (C) fin (D) gill (E) water []
2. Find the word that means *most nearly* the same as **incorporate**.
 (A) destroy (B) incarcerate (C) improve (D) combine (E) inter []
3. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.
 (A) impound (B) detain (C) quarantine (D) license (E) confine (F) infect [&]
4. Which two of the following statements together prove that MY BUS IS COMING DOWN THE ROAD
 (A) My bus comes down the road every morning.
 (B) I catch the bus to the city every morning.
 (C) A blue bus is coming down the road.
 (D) I like travelling by bus in the morning.
 (E) My bus is the only blue bus on the road. [&]
5. Find the word that means *most nearly* the same as **arrest**.
 (A) apprehend (B) imprison (C) accuse (D) attest (E) enforce []
6. **Group** is to member as **compound** is to
 (A) agency (B) particle (C) analysis (D) society (E) solitude []
7. Find the word that means *most nearly* the same as **sceptical**.
 (A) doubting (B) friendly (C) incredible (D) villanainous (E) infected []
8. **Wire** is to **cage** as **cord** is to
 (A) metal (B) netting (C) hemp (D) strand (E) appliance []
9. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.
 (A) clip (B) pin (C) scissors (D) glue (E) key (F) staple [&]
10. The train goes north from Waipa to Motu. Kawaka is south of Waipa. In which direction would the train go from Kawaka to Motu?
 (A) north-west (B) south-east (C) north (D) south (E) north-east..... []
11. **Voluntary** is to **conscripted** as **optional** is to
 (A) casual (B) compulsory (C) considerate (D) ocular (E) reasonable []
12. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.
 (A) barge (B) schooner (C) armada (D) catamaran (E) destroyer (F) flotilla [&]
- 13 Find the word that means *most nearly* the same as **toxic**.
 (A) bitter (B) corrosive (C) poisonous (D) pungent (E) acrid []
14. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.
 (A) enthusiastic (B) healthy (C) avid (D) competent (E) eager (F) fervent [&]

15. If Amuri is due north of Oruia, and Oruia is the same distance due east of Kotuku, which *one* of the following statements must be true?

- (A) Kotuku is near to Amuri.
 (B) Amuri is north-east of Kotuku.
 (C) Kotuku is nearer to Amuri than to Oruia.
 (D) Oruia and Kotuku are closer than Amuri and Oruia.
 (E) Kotuku is south-east of Amuri. []

16. **Examiner** is to **pass** as **interviewer** is to

- (A) appoint (B) apply (C) consider (D) fail (E) study []

17. Find the word that means *most nearly* the *same* as **incessant**.

- (A) rude (B) accelerant (C) insensitive (D) continual (E) invisible []

18. Which *two* of the following statements together prove that MY FAVOURITE BOOK WAS WRITTEN BY BENNET?

- (A) Among the books on the table you will find my favourite.
 (B) My favourite author is Bennet.
 (C) The only green book on the table was written by Bennet.
 (D) Bennet wrote most of the books on the table.
 (E) My favourite book is the green one on the table. [&]

19. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.

- (A) evaluate (B) assess (C) appraise (D) supervise (E) glance (F) examine [&]

20. Find the word that means *most nearly* the *same* as **secede**.

- (A) proceed (B) withdraw (C) argue (D) defeat (E) grow []

21. Which of the following *two* statements together prove that THE 9.30 a.m. TRAIN LEFT LATE ON WEDNESDAY.

- (A) I last caught the train on Wednesday.
 (B) I arrived late on Wednesday because of the train.
 (C) If the train arrives late on Wednesday I also miss the bus.
 (D) The last time I caught a train it left late.
 (E) The train may leave late but arrive on time. [&]

22. **Book** is to **page** as **whole** is to

- (A) centre (B) entire (C) part (D) total (E) quantity []

23. Find the word that means *most nearly* the *same* as **fervour**.

- (A) zeal (B) kindness (C) illness (D) deceit (E) haste []

24. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.

- (A) legs (B) oars (C) wings (D) feathers (E) gears (F) wheels [&]

25. **Eye** is to camera as **ear** is to

- (A) drum (B) tape recorder (C) speech (D) radio (E) hearing []

26. Which of the two following statements together prove that GEORGE DID NOT GO TO WORK YESTERDAY.

- (A) George had an attack of flu last week.
- (B) The day after tomorrow will be Thursday.
- (C) George stayed at home for six days with the flu..
- (D) George felt ill yesterday.
- (E) George did not go to work on Monday. [&]

27. **Irritation** is to **anger** as **pleasure** is to

- (A) ecstasy (B) rage (C) acceptance (D) affection (E) aversion []

28. Find the word that means most nearly the *same* as **concur**.

- (A) waver (B) resume (C) curve (D) agree (E) occur []

29. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.

- (A) continual (B) frequent (C) always (D) infrequent (E) intermittent (F) occasional [&]

30. Find the word that means most nearly the *same* as **cite**.

- (A) civilize (B) quote (C) surround (D) urge (E) amend []

31. Find the word that means most nearly the *same* as **equitable**.

- (A) insured (B) just (C) lenient (D) released (E) forgotten []

32. Four of the following are *alike* in some way. Write the letters of the other *two* in the brackets.

- (A) thread (B) mesh (C) cobweb (D) grid (E) lattice (F) loom .. [&]

33. A chemical substance X can only exist in the presence of another chemical W. Y cannot exist in the presence of W. A fourth substance Z cannot exist in the presence of X. Which one of the following statements must be true?

- (A) Z and W cannot exist together.
- (B) Z can only exist in the presence of Y.
- (C) Y and Z cannot exist together.
- (D) No three of the four substances can exist together.
- (E) X and Y can exist together. []

34. Mr Block has one more son than Mr Clay and Mr Ash has one more son than Mr Block.

Mr Dee's family of one son is half the size of Mr Clay's. How many sons do Mr Block and Mr Clay have together?

- (A) 2 (B) 3 (C) 4 (D) 5 (E) 6 []

Edinburgh Depression Scale

With regards to your feelings, please UNDERLINE the answer which comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:

- Yes, all the time
- Yes, most of the time
- No, not very often
- No, not at all

This would mean: "I have felt happy most of the time" during the past week. Please complete the other questions the same way.

In the past 7 days:

1. I have been able to laugh and see the funny side of things
 - As much as I always could
 - Not so much now
 - Definitely not so much now
 - Not at all

2. I have looked forward with enjoyment to things
 - As much as I ever did
 - Rather less than I used to
 - Definitely less than I used to
 - Hardly at all

3. I have blamed myself unnecessarily when things went wrong
 - Yes, most of the time
 - Yes, some of the time
 - Not very often
 - No, never

4. I have been anxious or worried for no good reason
 - No, not at all
 - Hardly ever
 - Yes, sometimes
 - Yes, very often

5. I have felt scared or panicky for no very good reason
 - Yes, quite a lot
 - Yes, sometimes
 - No, not much
 - No, not at all

6. Things have been getting on top of me
 - Yes, most of the time I have not been able to cope at all
 - Yes, sometimes I haven't been able to cope as well as usual
 - No, most of the time I have coped quite well
 - No, I have been coping as well as ever

-
7. I have been so unhappy that I have had difficulty sleeping
Yes most of the time
Yes, sometimes
Not very often
No, not at all
8. I have felt sad or miserable
Yes, most of the time
Yes, quite often
Not very often
No, not at all
9. I have been so unhappy that I have been crying
Yes, most of the time
Yes, quite often
Only occasionally
No, never
10. The thought of harming myself has occurred to me
Yes, quite often
Sometimes
Hardly ever
Never

Concepts of Development Questionnaire

This questionnaire asks for your opinions about different aspects of child-rearing. Please give your own opinions and do not worry about what others may think. You will probably agree with some statements and disagree with others. There are no right or wrong answers to these questions since they are all matters of opinion.

Read each item carefully and, when you are sure you understand it, place an X in the box which best expresses your feelings about the statement. Do not spend much time on any item. Try to answer every question.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Children have to be treated differently as they grow older.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Parents must keep to their standards and rules no matter what their child is like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. It is not easy to define a good home because it is made up of many different things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Fathers cannot raise their children as well as mothers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The mischief that 2-year-olds get into is part of a passing stage that they'll grow out of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. A child who isn't toilet trained by 3 years of age must have something wrong with him/her.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Parents need to be sensitive to the needs of their children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Girls tend to be easier babies to take care of than boys.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Difficult babies will grow out of it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. There's not much anyone can do to help emotionally disturbed children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Children's problems seldom have a single cause.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-
12. The father's role is to provide the discipline in a family and the mother's role is to give love and attention to the children.
13. Parents can be turned off by a fussy child so that they are unable to be as nice as they would like.
14. A child's success at school depends on how much his mother taught him at home.
15. There is no one right way to raise children.
16. Boy babies are less affectionate than girl babies.
17. Firstborn children are usually treated differently than are later-born children.
18. An easy baby will grow up to be a good child.
19. Parents change in response to their children.
20. Babies have to be taught to behave themselves or they will be bad later on.

Appendix 8.**The California Adult Q-Sort**

Appendix 8a.

California Adult Q-Sort

Appendix A in

Block, J. (1971) *Lives through time*. Berkeley, CA: Bancroft Books.

Modified slightly for cards used in Transition to Parenthood Project.

- 1 Is critical, doubting, not easily impressed
- 2 Is a genuinely dependable and responsible person
- 3 Has a wide range of interests
- 4 Is a talkative individual
- 5 Behaves in a giving way towards others
- 6 Is fussy about behaviour, appearance and material possessions
- 7 Favours conservative values in a variety of areas
- 8 Appears to have a high degree of intellectual capacity
- 9 Is uncomfortable with uncertainties and complexities RevPOST
- 10 Anxiety and tension show up as physical symptoms (e.g., tends to get sick when things go wrong)
- 11 Is protective of those close to him/her
- 12 Tends to be self-defensive
- 13 Is thin-skinned; easily hurt by other people's comments
- 14 Basically submissive
- 15 Is imaginative in social settings (e.g., role-playing, pretence, humour, etc.)
- 16 Is introspective
- 17 Behaves in sympathetic and considerate manner
- 18 Initiates humour - makes spontaneous funny remarks
- 19 Seeks reassurance from others
- 20 Is fast-paced – moves and reacts to things quickly
- 21 Arouses nurturant feelings in others of both sexes
- 22 Feels a lack of personal meaning in life
- 23 Tends to shift blame onto others
- 24 Prides self on being “objective”, rational
- 25 Keeps a tight rein on personal needs and impulses, not self-indulgent
- 26 Is productive: gets things done
- 27 Is condescending to others – acts superior to others
- 28 Tends to arouse liking and acceptance in people

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- 29 Is turned to for advice and reassurance
 - 30 Gives up and withdraws where possible in the face of frustration and adversity
 - 31 Is satisfied with physical appearance
 - 32 Seems to be aware of the impression he/she makes on others
 - 33 Is calm, relaxed in manner
 - 34 Irritable, gets easily frustrated
 - 35 Is a warm person and responds with kindness to other people
 - 36 Is negativistic; tends to undermine and obstruct or sabotage
 - 37 Is deceitful, manipulative, opportunistic
 - 38 Is hostile towards others
 - 39 Has an unusual way of thinking about things – for better or worse, puts things together differently in their mind
 - 40 Behaves in a fearful or timid manner
 - 41 Is moralistic, has strong convictions regarding right or wrong
 - 42 Reluctant to commit self to any definite course of action; tends to delay or avoid action
 - 43 Is expressive in face, voice and gestures
 - 44 Is always evaluating others' motives
 - 45 Tends to go to pieces under stress – gets rattled when things are tough
 - 46 Engages in personal fantasy and daydreams, fictional speculations.
 - 47 Feels guilty easily
 - 48 Keeps people at a distance – avoids close personal relationships
 - 49 Is basically distrustful of people in general: questions their motivations
 - 50 Is unpredictable and changeable in behaviour and attitudes
 - 51 Genuinely values intellectual and cognitive matters
 - 52 Behaves in an assertive fashion in interpersonal situations
 - 53 Expresses needs directly without any control (e.g. cannot wait for rewards)
 - 54 Is sociable – likes being with others
 - 55 Is self-defeating – puts self down
 - 56 Responds favourably to humour, wit and jokes
 - 57 Is an interesting person, gains other people's attention, has 'personality'
 - 58 Enjoys sensuous experiences (including touch, taste, smell, physical contact).
 - 59 Is concerned with own body and the adequacy of its physical functioning
 - 60 Has insight into own motives and behaviour
 - 61 Creates and exploits dependency in people

-
- 62 Tends to be rebellious and non-conforming
 - 63 Judges self and others in conventional terms like “popularity”, “the correct thing to do”, social pressures, etc
 - 64 Notices and reads social signals and can fit into a wide range of social settings
 - 65 Characteristically pushes and tries to stretch limits; sees what he/she can get away with.
 - 66 Likes ‘the arts’
 - 67 Is self-indulgent
 - 68 Is basically anxious
 - 69 Is bothered by anything that seems like a demand
 - 70 Behaves in an ethically consistent manner; is consistent with own personal standards
 - 71 Has high aspiration level for self
 - 72 Over-concerned with own adequacy as a person
 - 73 Tends to interpret most things in a sexual way
 - 74 Feels satisfied with self
 - 75 Has a clear-cut personality – is relatively easy to understand
 - 76 Tends to project his/her own feelings and motivations onto others
 - 77 Appears straightforward, forthright, candid in dealings with others
 - 78 Feels cheated and victimised by life
 - 79 Tends to spend a lot of time thinking and have persistent, preoccupying thoughts
 - 80 Interested in members of the opposite sex
 - 81 Is physically attractive, goodlooking
 - 82 Has fluctuating moods
 - 83 Able to see to the heart of important problems
 - 84 Is cheerful
 - 85 Is self-pitying (whiny)
 - 86 Handles anxiety and conflicts by blocking them out
 - 87 Interprets basically simple and clearcut situations in complicated ways
 - 88 Is personally charming
 - 89 Compares self to others Is alert to real or fancied differences between self and other people
 - 90 Is concerned with philosophical problems; e.g. religious values, the meaning of life, etc.
 - 91 Seeks power and admires it in others

- 92 Has social poise and presence; appears socially at ease
- 93a Behaves in a masculine style and manner
- 93b Behaves in a feminine style and manner
- 94 Expresses hostile feeling directly
- 95 Tends to offer advice whether it is asked for or not
- 96 Values own independence and autonomy
- 97 Is an unemotional person – is emotionally bland
- 98 Is verbally fluent; can express ideas well.
- 99 Dramatises things that happen to him/her and draws attention to the performance
- 100 Has a stable personality; relates to everyone in the same way

Appendix 8b.

The California Adult Q-sort is a way of describing a person's personality.

Please do the sort twice – once for yourself and once for your partner.

Follow the directions on the sheet which shows you how to sort into the five piles.

There is no requirement for piles to be the same size but it is unlikely that any pile would contain less than five items.

On the form below, circle the appropriate descriptors for this sort, and then write in the numbers of the items in each of your piles, with a comma between each number.

ID: Male / Female

This sort is for Self / Partner

Pile 1a (apply most) _____

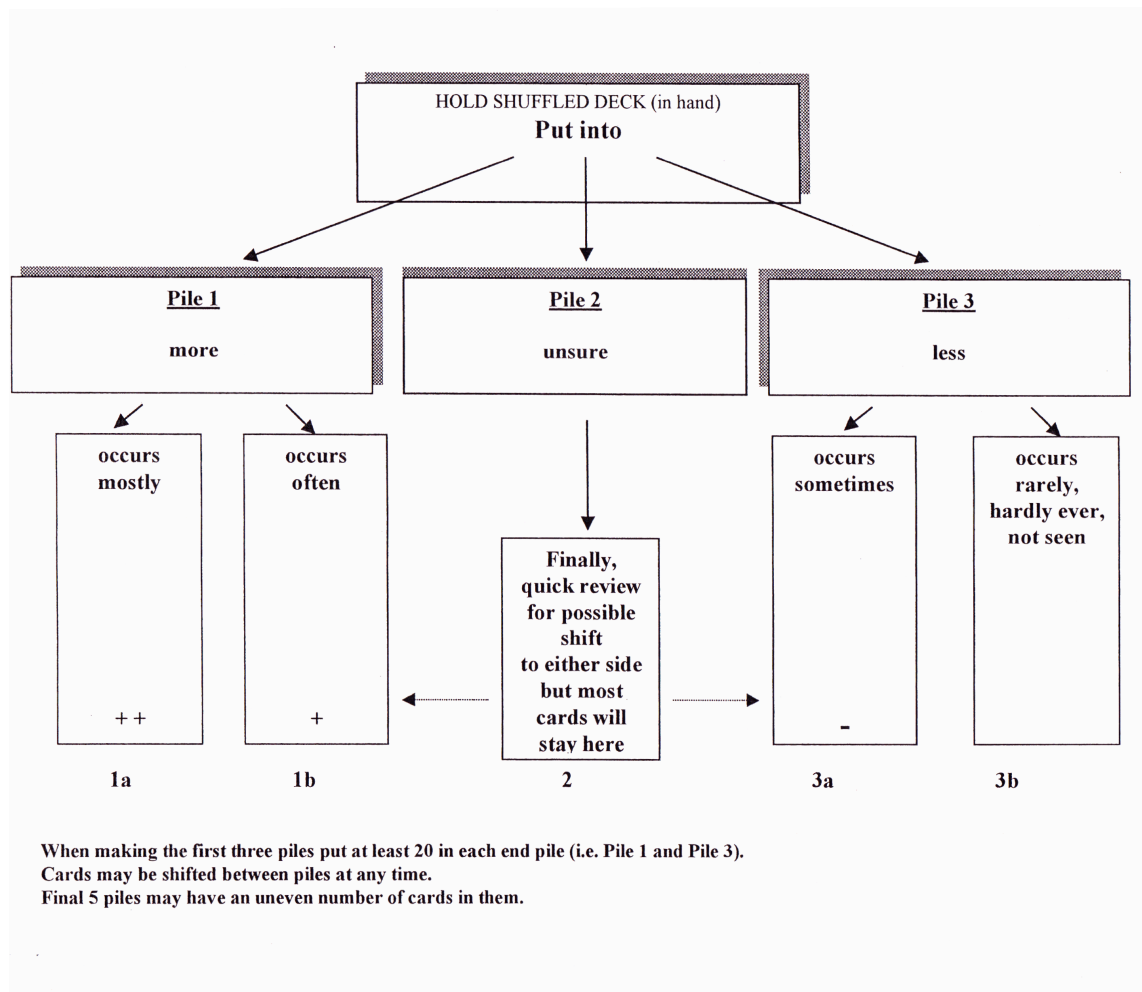
Pile 1b _____

Pile 2 _____

Pile 3a _____

Pile 3b (apply least) _____

Appendix 8c.



Appendix 9.

Transition to Parenthood Time 3

Appendix 9a.



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Transition to Parenthood Project

Dear [REDACTED]

1st October, 2007

By now you must be feeling that parenthood is a role that you are familiar with. Your baby must be about 15 months old. You will remember that before you had your baby you participated in our project *Transition to Parenthood*. You took part in an interview and filled in some questionnaires. The intention was to get in touch with you when your baby was 12 to 15 months and find out how things had turned out for you as parents over the period.

I would really like to know how things went for you, and if possible add your scores to the collection. If you are willing to do this I would be very grateful. Please send back these booklets in the enclosed self-addressed envelope.

You will see that there are two booklets enclosed – one for Mother and one for Father. Three of the questionnaires within are ones you filled in earlier, The Social Support Inventory, Thinking About Myself Inventory and the Edinburgh Depression Scale. It will be interesting to see whether your scores on these have changed over this momentous period.

The other questionnaires are the Infant Behaviour Questionnaire, which is a frequently used assessment for babies from 6 to 18 months, a Parenting Questionnaire with a father's form and a mother's form to assess the distribution of parenting tasks between parents, an Experience of Motherhood/Fatherhood Scale which collects information on your feelings about parenting, and the Toddler – Mother/Father Trilemma Form which is a new method of finding out how a parent evaluates a child's behaviour.

On the booklets is an invitation to arrange a visit so that you can tell me how the transition year has been for you. That has proved rather difficult to arrange for some parents so we are now suggesting telephone interviews instead. I am flexible so can visit or, if you would prefer, have a phone interview. I would be happy to do either whenever it suits you. Just tell me on the front of your booklet and I will ring and arrange a time.

Eventually I hope to get back to you to let you know what our project has told us about new parents today. I am very grateful for your participation.

Best wishes,

Appendix 9b.



Transition to Parenthood Project Questionnaire Booklet 3 for Fathers

ID.....

Today's Date.....

Telephone.....

Best time to ring to arrange visit.....

This booklet contains:

- Experience of Fatherhood Scale
- Caldera Parenting Questionnaire – Father
- Toddler- Father Trilemma
- Rothbart Infant Behaviour Questionnaire – Revised
- Edinburgh Depression Scale
- Social Support Inventory
- Thinking About Myself Inventory

Experience of Fatherhood Scale

Directions:

Having a child can bring about changes in the lives of men. This instrument was designed for women but it may be valid for first time fathers as well.

Please read the following statements which have been used to describe feelings about mothering, and circle the number to the right of each statement which best describes your general attitudes. If the statement seems to not apply to fathers, circle the X.

There are no right or wrong answers. Do not spend too much time on any one statement.

1 Not At All	2 Somewhat	3 Moderately So	4 Very Much So	N/A	
1. I feel relaxed whenever I think about the baby	1	2	3	4	X
2. I find the trouble of arranging a baby sitter takes away from the pleasure of going out	1	2	3	4	X
3. I need a break from the demands of the baby	1	2	3	4	X
4. I have easy access to transport when I go out with the baby	1	2	3	4	X
5. I am concerned about the baby's progress	1	2	3	4	X
6. I enjoy mealtimes with the baby	1	2	3	4	X
7. I have time to pursue my own interests	1	2	3	4	X
8. I find relatives undermine my confidence in looking after the baby	1	2	3	4	X
9. I have enjoyed sex since the baby was born	1	2	3	4	X
10. I feel cut off from my friends	1	2	3	4	X
11. I like my life just as it is	1	2	3	4	X
12. I get so much different advice it is hard to know what is best for the baby	1	2	3	4	X
13. I feel anxious whenever I remember the baby's start in life	1	2	3	4	X
14. I am coping with the stresses of parenthood	1	2	3	4	X
15. I wish those close to me would share the work of baby care with me	1	2	3	4	X
16. I have greater confidence since I became a parent	1	2	3	4	X
17. I have little to talk about besides the baby	1	2	3	4	X
18. I feel run down	1	2	3	4	X
19. I have an active social life	1	2	3	4	X
20. I feel great fulfilment in looking after the baby	1	2	3	4	X

Caldera (2004) Parenting Questionnaire

This questionnaire assesses the distribution of parenting tasks between parents. It does not account for childcare provided by other people.

ID _____ (**Father**) Age of child _____ months Gender of child _____

Think about the last two weeks. Which week would be the most typical for time you spent with your child?

In the week which you think was most typical,

How many hours were you at home when the child was at home and awake?

Weekdays _____ Weekends _____

How many hours did you spend in playing with your child ?

Weekdays _____ Weekends _____

How many hours did you spend reading to your child?

Weekdays _____ Weekends _____

How many times per week did you dress your child?

.....feed your child? _____

.....change nappies? _____

.....put your child to bed? _____

.....bathe your child? _____

Which parent	mother	father	both
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.....arranges childcare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.....chooses the child's diet?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------	--------------------------	--------------------------	--------------------------

.....chooses toys for the child?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.....takes the child to the doctor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Toddler-Father Trilemmas

Because it is often hard for a parent to describe a toddler's characteristics, this is a new method of assessing how a parent sees a child's behaviour with them. On the following pages there are 30 sets of three cards. Read the cards in each line and decide which is the least like and the most like your child when he or she is with you. In the boxes alongside each line put the number of the card which is least like and most like your child.

You will notice that the cards repeat in different combinations. Some of these cards are not at all relevant to your child and you might find some of the choices you get are hard to answer truthfully. However, when these numbers are put in a computer programme they will provide a description of your child's characteristics with you.

Because a child often behaves differently with mother and father or other caregiver we would like to find out how differently (or similarly) two parents will describe the same child.

Toddler-Father Trilemmas – Response Form

I 1:	1. When child cries, cries loud and long.	2. Is very independent.	3. Seeks and enjoys being hugged by father.	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 2:	1. Obeys when asked to bring or give father something.	2. If there is a choice, child prefers to play with toys rather than with friendly adults.	3. Cries often, regardless of how hard or how long.	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 3:	1. When crying or upset, is easily comforted by contact with father.	2. Shows no fear; into everything.	3. Sometimes freezes still in an unusual position for a few seconds.	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 4:	1. Appears lost, remote and/or disconnected.	2. When a new visitor arrives, child first ignores or avoids them.	3. Eager to join in with new visitors, does not wait to be asked.	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 5:	1. Hugs and cuddles against father without being asked to do so.	2. Takes off and explores new things on own.	3. Suddenly aggressive towards father for no reason (for example, hits, slaps, pushes, or bites father).	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 6:	1. Easily becomes angry at father.	2. Relaxes when in contact with father.	3. Usually finds something else to do when finished with an activity (does not go to father for help).	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 7:	1. Soon loses interest in new visitors.	2. Enjoys copying what new visitors do.	3. Tries to stop father from giving affection to other people (including family members).	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 8:	1. A social child who enjoys the company of others.	2. When father talks with anybody else, child wants father's attention.	3. Turns away from new visitors and goes own way.	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	
I 9:	1. When father says 'come here,' child obeys.	2. Often out of father's sight -- not needing father (e.g. watches TV, plays in another room).	3. Cries as a way of getting father to do what is wanted.	Least	Most
	<input type="checkbox"/>			<input type="checkbox"/>	

I	11:	1. If asked, lets new visitors hold or share toys.	2. Goes all floppy (limp) when held by father.	3. Child does not try new things and always wants father to help.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	12:	1. Fusses, gets angry or gives up when father refuses to do what child wants right away.	2. When father asks child to do something, child understands what he wants (may or may not obey).	3. Hardly ever goes to father for any help, not even for minor injuries.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	13:	1. With father, child suddenly goes from being nice to mean, or calm to upset (crying afraid, angry), or gets upset and then goes blank.	2. Enjoys being hugged or held by new visitors.	3. Often wants father's attention.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	14:	1. Wants to be at the centre of father's attention.	2. Responds to positive hints from father.	3. When child sees something really nice to play with, child will fuss and whine or try to drag father over to it.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	15:	1. Is very clingy, stays closer to father or returns more often than simply keeping track of father's whereabouts.	2. Gets upset if father leaves and shifts to another place.	3. When child is bored, will go to father looking for something to do.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	16:	1. When child cries, cries loud and long.	2. Shows no fear; into everything.	3. When father says 'come here,' child obeys.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	17:	1. When crying or upset, is easily comforted by contact with father.	2. Suddenly aggressive towards father for no reason (for example, hits, slaps, pushes, or bites father).	3. Is very independent.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	18:	1. Seeks and enjoys being hugged by father.	2. Appears lost, remote and/or disconnected.	3. If there is a choice, child prefers to play with toys rather than with friendly adults.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	19:	1. Takes off and explores new things on own.	2. Sometimes freezes still in an unusual position for a few seconds.	3. Wants to be at the centre of father's attention.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>
I	20:	1. A social child who enjoys the company of others.	2. Cries often, regardless of how hard or how long.	3. When a new visitor arrives, child first ignores or avoids them.	Least	Most
					<input type="checkbox"/>	<input type="checkbox"/>

I 2 1:	1. Easily becomes angry at father.	2. Hugs and cuddles against father without being asked to do so.	3. Often out of father's sight -- not needing father (e.g. watches TV, plays in another room).	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 22:	1. Eager to join in with new visitors, does not wait to be asked.	2. Turns away from new visitors and goes own way.	3. Tries to stop father from giving affection to other people (including family members).	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 23:	1. Goes all floppy (limp) when held by father.	2. Soon loses interest in new visitors.	3. Cooperates with father and gives him things if asked.	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 24:	1. Relaxes when in contact with father.	2. Hardly ever goes to father for any help, not even for minor injuries.	3. Cries as a way of getting father to do what is wanted.	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 25:	1. With father, child suddenly goes from being nice to mean, or calm to upset (crying afraid, angry), or gets upset and then goes blank.	2. Obeys when asked to bring or give father something.	3. Usually finds something else to do when finished with an activity (does not go to father for help).	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 26:	1. If asked, lets new visitors hold or share toys.	2. Often wants father's attention.	3. Will go towards father to give him toys, but does not touch nor look at him.	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 27:	1. Enjoys copying what new visitors do.	2. When father asks child to do something, child understands what he wants (may or may not obey).	3. Cries or tries to stop father from leaving or moving to another place.	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 28:	1. Fussing, gets angry or gives up when father refuses to do what child wants right away.	2. When child is bored, will go to father looking for something to do.	3. Enjoys being hugged or held by new visitors.	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 29:	1. Child does not try new things and always wants father to help.	2. Responds to positive hints from father.	3. When father talks with anybody else, child wants father's attention.	Least <input type="checkbox"/>	Most <input type="checkbox"/>
I 30:	1. When child sees something really nice to play with, child will fuss and whine or try to drag father over to it.	2. Gets upset if father leaves and shifts to another place.	3. Is very clingy, stays closer to father or returns more often than simply keeping track of father's whereabouts.	Least <input type="checkbox"/>	Most <input type="checkbox"/>

Edinburgh Depression Scale

With regards to your feelings, please UNDERLINE the answer which comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:

Yes, all the time

Yes, most of the time

No, not very often

No, not at all

This would mean: "I have felt happy most of the time" during the past week.

Please complete the other questions the same way.

In the past 7 days:

- | | |
|--|---|
| <p>1. I have been able to laugh and see the funny side of things</p> <p style="margin-left: 40px;">As much as I always could
Not so much now
Definitely not so much now
Not at all</p> | <p>2. I have looked forward with enjoyment to things</p> <p style="margin-left: 40px;">As much as I ever did
Rather less than I used to
Definitely less than I used to
Hardly at all</p> |
| <p>3. I have blamed myself unnecessarily when things went wrong</p> <p style="margin-left: 40px;">Yes, most of the time
Yes, some of the time
Not very often
No, never</p> | <p>4. I have been anxious or worried for no good reason</p> <p style="margin-left: 40px;">No, not at all
Hardly ever
Yes, sometimes
Yes, very often</p> |
| <p>5. I have felt scared or panicky for no very good reason</p> <p style="margin-left: 40px;">Yes, quite a lot

Yes, sometimes

No, not much

No, not at all</p> | <p>6. Things have been getting on top of me</p> <p style="margin-left: 40px;">Yes, most of the time I have not been able to cope at all
Yes, sometimes I haven't been able to cope as well as usual
No, most of the time I have coped quite well
No, I have been coping as well as ever</p> |
| <p>7. I have been so unhappy that I have had difficulty sleeping</p> <p style="margin-left: 40px;">Yes most of the time
Yes, sometimes
Not very often
No, not at all</p> | <p>8. I have felt sad or miserable</p> <p style="margin-left: 40px;">Yes, most of the time
Yes, quite often
Not very often
No, not at all</p> |
| <p>9. I have been so unhappy that I have been crying</p> <p style="margin-left: 40px;">Yes, most of the time
Yes, quite often
Only occasionally
No, never</p> | <p>10. The thought of harming myself has occurred to me</p> <p style="margin-left: 40px;">Yes, quite often
Sometimes
Hardly ever
Never</p> |

Social Support Inventory

How satisfied are you with the support received from others? On this page, check out how satisfied you are with the support received from your **PARTNER**.

	Much too little support	Too little support	Enough support	Too much social support	Much too much social support
1. Cheers you up	()	()	()	()	()
2. Supports your actions	()	()	()	()	()
3. Pays you a social visit	()	()	()	()	()
4. Lends you small things or a little money	()	()	()	()	()
5. Says to you 'That's good'	()	()	()	()	()
6. Hugs you or cherishes you	()	()	()	()	()
7. Gives you advice on all kinds of small domestic problems	()	()	()	()	()
8. Calls you up just for a chat	()	()	()	()	()
9. Feels with you	()	()	()	()	()
10. Makes constructive criticism about you	()	()	()	()	()
11. Takes you somewhere	()	()	()	()	()
12. Shows affection for you	()	()	()	()	()
13. Takes care of leisure activities	()	()	()	()	()
14. Offers you help under special circumstances like illness, moving	()	()	()	()	()
15. Makes you understand why you did something wrong	()	()	()	()	()
16. Goes shopping, to the cinema, to a match or just a day out with you	()	()	()	()	()
17. Caresses you	()	()	()	()	()
18. Offers you practical help with daily matters, like housekeeping or a small job	()	()	()	()	()
19. Emphasises your strong points	()	()	()	()	()
20. Invites you to a party or to dinner	()	()	()	()	()

How satisfied are you with the support received from others? Who else is available to support you? On this page, check out how satisfied you are with the support available to you from a parent or a friend.

PARENT/SIBLING or FRIEND	Much too little support	Too little support	Enough support	Too much social support	Much too much social support
1. Cheers you up	()	()	()	()	()
2. Supports your actions	()	()	()	()	()
3. Pays you a social visit	()	()	()	()	()
4. Lends you small things or a little money	()	()	()	()	()
5. Says to you 'That's good'	()	()	()	()	()
6. Hugs you or cherishes you	()	()	()	()	()
7. Gives you advice on all kinds of small domestic problems	()	()	()	()	()
8. Calls you up just for a chat	()	()	()	()	()
9. Feels with you	()	()	()	()	()
10. Makes constructive criticism about you	()	()	()	()	()
11. Takes you somewhere	()	()	()	()	()
12. Shows affection for you	()	()	()	()	()
13. Takes care of leisure activities	()	()	()	()	()
14. Offers you help under special circumstances like illness, moving	()	()	()	()	()
15. Makes you understand why you did something wrong	()	()	()	()	()
16. Goes shopping, to the cinema, to a match or just a day out with you	()	()	()	()	()
17. Caresses you	()	()	()	()	()
18. Offers you practical help with daily matters, like housekeeping or a small job	()	()	()	()	()
19. Emphasises your strong points	()	()	()	()	()
20. Invites you to a party or to dinner	()	()	()	()	()

THINKING ABOUT MYSELF QUESTIONNAIRE

Using a scale of 0 to 10 where:

0 = “of no importance”

10 = “extremely important”

Please indicate how **IMPORTANT** to your self-esteem is your:

- | | |
|---|--|
| 1. Looks and physical attractiveness:
0...1...2...3...4...5...6...7...8...9...10 | 11. Meeting or having met your responsibilities to your family, i.e., being a good spouse, son or daughter
0...1...2...3...4...5...6...7...8...9...10 |
| 2. Physical condition, strength, and agility:
0...1...2...3...4...5...6...7...8...9...10 | 12. Intelligence, how smart you are:
0...1...2...3...4...5...6...7...8...9...10 |
| 3. Grooming, clothing, overall appearance:
0...1...2...3...4...5...6...7...8...9...10 | 13. Level of academic accomplishments, years of education
0...1...2...3...4...5...6...7...8...9...10 |
| 4. Being liked by others, your popularity and ability to get along, your social skills:
0...1...2...3...4...5...6...7...8...9...10 | 14. Being a cultured and knowledgeable person, knowing about art, music and world events:
0...1...2...3...4...5...6...7...8...9...10 |
| 5. Being a good person, your friendliness and helpfulness to others:
0...1...2...3...4...5...6...7...8...9...10 | 15. Having special talents or abilities – artistic, scientific, musical, athletic, etc.:
0...1...2...3...4...5...6...7...8...9...10 |
| 6. Having a loving, close relationship with
0...1...2...3...4...5...6...7...8...9...10 | 16. Earning a great amount of money and acquiring valuable possessions:
0...1...2...3...4...5...6...7...8...9...10 |
| 7. Being a law-abiding, responsible citizen:
0...1...2...3...4...5...6...7...8...9...10 | 17. Being recognised for your accomplishments earning the respect of others for your dealings with other
0...1...2...3...4...5...6...7...8...9...10 |
| 8. Being an honest and truthful person in work:
0...1...2...3...4...5...6...7...8...9...10 | 18. Doing what you set out to do personally, meeting the goals you set for yourself:
0...1...2...3...4...5...6...7...8...9...10 |
| 9. Having the courage of your convictions, speaking up for what you think is right, even when it is not popular to do so:
0...1...2...3...4...5...6...7...8...9...10 | 19. Having influence over the events or people in your life:
0...1...2...3...4...5...6...7...8...9...10 |
| 10. Relationship with your family, being on good terms with your family, having good feelings for each other:
0...1...2...3...4...5...6...7...8...9...10 | 20. Belief in a higher power, your spiritual convictions:
0...1...2...3...4...5...6...7...8...9...10 |

Using a scale of 0 to 10 where:

0 = “not satisfied”

10 = “very satisfied”

Please indicate how **SATISFIED** you are with your:

- | | |
|---|--|
| 1. Looks and physical attractiveness:
0...1...2...3...4...5...6...7...8...9...10 | 11. Meeting or having met your responsibilities to your family, i.e., being a good spouse, son or daughter
0...1...2...3...4...5...6...7...8...9...10 |
| 2. Physical condition, strength, and agility:
0...1...2...3...4...5...6...7...8...9...10 | 12. Intelligence, how smart you are:
0...1...2...3...4...5...6...7...8...9...10 |
| 3. Grooming, clothing, overall appearance:
0...1...2...3...4...5...6...7...8...9...10 | 13. Level of academic accomplishments, years of education
0...1...2...3...4...5...6...7...8...9...10 |
| 4. Being liked by others, your popularity and ability to get along, your social skills:
0...1...2...3...4...5...6...7...8...9...10 | 14. Being a cultured and knowledgeable person, knowing about art, music and world events:
0...1...2...3...4...5...6...7...8...9...10 |
| 5. Being a good person, your friendliness and helpfulness to others:
0...1...2...3...4...5...6...7...8...9...10 | 15. Having special talents or abilities – artistic, scientific, musical, athletic, etc.:
0...1...2...3...4...5...6...7...8...9...10 |
| 6. Having a loving, close relationship with someone: artistic, scientific, musical, athletic, etc.:
0...1...2...3...4...5...6...7...8...9...10 | 16. Earning a great amount of money and acquiring valuable possessions:
0...1...2...3...4...5...6...7...8...9...10 |
| 7. Being a law-abiding, responsible citizen:
0...1...2...3...4...5...6...7...8...9...10 | 17. Being recognised for your accomplishments earning the respect of others for your work:
0...1...2...3...4...5...6...7...8...9...10 |
| 8. Being an honest and truthful person in your dealings with others:
0...1...2...3...4...5...6...7...8...9...10 | 18. Doing what you set out to do personally, meeting the goals you set for yourself:
0...1...2...3...4...5...6...7...8...9...10 |
| 9. Having the courage of your convictions, speaking up for what you think is right, even when it is not popular to do so:
0...1...2...3...4...5...6...7...8...9...10 | 19. Having influence over the events or people in your life:
0...1...2...3...4...5...6...7...8...9...10 |
| 10. Relationship with your family, being on good terms with your family, having good feelings for each other:
0...1...2...3...4...5...6...7...8...9...10 | 20. Belief in a higher power, your spiritual convictions:
0...1...2...3...4...5...6...7...8...9...10 |

Edinburgh Depression Scale

With regards to your feelings, please UNDERLINE the answer which comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

Here is an example, already completed.

I have felt happy:

Yes, all the time

Yes, most of the time

No, not very often

No, not at all

This would mean: "I have felt happy most of the time" during the past week.
Please complete the other questions the same way.

In the past 7 days:

3. I have been able to laugh and see the funny side of things
As much as I always could
Not so much now
Definitely not so much now
Not at all

4. I have looked forward with enjoyment to things
As much as I ever did
Rather less than I used to
Definitely less than I used to
Hardly at all

3. I have blamed myself unnecessarily when things went wrong
Yes, most of the time
Yes, some of the time
Not very often
No, never

4. I have been anxious or worried for no good reason
No, not at all
Hardly ever
Yes, sometimes
Yes, very often

5. I have felt scared or panicky for no very good reason
Yes, quite a lot
Yes, sometimes
No, not much
No, not at all

6. Things have been getting on top of me
Yes, most of the time I have not been able to cope at all
Yes, sometimes I haven't been able to cope as well as usual
No, most of the time I have coped quite well
No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
Yes most of the time
Yes, sometimes
Not very often
No, not at all
8. I have felt sad or miserable
Yes, most of the time
Yes, quite often
Not very often
No, not at all
9. I have been so unhappy that I have been crying
Yes, most of the time
Yes, quite often
Only occasionally
No, never
10. The thought of harming myself has occurred to me
Yes, quite often
Sometimes
Hardly ever
Never

Appendix 10.

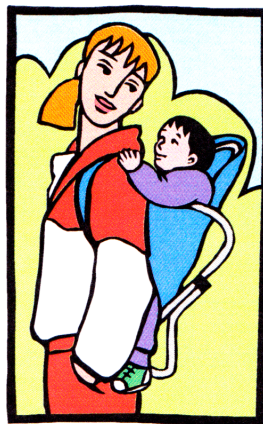
Transition to Parenthood Posters

Appendix 10a.



Department of Health & Human Development

TRANSITION TO PARENTHOOD



- Are you expecting your first baby?
- Do you have people close by who will be supporting you with your new baby?
- How do you think parenting will change you?

You are invited to take part in a research project being led by Sue Watson, lecturer in Human Development at Massey University. This project will investigate which aspects of parents and their circumstances help or hinder their adjustment to caring for an infant. Becoming a parent will have challenges and advantages that are different today from those of the past. Please consider contributing your experiences to this research.

If you are interested in learning more, please ring:

Sue Watson: Massey 356 9099, Extension 8882.

Appendix 10b.

TRANSITION TO PARENTHOOD



**Transition to
Parenthood Project
Sue Watson
Ph. 356 9099, Ex.8882**

**Transition to
Parenthood Project
Sue Watson
Ph. 356 9099, Ex.8882**

Mothers and Fathers

Are you expecting your first baby?

**Transition to
Parenthood Project
Sue Watson
Ph. 356 9099, Ex.8882**

Do you have people close by who will be supporting you with your new baby?

**Transition to
Parenthood Project
Sue Watson
Ph. 356 9099, Ex.8882**

How do you think parenting will change you?

You are invited to take part in a research project being led by Sue Watson, lecturer in Human Development at Massey University. This project will investigate which aspects of parents and their circumstances help or hinder their adjustment to caring for an infant. Becoming a parent will have challenges and advantages that are different today from those of the past. Please consider contributing your experiences to this research.

**Transition to
Parenthood Project
Sue Watson
Ph. 356 9099, Ex.8882**

**Transition to
Parenthood Project
Sue Watson
Ph. 356 9099, Ex.8882**

If you are interested in learning more, please ring:
Sue Watson: Massey University, 356 9099, ex.8882

Appendix 11.

Transition Parenthood Participant Recruitment

Appendix 11a.**Massey**

COLLEGE OF EDUCATION

Sue Watson
Lecturer in Human Development
Dept. Health & Human Development
College of Education
Massey University
Palmerston North, New Zealand
Ph.+64-6-350-5799, Ext.8882

Date:

Transition to Parenthood Project

Dear

Thank you for agreeing to participate in the Transition to Parenthood project. We look forward to meeting you at

on

This meeting may take up to two hours. During this time there will be an interview about what life was like for you growing up and your expectations for your future as a parent. Also you will be given a new sort of personality assessment - a deck of cards on which there are personality characteristics for you to sort out which are descriptive of you and which are not. Then you will be asked to repeat the exercise to describe the personality of your partner. You will be given a booklet of questionnaires to take home to fill in and post back to us.

This research will gather data from new parents in the Palmerston North area which will be used to answer a variety of questions. Examples of questions:

What are the characteristics of mothers who return to work before the baby is 6 months old?

Are babies more securely attached to their mothers if she does not return to work before the baby is 12 months old?

Are fathers' experiences as a child related to their relationship with their baby at 12 months?

Is the transition to parenthood easier if grandparents are available for babysitting?

Of all the data gathered, which features singly or in combination, best predict the optimal outcome – a secure child with parents who are enjoying being parents?

Research Assistant

Appendix 11b.**Massey**

COLLEGE OF EDUCATION

Sue Watson
Lecturer in Human Development
Dept. Health & Human Development
College of Education
Massey University
Palmerston North, New Zealand
Ph.+64-6-350-5799, Ext.8882

Transition to Parenthood**CONSENT FORM****THIS CONSENT FORM WILL BE HELD FOR A PERIOD OF FIVE (5) YEARS**

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being audio taped.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:

.....

Date:

.....

Full Name - printed

.....

Appendix 12.

Transition to Parenthood Project

Birth Notice

To be posted back in the envelope provided to
Sue Watson,
Department of Health and Human Development,
Massey University College of Education,
Hokowhitu Campus,
Private Bag 11 222
Palmerston North

When your baby is born we would like to hear what happened with the birth and how you and your baby are. The experience is somewhat different, of course, for the mother and the father so we would like to hear your impressions separately to add to our data base. We need your name or ID for this project so that we can match your information over the course of the project.

Name: ID:

You can write your story on this form if you wish, or you can give us your phone number and suggest possible times for us to ring you so that you can tell us the story.

Phone:Times:

Appendix 13.

Massey University Campus Human Ethics Committee: Palmerston North (HEC: PN)
Old Main Building, Turitea Fax: 64 6 350 5622 <http://www.massey.ac.nz/~muhec>
Professor Sylvia V Rumball, Chair Secretary
Telephone: 64 6 350 5249 Telephone: 64 6 350 5799 extn 7773
Email: S.V.Rumball@massey.ac.nz Email:



Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099

16 June 2003

Sue Watson
PG Student
8 Antrim Place
PALMERSTON NORTH

Dear Sue

**Re: HEC: PN Protocol – 03/46
Transition to parenthood in New Zealand: The contribution of parents’
experiences in childhood to their relationships with their own infants**

Thank you for your email dated 12 June 2003 and the amended protocol.

The amendments you have made and explanations you have given now meet the requirements of the Massey University Human Ethics Committee and the ethics of your protocol are approved.

Any departure from the approved protocol will require the researcher to return this project to the Massey University Campus Human Ethics Committee: Palmerston North for further consideration and approval.

A reminder to include the following statement on all public documents “This project has been reviewed and approved by the Massey University Human Ethics Committee, PN Protocol NO/NO. If you have any concerns about the conduct of this research, please contact Professor Sylvia V Rumball, Chair, Massey University Campus Human Ethics Committee: Palmerston North, telephone 06 350 5249, email S.V.Rumball@massey.ac.nz”

Yours sincerely

A handwritten signature in blue ink, appearing to read "G. Gill".

Dr Gurjeet Gill, Acting Chair
Massey University Campus Human Ethics Committee: Palmerston North

cc A/Professor John Kirkland
Professor Gary Hermansson
Health and Human Development
HOKOWHITU

Appendix 14.

Attachment Classification and Category Description

ID	Gender	Education	IQ	Verb Coherence	Sense of Complexity	Integrative Function	Reflective Egolevel	Classification AAI	Coherence Transcript	Metacognition Monitoring	Life Events	Resilience	Parent Stress
Secure/Autonomous													
3	f	5	29	15	4	7	4	F4b	5	5	2	0.31	37
4	m	6	31	15	4	3	5	F2	5	5	1	0.45	37
5	f	5			3	7		F4a			0	-0.30	
8	f	4	9	14	3	5	5	F3	7	3	2	0.57	27
12	f	3	26	14	2	6	5	F3a/F2	7	3	0	0.65	33
13	m	3	34	14	5	9	7	F3/F5	8	7	0	0.62	41
14	f	5	20	13	1	2	5	F1b	5	1	0	0.31	
15	f	5	31	15	5	8	6	F3a	6	5	0	0.67	
16	f	5	23	12	3	7	6	F3a	9	8	0	0.15	
18	f	6	28	16	5	4	6	F3/F4a	7	1	0	0.60	27
20	f	4	24	14	6	9	7	F4b	7	8	2	0.60	37
21	m	6	30	16	2	5	6	F3a	8	2	0	0.61	36
22	f	6	25	16	5	6	6	F2	5	2	1	0.67	38
23	m	3	18	17	5	7	4	F3a	8	2	0	0.66	31
24	f	3	27	14	1	2	5	F4a	5	1	0	0.46	35
31	f	5	30	14	5	5	6	F3a	7	4	0	0.65	36
33	m	3	22	15	3	4	3	F4/F2	5	3	0	0.58	
35	f	5	20	15	4	4	5	F4a	8	3	2	0.62	
39	f	5	16	17	2	2	6	F4a	9	2	1	0.66	38
Dismissing													
1	f	3	17	13	3	4	3	Ds3b	3	1	2	0.65	
11	m	4	29	12	2	5	3	Ds3/Ds1	2	3	3	0.53	41
19	m	6			4	1	5	Ds3b/Ds2	3	1	0	0.71	26
27	f	3	26	11	2	3	6	Ds2/U	4	1	2	0.39	
30	f	5	23	15	3	2	5	Ds3/Ds1	4	1	0		34
36	m	4	25	16	1	1	5	Ds1/Ds3b	4	3	0	0.54	
37	f	5	23	13	3	5	5	Ds3a	3	4	0	0.12	44
Preoccupied													
2	m	1						E1					
6	m	4						E1			0	0.65	
38	m	6			5	8	7	E2	4	5	0	0.41	49
Unresolved													
10	f	1	16	10	3	3	4	U/F4b	4	2	6		74
Cannot Classify													
7	f	2	17	14	2	1	6	CC/E3a/Ds3a	2	1	2	0.20	41
32	f	2	19	16	3	3	3	CC/E2/Ds1	3	4	2	0.62	

