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Correspondence Between Change in Adult Attachment Patterns and Change in  
Depression Symptoms in Early Marriage

A Dissertation Presented

by

CASSANDRA DEVITO

Submitted to the Graduate School of the University of Massachusetts Amherst in partial  
fulfillment of the degree of

DOCTOR OF PHILOSOPHY

May 2016

Psychology



Correspondence Between Change in Adult Attachment Patterns and Change in  
Depression Symptoms in Early Marriage

A Dissertation Presented

by

Cassandra DeVito

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Lynnette Sievert, Member

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Department of Psychology

## DEDICATION

For my grandmother, Sharon Niles, who inspired me to be a lifelong learner.

## ACKNOWLEDGEMENTS

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A very special thank you to my family and friends for always encouraging me and making me laugh along this journey.

ABSTRACT

CORRESPONDENCE BETWEEN CHANGE IN ADULT ATTACHMENT  
PATTERNS AND CHANGE IN DEPRESSION SYMPTOMS IN EARLY MARRIAGE

MAY 2016

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Countless studies have demonstrated the association between attachment styles and depressive symptoms; however, thus far, none have examined concurrent change. That is, does change in attachment style predict change in depressive symptoms over time? This question was examined in a sample of 229 heterosexual newlywed couples from Western Massachusetts. It was found that changes in attachment avoidance in particular predicted changes in depressive and anxious symptoms over time. Being a parent also played a role in participants' overall attachment styles, depressive symptoms and anxious symptoms on average, with differences observed by gender. Implications and suggestions for future research are discussed.

# TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	v
ABSTRACT.....	vi
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
CHAPTER	
1. LITERATURE REVIEW.....	1
Introduction.....	1
Attachment in Adulthood.....	3
Attachment and Depression.....	5
Depression in the Context of Marriage.....	7
Stability of Attachment Styles in Marriage.....	11
Rationale for the Present Research.....	14
Predictions for Overall Attachment Change.....	16
Prediction for Changes in Attachment and Depression.....	16
The Role of Parent Status.....	17
2. METHOD.....	18
Participants.....	18
Procedure.....	18
Measures.....	19
Attachment Style.....	19
Depression.....	19
Anxiety.....	20
Parent Status.....	20
Analytic Strategy.....	21
3. RESULTS.....	22
Modeling Overall Attachment Change.....	22
Modeling Change in Depression.....	22
Modeling Change in Attachment Predicting Change in Depression.....	23



Modeling Change in Attachment Predicting Change in Anxiety Symptoms.....	23
Parental Status.....	24
Does Change in Depression Predict Change in Attachment?.....	25
4. DISCUSSION.....	27
Overview.....	27
Concurrent Change in Attachment Style and Depressive/Anxiety Symptoms.....	28
Parenting Status.....	29
Limitations.....	30
Implications.....	32
BIBLIOGRAPHY.....	41

## LIST OF TABLES

Table	Page
1. Overall Descriptive Information for Attachment, Depression, Anxiety and Parenting Status Across Time and Gender.....	33
2. Means and Standard Errors for Attachment Dimensions, Depressive Symptoms and Anxiety Symptoms by Time and Gender.....	34

## LIST OF FIGURES

Figure	Page
1. Gender and Change in Avoidance Interact to Predict Average Anxiety Symptoms.....	35
2. Attachment Avoidance Over Time for Parents vs. Non Parents.....	36
3. The Interaction of Parental Status and Gender Predicting Average Level of Depression.....	37
4. Parental Status and Gender Interact to Predict Average Anxiety Symptoms for Husbands and Wives.....	38
5. Gender and Time Predicting Change in Avoidance for Those Whose Depression Levels Remain Steady Over Time .....	39
6. Gender and Time Predicting Change in Avoidance for Those Whose Depression Levels Increase Over Time.....	40

## **CHAPTER 1**

### **LITERATURE REVIEW**

#### **Introduction**

Over the past several decades, adult attachment styles have been shown to be connected to how individuals perceive and respond in their closest relationships (for reviews, see Mikulincer & Shaver, 2007 and Pietromonaco & Beck, 2015). Although attachment styles from childhood through adulthood are assumed to show some stability, it is also the case that they may change with different circumstances and partners (Mikulincer & Shaver, 2007; Pietromonaco & Beck, 2015). Outside of the clinical/therapeutic literature, however, few studies have actually examined the association between certain life events and stability in attachment styles. This lack of research is problematic for a number of reasons. Different relationships may foster minor shifts in attachment style that go on to affect personality and psychological functioning. Individuals might approach certain relational situations differently depending on their attachment style, and these situational choices may either further cement or alter their underlying working models. Assuming that the way people behave in one relationship at one point in time may not be an accurate depiction of their overall personality and relationship style.

Furthermore, as mentioned above, attachment patterns vary in terms of the amount of attachment anxiety (hyperactive worry about availability of attachment figures) and attachment avoidance (deactivation of the attachment system and downplaying the need for emotional ties), and many studies have looked at attachment-based differences in a variety of outcomes, including life satisfaction, marital satisfaction,

emotional and mental health and self esteem. For example, it has been demonstrated that insecurely attached individuals (those high in attachment anxiety, avoidance, or both) tend to have lower self-esteem, higher risk of subclinical and clinical levels of depression and anxiety, and lower relationship satisfaction than those who are securely attached (low in both anxiety and avoidance (Mikulincer & Shaver, 2007)). These attachment-based differences in life outcomes raise the question of whether attachment styles can change over time and whether psychological, affective and relationship outcomes change along with them, a topic that has been seldom studied.

The present work examined the extent to which attachment styles change in early marriage and whether these changes correspond with changes in emotional health, specifically depression. A large body of research demonstrates that attachment and depression are interconnected, as are one's mental representations and emotional health. Furthermore, it is possible that changing these mental representations may in turn affect one's emotional health. Conversely, changes in individuals' emotional health may also influence their expectations of themselves in relation to others. Our work examines this issue in the context of early marriage because, for most couples, it represents a transitional time that may precipitate change in attachment style. By following newlywed couples over time, we are able to track both attachment styles and depressive symptoms in the incipient stages of marriage.

The current work focuses on attachment processes in adult marital relationships. Three areas of research are relevant for understanding change in attachment styles and whether such change is connected to depression: (1) mental representations of attachment, (2) stability and change in attachment in marriage, and (3) the link between

mental representations of attachment and depression. In the following sections, I review the research relevant to each of these areas.

### **Attachment in Adulthood**

Attachment theory provides a lens through which individuals view, interpret, and internalize social interactions. Previous experiences in close relationships inform “cognitive working models” that shape people’s expectations of how their future relational interactions will play out (Bowlby, 1969). These working models not only inform expectations but also shape associated emotional and behavioral responses. In this way, attachment theory represents a normative model for how people think, feel and behave in close relationships.

Attachment theory was originally developed as a way of explaining the close bonds observed between an infant and caregiver (Bowlby, 1969). Bowlby proposed an attachment system that became activated on behalf of the infant under distress (i.e. separation from caregiver, threat, etc.) and caused the infant to engage in behaviors aimed at maintaining proximity to the caregiver (crying, clinging, etc.). These behaviors then elicit comforting behavior on behalf of the caregiver, which calms the infant, restoring a sense of emotional well-being or “felt security” (Sroufe & Waters, 1977). How the caregiver responds to the infant is of particular importance in attachment theory, as it forms the basis of the working models created early in life. Consistency and quality of comfort are of the utmost importance and shape the level of comfort infants have with others, as well as their ability to trust and rely on others, and freely explore new situations. The primary focus of the present work is on attachment in adult romantic

relationships, however, where relevant, I will refer to the literature on infants and caregivers.

Theory and research over the past 25 years has demonstrated that attachment processes similar to those observed in children and their caregivers also occur in adult romantic relationships (see Hazan & Shaver, 1987; Mikulincer & Shaver, 2007; Pietromonaco & Beck, 2015). Although many of the processes in childhood and adulthood are parallel, they are not identical. For example, rather than the nonverbal distress signals that infants employ, adults are able to express and react to their own distress in more specific and overt ways. In a normative sense, attachment theory explains the need to seek comfort and security from a close relationship partner during times of distress. However, the theory also accounts for individual differences, as individuals will seek comfort and reassurance in different ways depending on their previous relationship experiences (“working models”; Hazan & Shaver, 1987, 1994). Measures of adult attachment typically focus on two dimensions – attachment anxiety and avoidance. Individuals can be high on one of the two dimensions or both; low scores on both dimensions reflect attachment security.

Similar to infants, when adults have experienced consistent and effective comfort from a relationship partner, they come to develop mental representations that include a sense of trust in others and a willingness to disclose about personal issues when appropriate; these mental representations are thought to shape how they handle stress and their ability to rely on close others when needed. This pattern defines a secure attachment style. However, when others are inconsistently responsive or repeatedly unresponsive individuals are apt to build working models of attachment that are characterized by

insecurity. Those high in attachment anxiety have typically received inconsistent support and caregiving from past relationship partners, which results in a “hyperactivation” of the attachment system. This hyperactivation is evident in excessive neediness and a need for comfort and reassurance that is seemingly never fulfilled. Individuals high in avoidance have typically experienced a lack of responsiveness and caregiving from their partners, resulting in a “deactivation” of the attachment system. In this case, attachment needs are suppressed, leading individuals to downplay the need for close emotional bonds.

Measures of adult attachment typically focus on these two dimensions of attachment insecurity – attachment anxiety and avoidance. Individuals can be high on one of the two dimensions or both; low scores on both dimensions reflect attachment security. People who are high in anxiety and low in avoidance are typically characterized as being “anxiously” attached and tend to worry about the availability of their romantic partners as well as seek excessive closeness and reassurance. Those high in avoidance and low in anxiety experience the “deactivation” of the attachment system, mentioned above and are termed “avoidant.” Secure individuals score low on both anxiety and avoidance, which reflects the ability to be close to ones partner and seek and receive comfort and support in a healthy manner.

### **Attachment and Depression**

Individuals’ patterns of emotion regulation and coping strategies during stressful times are associated with their attachment orientations (Simpson & Rholes, 1994). As a result, insecure attachment is considered closely linked to psychological dysfunction and the experience of negative emotion (see Mikulincer & Shaver, 2007, for a review).

Depressive symptoms are more common in those who are insecurely attached (Carnelley,



Pietromonaco, & Jaffe, 1994; Simpson, Rholes, Campbell, Tran, & Wilson, 2003), and some theorists have partly attributed this link to the low self-esteem and high levels of dysfunctional attitudes (rooted in working models) harbored by insecurely attached individuals (Roberts et al., 1996). The attitudes rooted within the cognitive working models of those who are insecurely attached reflect relational histories with inconsistent or unresponsive partners and therefore negatively bias perceptions of the self and other close relationship partners (Collins & Allard, 2001). Furthermore, insecure individuals tend to experience more negative than positive emotion in their close relationships (Simpson, Collins, Tran & Haydon, 2007), and their strategies for interacting with their partners may negatively affect their relationship. For example people who are anxiously attached are more likely to seek excessive levels of reassurance from their partners (Joiner, Alfano, & Metalsky, 1992). Excessive reassurance seeking (ERS) has been linked to depression primarily because of its strong relationship with attachment anxiety (Shaver, Schachner, & Mikulincer, 2005).

Given that insecure attachment is comprised of two dimensions (anxiety and avoidance), which are thought to result from very different relational experiences, it is logical to expect that the pathways through which avoidant and anxious individuals develop depression will differ. Avoidant individuals are mainly concerned with maintaining autonomy and control in their relationships, which often results in emotional distancing (see Mikulincer and Shaver, 2007, for a review). Conversely, those who are high on anxious attachment tend to seek extreme closeness to their partners and emotional reassurance, while holding an irrational fear of abandonment. These distinct differences in relational concerns should lead depression to develop through different

behavioral mechanisms for anxious and avoidant attachment. Prior work has demonstrated that sociotropic vs. autonomous personality styles are differentially related to depression (Coyne & Whiffen, 1995; Hammen, Ellicott, Gitlin, & Jamison, 1989). While some amount of overlap is expected between the personality styles proposed by Coyne and Whiffen and attachment styles, this work is substantially different in that it specifically concerns relationships within early marriage and also aims to identify distinct relational constructs leading to depression.

### **Depression in the Context of Marriage**

While depression may arise for a variety of reasons, marital discord in particular has been associated with the severity and course of depression (Whisman, Johnson, & Li, 2012). Conversely, high levels of marital support appear to be associated with lower levels of depression (Fagan, 2009), a finding that has been replicated among Whites, Hispanics and African-Americans. In fact, marriage itself has been associated with overall better physical and mental health but especially when the marriage is of high quality (Holt-Lunstad, Birmingham, & Jones, 2008). Taken together, these findings suggest that depression levels may vary as a function of many relational aspects over time but that marriage itself is a unique context that seems to be tied to depressive levels and outcomes.

Marital discord is often marked by a lack of social support from either spouse and poor communication skills overall. A number of studies looking at the association between marital discord and depression consider these aspects of communication essential to the development of depression. For instance, work on elderly married couples finds that when one or both spouses are depressed, their ability to communicate their

emotions is impaired (Harper & Sandberg, 2009). Similarly, the couple's ability to solve problems relevant to their marriage is also impaired, suggesting that depression may arise because of flawed communication and problem solving skills within the marriage.

Consequently, many interventions for reducing depression use the couple as a whole as a therapeutic tool, even if just one partner is depressed (Whisman, Johnson, Be, & Li, 2012). In fact, couple-based therapy is often able to reduce depressive symptoms for either or both spouses while simultaneously reducing marital discord. Interestingly, this association is sometimes also linked to an improvement of one's perception of self and perception of the relationship.

Work using both newlyweds and those who have been married for decades supports the strong link between marital discord and depression. For instance, prospective work among middle-aged and older adults demonstrates that marital discord predicts depressive symptoms over a two year period, such that husbands and wives were more likely to be depressed after the two-year period when levels of discord were high at the start of the study (Whisman & Uebelacker, 2009). Furthermore, baseline depressive symptoms also predicted husbands' and wives' own and their spouses' reports of marital discord at the two-year follow-up. At least among middle-aged and older adults, the relationship between marital discord and depression appears to be both bi-directional and longitudinal. Other work following couples before and after marriage also finds that marital discord is predictive of depressive symptoms (Whitton, Olmos-Gallo, Stanley, Prado, Kline, Peters, & Markman, 2007). However, using path analysis, this work was also able to tease apart the relationship by examining the potential mediating role of marital discord. Whitton et al. found that, for wives in particular, marital discord

indirectly predicted depression. Wives' confidence in their marriage (e.g. belief that their marriage could withstand future conflict) actually mediated the link between marital discord and depression across the transition to marriage, suggesting that wives who perceive a high degree of marital discord but also have a lot of confidence in their marriage will be less likely to become depressed than those perceiving high levels of discord but have low confidence.

One way that marital discord and low support may arise is when one or both spouses do not effectively communicate their emotions. Alexithymia is a clinical disorder marked by a difficulty in experiencing and expressing one's emotions and has been proposed as a possible precursor to marital discord and a well-established predictor of depression (Foran & O'Leary, 2012). Couples in which one or both members are ineffective at recognizing and communicating their own emotions are more likely to experience depression, and this link is mediated by poor relationship functioning, a finding that holds for both husbands and wives. Evidence of cross-spouse effects also exists such that husbands' alexithymia predicted wives depression, and the link was mediated by wives' reports of relationship functioning. Therefore, wives have an additional risk factor for experiencing depression. This work suggests that, emotional experience and expression, which are components of both attachment styles and depression, may tie together changes in both during the early years of marriage.

Even though marriage itself is a new and potentially stressful situation that may put some individuals at risk for depression, it also presents other obstacles that may test one's ability to cope with stress, such as having a child. Research has focused on the transition to parenthood as one potential stressor that may induce marital conflict or

impair mental health. Mothers who perceived themselves as engaging in more aggression and avoidance in their relationships were likely to experience a curvilinear trajectory of depressive symptoms over the transition to motherhood, where symptoms were initially elevated, declined around the time of child birth and then increased again by about 24 weeks postpartum (Parade, Blankson, Leerkes, Crockenberg, & Faldowski, 2014). Mothers who perceived more avoidance and aggression from their partners were also more likely to experience this curvilinear trajectory.

Although the above-mentioned work does not take into account attachment styles, other work has found that the interaction between spousal attachment and caregiving predicts depression across the transition to parenthood. Women who were high in attachment anxiety and began the transition to parenthood with higher depressive symptoms remained highly symptomatic across the transition when they perceived less partner support (Rholes, Simpson, Kohn, Wilson, Martin & Tran, 2011). However men who were high in attachment anxiety and perceived low support throughout the transition to parenthood reported increasing depression levels as the transition progressed. Similar patterns emerge when anxious partners perceived more negative exchanges in the relationship. Conversely, attributes relating to intimacy and support within the relationship did not tend to have the same effect on avoidantly attached individuals. When avoidantly attached individuals perceived that a child would interfere with their ability to pursue outside activities or obstruct free time, they were more likely to show higher depressive symptoms at the start of the transition to parenthood, which persisted throughout the transition. These findings bring to light the importance that attachment (and attachment-related constructs, such as avoidance in the Parade et al., 2014 study)

plays in how individuals handle the transition to parenthood. Whether or not individuals become depressed during the transition to parenthood depends on how they perceive the quality of their romantic relationship and the level of support provided by their partner.

Individuals bring a distinct set of prior experiences into their marriages that may affect their own mental health and in turn the health of their marriages. While it is generally assumed that marriage is beneficial for everyone, it is particularly so for those who were depressed prior to getting married (Frech & Williams, 2007). Husbands and wives who were depressed prior to marriage reported less depression and anxiety after marriage, and this effect was augmented when marital satisfaction was high. In addition, individuals who had experienced a high number (three or more) of early life stressors (i.e. poverty, abuse, severe illness) were more likely to be depressed and anxious in adulthood; however, this relationship was generally attenuated for those who were married (Meyer & Paul, 2011).

Overall, in the context of marriage, depression and anxiety symptoms may increase or decrease due to a number of factors. However, research has yet to examine whether marriage itself presents a unique transitional context that may bring about changes in depressive symptoms via shifting mental representations about the self and others.

### **Stability of Attachment Styles in the Context of Marriage**

Given the overall negative outcomes associated with insecure attachment, some work has looked at the question of change in attachment styles. More specifically, do attachment patterns remain stable throughout adulthood or can they change from relationship to relationship? While Bowlby (1969/1982, 1973, 1980) originally posited

that attachment styles would remain stable throughout the lifespan, research suggests that styles may at least be temporarily influenced by contextual cues such as primes (Fraley, Vicary, Brumbaugh, & Roisman, 2011). Yet, over time, enduring change may occur through introducing new material (e.g., experiences associated with being in a supportive relationship for the first time) into working models of attachment that opposes the information that exists.

Research has tested the idea of incorporating new and opposing information into attachment working models particularly during major life transitions, such as getting married or having a child (Mikulincer & Shaver, 2007). One major longitudinal study found that attachment representations tended to shift toward greater security over the first 2 years of marriage but that considerable variability existed in attachment change; furthermore, individual vulnerability factors such as personality disturbances predicted this variability (Davila, Karney, & Bradbury, 1999). Some work demonstrates that individuals generally become more secure throughout the lifespan, with young adults having the highest attachment anxiety and older, particularly married, adults had the lowest levels of anxiety and avoidance (Chopik, Edelstein, Fraley, 2013).

Perceptions of one's environment also play a key role in how new information is incorporated into existing attachment working models, and this is especially important within the context of marriage. Research demonstrates that perceptions of spousal support through a major life transition (e.g., the birth of a child; Simpson, Rholes, Campbell & Wilson, 2003) and even one's perceptions of daily events may influence whether attachment styles change (Davila & Sargent, 2003). In one study, heterosexual, married couples expecting a child completed measures of attachment and perceptions of

themselves and their spouse six weeks before and six months after childbirth (Simpson et al., 2003). Women who perceived their spouses as being angrier and less supportive before childbirth became more anxious/ambivalent across the transition to parenthood. Furthermore, women entered the transition to parenthood seeking less support and whose husbands were more avoidant became more avoidant across the transition. Lastly, men who perceived themselves as providing more spousal support prenatally became less avoidant. Other work assessing attachment and the perception of daily life events in a diary format finds that individuals who perceive greater interpersonal loss vs. achievement-related loss on a daily basis are more likely to have greater insecurity on the days that these events occur (Davila & Sargent, 2003). These results demonstrate that, in keeping with Bowlby's original theory, major life transitions may facilitate change in attachment styles but that our perceptions of those close to us may be key precursors.

Being in a committed relationship itself may also be conceptualized as a major life event that elicits attachment change. Couples followed over the early years of marriage appear to become more secure as their marriage progresses (Davila et al., 1999). However, a large amount of individual variability exists such that spouses may become more insecure particularly if there is stress in the marriage and satisfaction is low. The context of the relationship has also been shown to simultaneously affect both partners, such that changes in attachment security are positively correlated between partners across time (Hudson, Fraley, Brumbaugh, & Vicary, 2014). Furthermore, individuals' own insecurity prospectively predicts their partner's attachment avoidance in the future. Taken together, these findings suggest that marriage itself is a major transition that may elicit change on its own, and the relationship context is particularly important to consider.



Relationships other than romantic or marital relationships also may lead to shifts in attachment style. For example, therapeutic relationships may also create an environment that fosters changes in attachment style. More specifically, certain types of psychotherapy aim to create a secure and trusting relationship between the patient and practitioner, which in turn may promote a shift towards a more secure attachment style. For example, children with insecure attachment styles often benefit from long-term therapy and experience more attachment security and healthier interpersonal functioning thereafter (Innerhofer, 2013). Among women with personality disorders, those with anxious/avoidant attachment styles experienced fewer facets of insecure attachment (i.e. lack of desire to be close with a partner) at the end of a seven-week therapy program (Strauss, Mestel, Kirchmann, 2011). However, group therapy also appears to yield benefits to insecurely attached individuals. Those who completed an intensive, short-term therapy program became more securely attached and experienced increased interpersonal functioning at the end of the program (Kinley & Reyno, 2013).

All of these findings suggest that changes in attachment style can occur by forming a strong, supportive relationship with another individual and that changes typically result in shifts from insecurity towards security. Marriage, in particular, appears to be an important transition through which changes in attachment styles may occur. Furthermore, other events that tend to occur along with being married, such as having a child, may be enough to shift existing attachment working models. Of particular importance is the quality of the relationship, support from one's spouse or partner and how individuals perceive their environment in general.

### **Rationale for the Present Research**

The present work seeks to examine attachment change over the early years of marriage and to replicate and extend previous findings. We draw on a sample of newlywed couples that we have followed over the first three years of their first marriage. These data offer the unique opportunity to assess how marriage may play a role at a transitional time in eliciting attachment change, as suggested by other work (i.e. Hudson et al., 2014; Davila et al., 1999). Major, transitional life events such as marriage and childbirth (slightly more than half of our participants have had at least one child during their first three years of marriage) are times during which working models of attachment are especially vulnerable to change and may shift in response to new and opposing information (i.e. a secure relationship with a newborn child in the face of preexisting anxious attachment in romantic relationships).

We have several goals. First, we aim to replicate the findings of Davila et al. (1999) showing that couples move toward greater security over the course of early marriage but with a great amount of individual variability. Second, we aim to extend these findings by expanding on what is known about long-term change in attachment styles for those in romantic relationships. Research on coregulation of attachment styles (Hudson, Fraley, Vicary, and Brumbaugh, 2014) follows unmarried couples over the course of one year, but a year may not be enough time to reveal a clear picture of attachment change. In fact, enduring change in attachment styles may take a longer period of time, as suggested by Fraley et al. (2011).

Along with providing a clearer picture of how attachment styles change in early marriage and filling in the gaps between existing explanations for how change occurs, we also aim to discern how attachment styles and depressive symptoms may change

concurrently. Little is known about the extent to which changes in adult attachment predicts changes in depression or vice versa, and the present work will contribute by examining this question. Simultaneous change in depression and attachment styles has been examined only in the context of therapy (e.g. Maxwell, Tasca, Ritchie, Balfour & Bissada, 2014). Thus far, no work has examined the links between shifts in attachment styles and changes in depressive symptoms within the context of married adults.

### **Predictions for Overall Attachment Change**

We expected to replicate prior findings (Davila et al., 2009) indicating that (a) newlywed spouses' attachment styles, on average, shift toward greater security and that (b) at the same time, considerable variability exists in these patterns. We also examined whether these predictions were specific to depression symptoms or whether they also held for overlapping conditions such as symptoms of general anxiety.

### **Prediction for Changes in Attachment and Depression**

Previous work has demonstrated that attachment styles may shift in response to poor social support (Simpson et al., 2003) or marital satisfaction (Davila et al., 1999). However, when individuals are depressed, they are much less likely to provide and solicit adequate and appropriate support (Davila, Bradbury, Cohan, & Tolchuk, 1997). Therefore, depression greatly changes the quality of a marriage, which might challenge existing attachment working models and elicit change. Furthermore, depressive symptoms tend to occur more often and more chronically in women as opposed to men, so women's attachment styles and depressive symptoms may be more strongly associated than men's (Essau, Lewinsohn, Seeley, Sasagawa, 2010). As a result, we hypothesized that attachment style and depressive symptoms would change concurrently over the first

three years of marriage. Namely, we expected that individuals who became more insecure (either relatively more anxious, more avoidant or both) over the first three years of marriage would be more likely to experience an increase in depressive symptoms as well. Furthermore, because depression is more common in women and the course of the disorder is typically more chronic than in men, we expected concurrent changes in attachment style and depressive symptoms to be more pronounced in women than in men. As with the attachment change predictions, we also examined whether patterns for symptoms of anxiety paralleled those for depression.

### **The Role of Parent Status**

Because prior work demonstrates that the transition to parenthood is a time during which attachment styles are more prone to change (see Simpson et al., 2003), we also sought to explore whether becoming a parent played a role in individuals' changing attachment styles, depressive symptoms, or both. We did not make specific predictions but reasoned that becoming a parent could move individuals toward either greater insecurity or security. On the one hand, for insecurely attached individuals, having a child may make salient events relevant to having an insufficiently responsive or reliable parent during one's own childhood and, as a result, increase feelings of attachment insecurity. On the other hand, having a child may foster feelings of intimacy and closeness, and as a result, it may lead some individuals to feel more able to establish and maintain closeness (i.e., to experience greater security).

## **CHAPTER 2**

### **METHOD**

#### **Participants**

Two hundred and twenty nine newlywed couples between the ages of 18 and 50 were recruited from Western Massachusetts marriage records based upon recency and length of marriage. Participants were eligible only if they had been married for less than seven months and had no children at the time of the first session. Of all the couples recruited, three were dropped at time one because they could not produce saliva (a procedure necessary for another portion of the study, but not relevant here) leaving a final time one sample of 226 couples. At time two, 204 couples remained: 5 declined to participate; 4 divorced; 5 moved; 3 could not be reached and 5 never returned online questionnaires. By time three, 181 couples were left: 7 declined to participate; 5 divorced; 9 could not be reached; and 7 never returned online questionnaires. Most analyses use the full three waves of data, and therefore, the remaining 181 couples.

#### **Procedure**

All participants were informed that they would be taking part in a study investigating newlywed couples. Upon entering the lab, participants completed an array of questionnaires on the computer including the Experiences in Close Relationships Questionnaire (Brennan, Clark, & Shaver, 1998) measuring attachment style. They then engaged in a videotaped conflict task and agreed to give saliva samples used for cortisol measurement (not the focus of the current study). Participants then returned to the lab approximately 19 months later for a second session, and again approximately 37 months

after the first session for a third session. The procedure was the same for all three sessions.

## **Measures**

### **Attachment style**

The Experiences in Close Relationships Questionnaire is a 36-item measure that assesses the two dimensions of adult attachment patterns: anxiety and avoidance. Participants are asked to respond to each statement on a scale of 1 to 7 (1 being “Disagree Strongly” and 7 being “Agree Strongly”) according to how much they agree or disagree that the statement describes them. All statements referred to how the respondent felt with respect to their current partner (i.e., their spouse). For example, a statement assessing the anxiety dimension reads “I need a lot of reassurance that I am loved by my partner”; husbands’  $\alpha = .88$ , wives’  $\alpha = .90$ , and a statement assessing avoidance reads “I prefer not to show my partner how I feel deep down”; husbands’  $\alpha = .86$ , wives’  $\alpha = .83$ . For descriptive information on attachment styles at all three waves, see Appendices A and B.

### **Depression**

The Inventory of Depressive Symptomatology (IDS; Rush et al., 1996) is a 30-item measure that asks how often over the past two weeks participants have experienced changes in: appetite, energy level, mood, concentration and somatic symptoms. Twenty-eight of the 30 items are summed to create a total depression score ranging from 0 to 84. To illustrate how the scores map onto clinical criteria, scores ranging between 0 and 13 fit would be considered not depressed; scores of 14-25 reflect mild depression; scores of 26-38 reflect moderate depression; scores of 39-48 reflect severe depression; and, scores of 49-84 reflect very severe depression. These ranges give a sense of where participants

fall on the scale, but for the purpose of this work, we did not group individuals into categories for analysis. Instead, depression symptoms were treated as a continuous variable, and we examined relative shifts in depressive symptoms. At Time 1, depression levels in this sample were generally low for women and men, although higher for women, ( $M = 11.76$ ,  $SD = 7.62$  and  $M = 10.16$ ,  $SD = 5.99$  for wives and husbands, respectively), a difference that was statistically significant at time one  $t(224) = 2.48$ ,  $p < .01$ , and time two  $t(200) = 3.12$ ,  $p = .002$ , but not at time 3,  $t(175) = 1.4$ ,  $p = .17$ . Appendices A and B include mean depression scores across all three waves for husbands and wives.

### **Anxiety**

The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) is a 21-item scale assessing the severity of anxiety symptoms. Participants are asked to consider how much each anxiety symptom has bothered them within the past month, including the current day, on a scale of 0 (“not at all”) to 3 (“severely- it bothered me a lot”). For example, a few items included are “unable to relax,” “dizzy or lightheaded,” and “terrified or afraid.” The BAI has a maximum score of 63 with scores above 26 indicating severe anxiety. At all three time points wives’ scores on the BAI were significantly higher than husbands’,  $t(225) = -2.63$ ,  $p < .01$ ,  $t(197) = 3.21$ ,  $p < .01$ , and  $t(175) = 2.89$ ,  $p < .01$ , respectively. For descriptive information on anxiety at all three waves, see Appendices A and B.

### **Parenting Status**

We measured whether individuals had become parents or not with a single question, “Have you and your spouse had a child since the last time you came into the lab?” This question was asked at all three time points; therefore, we simply assessed

which couples had *ever* responded “yes” to this question, rather than summing the number of children. Fifty-nine percent of the 229 couples had become parents by Time 3.

### **Analytic Strategy**

The data were analyzed using the MIXED function in SPSS (IBM Corp., 2013), which fits regression models at the individual level taking into account the correlated nature of responses within couples. We first modeled overall change in attachment and overall change in depression. For analyses in which change was used as a predictor, we saved the individual residual values for the variable (e.g., for change in attachment) and used those values as the predictor. For example, in models predicting change in depression over the three time points, the residual values indicating change in attachment anxiety and avoidance were used as the predictors. The individual residual values were obtained from running analogous models in Hierarchical Linear Modeling (HLM 7, Raudenbush, Bryk, Congdon, 2012), saving the residual values and adding them to the SPSS data set.



## CHAPTER 3

### RESULTS

#### Modeling Overall Attachment Change

The first model considered change in attachment anxiety or avoidance for husbands and wives over the first three years of marriage. Therefore, two models were run: one with attachment anxiety as the outcome and one with attachment avoidance as the outcome. Attachment anxiety or avoidance values from all three time points were used to estimate the outcome. For each model the predictors included a time variable, gender variable, the corresponding attachment style as a control variable (i.e. attachment anxiety if avoidance was the outcome), and the interactions of the time and gender variables. Time variables were scaled in terms of months from the first session date, with the first session having a value of 0. The exact number of months varied across couples, but the average number of months between the first and second session was 18.92 months and the average number of months between the first and third session was 36.50 months.

On average, attachment anxiety did not change significantly over the first three years of marriage ( $F(1, 403.73) = .98, p = ns.$ ). Attachment avoidance, however, increased over the three time points for both husbands and wives,  $F(1, 405.57) = 20.67, p < .001$ . In addition, there was no interaction of time by gender, suggesting that attachment avoidance increased similarly over time for both husbands and wives,  $F(1, 421) = 1.49, p = .22$ .

#### Modeling Change in Depression

We also checked to determine whether depression showed overall changes over

time by conducting analyses parallel to the ones reported for change in attachment.

Overall, we did not find that depression changed over time ( $F(1, 404.04) = 1.13, p = .34$ ); however, there was considerable variability suggesting that attachment change might predict change in depression. Similarly, anxiety symptoms did not significantly change over time ( $F(1, 401) = .87, p = .42$ ), but just as with depression, there was a great amount of variability.

### **Modeling Change in Attachment Predicting Change in Depression**

To test whether change in attachment anxiety or avoidance predicted change in depression, we first saved the residual values for attachment change from the overall change model and incorporated them into the data file. Just as with attachment, the outcome was depression scores from all three time points. The model included a gender variable, time variable, residual attachment anxiety change variable, residual attachment avoidance change variable, and interactions between time and gender as predictors. Changes in husbands' and wives' attachment avoidance levels significantly predicted changes in their depression symptoms over time ( $F(1, 592.52) = 25.74, p < .001$ ), such that when individuals became more avoidant, their depression symptoms increased as well. However, changes in husbands' and wives' attachment anxiety, did not predict changes in their depressive symptoms,  $F(1, 588.53) = .34, p = .56$ .

### **Modeling Change in Attachment Predicting Change in Anxiety Symptoms**

We also conducted similar analyses using symptoms of anxiety (BAI), as depression and anxiety disorders are often comorbid and have similar relationships with insecure attachment patterns. When husbands and wives had increasing levels of attachment avoidance over the three time points, they also had increasing anxiety

symptoms on the BAI,  $F(1, 678.16) = 10.55, p = .001$ . Gender and change in avoidance also interacted to predict change in anxiety symptoms (see, Appendix C), such that when wives changed in attachment avoidance they had higher anxiety symptoms on average than husbands who changed in avoidance,  $F(1, 667.43) = 6.34, p = .01$ . However, attachment anxiety and anxiety symptoms on the BAI did not change concurrently,  $F(1, 679.22) = .007, p = .93$ .

### **Parental Status**

Additional analyses were performed to assess whether becoming a parent plays a role in attachment or depression change processes over the first three years of marriage. Parent status and time interacted to predict change in attachment avoidance for husbands and wives such that avoidance remained relatively stable over time for those who had become parents,  $F(1, 409.39) = 6.36, p = .01$ . Appendix D demonstrates this interaction and although the slopes appear visually similar, a test of the difference between slopes revealed that the slope for parents was .10 and was significantly flatter than that of parents ( $B = .01, p < .01$ ), which was .12. However, the interaction between parent status and attachment anxiety was not significant,  $F = 1.55, p = .21$ .

Whether or not one chose to become a parent also predicted average depression and anxiety levels over the three time points. Participants who became parents at any point during the study had lower depression levels on average over the three time points than those who did not,  $F = 8.67, p < .01$ . Gender and parental status also interacted in predicting average depression levels (see, Appendix E), but the interaction was not significant,  $F(1, 296.04) = 3.34, p = .07$ . The pattern indicated that wives who became parents tended to have higher levels of depression on average than those who did not,

while husbands who became parents tended to have lower levels of depression than those who did not. A similar pattern was found for anxiety symptoms: Those who became parents had lower levels of anxiety symptoms across all three time points than those who did not,  $F(1, 327.61) = 12.18, p < .01$ . Furthermore, parental status interacted with gender, such that wives who became parents tended to have lower anxiety scores across all three time points than those who did not (see, Appendix F), while husbands who became parents had higher anxiety scores than those who did not,  $F(1, 351.42) = 11.12, p < .01$ .

### **Does Change in Depression Predict Change in Attachment?**

Although it was predicted that attachment style change would precipitate change in depressive symptoms, both are so closely linked that a bidirectional relationship is likely. Therefore, we also tested the reverse direction of the above analyses - change in depression predicting change in attachment style. While change in depression did not predict change in attachment avoidance overall,  $F(1, 298.48) = .38, p = .54$ , time, change in depression, and gender interacted to predict change in attachment avoidance (see, appendices G and H) such that when wives' depression levels increased over time, they also tended to increase in attachment avoidance over the same time period. However, husbands' avoidance levels actually lowered slightly and leveled off when they increased in depression over time,  $F(1, 396.81) = 4.12, p = .04$ . Neither an effect of change in depression on change in attachment anxiety, nor an interaction of time, change in depression and gender on change in attachment anxiety was found,  $F(1, 267.65) = 2.04, p = .15$ , and  $F(1, 393.67) = 1.39, p = .24$ , respectively.

We also examined whether a reverse relationship existed for anxiety symptoms such that change in anxiety symptoms predicted change in attachment anxiety or avoidance. No effect of change in anxiety symptoms was found on change in attachment anxiety ( $F(1, 410.32) = .133, p = .89$ ) or avoidance ( $F(1, 605.27) = 2.39, p = .12$ ). Furthermore there was no interaction among time, change in anxiety, and gender on change in attachment anxiety or avoidance,  $F(1, 972.67) = .28, p = .60$ , and  $F(1, 856.95) = .79, p = .37$ .

## CHAPTER 4

### DISCUSSION

#### Overview

Although we expected that attachment styles would move toward greater security over the first three years of marriage, replicating prior work of Davila and colleagues, (1999), the present work found instead that couples became more insecure, namely more avoidant, over the early years of marriage. However, it is important to note that our study differed from that of Davila and colleagues in important ways. First, Davila et al. used a different measure of attachment that assessed attachment on three dimensions (Collins and Read, 1990; close, depend and anxiety). This measure might be more nuanced in picking up changes in attachment security overall, and it is important to note that there is no specific avoidance subscale. Furthermore, Davila and colleagues asked about attachment in general in close relationships, and we asked participants about their attachment in relation to their spouse specifically, which suggests that attachment styles might change differently when assessed in more general terms vs. when assessed specifically in reference to one's spouse. Just as newlywed couples tend to become less satisfied, on average, over the early years of marriage (e.g., Aron, Norman, Aron, & Lewandowski, 2002 and VanLaningham, Johnson, & Amato, 2001), it appears that, in a parallel fashion, individuals become, on average, more avoidant in their attachment to their spouse.

We did not find any evidence of overall change for depressive or anxiety symptoms in husbands and wives when we considered these variables alone; however,

there was considerable variability, and interesting effects emerged for examining changes in attachment style and depression or anxiety symptoms in tandem, as well as for considering parental status. Each of the findings and their implications are discussed below.

### **Concurrent Change in Attachment Style and Depressive/Anxiety Symptoms**

Increasing levels of attachment avoidance significantly predicted higher levels of depressive symptoms in both husbands and wives over the first three years of marriage. Furthermore, increasing levels of attachment avoidance predicted higher levels of anxiety symptoms for both husbands and wives over the three time points. Interestingly, gender interacted with change in attachment avoidance, such that, when wives increased in attachment avoidance, their increases in anxiety symptoms were significantly higher than their husbands' increases in anxiety symptoms.

It is important to note that changes in attachment anxiety were not significantly related to changes in either depression or anxiety symptoms. This is surprising, given that attachment anxiety has been consistently linked with greater depression and anxiety (i.e. Shaver, Schachner, & Mikulincer, 2005). Prior work demonstrates that coping mechanisms that are often employed by anxiously attached individuals such as excessive reassurance seeking (ERS; Joiner et al., 1992) are maladaptive and likely to lead to depressive symptoms in particular. However, the present work suggests that attachment avoidance is associated with greater depression and anxiety symptoms, and it could be that this relationship is reciprocal. When husbands and wives experienced an increase in depressive symptoms over time, avoidance also tended to increase. Yet, for wives, their increase in depressive symptoms over time predicted increasing attachment avoidance,

while husbands' increases in depressive symptoms were related to an initial increase and then leveling off.

Future work should consider the contextual elements both within and outside of the marital relationship that may precipitate attachment avoidance. It could be that the circumstances leading individuals to become more avoidant over the initial years of marriage also cause increased symptoms of depression. In addition, the distancing tactics employed by avoidant individuals do not lend themselves to healthy levels of support seeking, which is essential for avoiding and coping with depressive symptoms (i.e., Dean, Kolody, and Wood, 1990). Whereas anxiously attached individuals may seek high levels of support and closeness with their partner, these tactics still foster relational closeness, which may be protective.

### **Parenting Status**

Whether or not the couple had a child at any point during the three-year study period was examined as a predictor of change, as it has been a facilitating factor in attachment change in prior research (i.e. Simpson et al., 2003). In contrast to prior work, however, parenting status was not related to change in attachment patterns. Unlike prior work, we were able to compare individuals who later became parents to those who did not become parents. These two groups appear to differ, perhaps even before becoming parents. Specifically, we found that those who later become parents showed fewer symptoms of depression at all time points. It may be that those who choose to become parents already have less depressive symptoms than those who do not. Similarly, those who become parents are lower in anxiety symptoms. While these findings suggest that people who choose to become parents may differ in their risk for depression and anxiety



symptoms, future work should further investigate these effects and whether there is a potential protective effect of becoming a parent as well.

Being a parent was also related to generally lower levels of anxiety symptoms for wives, and conversely, increased anxiety symptoms for husbands. Women who choose to become parents may have lower levels of anxiety symptoms to begin with, while husbands who have children may already have higher levels. Those who are already more anxious before having a child may experience increased anxiety after having a child due to the stress and responsibility brought on by the situation. Whether or not the individuals in our study go on to develop anxiety disorders is unknown, but it is a topic that should be investigated in future work. If those who are already suffering from an anxiety disorder have a child, it seems likely to exacerbate the condition. Conversely, while we cannot disentangle whether having a child was a protective factor on wives' anxiety symptoms or whether women who have children are already prone to lower anxiety levels, future work should examine this question. Women are already more likely to become depressed or anxious during the post partum period; however, it is important to know if there are certain personality variables or contexts that make some women more resilient than others.

### **Limitations**

While the findings of the current work are robust, there are several factors that hinder our ability to generalize these results and to further explore certain aspects of the questions at hand. First, our sample was not from a clinical population, and thus, levels of anxiety and depression were relatively low. As a result, we cannot make strong claims about how change processes operate for those who have been clinically diagnosed and

treated, only how fluctuating reports of depressive and anxiety symptoms relate to changing attachment patterns. It could be that changes in clinically diagnosed disorders are more pronounced and therefore more easily detected. In addition, those with clinical depression and anxiety disorders tend to be more insecurely attached (for a review see, Milkulincer and Shaver, 2007), which might shape the extent to which we see overall attachment change in this sample.

Furthermore, our ability to assess the quality and effectiveness of one's parenting was very limited. Our study did not include questions about participants' attachment relationship with their own children, so while we can see that individuals who became parents had either increased or decreased anxiety symptoms depending on the gender of the parent, we do not have the ability to discern whether that parent's relationship with his child is a secure one. Future work should examine whether husbands' increased anxiety is connected to their attachment bonds with their children and the quality of their parenting. .

Lastly, the current work assessed attachment style at three time-points, roughly once every three years and assumed a linear change relationship for all variables included. It may be that attachment patterns change in a more curvilinear way, increasing, then decreasing; however, the analysis strategy used did not allow for this to be tested, as it was designed to test for the more linear relationships outlined in the hypotheses. In order to assess simultaneous change, linear slope residuals were used as a predictor variable in the multilevel model. Future work could potentially test for change trajectories with a quadratic shape, but that is beyond the scope of this work. Including

assessments at more than three time points would allow for a proper investigation of nonlinear relationships.

### **Implications**

These results will have several important implications in terms of contributing to the literature and also for informing couples' therapeutic interventions. If attachment style and depressive symptoms are concurrently shifting during the early years of marriage, then interventions should capitalize on this ability to tailor treatment to two issues at once and in addition, incorporate one's spouse as a therapeutic tool. Furthermore, clinicians can take into consideration that attachment styles may shift throughout the course of therapeutic treatment and that the exact treatment methods should reflect these shifts over the course of long-term treatment.

Thus far work concerning change in attachment styles has been sparse and generally inconclusive. While some longitudinal work demonstrates that change does occur, studies like this are rare and more evidence is needed to determine if and how attachment change processes operate. Perhaps more importantly, few, if any studies have examined attachment style change in relation to concurrent change in mood symptoms like depression. In addition, while prior work has demonstrated that perception of support is crucial to maintaining attachment security across the transition to parenthood (Simpson et al., 2003), no prior work has examined how having a child may predict changes in attachment style over time. This work greatly contributes to the body of research on both attachment style change and the association between attachment and depression. Future work should consider the recommendations for further analysis mentioned in the above sections.

Table 1

*Overall Descriptive Information for Attachment, Depression, Anxiety, and Parenting Status Across Time and Gender*

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	<u>Mean(SE)</u>	<u>Frequency (%)</u>
Attachment Avoidance	1.80(0.02)	-----
Attachment Anxiety	2.62(.03)	-----
Depressive Symptoms	11.09(.21)	-----
Anxiety Symptoms	5.85(1.89)	-----
Parenting Status	-----	59

*Note: Depressive symptoms are considered to indicate depression when they are above 13 on the IDS.*

*Note: Anxiety symptoms are considered severe when they are above 26 on the BAI.*

*\*Parenting status is taken as a percent of 226 couple at Time 1.*

Table 2

*Means and Standard Errors for Attachment dimensions, Depressive Symptoms and Anxiety Symptoms by Time and Gender*

	<u>Time 1</u>	<u>Time 2</u>	<u>Time 3</u>
<i>Husbands</i>			
Attachment Avoidance	1.38(.05)	1.95(.05)	2.04(.06)
Attachment Anxiety	2.48(.06)	2.43(.06)	2.51(.07)
Depressive Symptoms	10.17(.40)	10.09(.47)	10.59(.53)
Anxiety Symptoms	5.41(.37)	4.53(.35)	4.88(.44)
<i>Wives</i>			
Attachment Avoidance	1.59(.04)	1.68(.04)	1.72(.05)
Attachment Anxiety	2.73(.07)	2.78(.07)	2.78(.08)
Depressive Symptoms	11.76(.51)	12.24(.56)	11.71(.57)
Anxiety Symptoms	6.99(.50)	6.47(.49)	6.69(.56)

*Note: N at Time 1 = 226 Time 2 = 204, Time 3 = 181*

Figure 1

Gender and Change in Avoidance Interact to Predict Average Anxiety Symptoms

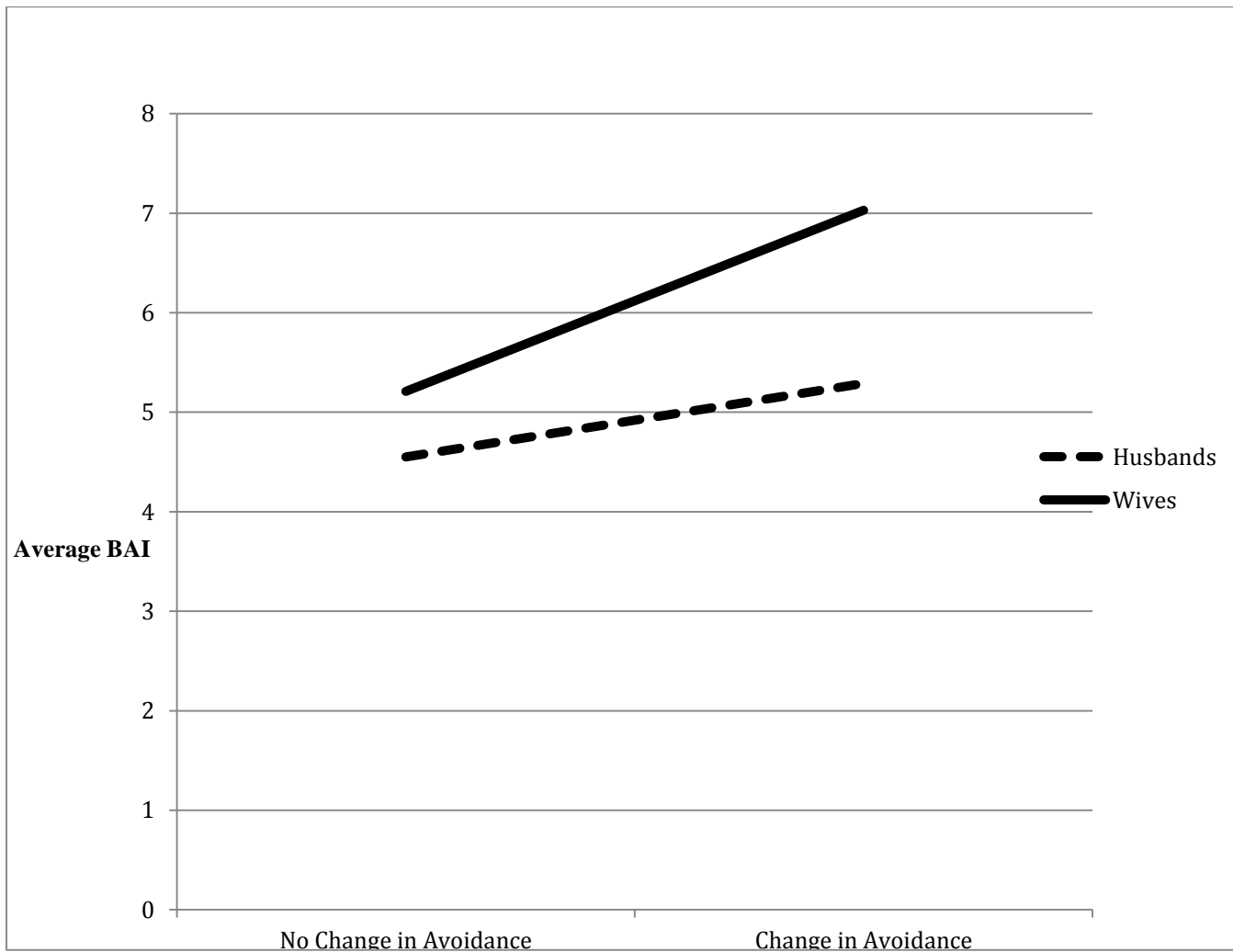


Figure 2

Attachment Avoidance Over Time for Parents vs. Non Parents

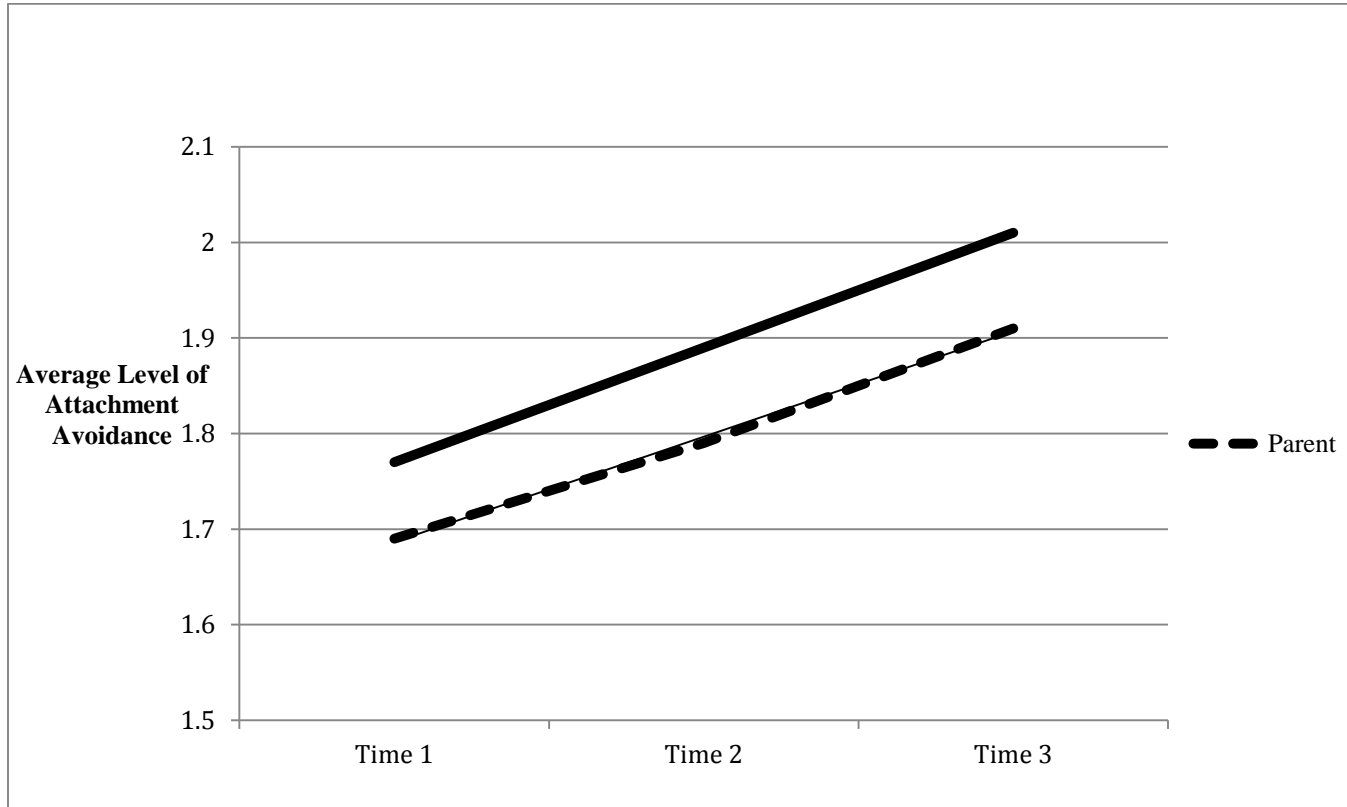
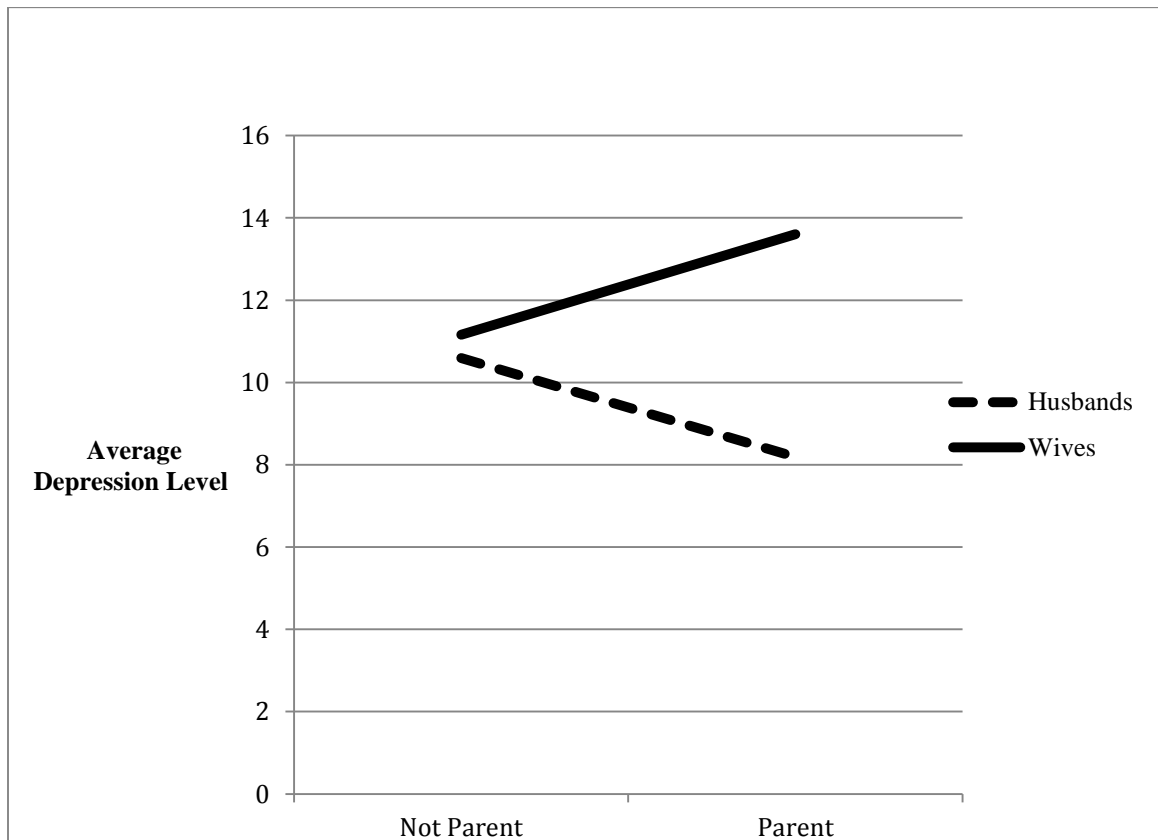


Figure 3

The Interaction of Parental Status and Gender Predicting Average Level of Depression



*Note:  $p = .07$*



Figure 4

Parental Status and Gender Interact to Predict Average Anxiety Symptoms for Husbands and Wives

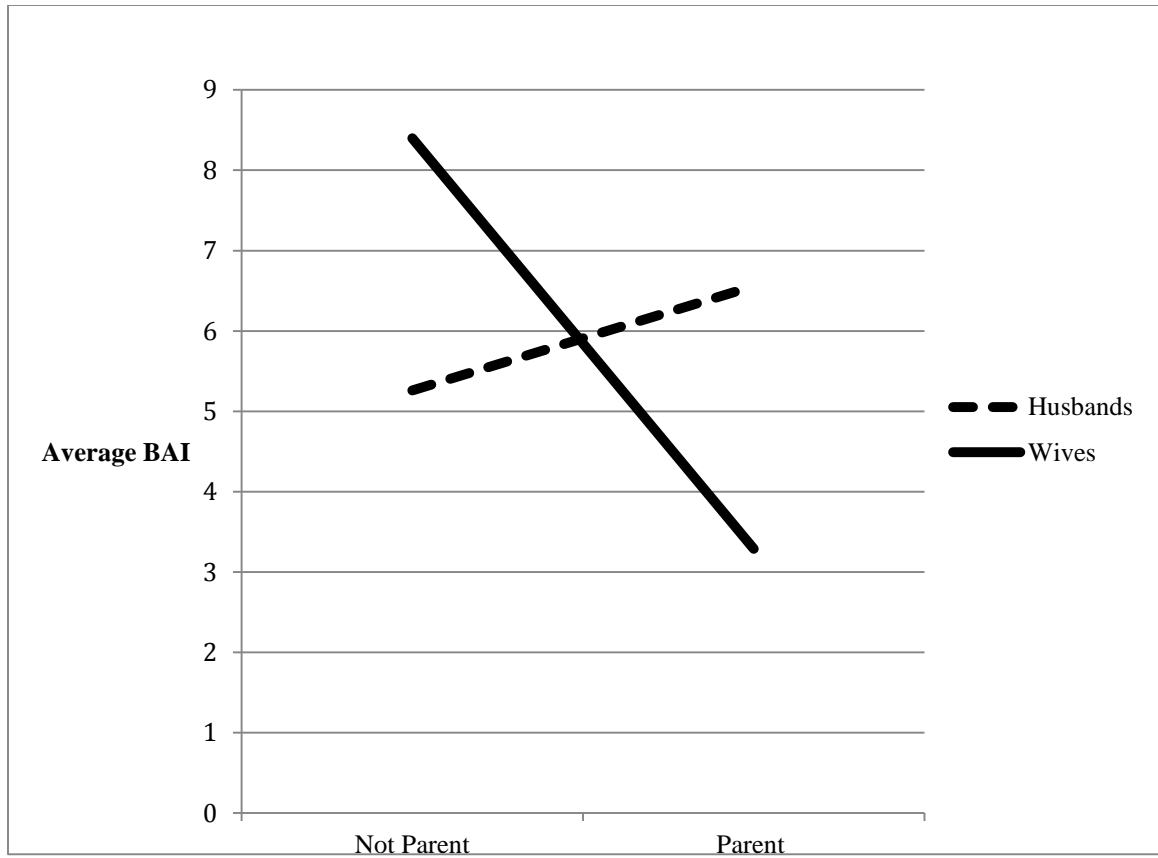


Figure 5

Gender and Time Predicting Change in Avoidance for Those Whose Depression Levels Remain Steady Over Time

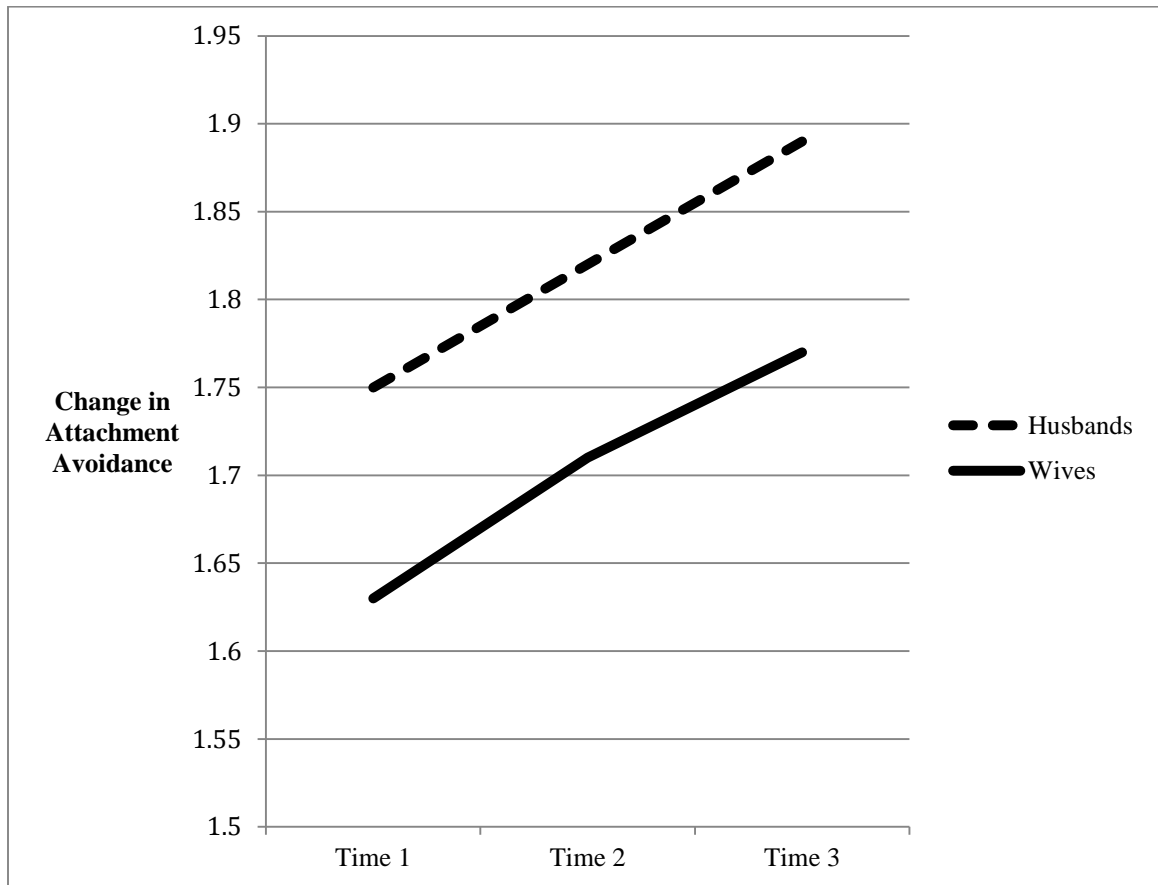
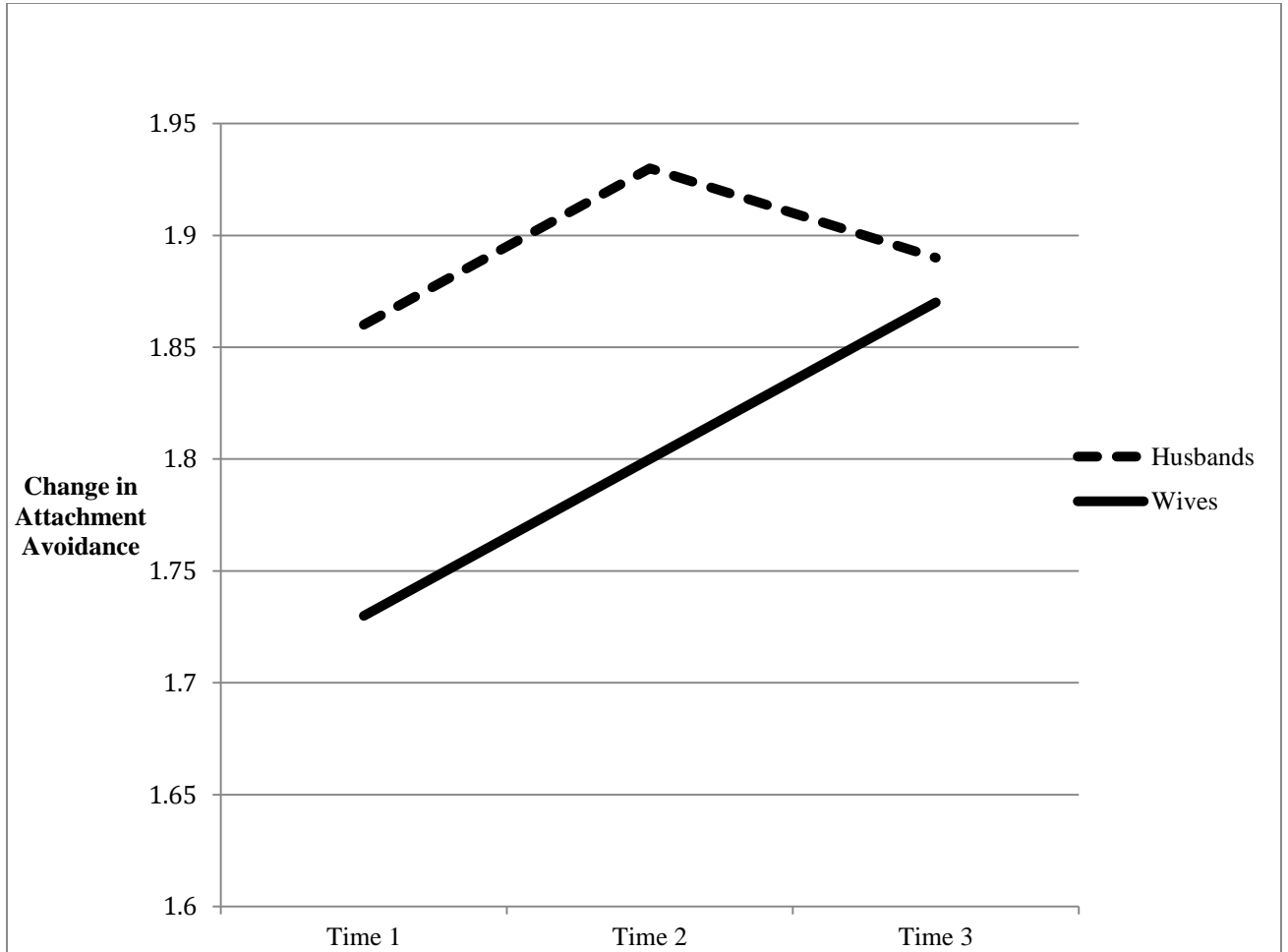


Figure 6

Gender and Time Predicting Change in Avoidance for Those Whose Depression Levels Increase Over Time



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