Attachment Style and Working Models of Parenting in

Individuals without Children

by

Arlene P. Conway

Thesis submitted to the School of Psychology of

Victoria University of Wellington, in partial fulfillment

of the requirements of the degree of Master of Science

2014

Abstract

This study investigated the extent to which insecure attachment predicted negative attitudes and expectations of parenting among people yet to have children. In total, 572 participants aged between 18 to 40 years completed an online survey that rated attachment styles, working models of parenting, and the desire to have children. As predicted, more avoidant people held more negative attitudes. In addition, a lower desire to have children mediated the link between attachment and negative working models of parenting. In contrast and as expected, more anxious people held less negative expectations of childrearing, were more interested in having children, and expected to be satisfied by the future role of parent. There were two novel features of the current study. First, it replicated and extended findings to an older, community based population. Second, analyses across two different samples (those in current relationships and single people) showed they were generally similar, although insecurity of attachment had stronger links with negative attitudes for those in current relationships.

Keywords: insecure attachment, parenting expectations, relationship status

Acknowledgements

I would like to acknowledge my supervisor, Professor Garth Fletcher for his guidance, patience and support. Thank you Garth. I would also like to thank my amazing and supportive friends who have encouraged me during my thesis journey. Most importantly, I want to thank my family; my husband Miki who has given me endless love, great advice and good food; my wonderful young daughter Ella, who inspires me to be a better parent every day and my son James who along with my daughter-in-law Michelle have recently embarked on parenthood. I dedicate my thesis to the next generation, my darling grandson Oliver.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Being a parent is one of life's greatest joys and most difficult challenges. Being a good parent is an important accomplishment that has life-long benefits for a child's well-being and ripple effects into the next generation. However, despite a parent's best efforts, their competency in this role can be undermined before their child is born. Research evidence suggests that insecure attachment working models predict negative attitudes and parental expectations toward childrearing that persist into parenthood and lead to less effective parenting. Therefore, for some people their parenting success is negatively compromised well before they embark on parenthood. My thesis investigates this topic and seeks to clarify the impact of a more avoidant versus a more anxious attachment style on expectations and attitudes toward parenting.

The introduction section to my thesis begins with a theoretical perspective on attachment and caregiving, including interactions between these two behavioural systems and associated caregiving in romantic relationships. Next I review attachment style and parental expectations, including attitudes and behaviour during the transition to parenthood. Finally, I outline the present study, which investigates the extent to which romantic attachment styles predict attitudes toward parenthood among people without children.

Theoretical Perspective

Attachment theory. The seeds for attachment theory (Bowlby, 1969/1982, 1973, 1980) were sown when Bowlby made an insightful observation that delinquent adolescents had often been abandoned or mistreated by their mother at a young age (Bowlby, 1944). He was convinced that early relationship experiences play a defining role in a person's social development (Bretherton, 1992). Bowlby (1973) proposed that infant-mother emotional bonding (attachment) was innate and fulfilled a protective function that is

important for survival. Bowlby (1969/1982) theorised that a biologically based,

attachment behavioural system is activated in threatening scenarios or when the attachment

figure was absent or inattentive. Primarily motivated by proximity maintenance to ensure

protection, the attachment figure is also used as a safe haven in times of distress and a

secure base to facilitate exploration (Ainsworth, Blehar, Waters & Wall, 1978; Bowlby

1969/1982).

As cognitive abilities mature, proximate security is replaced by a need for psychological

closeness or felt security (Sroufe & Waters, 1977a). Internal working models (i.e.,

underlying beliefs and expectations about an attachment figure's availability) guide

emotion regulation and behaviour toward a goal of felt security when the attachment

system is activated (Bowlby, 1969/1982).

Ainsworth et al. (1978) described three distinct patterns observed during the strange

situation.[1] Securely attached infants trusted their mother and used her as a source of

comfort when distressed. Children who were avoidantly attached did not consider their

caregiver as a safe haven and preferred to remain alone. An anxious-ambivalent attachment

pattern reflected an infant's conflicted attempts to gain comfort combined with their

uncertainty about the attachment figure as a source of security. Ainsworth suggested that a

caregiver's sensitivity and responsiveness to an infant's signs of distress fostered a secure

attachment bond. Both avoidant and anxious-ambivalent children are considered to be

attached but in an insecure manner and, thus, display their psychological needs differently

than secure children (Fletcher, Simpson, Campbell & Overall, 2013).

Although most of Bowlby's and Ainsworth's observations were based on mother-infant

interactions, attachment theory is designed to be a developmental theory applicable across

the life-span from the "cradle to the grave" Bowlby (1969/1982, p. 208) and can be

---

[1] An experimental procedure developed by Mary Ainsworth that investigated proximity seeking
behaviour of infants toward their mother in a threatening scenario.

extended into relationships with other people including close friends, romantic partners and children.

With maturity, internal working models become more elaborate with beliefs and expectations extended to include information about the self, i.e., worthiness of love, acceptability and information about significant others i.e., availability of love and support (Collins & Feeney, 2013). Working models are also thought to guide how information is processed, the type of information attended to (Bowlby, 1980) and what information is remembered (Bowlby, 1973).

Securely attached individuals establish working models based on helpful attachment figures, which maintains a "sense of security, positive self-regard and confidence" (Mikulincer & Shaver, 2012). Their goal is to build greater intimacy and they use proximity-seeking coping strategies in times of distress to achieve this goal (Simpson & Rholes, 2012). In contrast, more avoidantly attached individuals have internal working models based on an unavailable or rejecting attachment figure. Therefore, they suppress their negative emotions and rely on deactivating defensive strategies to alleviate insecurities or worries. Specifically, they inhibit proximity seeking and prefer to cope with stress in a self-reliant way. Their goal is to be emotionally and psychologically independent (Simpson & Rholes, 2012). Anxiously attached individuals have an internal working model based on intermittent care and attention. Therefore they use hyperactivating strategies (i.e., heightened awareness of attachment cues) to help them achieve greater proximity and intimacy. However, anxious individuals also have a low level of confidence that they will receive the level of closeness and support they desire which keeps their behavioural systems activated (Mikulincer & Shaver, 2012). According to Mikulincer (1998), the central goal of more anxious people is to experience more felt security.

Hazen and Shaver (1987) were the first researchers to assess attachment in adults by transforming the characteristic behaviour and underlying constructs of infant attachment style (Ainsworth et al., 1978) into three corresponding categories. Hazen and Shaver found that the proportions among adults (56% secure, 25% anxious-ambivalent and 19% avoidant) were similar to those found in the lab strange paradigm.

Subsequent adult attachment measures used independent rating scales to consistently reveal two continuous dimensions: avoidance and anxiety (Brennan, Clark & Shaver, 1998). High scores on either avoidance or anxiety reflects greater attachment insecurity, while low scores on both dimensions indicates a more secure attachment. Subsequently, the two-dimension model has become the standard assessment used to assess individual differences in adult attachment (Simpson, Rholes, & Phillips, 1996; Slade, 2004, see Ravitz, Maunder, Hunter, Sthankiya & Lancee, 2010 for a review of adult attachment measures).

Caregiving. Bowlby (1969/1982, 1973) believed that the attachment and caregiving behavioural systems are reciprocal structures that evolved in parallel. George and Solomon (2008) suggested that development of the caregiver system is more prolonged and emerged in adolescence (i.e., sexual maturity) before developing more fully during the transition to parenthood (i.e., pregnancy, birth and the early months of life). From a normative perspective, the role of the caregiving system is to alert the individual to the needs of dependents, and then fulfil their needs for a safe haven in times of distress or provide a secure base to support psychological growth and development (Bowlby 1969/1982; Collins & Ford, 2010). Ultimately, the adaptive function of the caregiving

system (similar to infant attachment) is to ensure offspring survival and facilitate inclusive fitness[2] (George & Solomon, 2008).

Bowlby (1969/1982) proposed that the optimal outcome was for the parent's caregiving system and the child's attachment system to work in tandem to achieve their joint goals. However, activation of the parent's attachment system (whereby an individuals own security needs are paramount) can inhibit the functioning of the caregiving system (Bowlby, 1969/1982). Mikulincer and Shaver (2007) proposed that it is only when the goal of the attachment system is achieved (i.e., a sense of security), that an individual has the capacity to attend to other behavioural systems such as caregiving. Empirical evidence reviewed by Mikulincer and Shaver (2007) led them to conclude that the attachment system regulates the caregiving system rather than the reverse. They also suggested that attachment security provides a "psychological foundation for accurate empathy and altruistic helping" (p. 330). Therefore, from an attachment perspective, insecurely attached individual's who find it difficult to embrace dependency and emotional closeness (more avoidance) or find it difficult to regulate their own personal distress and need for greater felt security (more anxious), should provide ineffective and/or a lower quality of caregiving (George & Solomon, 1999; Kunce & Shaver, 1994).

Although expectations regarding an attachment figure's availability are retained in attachment models, Bowlby (1969/1982) proposed that models of self and others as caregivers guide attitudes and behaviour in caregiving situations. Therefore, experiences of care from parents and romantic partners form the building blocks of caregiver working models (Bretherton & Munholland, 2008; George & Solomon, 2008).

---

[2] Inclusive fitness (Hamilton, 1964): the concept that gene transfer to the next generation directly and also via close relatives drives natural selection.

Reizer and Mikulincer (2007) proposed that adult working models of caregiving across a variety of contexts (i.e. romantic partner, friend, parent-child) were primarily based on the history of providing care to others in need. They stipulated three underlying dimensions of individual differences: (a) models of self as caregiver (i.e., perceived ability to recognise another person's emotional needs, confidence in the ability to provide care, timeliness of intervention and effectiveness of help offered); (b) models of needy others (i.e., appraisals of others' needs as worthy of help) and finally, (c) motives for helping (i.e., either self-focused (egoistic) or other-focused (altruistic)). They concluded that a more positive working model of both self as an effective caregiver and of needy others as deserving combine with altruistic motives for helping, resulting in the optimal functioning of the caregiving system.

With regard to attachment, insecure adults are less responsive, less supportive and provide less effective caregiving to their partners during times of need (Feeney & Collins, 2001; Feeney, Noller & Callan, 1994; Mikulincer, Shaver, Gillath & Nitzberg, 2005; Simpson, Rholes & Nelligan, 1992; Reizer & Mikulincer, 2007). The implications of the insecure attachment types for caregiving behaviour are discussed below:

Avoidance. More avoidant people exhibit a negative model of self as caregiver as demonstrated by their inattention to their partner's attachment related cues (Shaver & Mikulincer, 2004) and especially pleas for greater closeness or reassurance (Schachner, Shaver & Mikulincer, 2005). They are also less accurate in evaluating their newlywed partner's emotional state (Feeney et al., 1994), and incorrectly assess their partners feelings when discussing a relationship threatening issue (Simpson et al., 2011). When care is offered, it is typically low in tangible support and devoid of physical comfort (Feeney & Collins, 2004, Simpson et. al., 1992). With regard to appraising other's needs as worthy, more avoidant people have less compassion and are less willingness to help a needy other

(Kunce & Shaver, 1994; Mikulincer, et al., 2005; Reizer & Mikulincer, 2007). Finally, more avoidant people are less likely to take on the responsibility of helping another person generally (Reizer & Mikulincer, 2007).

Anxiety. More anxious people have a more negative model of self as caregiver that is manifested as a lower level of confidence in recognising the emotional needs of others (Reizer & Mikulincer, 2007). Although, they exhibit more empathic accuracy toward their partner's feelings when discussing a relationship threatening issue (Simpson et al., 2011), they are more negative, distressed and use tactics that tend to exacerbate a dispute (Simpson et al, 1996). When anxious people learn about a needy other they became highly distressed, which makes them less effective in providing compassionate or useful help (Mikulincer et al., 2001; Mikulincer et al., 2005). When a highly anxious person offers caregiving it is judged to be more controlling and intrusive (Feeney & Collins, 2004) with a tendency to get over-involved with a partner's problems (Kunce & Shaver, 1994) resulting in ineffective caregiving (Feeney & Collins, 2001; Kunce & Shaver, 1994). More anxious partners also react more negatively to their partner's distress becoming angrier, frustrated and self-focused (Rholes, Simpson & Orina, 1999). An egoistic motive for helping others (i.e. to alleviate own distress) is more often reported by more anxious people (Mikulincer et al., 2005: Reizer & Mikulincer, 2007).

Taken together, these studies show that adult attachment orientations are closely connected to caregiver responses in a romantic relationship. Overall, more avoidant people hold a negative model of self as caregiver, are less compassionate and are less willing to become emotionally involved or help others in distress. Alternatively, although a more anxious person also has a negative model of self as caregiver, they are more willing to become involved (especially in the context of a relationship problem). However, their high level of personal distress means they become overwhelmed by others in need and

revert to more self-focused motives for helping. A romantic relationship often provides the first opportunity to act in the role of caregiver, which provides valuable experiences that can be integrated into an individual's caregiver working model and which subsequently influences a future caregiver-child relationship.

In the context of a parent-child relationship, a parent must also take into consideration other competing interests including caring for a number of children and their partner's attachment needs (Mikulincer & Shaver, 2007). Environmental (i.e., social support) and infant characteristics also influence maternal caregiving (Pryce, 1995). All of these factors can interfere with a parent's capacity to provide sensitive caregiving to their children and heighten stress levels that activate the most important predictor of the quality of caregiving, an individual's internal working model of parenting. Therefore, it is important to understand the role of adult attachment styles in forming working models of parenting and the impact of working models on childrearing (and consequently the attachment orientation of the child) in an attempt to unlock the "causal circle" (Mikulincer & Shaver, 2007 p. 324); that is, attachment style influences caregiving, which influences the attachment style of those being cared for.

Attachment Style, Expectations and Parenting

George and Solomon (2008) proposed that attachment representations influence parenting representations and set the stage for future parent-child relationships. This proposition will be explored next among parent-child dyads, expectant mothers, new parents and finally, adults who have not yet had children. The parenting studies reviewed reflect a wide geographic coverage (i.e., United States, Sweden, Israel, Turkey), several different contexts (i.e., laboratory teaching or problem solving exercises, home-based free play sessions, parents enrolled in a child development course), and include different cognitive, emotional or behavioural measures. All studies involve at least one parent

(usually the mother) and an infant or young child. Convincingly, among these diverse studies, one theme is dominant: insecure attachment style is associated with more negative parental attitudes and/or behaviour.

Parent-child dyads. Main, Kaplan and Cassidy (1985) were the first researchers to use a semi-structured interview method (the Adult Attachment Interview or AAI) to demonstrate that a mother's secure attachment 'state of mind' (based on recollections of her own parent-child experiences) were related to the secure attachment in her own children (assessed using the strange situation). Subsequent AAI and self-report studies have confirmed that a parent's secure attachment is associated with more positive thoughts of their child and their parent-child relationship (Crowell & Feldwell, 1989; George & Solomon, 1996; Slade, Belsky, Abler, & Phelps, 1999). For example, Slade et al. (1999) showed that secure mothers used more positive emotive words and expressed more enjoyment when describing their relationship with their one year old child. A subsequent in-home observation confirmed that more positive maternal representations were associated with more positive affect and sensitivity of mothering. More secure mothers are also involved in more joint activities i.e. reading, playing and provide more consistent behaviour guidelines for their children (Coyl, Newland & Freeman, 2010). Alternatively, more insecure mothers hold more negative perceptions of their parent-child relationship (Berlin et al., 2011), and reported lower levels of personal joy or pleasure when interacting with their infants (Scher & Dror, 2003). Individual attachment styles are also associated with distinct negative models of self as caregiver and associated negative behaviour, as demonstrated below.

Avoidance. More avoidant parents display typically uninvolved, dissmissive parenting attitudes and psychologically or physical distancing behaviour.

They convey a more rejecting representation of themselves as a parent including being unwilling, impatient or strict (George & Solomon, 1996). More avoidant mothers are less responsive to ambiguous attachment signals from their child (Raval et al., 2001) and are less likely to alter their vocal expressiveness in response to their child's distress (Milligan, Atkinson, Trehub, Benoit & Poulton, 2003). They are more uncomfortable with the maternal role, exhibit more discomfort with contact and are rated as being more inaccessible to the child in an observed home visit (George & Solomon, 1996; Selcuk et al., 2010). Higher avoidance predicts less sensitive mothering, especially under conditions of higher maternal psychological stress (Mills-Koonce et al., 2011) or when the child is distressed after receiving an inoculation (Edelstein et al., 2004). More avoidant mothers are also observed to be less supportive in a teaching task and subsequently reported feeling less emotionally close to their child (Rholes, Simpson & Blakely, 1995). Finally, among more avoidant fathers, greater levels of parenting related stress and less self-efficacy in parenting are reported (Howard, 2010).

   Anxiety. Highly anxious mothers are more distressed and also hold a more negative model of parenting. They tend to get over-involved with their children, exhibit more intrusive and hostile behaviour which results in less effective parenting. More anxious mothers report greater parenting stress and believe they are less competent in a parenting role (Nygren, Carstensen, Ludvigsson & Frostell, 2012). They display high levels of separation anxiety prior to leaving their child in a lab experiment and are less likely to prepare their child for the separation (Crowell & Feldman, 1991). More anxious mothers exhibit more conflict in their interactions with their children (Selcuk et al., 2010) including showing more anger and frustration in a problem solving task (Adam, Gunnar & Tanaka, 2004). More anxious mothers are also more likely to interfere with their toddler's exploration (Selcuk et al., 2010) and display more intrusive behaviour including

interrupting and directing their child unnecessarily in a structured parent-child interaction task (Adam et al., 2004). More anxious mothers also display more inconsistent helping behaviour (Crowell & Feldwell, 1989).

In summary both AAI and self-report parenting studies show that attachment security facilitates positive and effective caregiving. In contrast, avoidance reveals a pattern of neglect, and anxiety is associated with personal distress, leading to actions that are not synchronous with the child's needs. These studies suggest individual attachment styles are associated with distinct parental caregiver emotions, cognitions and behaviour.

It is generally accepted that the retrospective AAI measures a different working model (i.e., residues of past child-parent experiences) compared to a self-report measure that assesses more conscious, current adult or romantic attachment (Mikulincer & Shaver 2007; Roisman, et al., 2007). The present study uses a self report adult romantic attachment measure to examine expectations of parenting. Thus, the remainder of parenting studies reviewed will focus on a self-report methodology.

Transition to parenthood. The caregiving system reaches maturity during the transition to parenthood. Stressful experiences (such as childbirth and becoming a parent) are likely to activate the attachment behavioural system, and the experience of parenting itself is likely to make insecure attachment orientations even more salient (Bowlby, 1988). Research by Simpson, Rholes, Campbell and Wilson (2003) demonstrate a systematic change with more anxious women becoming more anxious (if they perceive their partner as unsupportive) across the transition.

Consistent with the parent-child studies already discussed, insecure expectant mothers report more stress, more negative attitudes toward their prenatal child, and experience more negative outcomes (Rholes, Simpson & Friedman, 2006; Taubman, Shlomo, Sivan & Dolizki, 2009, Wilson, Rholes, Simpson & Tran, 2007). For example, among pregnant

women, insecure attachment is associated with poorer mental health and higher perceived

costs of motherhood, including displeasure with physical appearance and feelings of

depression (Taubman et al., 2009). More avoidant women typically report lower levels of

fetal bonding in the third trimester of pregnancy (Mikulincer & Florian, 1999b). They feel

less close to their unborn babies, and think about them less often (Priel & Besser, 2000).

More avoidant women also report a lower desire to want children (Rholes et al., 2006;

Wilson et al., 2007), seek less support from their partners during pregnancy (Rholes,

Simpson, Campbell & Grich, 2001) and prefer to use more distance coping strategies

(Mikulincer & Florian, 1999b). Overall, more avoidant pregnant women display a

rejecting, negative pattern preferring to be self-reliant.

In contrast, more anxious women show a low level of well-being and high distress

across their pregnancy and tend to use emotion-based coping strategies (Mikulincer &

Florian 1999b). They report greater feelings of prenatal jealously including worries that

the newborn will take up their partner's time, attention and affection (Wilson et al., 2007).

Highly anxious women also perceive less prenatal support from their partners, perceive

their partners more negatively and consequently exhibit more depressive symptoms pre

and post natal (Simpson, Rholes, Campbell, Tran & Wilson, 2003). Thus more anxious

women show more distress, are more attuned to relationship threats and are more strongly

affected by their partners' behaviour.

McHale et al. (2004) show that negative prenatal parental expectations are predictive of

less productive childcare post birth. Furthermore, attachment-related patterns of negative

thoughts during pregnancy extend into motherhood (Taubman et al., 2009). For more

anxious women, lingering negative thoughts, depressive symptoms and lower perceived

marital satisfaction (associated with less perceived spousal support) were apparent post

delivery (Simpson et al., 2003; Rholes et al., 2001; Taubman et al., 2009). For more

avoidant mothers, feelings of less emotional closeness persist (Wilson et al., 2007). They

also perceive parenting as more stressful six months postpartum (Rholes et al., 2006),

perceive their infant temperament as more difficult (Prier & Besser, 2000) and in some

cases child development delays are apparent (Alhusen, Hayat & Gross, 2013).

Overall, the transition to parenthood research confirms that insecure attachment predicts

prenatal negative working models of parenting that subsequently persist into parenthood

and according to the parent-child research reviewed earlier, leads to less effective

parenting behaviour.

Expectations of parenting before having children. Studies among people without

children assess foundational working models of self-as a parent and/or the parent-child

relationship, based on childhood, and subsequent relationship experiences Although

research is limited among this population, there is evidence that insecure attachment is

associated with negative expectations of prospective parenting, low perceived satisfaction

with the parenting role, lower desire to have children, and a general lack of confidence in

the ability to relate to children. (Nathanson & Manohar, 2012; Scharf & Mayseless 2011;

Snell, Overbey & Brewer, 2005; Rholes et al., 1995, Rholes, Simpson, Blakely, Lanigan &

Allen, 1997).

Rholes et al. (1995, study two) undertook the first empirical research into the desire to

have children in relation to attachment styles among a childless population. This study

was conducted among 97 first year psychology students. Their findings revealed that both

more anxious and more avoidant students expressed greater concerns about being a good

parent but only avoidance predicted a lower desire to have children. In a more recent

study, Reizer and Mikulincer (2007) showed that the desire to have children among

married people without children, was positively correlated with their self-rated ability to

recognise another person's emotional needs and altruistic motives for helping. They

suggest that the desire to have children may tap into secure working models of caregiving.

Rholes et al. (1997, study one) examined the links among the desire to have children, parental attitudes, and attachment style among a large sample (*N*= 379) of university students. They found that more avoidant students (but not more anxious) desired children less and expected to be less satisfied with the role of parenting. Subsequent analysis revealed that a lower desire to have children mediated the link between avoidance and negative models of parenting. In addition, they confirmed that insecure romantic attachment style (either more avoidant or more anxious) was associated with negative models of self as parent with regard to expectations of being more easily aggravated by hypothetical children, and being less warm and stricter as a parent. In a subsequent study (Rholes et al., 1997, study two), a lower desire to have children was again associated with more avoidant students. In addition, a lower desire to have children mediated the relationship between avoidance and negative models of a prospective child's behaviour (i.e., perceptions that they would be less affectionate).

A more recent study by Nathanson and Manohar (2012), in which both self-report parent-child history and an adult measurement of attachment were used, unfavourable attitudes toward children and a lower desire to have children were related to both more avoidant and more anxious young adults. Scharf and Mayseless (2011) examined "buds of parenting" in a longitudinal study. Their results revealed a negative association between insecure attachment style and attitudes toward parenting in emerging adult Israeli males. Specifically, they found that insecure attachment predicted a lower perceived ability to relate to children, but only anxious attachment style predicted a lower desire to have children and a negative self-perception as a future parent. Expected satisfaction with the role of parent was not significantly related to either insecure attachment style. Snell et al.

(1995) showed that secure attachment was associated with a more realistic and less perfectionist image of prospective parenting.

Overall, these studies represent a body of evidence that working models of caregiving are influenced by attachment styles. In particular, the evidence suggests that insecure attachment is likely to guide the development of negative working models of parenting.

The Present Study

Despite their reluctance and/or negativity toward childrearing, insecurely attached people often do become parents (42% of parents are categorised as insecurely attached; see van Ijzendoorn & Bakermans-Kranenburg, 1996 for a meta-analytic review). The focus of the current research is on a particular phase of development; after sexual maturity (when models of self as caregiver are initiated), yet before becoming a parent (when models of parenting become fully developed). A key question addressed in the present research is "do attachment styles of people without children influence their emerging working models of parenting?".

Research among childless populations has consistently shown that insecure attachment is related to negative working models of parenting. However, the specific negative outcomes are somewhat inconsistent across studies. For example, Rholes et al. (1997) used a self-report adult attachment measure and found that both more anxious and more avoidant persons had lower confidence in their ability to relate to children and held negative expectations of childrearing. However, only more avoidant people reported a lower desire to have children and anticipated a lower level of satisfaction with the role of parenting. Scharf and Mayseless (2011) showed in their longitudinal study that both more anxious and more avoidant men (as measured by both self-report and AAI) were less confident in their ability to relate to children. However, only more anxious males desired children less and held negative perceptions of childrearing. Neither attachment style

predicted a lower level of satisfaction with the future role of parenting. And, Nathanson and Manohar (2012), reported a slightly different pattern of results again. Therefore, although insecure attachment consistently predicts negative working models of parenting, individual attachment styles have not had a clear pattern of specific outcomes. Thus, the present research also asks, "how do working models of parenting differ between more avoidant and more anxious people?".

Rholes et al., (1997) identified that the desire to have children was a mediating factor between avoidance and negative attitudes towards parenting; specifically, lower confidence in the ability to relate to children, less warmth in a future parent-child relationship and lower anticipated satisfaction with a parental role. These findings are consistent with an avoidant attachment profile of discomfort with others as dependents, difficulty with emotional closeness and placing less importance on a caregiver role. The attachment system develops earlier than the caregiver system, and empirical evidence suggests that the attachment system is a regulator of the caregiver system, rather than the other way around (Mikulincer & Shaver, 2007). Therefore, it is plausible that attachment styles cause the desire to have children and other parenting outcomes, rather than simply the reverse. Thus, the current study tests the general mediation model as illustrated in Figure 1 below.
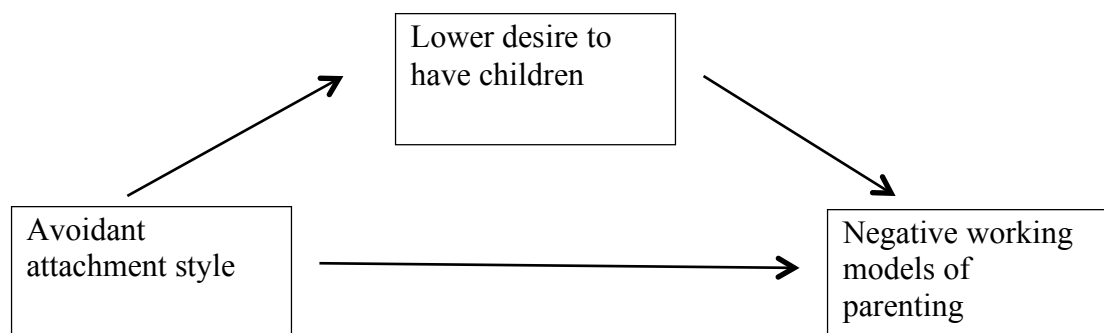
Figure 1. The overall mediation model.

Several studies have demonstrated that insecure attachment (both avoidant and anxious) has negative impacts on romantic relationships including emotional processing, attitudes and behaviour (Feeney, 2008; see Li & Chan, 2012 for a meta-analysis). For example, Edelstein and Gillath (2008) demonstrated that a negative emotional bias (i.e., greater inattention to attachment related words) existed among more avoidant individuals that undertook a stroop task. Furthermore, this result was only significant among people in a romantic relationship, suggesting a link among attachment orientation, attachment-related stimulus and relationship status. In the present study, working models of parenting were analysed separately for people in a romantic relationship and those currently single. This is a novel analysis in this area.

Research exploring the connection between relationship quality and working models of parenting is limited. Research suggests that a better quality relationship results in more effective parenting (Goldberg & Easterbrooks, 1984: Volling, Notaro & Larsen, 1998). However, Rholes et al., (1995) reported that quality of marriage was a moderating factor between more anxious (but not more avoidant) mothers and the perception of closeness to their children. The current research investigates the role of relationship quality and asks the question; "Does the quality of a current romantic relationship moderate the link between attachment and attitudes toward parenting in a positive way?".

Most pre-parenting studies have been conducted among university students (Nathanson & Manohar, 2012; Rholes et. al, 1995, Rholes et. al, 1997). Arguably, for younger people, becoming a parent and related attitudes toward caregiving may not be salient (compared to older adults who may have already considered having children). The current study extends the existing research amongst older age groups.

The aims of this research are to first, replicate the findings from Rholes et al.'s (1997) study amongst a broader group (age and geographical distribution) of adults without

children. Second, to extend existing research, I compare working models of parenting and the desire to have children in two different samples – those currently involved in romantic relationships and single people. This has not been done previously. Third, I explore the moderating influence of satisfaction in a current relationship on the link between insecure attachment and attitudes toward parenting.

Attachment theory and existing research suggests that insecure attachment is associated with more negative attitudes and working models of parenting. More specifically, among more avoidant people, their disinterest in another's perspective and preference for emotional distance should underpin their negative parental attitudes. In comparison, more anxious people should have strong drives for emotional, interpersonal closeness, which should result in a greater interest in children. However, it is also anticipated that they will exhibit negative attitudes and lower levels of confidence in interpersonal relationships.

The specific predictions for this study are outlined below.

Hypothesis one. More avoidant and more anxious people will possess a more negative working model of parenting. Specifically, more avoidant people were expected to:

a. have more negative expectations of childrearing (be easily aggravated by children, have a stricter approach to discipline and be less likely to consider a child's point of view)

b. consider themselves relatively less able to relate to children

c. be less satisfied with the potential role of parent

d. be less interested in having children

   More anxious people were expected to:

e. have more negative expectations of childrearing (be easily aggravated by children, have a stricter approach to discipline and be less likely to consider a child's point of view)

f.   consider themselves relatively less able to relate to children

g.   be more satisfied with the potential role of parent

h.   be more interested in having children

Hypothesis two. The desire to have children should mediate the link between avoidant attachment style and working models of parenting.

Hypothesis three. For those people in a romantic relationship, the associations noted in hypothesis one should be attenuated when the relationship is perceived as happy and committed, and accentuated when the relationship is perceived to have lower quality.

Chapter 2: Method

Participants

A total of 572 participants (197 male) and (375 female) were recruited through Crowdflower[3] to participate in an online survey. Each participant was identified as a bronze contributor[4]. The sample was restricted to those aged 18 to 40 years and who were not already parents ($M = 28.3$ years; $SD = 5.6$). Sixty four percent of respondents were currently in a romantic relationship and 204 were single. Of those in a relationship, 132 were dating, 125 lived together and 111 were married. The average length of a relationship for the latter group was 5.3 years ($SD = 3.8$). Participants were limited to those residing in the United States (372), the United Kingdom (88), Canada (103), Australia or New Zealand (9).

Of the total sample, 83% self-identified as European or Caucasian. Of the 100 participants who selected non-European, most were Asian (29%) or African-American (18%). With regard to education level, 28% of participants held a university degree and

---

[3] Crowdflower is a San Francisco based company that was established in 2009 with the purpose of providing an international virtual workforce. The crowdsourcing service offered by Crowdflower involves contracting out tasks such as viewing advertisements, evaluating websites and/or completing surveys to a large network of online communities.

[4] Bronze contributor is a category created by Crowdflower to describe trusted participants that have consistently achieved 80% accuracy on quality control questions designed to ensure participants are thinking critically during a task.

9% a post- graduate qualification, 29% claimed a college or technical qualification, and 31% an unspecified high school qualification. Participation in the survey was voluntary and informed consent was implicit through participation in the online survey. Ethics procedures that included confidential handling of respondent data and accessibility of this data were explained at the beginning of the survey (see Appendix A).

Procedure

  Online survey. Sample selection procedures and survey tool mechanisms were validated during an initial online pilot questionnaire completed by 21 participants.

  The final online questionnaire was developed using Survey Monkey[5]. A quality control question that stated "if you are paying attention select strongly agree" was placed near the end of the questionnaire among a number of other attributes being rated, in an effort to ascertain the participants level of attention while completing the survey. Participants unable to correctly follow this instruction were removed from the data analysis; 88% of participants correctly answered this question. Overall, 150 participants were excluded from the data analysis due to either incorrectly answering the quality control question or having an incomplete survey.

  Sample selection. Participants were recruited via the Crowdflower online network facility. The Survey Monkey uniform resource locator (URL) was distributed to a number of websites or "channels" registered with Crowdflower. In total, 86 channels were available. However, for this research only channels that fulfilled strict quality control criteria were selected. The criteria included a) being established for at least two years b) not being affiliated with online gaming c) having a substantial member database d) having an active member forum that was well maintained and/or e) independently reviewed as a

---

[5] Survey Monkey is an online survey development and data collection tool.

quality Paid-to-Click website[6]. In total, the survey was distributed to 15 Crowdflower

channels including Amazon Mechanical Turk, InstaGC and Daily Survey Panel. To

prevent a participant filling in the survey through multiple channels, only one internet

protocol (IP) address per survey was accepted by both the Crowdflower and Survey

Monkey systems.

Each participant was required to complete all questions before a validation code was

provided to enable payment of US20c. Participants who did not fulfil certain criteria i.e.

were not aged between 18 and 40 years, were currently pregnant or had children, skipped

out of the survey and were not given access to the validation code. On average, participants

took 8.16 minutes to complete the online survey. The Survey Monkey system provided a

skip logic option that ensured that only participants in a relationship were asked partner

specific questions such as length of time in a relationship and quality of the relationship. In

an attempt to counteract order bias, all items within a measure were randomised each time

the survey link was accessed.

Ethics approval for the present research was provided by the Human Ethics Committee

of Victoria University of Wellington.

Measures

Adult attachment questionnaire*. (AAQ; Simpson et al., 1996; see Appendix B). This

self-report scale was developed to assess adult romantic attachment styles. Participants

were asked to rate 17 items based on their thoughts and feelings about romantic partners in

general, including (but not limited to) their current partner. It has good reliability and

extensive evidence of validity. Examples of items measured using the 7-point rating scale

(where 1 = *strongly disagree* and 7 = *strongly agree*) included statements associated with

---

[6] Paid-to-Click (PTC) websites offer the opportunity for participants to get paid digital currency for
undertaking a task and/or viewing a particular website. The website www.ptc-investigation.com
reviews and rates the quality of PTC sites and uses similar criteria to that employed in the present
study.

avoidance i.e. "I don't like people getting too close to me", "I find it difficult to trust others completely" and statements associated with anxiety i.e. "I often worry that my partner(s) don't really love me", "the thought of being left by others RARELY enters my mind" (reverse coded).

Desire to have children. The original 18-item scale (Rholes et al., 1997) was recently adapted by Nathanson and Manohar (2012) into a two-item scale (r (180) = .72). In the present research, three items were used with an associated reliability coefficient of α = .95 (see Appendix C) Items were: "I have a strong desire to have children" and "without children, I would feel unfulfilled". The third item was adapted to be relevant for participants not currently in a relationship i.e. "I know I would be very upset or disappointed if I did not have children of my own". The 7-point agreement scale included both negative and positive anchors i.e. 1=*strongly disagree* and 7=*strongly agree*.

Perceived ability to relate to children. The original scale developed by Rholes et al. (1997) consisted of 11 items (α = .88). We reduced this to eight items that were most associated with confidence in relating to children or being a parent (see Appendix D). Items included "I would not feel comfortable having children depend on me (reversed scored), "children require more patience than I have" (reversed scored); and "I think I would successfully handle the demands of being a parent". Participants indicated using a 7-point rating scale, from 1 (*strongly disagree*) to 7 (*strongly agree*) the extent to which they agreed with each statement. The scale attained an internal reliability of .90.

Expectations toward childrearing. The Expected Attitudes Toward Child Rearing questionnaire was a scale originally developed by Easterbrooks and Goldberg (1984) and then adapted by Rholes et al. (1997) from measuring actual behaviour to measuring beliefs, concerns and expectations. Similar to Nathanson and Manohar (2012), I reduced the number of items measured in this study from 51 to 19, removing many repetitive items. I

also increased the scale range from a 6-point to a 7-point rating measure to preserve scale consistency throughout the survey (see Appendix E). The 7-point agreement scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). A subsequent factor analysis (see Appendix J) revealed three subscales: aggravation with children (α=.79), consideration of a child's point of view (α=.78) and strictness of child disciplinary approach (α=.63). Items on the aggravation subscale included "I worry that after my child is born I may feel bothered because I can't do the things I liked to do before she/he was born"; child point of view items included "I plan to let my child make many decisions for him/herself", and the strictness measure included items such as "I will have strict rules for my child".

Expected parental satisfaction. The Parental Satisfaction Questionnaire was developed by Pistrang (1984) and adapted by Rholes et al. (1997) to measure expected satisfaction derived from caring for infants. I reviewed the scale and removed repetitive items resulting in a final scale consisting of 16 items (α=. 97) that included items such as "a baby would give me a sense of challenge", and "a baby would make me feel useful" (see Appendix F). The items were rated on a 7-point Likert type scale ranging from 1 (*never*) to 7 (*very often*).

Quality of current relationship. The short 6-item version of the Perceived Quality Components Inventory (PRQC) developed by Fletcher, Simpson & Thomas (2000) was used in this study (α=. 91). Examples of items included, "how much do you trust your partner?", "how committed are you to your relationship?", and "how much do you love your partner?" (see Appendix G). The scale used a 7-point rating scale ranging from 1 (*not at all*) to 7 (*extremely*).

Quality of family relationship. This measure was also based on the PRQC developed by Fletcher et al. (2000) and consisted of five items measuring similar concepts of trust, love, commitment, satisfaction and closeness (α=. 94). The questionnaire wording was

adjusted from references toward partner to references to family, such as "how much do you trust your family" and "how satisfied are you with the relationship with your family?" (see Appendix H). The same 7-point rating scale was used, with 1 = *not at all* and 7 = *extremely*.

Self-esteem. The Rosenberg self-esteem scale (RSES; Rosenberg, 1965; see Appendix I) was used. This scale had good reliability and extensive evidence of validity. In the present study, the scale attained an internal reliability of .94. Examples of the10 items rated include "I feel I do not have much to be proud of" (reverse scored), and "I feel that I am a person of worth, at least on an equal plane with others". Statements were rated on a 7-point agreement scale where 1 equated to *strongly disagree* and 7 to *strongly agree*.

Chapter 3: Results

Factor Analysis

An exploratory factor analysis of the revised 19 item Expected Attitudes toward Childrearing questionnaire (Rholes et al., 1997, see Appendix E) produced a scree plot suggesting a 3-factor solution. This model was then compared with a 4-factor alternative as suggested by previous cluster analysis (Easterbrooks & Goldberg, 1984). Analysis of both scree plots revealed that the 3-factor model produced a good fit (explaining 46.9% of the variance). In addition, the factor loadings for the 3-factor model were clean and interpretable.

The three subscales identified were aggravation with children (7 items), consideration of a child's point of view[7] (7 items) and strictness of discipline (5 items). The loadings associated with each of the three factors are presented in Table J1 (see Appendix J). These ranged from .40 to .81. Mean scores were produced for each factor by summing the items and dividing by the number of items in each factor.

---

[7] This category is similar to the encouragement of independence (EOI) subscale outlined in the PATCR scale developed by Easterbrooks and Goldberg 1984 and adapted by Rholes et al (1997).

Descriptive Statistics

In line with previous research no significant gender differences were apparent across any of the scales (Rholes et al., 1995; Rholes et al., 1997). Therefore, Table 1 presents descriptive statistics with both genders combined. Although the means and standard deviations were similar between those in a relationship and those not in a relationship, as anticipated and congruent with attachment theory, people not in a relationship score higher on avoidant attachment. Subsequent independent sample *t* tests confirm that participants in a relationship tend to be less avoidant, had a greater desire to have their own child and held more positive attitudes towards themselves, their family and parenting than single people.

Table 1

Descriptive Statistics for Relationship Groups and Scales

	Total Sample		In Relationship		Not Relationship	
	Mean	SD	Mean	SD	Mean	SD
Avoidant Attachment	-0.4	2.3	-0.8*	2.3	0.5	2.2
Anxious Attachment	3.5	0.9	3.3*	0.9	3.7	0.8
Desire Children	4.1	2.0	4.6*	2.0	3.4	1.9
Family Rel Quality	5.6	1.3	5.7*	1.3	5.3	1.4
Self-esteem	4.9	1.4	5.2*	1.3	4.3	1.4
Ability Relate to Children	5.0	1.4	5.3*	1.3	4.5	1.5
Parental Satisfaction	4.6	1.5	4.8*	1.5	4.2	1.5
Aggravation with Children	3.3	1.1	3.2*	1.1	3.5	1.1
Consider Childs POV	5.4	0.8	5.4	0.8	5.3	0.9
Strictness of Discipline	3.7	1.0	3.7	1.0	3.7	1.1
Relationship Quality			6.2	0.9		
Desire Children with Partner			5.1	2.0		

Note. All measurements used a 7-point rating scale with 1 indicating the most negative rating and 7 the most positive rating. POV = point of view.
* = significant *t* test differences between relationship samples

Correlations

Considering the differences detected between relationship samples, correlation coefficients were computed separately for people in a relationship (Table 2 and 4) and those currently single (Table 3 and 5). The correlational analyses revealed no gender differences; therefore, the results reported are for men and women combined.

Independent variable correlations. As illustrated in Tables 2 and 3, the majority of independent variables were significantly correlated, and a similar pattern was evident across both the relationship and non-relationship samples. Overall, correlations are broadly consistent with predictions; i.e., more avoidant but not more anxious people express less desire to have children. Not surprisingly, for those in a relationship, a desire to have children was strongly and positively correlated with a desire to have children with their partner.

Table 2

Correlations among Independent Variables for People In a Relationship

	Avoid	Anx	Desire Children	Fam Rel	Self Est	Rel Qual
Anxious	.36***					
Desire Children	-.24***	-.04				
Family Rel Quality	-.35***	-.20***	.27***			
Self-esteem	-.44***	-.40***	.25***	.29***		
Relationship Quality	-.32***	-.39***	.16**	.22***	.28***	
Desire Children with Partner	-.30***	-.13*	.70***	.26***	.28***	.39***

Notes. Family Rel Quality = perceived quality of relationship with family of origin, Relationship Quality = perceived quality of relationship with current partner.
* *p* < .05, ** *p* < .01, *** *p* < .001

Table 3

Correlations among Independent Variables for People Not In a Relationship

	Avoid	Anx	Desire Children	Fam Rel
Anxious	.19**			
Desire Children	-.24**	.02		
Family Rel Quality	-.27***	-.10	.24**	
Self-esteem	-.46***	-.44***	.26***	.35***

Note. Family Rel Quality = perceived quality of relationship with family of origin.
* *p* < .05, ** *p* < .01, *** *p* < .001

Dependent variable correlations. Participants working models of parenting are shown in Tables 4 and 5. Measures include perceived ability to relate to children, parental satisfaction, and the three sub-scales associated with expectations of childrearing. As illustrated, all aspects of the working model (except strictness in some cases) were significantly correlated. As expected, the perceived ability to relate to children was strongly correlated with higher perceived satisfaction with parenting as well as lower expected aggravation with children. Overall, a similar pattern of correlational effects was apparent across the dependent variables for both relationship samples.

Table 4

Correlations among Dependent Variables for People in a Relationship

	Parental Satn	Expectations of Childrearing		
		Aggr	POV	Strict
Aggravation with child	-.52***			
Consider Child's POV	.40***	-.32***		
Strictness of Discipline	-.06	.33***	-.16**	
Ability Relate to Children	.63***	-.78***	.36***	-.20***

Note. Aggr = perceived level of aggravation with children, POV= point of view, Parental Satn = perceived level of satisfaction with the role of parent, Strict = perceived level of disciplinary strictness delivered to children.
* *p* < .05, ** *p* < .01, *** *p* < .001

Table 5

Correlations among Dependent Variables for People Not in a Relationship

	Parental Satn	Expectations of Childrearing		
		Aggr	POV	Strict
Aggravation with child	-.52***			
Consider Child's POV	.37***	-.19**		
Strictness of Discipline	-.02	.16*	-.10**	
Ability Relate to Children	.63***	-.77***	.23**	-.04

Note. Parental Satn = perceived level of satisfaction with the role of parent, Aggr = perceived level of aggravation with children, POV= point of view, Strict = perceived level of disciplinary strictness delivered to children.
* $p < .05$, ** $p < .01$, *** $p < .001$

Correlations between dependent variables and attachment styles. Table 6 presents the correlations between perceived ability to relate to children, desire to have a child, perceived satisfaction with the role of parent and attachment styles. As expected, more avoidant people were significantly less confident about their ability to relate to children, significantly less likely to want to have a child themselves, and were less satisfied with the potential role of parenting. In contrast, although more anxious people felt less comfortable relating to children, they did not harbour negative attitudes towards having their own child or satisfaction with the prospective role of parenting. These results were consistent with predictions and were similar regardless of relationship status.

Table 7 presents the correlations between insecure attachment and expectations toward childrearing. As predicted, more avoidant and more anxious people were more likely to be aggravated by a prospective child, would consider their child's opinion less often in decisions and were fairly strict (especially people in a relationship). Notably, these correlations were stronger and more often significant for avoidance than anxiety.

Table 6

Correlations between Parenting Perceptions and Attachment Style

	Ability Relate to Children		Desire Children		Parental Satisfaction	
	In Rel	Not in Rel	In Rel	Not in Rel	In Rel	Not in Rel
Avoidant	-.47***	-.48***	-.24***	-.24**	-.30***	-.36***
Anxious	-.27***	-.28***	-.04	.02	-.04	.02

* *p* < .05, ** *p* < .01, *** *p* < .001

Table 7

Correlations between Attitudes Toward Childrearing and Attachment Style

	Aggravation		Consider Childs POV		Strictness of Discipline	
	In Rel	Not in Rel	In Rel	Not in Rel	In Rel	Not in Rel
Avoidant	.42***	.42***	-.19***	-.08	.17**	.01
Anxious	.35***	.25***	-.14**	.10	.12**	.00

* *p* < .05, ** *p* < .01, *** *p* < .001

Multiple Regression Analyses

Regression analyses were conducted for each dependent variable associated with working models of parenting - namely, the perceived ability to relate to children, parental satisfaction, and the three variables associated with expectations of childrearing. In addition, the desire to have children was also treated separately as a dependent variable in this analysis.

For each dependent variable, age and gender were entered at the first step of the regression analysis. At the second stage, the remaining (psychological) independent variables were entered i.e., attachment orientation, desire to have children, perceived quality of family relationships and self-esteem. This approach was taken because the socio-demographic variables could cause the psychological variables but not the other way around. For those people in a relationship, the perceived quality of the relationship and the desire to have children with a current partner were also included in step two. For the

regression analyses, the relationship and non-relationship samples were analysed
independently.

   Perceived ability to relate to children. Table 8 displays the standardised regression
coefficients and associated zero-order correlations for the independent variables predicting
the perceived ability to relate to children. I anticipated that more avoidant and more
anxious people would be less confident about forming relationships with children. This
prediction was borne out in the findings and was especially prevalent among more
avoidant people (both in a relationship and alone). Therefore, my findings support my
hypothesis.

   In addition, a higher perceived ability to relate to children was predicted by a greater
desire to have children and higher self-esteem (both samples), and a greater desire to have
children with their partner (relationship sample). Overall, however, the general desire to
have children was the strongest predictor for both samples. Age and gender were not
significant predictors. The two-step regression model explained 60% of the total variance
for both relationship samples. Tolerance indices ranged from .43 (desire to have children
with partner) to .97 (age), suggesting that multicollinearity was not a serious problem.

Table 8

Hierarchical Multiple Regression Results Predicting Perceived Ability to Relate to Children

Independent Variables	In a Romantic Relationship		Not in a Romantic Relationship	
Step 1	β	r	β	r
Age	-.07	-.07	.02	.02
Gender	-.01	-.02	.13	.13
Step 2				
Avoidant	-.19***	-.47	-.20***	-.48
Anxious	.08*	-.27	-.11*	-.28
Desire Children	.42***	.65	.42***	.57
Family Relationship Quality	.02	.32	.15**	.41
Self-Esteem	.24***	.50	.23***	.58
Relationship Quality	-.06	.25		
Desire Children with Partner	.19***	.59		
	R^2= .60		**R^2= .60**	

Notes. R^2 includes all IV's in both step 1 and step 2. R^2 in boldface indicates a significant result.
* $p < .05$, ** $p < .01$, *** $p < .001$

Parental satisfaction. I hypothesised that more avoidant people, but not more anxious people, would be significantly less satisfied with the role of being a parent. The results presented in Table 9 show that this prediction was supported (regardless of relationship status). Generally, both men and women of all ages held similar views toward parental satisfaction except for younger people (in a relationship) who perceived a lower level of satisfaction. However, the strongest predictor of expected parental satisfaction was again the extent someone yearned to raise children (rather than their attachment style). In addition, for those in a relationship, a desire to have children generally, rather than a desire to have children with a specific partner, was a comparatively bigger driver of perceived parental satisfaction. In addition, higher parental satisfaction was also a function of greater satisfaction with the quality of family of origin relationships. However, this was only a

predictor for people in a relationship not for those alone. Overall, the independent variables explained around 50% of the variance for parental satisfaction.

Table 9

Hierarchical Multiple Regression Results Predicting Expected Parental Satisfaction

Independent Variables	In a Romantic Relationship		Not in a Romantic Relationship	
Step 1	β	r	β	r
Age	-.17**	-.17	-.06	-.06
Gender	-.03	-.04	.01	.01
Step 2				
Avoidant	-.11*	-.30	-.20**	-.36
Anxious	.07	-.04	.08	.02
Desire Children	.58***	.70	.57***	.64
Family Relationship Quality	.08*	.30	.04	.24
Self-Esteem	.00	.24	.06	.28
Relationship Quality	.05	.20		
Desire Children with Partner	.08	.55		
	R^2= .53		**R^2= .47**	

Notes. R^2 includes all IV's in both step 1 and step 2. R^2 in boldface indicates a significant result. * $p < .05$, ** $p < .01$, *** $p < .001$

Expected attitudes towards childrearing. Tables 10 to 12 display the standardised regression coefficients and zero order correlations for the dependent variables of expected aggravation with future children, expected attitudes toward consideration of a child's perspective and attitudes towards strictness of disciplinary action.

Consistent with my prediction, more avoidant people were more easily aggravated by children (see Table 10). This finding was evident regardless of relationship status. For more anxious people in a relationship, higher levels of anxiety predicted a higher expectation of aggravation with children. However, this finding was not observed among more anxious single people. Although the desire to have children (both general desire and specifically with a current partner) was the most powerful predictor, self-esteem also

played a comparatively influential role. That is, people with higher self-esteem were less

likely to be aggravated by children (regardless of relationship status). Overall, apart from

the anomalies mentioned,

the results were fairly similar between those people currently in a romantic relationship

and single people. Over 40% of the total variance on the aggravation sub- explained.

Table 10

Hierarchical Multiple Regression Results Predicting Perceived Aggravation with Children

Independent Variables	In a Romantic Relationship		Not in a Romantic Relationship	
Step 1	β	r	β	r
Age	.04	.04	-.06	-.07
Gender	-.06	-.06	-.19	-.19
Step 2				
Avoidant	.16**	.42	.21**	.44
Anxious	.22***	.35	.10	.25
Desire Children	-.27***	-.50	-.27***	-.43
Family Relationship Quality	-.02	-.28	-.21***	-.42
Self-esteem	-.16**	-.42	-.22**	-.50
Relationship Quality	.07	-.25		
Desire Children with Partner	-.22***	-.50		
	R^2= .44		**R^2= .46**	

Notes. R^2 includes all IV's in both step 1 and step 2. R^2 in boldface indicates a significant result.
 * $p < .05$, ** $p < .01$, *** $p < .001$

Counter to expectations, neither avoidant nor anxious attachment predicted less

consideration for a child's point of view. Only the desire to have children (both generally

and specifically with their partner) played a predictive role (see Table 11).

Although more avoidant people had a stricter disciplinary approach toward future

children, this was only apparent for people in a relationship (see Table 12). Moreover no

other independent variable attained a significant regression coefficient i.e., anxiety, desire

to have children, perceived relationship quality etc., with the exception of gender for those not in relationships.

In summary, more avoidant people and more anxious people in a relationship perceived future children as more aggravating but were not more inconsiderate of their future child's point of view. In addition, only more avoidant people in a relationship were stricter. Therefore, my hypothesis regarding both avoidance and anxiety predicting negative expectations of childrearing was not fully supported across all sub-scales of this measure.

Table 11

Hierarchical Multiple Regression Results Predicting the Consideration of Child's Point of View

Independent Variables	In a Romantic Relationship		Not in a Romantic Relationship	
Step 1	β	r	β	r
Age	-.05	-.04	-.03	-.03
Gender	.09	.09	.00	.00
Step 2				
Avoidant	-.05	-.19	-.08	-.08
Anxious	-.07	-.14	.12	.10
Desire Children	.13	.28	.16*	.16
Family Relationship Quality	.06	.18	-.11	-.05
Self-Esteem	.02	.16	.04	.03
Relationship Quality	.02	.17		
Desire Children with Partner	.16*	.30		
	$R^2 = .13$		$R^2 = .05$	

Notes. R^2 includes all IV's in both step 1 and step 2.
* $p < .05$, ** $p < .01$, *** $p < .001$

Table 12

Hierarchical Multiple Regression Results Predicting Perceived Strictness of Discipline

Independent Variables	In a Romantic Relationship		Not in a Romantic Relationship	
Step 1	β	r	β	r
Age	-.11	-.11	-.04	-.05
Gender	-.14	-.14	-.27***	-.27
Step 2				
Avoidant	.18**	.17	.07	.01
Anxious	.10	.12	.04	.00
Desire Children	.04	-.04	-.08	-.06
Family Relationship Quality	.09	.01	.12	.12
Self-Esteem	.07	-.03	.13	.12
Relationship Quality	.06	-.05		
Desire Children with Partner	-.14	-.11		
	$R^2 = .08$		$R^2 = .12$	

Notes. R^2 includes all IV's in both step 1 and step 2.
* $p < .05$, ** $p < .01$, *** $p < .001$

Desire to have children. As previously stated, the general desire to have children was treated as a dependent variable in order to test my hypothesis that avoidant attachment would predict a lower interest in having children. As can be seen in Table 13, the hypothesis was supported for the total sample and for more avoidant people in a relationship. However, for more avoidant single people, although the results were in the predicted direction they were not significant. In addition, more anxious people (regardless of partner status) had a greater interest in raising children which further substantiates the different profiles of the two insecure attachment styles. However, caution is recommended in interpreting this finding among the non-relationship sample, since the associated correlation was close to zero suggesting a suppression effect. Self-esteem was a significant predictive factor across both samples. When considering desire to have children as the dependent variable, all of the independent variables contributed less than 20% of the total

variance for both relationship samples. Tolerance indices ranged from .64 (self-esteem) to

.99 (gender). Perhaps unexpectedly, for people with a partner, perceived relationship

quality was not significantly related to a greater desire to have children generally.

However, a subsequent hierarchical regression among the relationship sample, with desire

to have children with your partner as the dependent variable and age, gender (entered in

the first step), avoidance, anxiety, family relationship quality, self-esteem and relationship

quality (entered in the second step) revealed that relationship quality was the main

predictor $F (9,358) = 15.0$, $p < .001$ of the desire to have children with your current

partner.

Table 13

Hierarchical Multiple Regression Results Predicting Desire to Have Children

Independent Variables	Total Sample		In a Romantic Relationship		Not in a Romantic Relationship	
Step 1	β	r	β	r	β	r
Age	-.09*	-.09	-.18**	-.17	-.05	-.05
Gender	.10*	.10	.05	.05	.12	.12
Step 2						
Avoidant	-.16***	-.30	-.13*	-.24	-.12	-.24
Anxious	.11*	-.10	.14*	-.04	.17*	.02
Family Rel Quality	.17***	.29	.19***	.27	.13	.24
Self-Esteem	.23***	.32	.19**	.25	.23**	.26
Relationship Quality			.07	.16		
	$R^2= .18$		$R^2= .17$		$R^2= .14$	

Notes. R^2 includes all IV's in both step 1 and step 2. R^2 in boldface indicates a significant result.. Desire to have children with your partner was removed from the analysis due to the multicollinearity of this factor with the desire to have children generally. Fam Rel Quality = perceived quality of relationship with family of origin.
* $p < .05$, ** $p < .01$, *** $p < .001$

Summary of Multiple Regression Findings

Overall, the findings were generally as expected with more avoidant people exhibiting

a more negative working model of parenting and less desire to raise children (especially

more avoidant people in a relationship). Out of the six hypotheses predicting negative

associations for more avoidant people, five were confirmed. In contrast, and as anticipated,

more anxious people had a greater desire to have children and did not expect to be more

dissatisfied with parenting (compared to more avoidant people). However, similar to more

avoidant people, they were less confident in their general ability to relate to children and

expected their own children to aggravate them (especially more anxious people in a

relationship). Four out of the six hypotheses associated with anxious attachment were

supported.

Overall, the results based on attachment style were similar regardless of whether

someone was in a relationship or not. However, when findings did differ, insecure people

in a relationship were more likely to support the stated hypotheses i.e., display more

negative attitudes. For people in a relationship, the perceived quality of that relationship

was not a predictive factor for any parental or child attitudinal outcomes. An exception

was for a person's specific desire to have children with their current partner, whereby self-

assessed relationship satisfaction was the main predictor.

However, these findings suggest that a general desire for children is a more salient

factor than a more specific desire to have children with a current partner (especially when

predicting general attitudes toward confidence in relating to children and potential parental

satisfaction). The general desire for children was also a stronger predictor than attachment

orientation with regard to attitudes towards parenting and childrearing. When considering

general desire to have children as an outcome, self-esteem, avoidance and perceived family

relationship quality were key predictors. However, when considering the specific desire to

have children with a current partner, the perceived quality of that relationship was the main

predictor.

Mediation Models

I hypothesised that more avoidant participants would have a more negative attitude toward child rearing, and would anticipate less satisfaction with the role of parenting, in part because they held a lower desire to have children. As anticipated, the anxious attachment dimension was not related to the desire to have children and therefore, was not considered further in the mediation analysis. The general mediation model was described in the introduction (see Figure 1). As I argued in the introduction, it is plausible that causal associations among these variables are likely (in part) to go from left to right in these models; i.e., that attachment styles cause the desire to have children and expectations of parental satisfaction, rather than in the opposite direction.

For mediation models to be supported several criteria need to be satisfied. First, there needs to be a significant path from the independent variable (attachment style) to the final dependent variable (expected parental satisfaction), termed the total effect. Second, both indirect paths need to be significant from the independent variable to the mediating variable (desire to have children) and from the mediating variable to the final dependent variable. Third, the indirect effect through the mediating variable needs to be significant. This last criterion is equivalent to attaining a significant drop in the total effect, once the mediating variable is controlled for.

The results of the mediation models were very similar across the single and relationship samples. Thus, the samples were combined to test each specific mediation model. Figure 2 displays the mediation model and analysis results for satisfaction with the prospective role of parenting. The results support the mediation model. Specifically, higher avoidance was significantly correlated with a lower desire to have children. Desire to have children was significantly and positively related to perceived satisfaction with the role of parent. Finally, the direct effect between avoidance and parental satisfaction while controlling for

the desire to have children was significantly lower than the total effect according to

Sobel's test ($z = 5.32$, $p < .001$) which confirmed a significant mediation. Therefore,

avoidance had its effect on expected parental satisfaction (in part) via the desire to be a

parent.

Desire to have Children

| -.30* | | .64* |

| -.17* |

Avoidance --→ Expected Parental
                                                          Satisfaction

| **-.36*** |

Figure 2 Mediation model for avoidance, desire to have children and parental satisfaction among
the total sample. All path coefficients represent standardised regression weights (the total effect is
in boldface).

Figure 3 presents a graphical depiction of the mediation model with avoidance as the

independent variable, desire for children as the proposed mediator and aggravation with

future children as the dependent variable. Statistical measures of the significance of each

predicted path showed that all necessary conditions were met. As with the previous

mediation, avoidance was significantly and negatively correlated with desire to have

children. Desire to have children was significantly and negatively correlated with expected

aggravation with children. The direct effect between avoidance and expected aggravation

with children while controlling for the desire to have children was significantly lower than

the total effect.

A subsequent Sobel's test was also significant with an associated large z-value ($z = -$

7.03, $p = 0$). Therefore, avoidance had its effect on aggravation with potential offspring

partly through a lower desire to become a parent.

Desire to have Children

-.30*   .33*   -.50*

Avoidance --→ Expected Aggravation
                                                                      with kids

.44*
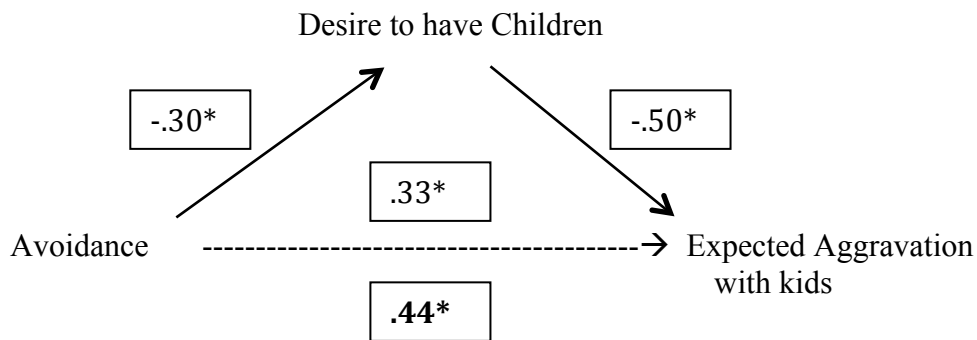
Figure 3 Mediation model for avoidance, desire to have children and expected aggravation with kids among the total sample. All path coefficients represent standardised regression weights (the total effect is in boldface).

Figure 4 examines a similar mediation model with consideration of a child's point of view as the dependent variable. All predicted paths were significant for this model, along with a significant Sobel's test ($z = -1.87$, $p = 0.06$). Therefore, these findings confirmed that the desire to have children was also a mediating variable in the relationship between avoidance and the consideration of a child's perspective. Specifically, avoidance had its effect on lower consideration of a child's point of view through a lower desire to become a parent.

Desire to have Children

-.30*   -.09*   .25*

Avoidance --→ Expected Consideration of
                                                                      Child's Point of View
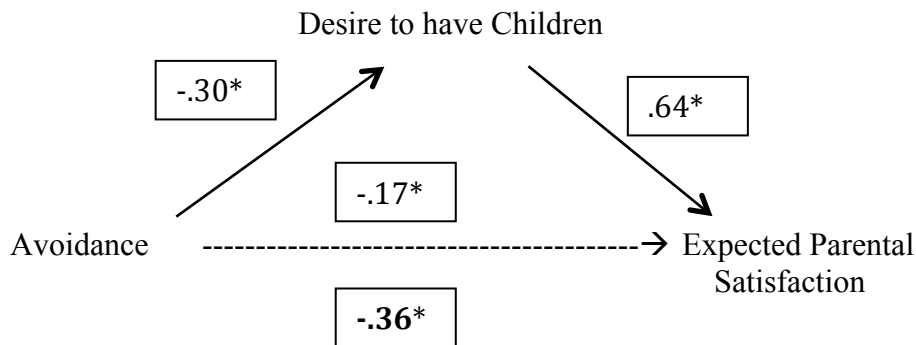
-.16*

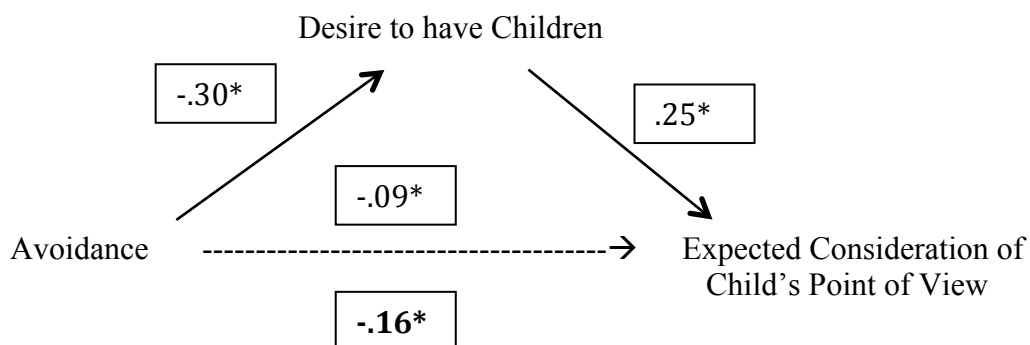*Figure 4* Mediation model for avoidance, desire to have children and consideration of child's POV among the total sample. All path coefficients represent standardised regression weights (the total effect is in boldface).

A further mediation model that tested avoidance as the independent variable, strictness of discipline as the dependent variable, and desire to have children as the mediator, failed to provide significant results.

In summary, consistent with my prediction and prior research, avoidance was associated with lower expected parental satisfaction and specific attitudes towards child rearing partly as a function of a lower desire to raise children.

Moderation

Subsequent moderation analyses[8] revealed no effect of being in a current relationship (yes versus no) when analysing the links between insecure (both avoidant and anxious) attachment and attitudes towards parenting. Subsequently, moderated mediation analyses were undertaken to investigate whether being in a relationship (yes versus no) moderated any of the indirect mediation paths illustrated in Figures 2, 3 and 4. There was no evidence in any case of such moderating effects.

I next focused on people in a relationship to determine whether the association between insecure attachment and working models of parenting was moderated by the perceived quality of that relationship. To test this possibility, I used the standard multiple regression approach. First, I centred the continuous independent variables; avoidance (CAvoid) and relationship quality (CRelQ). Next, the standardized variables were multiplied together to create the interaction variable (CAvoid x CRelQ). Subsequently, each dependent variable was regressed on all three independent variables, and the significance of the interaction term was assessed. The dependent variables were ability to relate to children, desire to have children (general and specific), expectation of aggravation with a prospective child, expectation of a strict approach to child discipline, and consideration of a future child's perspective in decision making.

The moderation analyses revealed no effect of relationship quality when considering the link between avoidance and the dependent variables tested. This procedure was then repeated for anxiety. A significant interaction was found for the perceived ability to relate

---

[8] The categorical moderator calculator http://pavlov.psyc.vuw.ac.nz/paul-jose/modgraph/instruction.php was used.

to children (β = -.10, t (1,367) = -1.98, p = .049). A simple slope computation[9] revealed

that highly anxious people reported higher perceived ability to relate to children when they

perceived their relationship to be comparatively less satisfied than when their marriages

were more positive (see Figure 5). Further analyses revealed interactions for both

consideration of a child's point of view (β = -.10, t (1,367) = -1.88, p = .061) and strictness

of discipline (β =.09, t (1,367) = 1.78, p = .076). Moreover, the same moderation pattern

was observed. That is, the link between higher anxiety and more negative reports of the

ability to relate to children was exacerbated by higher relationship quality.
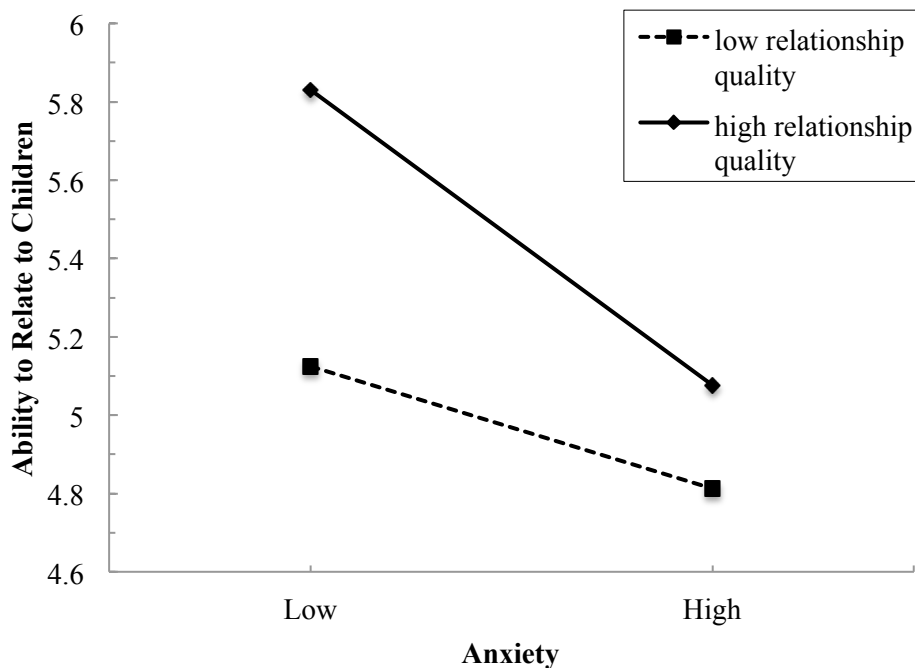
Figure 5 The interaction effect of relationship quality on the perceived ability to relate as a
function of anxiety among people in a relationship for the total sample.

---

[9] The simple slope computation via http://pavlov.psyc.vuw.ac.nz/paul-
jose/modgraph/instruction.php was used.

Chapter 4: Discussion

The present research extended the existing literature in various novel and important ways. The results largely confirmed my predictions and replicated prior research findings concerning the links between attachment and expectations towards parenting. More avoidant attachment was associated with more negative working models of parenting. Furthermore, a lower desire to have children was a mediating factor between avoidant attachment and more negative parenting attitudes. More anxious people, in turn, exhibited a mix of both positive and negative expectations of parenting but were more interested in having children.

However, some predictions were not confirmed and the results varied to some extent between samples currently in romantic relationships and those who were not in an existing relationship. In the following discussion, I describe the results in more detail, initially focusing on theoretical issues, then strengths and limitations. I then identify opportunities for future research and finally, I reach some conclusions.

Attachment Styles and Working Models of Parenting

Avoidance. As predicted, and consistent with previous research, more avoidant people were less confident in their ability to relate to children and they perceived parenting to be unsatisfying (Rholes et al., 1995; Rholes et al., 1997; Rholes et al., 2006). They held some negative attitudes towards childrearing that included higher levels of aggravation and a stricter approach to discipline (among those in a relationship).

These findings support the theoretical perspective that avoidant people have less interest in interpersonal relationships and prefer not to be relied on emotionally; therefore, the prospect of relating to children is unlikely to appeal. More avoidant people strive for independence suggesting that any curtailment of independence, such as the responsibility of a child, could be perceived as a threat to achieving this goal. They also place a low

emphasis on attaining closeness through relationships, suggesting that parenting may not be perceived to deliver high levels of personal satisfaction for more avoidant people.

Anxiety. As expected, and in accordance with previous research, more anxious people were less confident in their ability to relate to children (Nathanson & Manoher, 2012; Rholes et al., 1997; Scharf & Mayseless, 2011), yet more anxious people anticipated higher satisfied with the role of parent (Rholes et al., 1997). In partial support of my hypothesis, more anxious people in a relationship (but not anxious single people) perceived children to be more aggravating. This finding replicates Rholes et al. (1997) and Nathanson and Manohar (2012).

These findings support an attachment rationale that more anxious people are more interested in relating to others (including children), but that their inherent lack of self-worth may contribute to a lack of confidence in forming effective relationships. They crave close emotional bonds that could lead them to expect satisfaction with a parent role. However, they are very attuned to their own romantic relationships and fulfilling their own felt security needs. Therefore, a potential rival for the attention of their partner may be perceived as aggravating, perhaps heightening attachment-related concerns about their partner's availability.

I predicted that insecure attachment styles would be associated with more negative attitudes toward childrearing; however, this was not fully supported with regard to consideration of a child's point of view or for stricter child discipline. Prior studies are mixed concerning this pattern of results (Nathanson & Manohar, 2012; Rholes et al., 1997). One explanation for the inconsistency of results across studies could be the different rating scales and/or composite categories of the PATCR scale that have been used across the range of studies.

In summary, my research findings mostly replicated Rholes et al.'s (1997) findings, on which my research was modeled, and are also consistent with the accumulating evidence that different insecure attachment orientations predict specific, negative working models of parenting.

Attachment Style and Desire to have Children

Across the whole sample, I found that more avoidance predicted a lower desire to have children, whereas more anxiety predicted a greater desire to have children. Consistent with these findings, more avoidance, rather than anxiety, has more often been reported as associated with a lower desire to have children (Rholes et al., 1995; Rholes et al., 2006; Wilson et al., 2007). However, recent studies have reported this association is not exclusive to more avoidant people (Nathanson & Manohar, 2012; Scharf & Mayseless, 2011). It is worth noting that Scharf and Mayseless's (2011) study among young Israeli men may reflect possible gender differences, and their findings may not be generalisable beyond Israeli culture.

The present research adds further support for my hypothesis that avoidance (not anxiety) is associated with a lower desire to have children. It is also consistent with a theoretical perspective that more avoidant individuals experience more interpersonal rejection leading them to be emotionally repressed, less interested in close relationships, and less comfortable with having others depend on them.

Mediation. Compared to all other independent variables, the general desire to have children was the strongest predictor of attitudes toward parenting among people without children. A subsequent mediation analysis confirmed that avoidance had its effect on attitudes toward parenting (in part) via the desire to be a parent. That is, being more avoidantly attached (and, thererefore, less interested in close interpersonal relationships) leads a person to be to less interested in wanting their own children. Such a person

subsequently has a lower desire to raise children, which leads to a more negative

expectation of parental satisfaction. In the present study, the desire to have children also

mediated the relationship between avoidance and attitudes toward childrearing (i.e.,

aggravation with prospective children and less consideration of a child's point of view).

Existing research shows similar mediation findings for the desire to have children, with

avoidance being linked via the desire to have children with parental satisfaction (Rholes et

al., 1995; Rholes et al., 1997, Rholes et al., 2006), attitudes towards childrearing (Rholes et

al., 1997, study one), and expectations of future children as less secure and less

affectionate (Rholes et al., 1997, study two). The present study provides further evidence

that the desire to have children is a significant part of the process through which avoidant

attachment impacts on negative working models of parenting.

General Versus Specific Working Models

A novel aspect of the present study was the measurement of both a general desire to

have children and a desire to have children with the current partner (for those in a

relationship). Unsurprisingly, these constructs were highly and positively correlated.

However, general desire (rather than specific desire) to have children consistently obtained

the strongest links with working models of parenting. This finding is consistent with theory

and research proposing that internal working models of specific relationship domains (i.e.

friends, romantic partner, family) are incorporated under a global working model of

relationships (Collins & Read, 1994; Overall, Fletcher & Friesen 2003).

Furthermore, in the present research although relationship quality did not predict a

person's general desire to want children, it did predict the extent to which people

specifically desired children with their current partner. Therefore, within the context of a

relationship-level decision, such as having a child together, relationship-specific

attachment working models are also accessed. Such models should include evaluations of

commitment to the specific relationship, trust, love, and relationship satisfaction. In support of this perspective, preliminary analysis of qualitative information collected in this study regarding the reasons a participant was very interested in having a child with their current partner revolved around the themes of commitment i.e., "we are married", "we are soul-mates"; trust and love i.e.,"I love and trust my partner", "he is kind and caring"; relationship satisfaction i.e., "we are a perfect match" as well as the perceived suitability of their partner as a prospective parent i.e.,"he is a great caregiver and provider, thus creating a good father", "I think he will make a good dad and be supportive of me as a mother". However, caution is advised regarding the interpretation, as qualitative information has not been systematically analysed.

Overall, the present research supports the theoretical perspective of a hierarchical attachment structure that includes general attachment representations being applied to more hypothetical general constructs, and a relationship-specific working model that takes precedence when the concept is relevant or salient to the current partnership (Baldwin, Keelan, Fehr, Enns & Kon-Rangarajoo, 1996; Julal & Carnelly, 2012). For example, a general confidence in relating to children relies more on a global-working model, whereas a desire to have children specifically with the current partner is more likely to be influenced by easily accessible, relationship-specific information (such as relationship satisfaction). It is also likely that both working models influence each other in reciprocal ways (Overall, Fletcher & Friesen, 2003).

Furthermore, it is possible that before the transition to parenting, global attachment working models provide general guidelines for expectations of future caregiving including parenting. However, when people become parents their current romantic relationships (based in part on past parent-child interactions), and the care they receive in those

relationships, may have more influence on the care they provide to their children as predicted by caregiver theory (Bowlby, 1969/1982, George & Solomon, 2008).

In Relationships Versus Being Single

A key aim of the present research was to determine if working models of parenting differed between people currently in a relationship and people who were single. As expected, there were significant differences between the two relationship samples. In particular, people in a relationship were more securely attached, more interested in having children, and had more positive evaluations of family relationships, parenting and themselves. Despite these differences, there were areas of similarity between the two samples. Indeed, moderation analyses revealed no effect of relationship status when considering the link between insecure attachment and working models of parenting. These findings lend further support to the proposition that global working models of attachment drive perceptions toward future imagined parenting rather than relationship-specific elements.

Relationship quality as a moderating variable. Based on prior research, I proposed that the link between avoidance and the role of parenting should be weaker when current romantic relationships are perceived as happy. This hypothesis was not confirmed in the present research. However, relationship quality produced a moderation effect for the link between anxiety and the perceived ability to relate to children. More specifically (and counter to expectations), for highly anxious people, higher levels of confidence in the ability to relate to children were reported when they perceived their relationships to be lower quality. Similar findings, although not quite statistically significant were reported among highly anxious people and their attitudes toward childrearing. A similar unexpected interaction was found by Rholes et al. (1995) among anxious mothers, who

reported feeling less close to their children when they perceived their marriages to be comparatively happier then when they reported a dissatisfied relationship.

The rationale proposed by Rholes et al. 1995 for this odd reverse effect, is that more anxious people rely more on their partner to fulfill their needs for emotional closeness. Therefore, when the relationship is perceived to be low quality (and these needs are unmet) additional closeness is sought from other attachment relationships. Therefore, a dissatisfied, more anxious parent may seek closeness with their child to fulfill personal attachment needs (irrespective of the child's attachment needs). Consequently, this self-focused motive may help explain the inconsistency and unpredictability of the maternal care provided by anxious parents that perpetuate similar attachment styles in their children. It has also been shown that highly anxious people rely greatly on the positive perceptions of their partners to sustain their well-being, especially women (Campbell, Simpson, Boldry & Kashy 2005; Hazen & Shaver 1994; Park, Croker & Mickelson, 2004; Simpson et al., 2003). However, caution is advised in the interpretation of the present study's findings, given that the moderation was significant with only one parental attitude measure.

Strengths and Limitations

One strength of this study was the size and breadth of the sample. However, the sample in the present study remained biased toward a North American perspective (i.e., 83% resided in the US or Canada), people of European descent (83%) and/or those more highly educated (37% had a university degree or higher qualification). Participants were sourced via online paid-to-click networks and stringent criteria were applied to obtain a genuine, attentive sample. However, it is possible that the internet based sub-population may possess distinctive motivations, attitudes or attributes.

In addition, the concurrent design of this study places limitations on the causal implications for findings. In particular, it is not possible to ascertain if the lack of desire to

have children (especially among more avoidant persons), and the foreshadowed negative

consequences, will persist when people actually become parents. According to theory, in

the transition to parenthood the caregiver system fully develops and, therefore, inherent

motivations for infant protection should have a stronger influence in guiding actual

childcare behaviour.

Another potential limitation of this research is the self-report methodology. As

previously mentioned, it is generally accepted that the AAI and self-report adult romantic

attachment measures tap into distinct attachment-related constructs (Roisman et al., 2007).

The present research suggested that both global and relationship-specific working models

were being simultaneously accessed and, therefore, the dual measurement goals of the

AAQ (Simpson et. al., 1996) were achieved. Moreover, my findings support claims by

Rholes et. al. 2006 that domain-specific attachment measures (i.e., adult romantic

relationships) are relevant to the prediction of attachment-related attitudes in other

domains. Therefore, my study provides further evidence of the validity of using a self-

report methodology (and the AAQ in particular) when investigating attachment-related

parenting projections.

Furthermore, I believe that online technology offers many advantages including in-built

logic checks, effective sample refinement techniques, automatic data entry, clearer

interpretation of responses (compared to hand-written). Use of a multi-media capability

introduces the possibilities for innovative research designs, several of which I will explore

in the next section.

Future Research

In an attempt to address the present study's limitations, future attachment-related

research could be undertaken among cultures outside of North America and among more

diverse populations; i.e., those with lower socio-economic status, lower education etc.

Furthermore, a study analysing the demographic and psychographic characteristics of the online PTC community, and comparing their profile with the general public, would illuminate any important differences between these populations. Finally, longitudinal research will enable better testing of causal links between attachment styles and emerging models of parenting, prenatal attitudes, and parenting attitudes, affect and behaviour.

There are several other important areas for future research including addressing the inconsistency of findings in studies examining the links between attachment styles and working models of parenting among non-parents. As suggested, it is possible that the inconsistency could be (in part) due to the array of parental expectation measures used. Future research in this area could use prospective parenting measures that tap into a wide selection of insecure attachment measures informed by up-to-date research. The original PATCR (Easterbrooks & Goldberg, 1984) was developed before major adult attachment and caregiver research was undertaken. In addition, social norms regarding the use of physical punishment to discipline children have changed. Furthermore, the present research used a shorter version of the PATCR (19 versus 51 original items) that achieved good levels of internal reliability (.40 to .81), suggesting that a shorter scale could be considered in future parenting studies.

As previously noted, electronic self-report surveys provide a number of advantages over paper or interview-based methodologies. Furthermore, online crowd-sourcing is a cost effective, viable way to gain access to a large, geographically diverse, community-based sample. In addition, the turn-around for survey completion is fast and quality control procedures are effective. With some refinement in methodology, a range of tools could be used to elicit a variety of attachment-related constructs (both implicit and explicit). For example, image and voice recording capabilities make it possible to use semi-projective techniques similar to the Adult Attachment Projective (AAP; George & West, 2004),

which involves participants telling stories about ambiguous pictures of attachment inducing scenarios. In-built skip logic and multi-media capabilities could also be used with a quasi-experimental methodology that could prime either the attachment or caregiving systems. This type of research could enhance our understanding of the dynamic interactions between the attachment and caregiver systems, especially with regard to the conditions under which one system is more dominant than another. A related avenue of future inquiry highlighted by the present study is gaining a better understanding of the conditions and factors that activate global working models, versus relationship specific working models, in the context of parenting decisions.

Conclusions

   This study provides support for the connection between insecure adult romantic attachment and negative attitudes toward parenting being present before children are conceived. More specifically, distinct rejecting patterns were shown for more avoidant people and inconsistent attitudes shown for more anxious people. These findings also suggest that the desire to have children may have an important mediating role in the way more avoidant people perceive their future role as a parent. The present study suggests that simply being in a relationship does not drastically influence the impact of attachment styles on parental expectations and attitudes. However, there was some evidence that being in a relationship exacerbated the negative implications of attachment anxiety. Overall, the present research reaffirms the claim that low levels of attachment avoidance and anxiety extends beyond romantic relationships to influence the emerging working models of parenting, consequently setting the stage for a less fraught and potentially more successful future parenting role.

References

Adam, E. K., Gunnar, M. R., & Tanaka, A. (2004). Adult attachment, parent emotion, and observed parenting behavior: Mediator and moderator models. *Child Development, 75*, 110-122.

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation.* Hillsdale, NJ: Erlbaum.

Alhusen, J. L., Hayat, M. J., & Gross, D. (2013). A longitudinal study of maternal attachment and infant developmental outcomes. *Archives of Women's Mental Health, 16(6)*, 521-529.

Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Koh-Rangarajoo, E. (1996). Social-cognitive conceptualization of attachment working models: Availability and accessibility effects. *Journal of Personality and Social Psychology, 71(1)*, 94-109.

Berlin, L. J., Whiteside-Mansell, L., Roggman, L. A., Green, B. L., Robinson, J., & Spieker, S. (2011). Testing maternal depression and attachment style as moderators of Early Head Start's effects on parenting. *Attachment & Human Development, 13*, 49-67.

Bowlby, J. (1944). Forty-four juvenile thieves: Their characters and home life. *International Journal of Psychoanalysis, 25*, 19-52 and 107-127.

Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment*. New York, NY: Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and Anger.* New York, NY: Basic Books.

Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss.* New York, NY: Basic Books.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York, NY: Guilford Press.

Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology, 28(5)*, 759-775.

Bretherton, I., & Munholland, K. A. (2008) Internal working models in attachment relationships: Elaborating a central construct in attachment theory. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications, 2nd edn* (pp. 102–127). New York: The Guilford Press.

Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology, 88,* 510-531.

Collins, N. L., & Feeney, B. C. (2013). Attachment and caregiving in adult close relationships: Normative processes and individual differences. *Attachment & Human Development, 15(3),* 241.

Collins, N. L., & Ford, M. B. (2010). Responding to the needs of others: The caregiving behavioral system in intimate relationships. *Journal of Social and Personal Relationships, 27(2)*, 235-244.

Collins, N. L., & Read, S. J. (1994). Cognitive representations of attachment: The structure and function of working models. In K. Bartholomew & D. Perlman (Eds.), *Attachment processes in adulthood* (pp. 53-90). London, England: J. Kingsley Publishers.

Coyl, D. D., Newland, L. A., & Freeman, H. (2010). Predicting preschoolers' attachment security from parenting behaviours, parents' attachment relationships and their use of social support. *Early Child Development and Care, 180*, 499-512.

Crowell, J. A., & Feldman, S. S. (1989). Assessment of mothers' working models of relationships: Some clinical implications. *Infant Mental Health Journal, 10(3),* 173-184.

Crowell, J. A., & Feldman, S. S. (1991). Mothers' working models of attachment relationships and mother and child behavior during separation and reunion. *Developmental Psychology, 27(4)*, 597-605.

Easterbrooks A. M., & Goldberg, W. A. (1984). Toddler development in the family:Impact of father involvement and parenting characteristics. *Child Development, 55*, 740-752.

Edelstein, R. S., Alexander, K., Shaver, P. R., Schaaf, J. M., Quas, J. A., Lovas, G. S., & Goodman, G. S. (2004). Adult attachment style and parental responsiveness during a stressful event. *Attachment & Human Development, 6*, 31-52.

Edelstein, R. S., & Gillath, O. (2008). Avoiding interference: Adult attachment and emotional processing biases. *Personality and Social Psychology Bulletin, 34*, 171- 181.

Feeney, B. C., & Collins, N. L. (2001). Predictors of caregiving in adult intimate relationships: An attachment theoretical perspective. *Journal of Personality and Social Psychology, 80*, 972-994.

Feeney, B. C., & Collins, N. L. (2004). Interpersonal safe haven and secure base caregiving processes in adulthood. In W. S. Rholes & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 300-338). New York: Guilford Press.

Feeney, J. A. (2008). Adult romantic attachment: Developments in the study of couple relationships. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (2nd ed; pp. 456-481). New York, NY: Guilford Press.

Feeney, J., Noller, P., & Callan, V. J. (1994). Attachment style communication and satisfaction in the early years of marriage. In K. Bartholomew & D. Perlman (Eds.) *Attachment processes in adulthood* (pp 269-308). London, England: Jessica Kingsley.

Fletcher, G. J. O., Simpson, J. A., Campbell, L., & Overall, N. C. (2013). *The science of intimate relationships.* Cambridge: Wiley-Blackwell.

Fletcher, G. J. O., Simpson, J., & Thomas, G. (2000). The measurement of relationship quality components: A confirmatory factor analytic study. *Personality and Social Psychology Bulletin, 26,* 340-354.

George, C., & Solomon, J. (1996). Representational models of relationships: Links between caregiving and attachment. *Infant Mental Health Journal, 17(3),* 198-216.

George, C., & Solomon, J. (1999). Attachment and caregiving: The caregiving behavioral system. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 649-670). New York, NY: Guilford Press.

George, C., & Solomon, J. (2008). The caregiving system: A behavioral systems approach to parenting. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications (2nd ed.)* (pp. 833-856). New York, NY: Guilford.

George, C., & West, M. (2001). The development and preliminary validation of a new measure of adult attachment: The adult attachment projective. *Attachment & Human Development, 3(1)*, 30-61.

Goldberg, W. A., & Easterbrooks, M. (1984). Role of marital quality in toddler development. *Developmental psychology*, *20*(3), 504.

Hamilton, W. (1964). The genetical evolution of social behavior:1 and 2. *Journal of Theoretical Biology, 1*, 1-5.

Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511-524.

Hazan, C., & Shaver, P. R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry, 5*, 1-22.

Howard, K. S. (2010). Paternal attachment, parenting beliefs and children's attachment. *Early Child Development and Care, 180*, 157-171.

Julal, F. S., & Carnelley, K. B. (2012). Attachment, perceptions of care and caregiving to romantic partners and friends. *European Journal of Social Psychology, 42(7)*, 832-843.

Kunce, L. J., & Shaver, P. R. (1994). An attachment-theoretical approach to caregiving in romantic relationships. In K. Bartholomew, & D. Perlman (Eds.), *Attachment processes in adulthood* (pp. 205-237). London, England: Jessica Kingsley Publishers.

Li, T., & Chan, D. K. (2012). How anxious and avoidant attachment affect romantic relationship quality differently: A meta-analytic review. *European Journal of Social Psychology, 42(4)*, 406-419.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. *Monographs of the Society for Research in Child Development, 50*, 66-104.

McHale, J. P., Kazali, C., Rotman, T., Talbot, J., Carleton, M., & Lieberson, R. (2004). The transition to coparenthood: Parents' prebirth expectations and early coparental adjustment at 3 months postpartum. *Development and Psychopathology, 16(3)*, 711-733.

Milligan, K., Atkinson, L., Trehub, S. E., Benoit, D., & Poulton, L. (2003). Maternal attachment and the communication of emotion through song. *Infant Behavior and Development*, *26(1)*, 1-13.

Mikulincer, M. (1998). Attachment working models and the sense of trust: An exploration of interaction goals and affect regulation. *Journal of Personality and Social Psychology, 74*, 1209-1224

Mikulincer, M., & Florian, V. (1999b). Maternal–fetal bonding, coping strategies, and mental health during pregnancy—The contribution of attachment style. *Journal of Social and Clinical Psychology, 18,* 255-276.

Mikulincer, M., Gillath, O., Halevy, V., Avihou, N., Avidan, S., & Eshkoli, N. (2001). Attachment theory and reactions to others' needs:' evidence that activation of the sense of attachment security promotes empathic responses. *Journal of Personality and Social Psychology, 81(6)*, 1205-1224.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press

Mikulincer, M., & Shaver, P. R. (2012). Adult attachment orientations and relationship processes. *Journal of Family Theory & Review, 4(4),* 259-274.

Mikulincer, M., Shaver, P. R., Gillath, O., & Nitzberg, R. A. (2005). Attach- ment, caregiving, and altruism: Boosting attachment security increases compassion and helping. *Journal of Personality and Social Psychology, 89*, 817–839.

Mills-Koonce, W., Appleyard, K., Barnett, M., Deng, M., Putallaz, M., & Cox, M. (2011). Adult attachment style and stress as risk factors for early maternal sensitivity and negativity. *Infant Mental Health Journal, 32*, 277-285.

Nathanson A., & Manohar, U. (2012). Attachment Working Models of Parenting and Expectations for Using Television in Childrearing. *Family Relations, 61*, 441-454.

Nygren, M., Carstensen, J., Ludvigsson, J., & Frostell, A. (2012). Adult attachment and parenting stress among parents of toddlers. *Journal of Reproductive and Infant Psychology, 30,* 289-302.

Overall, N. C., Fletcher, G. J. O., & Friesen, M. D. (2003). Mapping the intimate relationship mind: Comparisons between three models of attachment representations. *Personality and Social Psychology Bulletin*, *29*, 1479-1493.

Park, L. E., Crocker, J., & Mickelson, K. D. (2004). Attachment styles and contingencies

of self-worth. *Personality & Social Psychology Bulletin, 30(10)*, 1243-1254.

Pistrang, N. (1984). Women's work involvement and experience of new motherhood.

Journal of Marriage and the Family, *46,* 433-447.

Priel, B., & Besser, A. (2000). Adult attachment styles, early relationships, antenatal

attachment, and perceptions of infant temperament: A study of first-time mothers.

Personal Relationships, 7, 291-310.

Pryce, C. R. (1995). Determinants of motherhood in human and nonhuman primates: A

biosocial model. In C. R. Pryce, R. D. Martin, & D. Skuse (Eds). *Motherhood in human*

and nonhuman primates (pp. 1–15). Basel, Switzerland: Karger.

Raval, V., Goldberg, S., Atkinson, L., Benoit, D., Myhal, N., Poulton, L., & Zwiers, M.

(2001). Maternal attachment, maternal responsiveness and infant attachment. *Infant*

Behavior and Development, 24(3), 281-304.

Ravitz, P., Maunder, R., Hunter, J., Sthankiya, B., & Lancee, W. (2010). Adult attachment

measures: A 25-year review. *Journal of Psychosomatic Research, 69(4)*, 419-432.

Reizer, A., & Mikulincer, M. (2007). Assessing individual differences in working models

of caregiving: The construction and validation of the mental representation of

caregiving scale. *Journal of Individual Differences, 28(4),* 227-239.

Rholes, W. S., Simpson, J. A., & Blakely, B. S. (1995). Adult attachment styles and

mothers' relationships with their young children. *Personal Relationships, 2*, 35- 54.

Rholes, W., Simpson, J. A., Blakely, B. S., Lanigan, L., & Allen, E. A. (1997). Adult

attachment styles, the desire to have children, and working models of parenthood.

Journal of Personality, 65, 357-385.

Rholes, W. S., Simpson, J. A., Campbell, L., & Grich, J. (2001). Adult attachment and the

transition to parenthood. *Journal of Personality and Social Psychology*, 81(3), 421-435.

Rholes, W., Simpson, J. A., & Friedman, M. (2006). Avoidant attachment and the experience of parenting. *Personality and Social Psychology Bulletin, 32*, 275-285.

Rholes, W. S., Simpson, J. A., & Oriña, M. M. (1999). Attachment and anger in an anxiety-provoking situation. *Journal of Personality and Social Psychology*, 76(6), 940-957.

Roisman, G. I., Holland, A., Fortuna, K., Fraley, R., Clausell, E., & Clarke, A. (2007). The Adult Attachment Interview and self-reports of attachment style: An empirical rapprochement. *Journal of Personality and Social Psychology, 92*, 678- 697.

Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton, New Jersey:Princeton University Press.

Schachner, D. A., Shaver, P. R., & Mikulincer, M. (2005). Patterns of nonverbal behavior and sensitivity in the context of attachment relationships. *Journal of Nonverbal Behavior*, *29(3)*, 141-169.

Scharf, M., & Mayseless, O. (2011). Buds of parenting in emerging adult males: What we learned from our parents. *Journal of Adolescent Research, 26*, 479-505.

Scher, A., & Dror, E. (2003). Attachment, caregiving, and sleep: The tie that keeps infants and mothers awake. *Sleep and Hypnosis 5,* 27-37

Selcuk, E., Günaydin, G., Sumer, N., Harma, M., Salman, S., Hazan, C., & ... Ozturk, A. (2010). Self-reported romantic attachment style predicts everyday maternal caregiving behavior at home. *Journal of Research in Personality, 44*, 544-549.

Shaver, P. R., & Mikulincer, M. (2004). What do self-report attachment measures assess? In W. S. Rholes, & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 17–54). New York: Guilford Press.

Simpson, J. A., Kim, J. S., Fillo, J., Ickes, W., Rholes, W. S., Oriña, M. M., & Winterheld, H. A. (2011). Attachment and the management of empathic accuracy in relationship-threatening situations. *Personality & Social Psychology Bulletin*, 37(2), 242-254.

Simpson, J. A., & Rholes, W. S . (2012). Attachment, stress, and romantic relationships. *Advances in Experimental Social Psychology*, 45, 279-328.

Simpson, J. A., Rholes, W. S., Campbell, L., Tran, S., & Wilson, C. L. (2003). Adult attachment, the transition to parenthood, and depressive symptoms. *Journal of Personality and Social Psychology*, 84(6), 1172-1187.

Simpson, J. A., Rholes, W. S., Campbell, L., & Wilson, C. L. (2003). Changes in attachment orientations across the transition to parenthood. *Journal of Experimental Social Psychology, 39,* 317-331

Simpson, J. A., Rholes, W. S., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology, 71*, 899-914.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology, 62*, 434-446.

Slade, A. (2004). The move from categories to process: Attachment phenomena and clinical evaluation. *Infant Mental Health Journal, 25(4)*, 269-283.

Slade, A., Belsky, J., Aber, J.L, & Phelps, J.L. (1999). Mothers' representa- tions of their relationships with their toddlers: Links to adult attachment and observed mothering. *Developmental Psychology*, *35(3)*, 611–619.

Snell, W. R., Overbey, G. A., & Brewer, A. (2005). Parenting perfectionism and the parenting role. *Personality and Individual Differences, 39*, 613-624.

Sroufe, L.A., & Waters, E. (1977a). Attachment as an organizational construct. *Child Development, 48*, 1184–1199.

Taubman - Ben-Ari, O., Shlomo, S. B., Sivan, E., & Dolizki, M. (2009). The transition to

motherhood-A time for growth. *Journal of Social and Clinical Psychology, 28(8)*, 943-

970.

van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (1996). Attachment

representations in mothers, fathers, adolescents, and clinical groups: A meta-analytic

search for normative data. *Journal of consulting and clinical psychology*, *64*(1), 8.

Volling, B. L., Notaro, P. C., & Larsen, J. J. (1998). Adult attachment styles: Relations

with emotional well-being, marriage, and parenting. *Family Relations, 47*, 355-367.

970.

Wilson, C. L., Rholes, W., Simpson, J. A., & Tran, S. (2007). Labor, delivery, and early

parenthood: An attachment theory perspective. *Personality and Social Psychology*

Bulletin, *33*, 505-518.

Appendix A

Ethics Procedures Explained at the Beginning of the Survey

This survey looks at how people think they will behave as parents before they actually become parents. The results will be used be a Masters in Psychology student attending Victoria University of Wellington (VUW). New Zealand. This research has been approved by the VUW, School of Psychology Human Ethics committee. All responses will remain anonymous and confidential. Data will be kept in a secure location for up to 5 years where it will be made available to other competent professionals.

This survey will take less than 10 minutes to complete. There is no right or wrong way to respond: we are interested in what you think.   Your participation in his survey is voluntary, and you may choose to stop at any time.

Appendix B

Adult Attachment Questionnaire (AAQ)

Thinking about your romantic close relationships in general (PAST AND PRESENT), read the statements below carefully and rate how much you personally agree or disagree with each statement. Use the 7 point scale below, where 1 = strongly disagree and 7 = strongly agree to select the number which most closely reflects how you feel.

Avoidant

1. I find it relatively easy to get close to others. (reverse scored)
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

2. I'm NOT comfortable having to depend on other people.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

3. I don't like people getting too close to me.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

4. I'm somewhat uncomfortable being too close to others.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

5. I find it difficult to trust others completely.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

6. I'm nervous whenever anyone gets too close to me.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

7. Others often want me to be more intimate than I feel comfortable being.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

8. I'm comfortable having others depend on me. (reverse scored)
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Anxious

9. Others are often reluctant to get as close as I would like.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

10. I often worry that my partner(s) don't really love me.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

11. I worry about my partner(s) leaving me.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

12. I often want to merge completely with others, and this desire sometimes scares them away.

    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

13. I am confident that others would never hurt me by suddenly ending our

    relationship. (reverse scored)

    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

14. I usually want more closeness and intimacy than others do.

    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

15. The thought of being left by others RARELY enters my mind. (reverse score)

    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

16. I am confident that my partner(s) loves me just as much and I love them. (reverse score)

    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

17. I RARELY worry about being abandoned by others. (reverse score)

    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Appendix C

Desire to Have Children Scale

Thinking about having children in the future, please read the following statements and rate how much you personally agree or disagree with each statement. Use the 7 point scale below, where 1 = strongly disagree and 7 = strongly agree to select the number which most closely reflects how you feel.

1. I know I would have been very upset and disappointed if I did not have children of my

    own.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

2. Without children, I would feel unfulfilled.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

3. I have a strong desire to raise children.
    Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Note. These items were written for use with married couples. The wording of some items were changed for administration to unmarried people.

Appendix D

Perceived Ability to Relate to Children Scale

Thinking about how well you believe you relate to children generally, please read the statements below and rate how much you personally agree or disagree with each statement. Use the 7 point scale below, where 1 = strongly disagree and 7 = strongly agree to select the number which most closely reflects how you feel.

1.   I feel uncomfortable with infants and babies.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

2.   I think children require more patience then I have.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

3.   I would NOT feel comfortable having children depend on me.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

4.   In regard to children, I see myself as being caring and warm.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

5.   I feel comfortable with children.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

6.   I worry that I could NOT become emotionally attached to children.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

7.   I worry that I would NOT be a good parent, and this makes me concerned about having children.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

8.   I think I would successfully handle the demands of being a parent.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Appendix E

Expectations toward Childrearing Scale

The following statements represent a range of expectations about having and raising children. Not everyone feels the same way about them and not everyone wants to have children. Please read each statement carefully and then think about how you would feel IF you were a parent. Using the 7 point scale below, where 1 = strongly disagree and 7 = strongly agree please select the number which most closely reflects how you would feel as a parent.

Strictness of Discipline

1.   I feel that it is never too early to start teaching a child to obey commands.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

2.   I will have strict rules for my child.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

3.   I will teach my child to control his/her feelings at all times.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

4.   I believe physical punishment to be the best way of disciplining.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

5.   I believe that too much affection and tenderness can harm or weaken a child.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Consideration of a Child's Point of View

6.   It is important to respect my child's opinions and encourage him/her to express them.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

7.   I think it is important to talk to and reason with my child when she/he misbehaves.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

8.   I will take into account my child's preferences in making plans for the family.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

9.   I plan to let my child make many decisions for him/herself.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

10.   I will encourage my child to be independent of me.
        Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Warmth

11.   I believe in praising a child when she/he is good and think it gets better results than
       punishing when she/he is bad.
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

12.   I feel a child should be given comfort and understanding when she/he is upset
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

13.   I worry that I won't express my affection by hugging, kissing, and holding my child.
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

14.   I feel that my child and I will have warm, emotionally close times together.
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Aggravation with Children

15.   I'm concerned that taking care of a young child will be much more work than pleasure.
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

16.   I worry that after my child is born I may feel bothered because I can't do the things I
       liked to do before she/he was born
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

17.   I am concerned there will be a great deal of conflict between my child and I.
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

18.   I find that children are likely to get into something and break it unless someone is there
       to keep their eyes on them every moment.
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

19.   I worry that I will sometimes feel too involved with my child.
          Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Note. The original rating scale was a 6 point agreement scale. This was changed to a 7 point
scale to be consistent with all other rating scales used in the present study.

Appendix F

Expected Parental Satisfaction Scale

People often differ in how they feel about the daily activities of taking care of a baby. For example, some people feel that taking care of a baby makes the feel useful, while other people don't feel this at all. Think about the daily activities of taking care of a baby and then think of how often you would probably feel each of the following things. Use the 7 point scale below, where 1 = Never and 7 = very often to indicate how you feel.

"A baby would ...

1.   make me feel useful.
         Never   1   2   3   4   5   6   7   Very often

2.   give me an opportunity for self-expression.
         Never   1   2   3   4   5   6   7   Very often

3.   give me an opportunity for contact with people.
         Never   1   2   3   4   5   6   7   Very often

4.   make me feel that I'm contributing to society.
         Never   1   2   3   4   5   6   7   Very often

5.   give me a feeling of self-fulfillment.
         Never   1   2   3   4   5   6   7   Very often

6.   give me satisfactions from knowing I'm doing a really good job.
         Never   1   2   3   4   5   6   7   Very often

7.   give me an opportunity for personal growth and development.
         Never   1   2   3   4   5   6   7   Very often

8.   give me a sense of challenge.
         Never   1   2   3   4   5   6   7   Very often

9   give me respect from others for my work as a parent.
         Never   1   2   3   4   5   6   7   Very often

10.   give me a sense of self-worth.
         Never   1   2   3   4   5   6   7   Very often

11. make me feel happy.

Never   1   2   3   4   5   6   7   Very often

12. make me feel competent.

Never   1   2   3   4   5   6   7   Very often

13. make me feel important.

Never   1   2   3   4   5   6   7   Very often

14. give me a sense of accomplishment.

Never   1   2   3   4   5   6   7   Very often

15. make me feel good about myself.

Never   1   2   3   4   5   6   7   Very often

16. give me a feeling of independence.

Never   1   2   3   4   5   6   7   Very often

Note. The original rating scale was a 5 point scale. This was changed to a 7 point scale to be consistent with all other rating scales used in the present study.

Appendix G

Perceived Relationship Quality Components Inventory (PRQC)
Short Form

Thinking specifically about your current relationship, please answer the questions below.
Use the 7 point scale below, where 1 = Not at all and 7 = Extremely to select the number
which most closely reflects how you feel.

1.   How satisfied are you with your relationship?
            Not at all   1   2   3   4   5   6   7   Extremely

2.   How committed are you to your relationship?
            Not at all   1   2   3   4   5   6   7   Extremely

3.   How close is your relationship?
            Not at all   1   2   3   4   5   6   7   Extremely

4.   How much do you trust your partner?
            Not at all   1   2   3   4   5   6   7   Extremely

5.   How passionate is your relationship?
            Not at all   1   2   3   4   5   6   7   Extremely

6.   How much do you love your partner?
            Not at all   1   2   3   4   5   6   7   Extremely

Appendix H

Quality of Family Relationship Scale

Thinking about your own family i.e., mother, father, brothers and/or sisters, grandparents, aunts, uncles, cousins, please indicate what your overall family relationship is like. Use the 7 point scale below, where 1 = Not at all and 7 = Extremely to select the number which most closely reflects how you feel.

1.   How satisfied are you with your relationship with your family?
        Not at all   1   2   3   4   5   6   7   Extremely

2.   How committed are you to your family?
        Not at all   1   2   3   4   5   6   7   Extremely

3.   How close is your relationship with your family?
        Not at all   1   2   3   4   5   6   7   Extremely

4.   How much do you trust your family?
        Not at all   1   2   3   4   5   6   7   Extremely

5.   How much do you love your family?
        Not at all   1   2   3   4   5   6   7   Extremely

Appendix I

Rosenberg Self-esteem Scale (RSES)

Below is a list of statements dealing with your general feelings about yourself. Please read each statement carefully and se the 7 point scale below to indicate your level of agreement

1.   I feel I do NOT have much to be proud of.*
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

2.   I am able to do things as well as most other people.
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

3.   I take a positive attitude toward myself.
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

4.   All in all, I am inclined to feel that I am a failure.*
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

5.   On the whole, I am satisfied with myself.
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

6.   At times I think I am no good at all.*
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

7.   I certainly feel useless at times. *
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

8.   I feel that I have a number of good qualities.
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

9.   I feel that I'm a person of worth, at least on an equal plane with others.
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

10. I wish I could have more respect for myself.*
      Strongly disagree   1   2   3   4   5   6   7   Strongly agree

Note.   Items with an asterisk are reverse scored. The original rating scale was a 4 point scale. This was changed to a 7 point scale to be consistent with all other rating scales used in the present study.

Appendix J

Table J1

Factor Analysis Loadings for Items associated with Expectations toward Parenting

Items	Factors		
	Strictness	Child's POV	Aggravation
I feel that it is never too early to start teaching a child to obey commands	**.74**	.03	-.02
I will have strict rules for my child	**.67**	-.03	-.02
I will teach my child to control his/her feelings at all times	**.64**	.07	.05
I believe physical punishment to be the best way of disciplining	**.52**	-.34	.15
I believe that too much affection and tenderness can harm or weaken a child	**.46**	-.13	.34
It is important to respect my child's opinions and encourage him/her to express them	-.17	**.78**	-.03
I think it is important to talk to and reason with my child when she/he misbehaves	-.09	**.68**	.05
I will take into account my child's preferences in making plans for the family	-.19	**.67**	.01
*I believe in praising a child when she/he is good and think it gets better results than punishing when she/he is bad	-.02	**.65**	-.21
*I feel a child should be given comfort and understanding when she/he is upset	-.24	**.63**	-.14
I plan to let my child make many decisions for him/herself	.03	**.62**	-.02
I will encourage my child to be independent of me	.07	**.50**	.31
I'm concerned that taking care of a young child will be much more work than pleasure	.03	-.09	**.81**
I worry that after my child is born I may feel bothered because I can't do the things I liked to do before she/he was born	.05	-.10	**.78**
I am concerned there will be a great deal of conflict between my child and I	.02	-.15	**.77**
*I worry that I won't express my affection by hugging, kissing, and holding my child	-.02	-.08	**.67**
*I feel that my child and I will have warm, emotionally close times together	-.12	-.42	**.65**
I find that children are likely to get into something and break it unless someone is there to keep their eyes on them every moment	.26	-.01	**.45**
I worry that I will sometimes feel too involved with my child	.25	-11	**.40**
Mean Score	**.61**	**.65**	**.65**

Note. * Indicates previously coded warm items