

ABSTRACT

Title of Document: EXPLORING THE ROLE OF SELF-DISCLOSURE AND PLAYFULNESS IN ADULT ATTACHMENT RELATIONSHIPS

Mandy K. Mount, Ph.D., 2005

Directed By: Professor Mary Ann Hoffman, Ph.D.
Department of Counseling and Personnel Services

This study utilized attachment theory as a framework for investigating aspects of relationship adjustment and emotional exploration, including self-disclosure and playfulness, in the romantic relationships of adults. 132 participants completed an online survey that included measures of adult attachment, relationship adjustment, playfulness, self-disclosure to partner, generalized exploration, and social desirability. Participants were also given the opportunity to write about dimensions of play behaviors in their relationships.

A series of hierarchical linear regressions indicated that attachment orientation may be related in important ways to playfulness and self-disclosure, while these variables serve an important role in the successful adjustment of adult attachment relationships. The data suggested that avoidant attachment was negatively related to the intent, honesty, depth, amount and valence of self-disclosure while anxious attachment was positively related to the depth of self-disclosure. Additional regression analyses determined that avoidant attachment was also negatively related to playfulness with one's partner. Both avoidance and anxiety were found to contribute significantly to poor relationship

adjustment, while playfulness and all dimensions of self-disclosure except intent were positively related to overall relationship adjustment.

The present study also utilized a cluster analysis to identify ways that natural groupings of individuals formed on the variables of interest. The clusters indicated that people in better-adjusted relationships tended to be more playful with their partners on a more consistent basis and reported greater honesty, depth and amount self-disclosure relative to those in less well-adjusted relationships. The valence of self-disclosure had a particularly strong relationship with adjustment such that those who disclosed more positive information were also those found in well-adjusted relationships.

The area of adult attachment is still in its early stages of development, but helping individuals understand developmental relationship patterns and the impact of “working models” may be of great importance for individuals’ psychological and emotional well-being. The findings of this study support the importance of using attachment theory as a model for understanding the ways that behavioral systems, such as exploration, may play a role in the development and maintenance of adult romantic relationships.

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ADULT ATTACHMENT RELATIONSHIPS

By

Mandy K. Mount

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Advisory Committee:

Professor Mary Ann Hoffman, Chair/Advisor
Professor Jude Cassidy
Professor Charles Gelso
Professor Dennis Kivlighan
Professor Robert Marcus

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Dedication

I dedicate this manuscript to my husband, Roger, who sacrificed many hours of quality time with his new wife in support of this writing. Thank you for your expressions of love and admiration throughout this time-consuming process.

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I would like to express my most sincere and heartfelt thanks to my advisor and mentor, Dr. Mary Ann Hoffman, for her guidance and continual support. I would also like to extend my thanks to my dissertation committee for their valuable time and thoughtful input. To my research assistant, Nakiya Vasi, I would like to express my great appreciation for her hard work, resourcefulness, and commitment to the project. Special thanks to Marshall Jones for his web site development and to Yuying Tsong for her consultation and editing assistance. I am grateful to all of the individuals who participated in this study and to my friends and family who supported and encouraged me throughout the process.

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Chapter One: Introduction to the Problem

Intimate relationships are an important focus of time and energy for most individuals. The successful establishment and maintenance of these relationships is often rewarded by certain benefits, such as emotional and economic support. Numerous studies have shown that individuals in relationships are also rewarded by the experience of higher levels of well-being (Mastekaasa, 1995; Diener, Suh, Lucas, & Smith, 1999) and new sources of identity and self-esteem. From a cultural perspective, laws, tax benefits, and value judgments all serve to additionally reward the finding and maintenance of stable romantic partnerships. Given numerous sources of reinforcement, it is no wonder that most people in the United States are currently involved in intimate relationships (U.S. Bureau of the Census, 2000).

While healthy relationships can convey benefits in multiple life domains, unsatisfying relationships may on the other hand result in significant declines in psychological and physical health (Burns, Sayers, & Moras, 1994). The impact of intimate relationships on physical and psychological well-being has important implications for individuals' abilities to function effectively in social, vocational and sexual domains. The considerable effect that relationship status and quality can have on peoples' lives provides a compelling reason to understand the variables that contribute to relationship adjustment. One framework that might be used to develop an understanding of relationship adjustment is attachment theory.

Attachment theory is fundamentally based in a biological understanding of behavior patterns. Through observations of infants with their parents, Bowlby (1973, 1980, 1982) developed a theory that explained the development and maintenance of

attachment bonds that developed over time. The theory was originally designed to explain the emotional bond between infants and their caregivers, but Bowlby (1979, 1994) believed that attachment relationships continued to play a role throughout an individual's life. Consistent with general theories of personality that view social, emotional, and personality development as inextricably linked to early social relations, attachment theory proposed that patterns of early relations with caregivers continue to influence the development of close relationships long into adulthood.

Attachment is a term used to describe the intense affective tie that develops between a caregiver and an infant as the result of natural selection. Bowlby (1973, 1980, 1982) proposed that genetic selection favored behaviors that were likely to lead to increased proximity of a child to its attachment figure. Attachment behaviors can be understood as an organized set of behaviors that become activated and deactivated based on the actual proximity of the child to the caretaker as well as other factors such as the condition of the child, the condition of the environment, and the location and behavior of the caretaker (Belsky & Cassidy, 1994).

These behaviors are separate from and antithetical to other behavioral systems such as feeding and exploration (Aspelmeier & Kerns, 2003). However, these different behavioral systems may work together to achieve larger goals. For example, the attachment and exploratory systems work together to promote the acquisition of knowledge about the environment, which increases reproductive fitness and is essential to survival. In secure attachment relationships, the caregiver provides a 'secure base' from which the infant may explore his/her environment. However, at times of fear or distress, the attachment system is activated in order to maintain the infant's safety, and curiosity

and exploration are suspended in order to maintain proximity to the caregiver. When the threat of danger is no longer present, the attachment system returns to a homeostatic level and the infant returns to tasks not associated with maintaining attachment, such as exploration.

The interaction between infant and caregiver has subsequent consequences for the child's emerging self-concept and developing view of the social world (Bowlby, 1982, 1973, 1980). Over time, experiences with caregivers provide the basis for the development of a "working model" of the properties, characteristics and behavior of attachment figures, self, others, and the world more generally (Belsky & Cassidy, 1994). When individuals enter into new relationships, the working model continues to serve as a guide for expectations, perceptions and behaviors (Collins & Read, 1990).

A large body of research substantiates the usefulness of Bowlby's ideas for understanding infant and early childhood relationships with caregivers, but less attention has been given to the role of attachment in adult relationships. Hazan and Shaver (1987) recognized the need for attention in this area and proposed a conceptualization of romantic love as an attachment process that follows the same formative patterns and results in many of the same kinds of emotional and behavioral responses as infant attachment. Their central propositions assert that the same biological system governs the emotional and behavioral dynamics of attachment in both infancy and adulthood, patterns of individual differences are similar in infancy and adulthood, "working models" are relatively stable and may be reflections of early caregiving experiences, and romantic love involves an interplay of attachment, caregiving, and sex.

Hazan and Shaver's (1987) basic theoretical model has received support and we now know that adult romantic relationships may be governed by many of the same behavioral systems in adulthood as they are in infancy, we still know little about the ways that the attachment and related behavioral systems may work through the developmental lifespan. One major oversight in the literature has been in looking at the ways that related behavioral systems, such as exploration, continue to function in adulthood. Researchers have met with general failure in the few attempts that have been made to expand on current knowledge about the exploration system by considering a comparative process in adults. Instead, researchers have suggested that new behavioral systems, including caregiving and sex, become important. While these ideas are deserving of additional research, the neglect of attention to the exploration system is a major gap in the literature.

Exploration is a critical activity, beginning in infancy and continuing throughout the lifespan, that enables growth but also permits vulnerability. We know a great deal about the role of exploration in children's growth, but there is virtually nothing that is known about the continued role of exploration in adults. Exploration may be expressed differently in the context of adult relationships than it is in the relationship between infants and caretakers because the types of growth sought and vulnerability experienced in these two developmental stages are very different. As infants, individuals increase their reproductive fitness by maintaining physical safety to caregivers so that they might grow into adults. However by the time humans grow into adults, reproductive fitness is based less on maintaining physical safety and more on establishing and maintaining a bond with a single partner. Romantic partner bonds can assist partners in meeting

financial and safety needs, as well as reproductive needs. Therefore, as emotional vulnerability becomes more important in attachment relationships than physical vulnerability, we might expect that exploration behaviors might take the form of emotional, rather than physical, exploration. One form that exploratory behaviors may take in adult relationships is communication aimed at emotional regulation of the relationship.

Playfulness may be one way that individuals manage emotional closeness to a partner. Playfulness is defined by a lack of self-censorship, a spontaneous quality that necessitates a measure of trust or security. Aune and Wong (2002) point out that play is a positive process that is important in cognitive, developmental and relational domains and that play has been shown to have a positive impact on psychological health. In Baxter's (1992) taxonomy of play functions, the promotion of relational intimacy is cited as a major function of interpersonal play. Since psychological health and intimacy in relationships are both highly desirable outcomes having significant implications for well-being, the importance of understanding the connection between attachment and playfulness is great. We might expect, as with exploration in infancy, that adults engage in more exploratory and playful behaviors when the attachment system is not activated, and that adults will engage in less playful activities when the attachment system is activated by a potential threat.

In addition, self-disclosure can be understood as a behavior that involves a significant amount of vulnerability and trust (Steel, 1991). Trust is an important component of adult working models (Collins & Read, 1990; Mikulincer, 1998), and since adult exploration may have to do more with emotional than physical vulnerability,

self-disclosure may be an important indicator of the amount of activation in the adult exploration system. Past researchers have concluded that security of attachment is related to the amount of self-disclosure in a relationship (Keelan, Dion, & Dion, 1994; Pistole, 1993), but a real theory of the specific relationships between self-disclosure and attachment style has yet to be proposed. It may be that self-disclosure is an important part of the system of exploration behaviors associated with emotional vulnerability in adulthood, and that patterns of self-disclosure correspond with the amount of anxiety and avoidance experienced by the individual in a relationship.

Research has identified the ways in which the behaviors of the exploration system are important in infancy, and we can only assume that these behaviors continue to be present in adulthood as well. However, the research has not been done to discover if or how these behaviors continue to have a presence. The present study explored variables, including self-disclosure and playfulness, that may be related to exploration and attachment in adult romantic relationships. Identifying the adult correlates of the infant exploration system is important not only to further the study of attachment relationships, which has proven highly useful in helping psychologists conceptualize personality and relationship aspects of individuals' experiences, but also because playfulness and self-disclosure have both been shown to have an impact on relationship satisfaction (Aune & Wong, 2002; Betcher, 1977; Breuss & Pearson, 1993; Keelan, Dion, & Dion, 1994). If these two behaviors can be linked to the exploration system, it may help the field of psychology to better understand the role that behavioral systems may play in the maintenance and development of healthy romantic relationships.

Chapter Two: Review of the Literature

Adult romantic relationships have been the subject of much attention in the psychological literature. The findings of numerous studies have established benefits of being involved in romantic relationships that include emotional and economic support, higher levels of well-being, and new sources of identity and self-esteem (Mastekaasa, 1995; Diener, Suh, Lucas, & Smith, 1999). Studies also reveal that people involved in unsatisfying relationships experience significant declines in both psychological and physical health (Burns, Sayers, & Moras, 1994; Creasy, 2002). The broad and significant effect of relationship functioning on peoples' lives necessitates a closer look at relationship dynamics. Specifically, we know what types of outcomes might be expected from positive or negative relationship functioning, but more research needs to be completed in service of understanding the factors that may promote healthy relationships.

Adoption of an attachment perspective of relationships may be helpful in understanding relationship functioning (Whisman & Allan, 1996). This theory, used as a framework to understand romantic relationship dynamics, leads us to consider the role of specific constructs such as trust, self-disclosure, and playfulness that may be linked to attachment. Trust and attachment have been proposed as parallel experiences in both infant and adult relationships (Hazan & Shaver, 1987), and these constructs may play an important role in forming the structure of relationships and interactions between partners that may result in differing levels of relationship adjustment. In the following review of the literature, the foundation of attachment theory will be outlined and then applied to adult romantic relationships, followed by a discussion of the research on the related

constructs of vulnerability and trust, self-disclosure, playfulness and relationship adjustment.

Attachment Theory: Early Development

Researchers and theoreticians that endorse an attachment perspective of romantic relationships typically emphasize the importance of security and trust to relationship functioning (Whisman & Allan, 1996). However, we know more about the role of these variables in infants and young children than we do about how these variables affect close relationships across the developmental spectrum. The theoretical basis of attachment theory allows for potential changes over the lifespan and the development of adult attachment relationships, and support has been found for the presence of attachment dynamics in romantic relationships (Kirkpatrick & Davis, 1994; Kobak & Hazan, 1991; Scott & Cordova, 2002; Senchak & Leonard, 1992; Simpson, 1990; Volling, Notaro, & Larsen, 1998). Beyond this, however, little research has been done to explore the function of these attachment dynamics in adulthood. Since we know a great deal about how attachment behaviors serve to regulate interpersonal functioning in youth, early studies of infant attachment and a thorough understanding of attachment theory may provide some guidance for continued research in the area of adult attachment.

Bowlby's (1979) theory of infant attachment was designed to explain the nature of children's ties to their caregivers, and the impact of those ties on subsequent adjustment and behavior. Bowlby observed that infants exhibited certain attachment behaviors in order to maintain proximity to caregivers. From an evolutionary perspective, Bowlby proposed that there exists a biological predisposition to attach to caregivers because babies with this predisposition had a survival advantage as caregivers

ensure their protection, learning, and feeding. He also proposed that the attachment system developed as a set of organized behaviors, separate from and antithetical to those of feeding, sexual and exploratory behavior (Aspelmeier & Kerns, 2003). The attachment and exploratory behavioral systems work together to promote the acquisition of knowledge about the environment, which increases reproductive fitness and is essential to survival. In secure attachment relationships, the caregiver provides a 'secure base' from which the infant may explore his/her environment. However, at times of fear or distress, the attachment system is activated in order to maintain the infant's safety, and curiosity and exploration are suspended in order to maintain proximity to the caregiver. When the threat of danger is no longer present, the attachment system returns to a homeostatic level and the infant returns to tasks not associated with maintaining attachment, such as exploration. The lack of a secure base has been related to inhibition of exploration in a number of empirical studies (Aspelmeier & Kerns, 2003). Insecure attachment has been linked with less time spent exploring, engaging in fewer exploratory behaviors (Arend, Gove, & Sroufe, 1979), and less intense exploration (Main, 1983) when compared with the behavior of securely attached individuals. Additionally, insecurely attached children appear to show less enthusiasm and less positive affect when engaged in exploratory behaviors (Matas, Arend, & Sroufe, 1978).

According to attachment theory, over time, early experiences with sensitive or insensitive caregivers contribute to the growth of broader representations concerning caregivers' accessibility and responsiveness, as well as to beliefs about the individual's deservingness of such care. Internal working models (IWMs) are unconscious interpretive filters through which relationships and other social experiences are construed

and self-understanding is constructed. Internal working models enable immediate forecasts of the sensitivity of the caregiver response, but also guide future relational choices and expectations, self-appraisal, and behavior toward others (Bowlby, 1979). Individuals with secure working models of relationships seek and begin to expect supportive, satisfying encounters with others, and the decision rules for relating to others that are implicit in their relational models cause them to behave in a positive, open manner that elicits such support. On the other hand, individuals with insecure working models may, because of the distrust or uncertainty engendered by their relational expectations, anticipate less support from others and may actually deter the kind of supportive care from which they would benefit. In fact when others respond negatively to their distrust or hostility, it confirms their expectations concerning the unreliability of others' acceptance, and their views of themselves as unworthy of such care.

Ainsworth, Blehar and Waters (1978) identified two general types of attachment relationships – secure and insecure. When the caregiver is experienced as responsive, available and caring, the child develops a secure attachment style, based on an internal working model of the parent as one who can be depended on in times of trouble and of the self as being worthy of care (Belsky & Cassidy, 1994). During times of danger, the child will use the parent as a source of protection, but when danger is no longer present, the securely attached child's attachment system will be deactivated and the child will utilize the parent as a 'secure base' from which to explore (Ainsworth, et al., 1978). In contrast, when the caregiver is instead experienced as unavailable, unresponsive, or uncaring, an insecure attachment may result. Ainsworth, et al. (1978) identified two different types of insecure attachment based on different responses to caregiver

behaviors. The first, anxious-ambivalent attachment, is characterized by increased attachment behaviors such as crying and clinging, and is an attempt to gain attention from an inattentive parent. The second, avoidant attachment, is characterized by ignoring cues that might activate the attachment system, thus de-emphasizing the relationship with the caregiver. This strategy is adopted by children whose parents are actively rejecting of the infant's attachment behavior (Belsky & Cassidy, 1994).

Although Bowlby's attachment theory was designed to describe a normative developmental process, the theory also accounts for systematic individual differences in the quality of attachment based on individual experiences and expectations. Ainsworth, et al. (1978) found that caregiver characteristics contributed significantly to the formation of attachment styles in their infants. Different constellations of maternal behavior were related to infant attachment behaviors, both before and after the "strange situation." The "strange situation" refers to a method of assessing attachment by placing a mother and her infant in a room together into which a stranger enters, followed by the mother leaving and returning, the stranger leaving, then the mother leaving again. Finally, the stranger returns, followed by the mother who then stays in the room alone again with the infant. Throughout the series of interactions, the infant and mother's behaviors are observed. Regardless of the behaviors displayed by caregivers during the strange situation, infants responded to the strange situation in ways consistent with previous experiences with their caregivers. This indicates that each particular interaction may be less important in determining behaviors than the long experience that is had with a caregiver over time. In spite of the relative stability of attachment behaviors, Bowlby emphasized the flexibility

of working models and the ability of working models to change based on interactions with others throughout the lifespan.

Attachment Theory: Adult Romantic Relationships

Earlier working models may serve to affect adult relationships by influencing expectancies and perceptions of the social environment and relational behavior in characteristic ways (Collins & Read, 1990). Hazan and Shaver (1987) proposed that Bowlby's formulation of an attachment theory could serve as the basis for a theory of romantic love. They suggested that a number of parallels could be drawn between security and trust in childhood attachment and similar experiences in romantic relationships later in life. Bowlby (1979) also theorized that individuals vary in the degree to which their IWMs are modifiable on the basis of experience. Individuals who are able to integrate ongoing experiences are more likely to develop useful models for their current relationships that will guide their expectations of and interactions with others. Kobak and Hazan (1991) suggested that accurate representations should facilitate more positive relationships with others by influencing approaches to intimacy with partners and success in resolving conflict. Further, attachment security may contribute to the flexibility of working models by promoting both the communication and willingness that is necessary to gain information about self and others that may change current working models. Individuals with lower levels of attachment security are less able to assimilate new experiences into their working models, and may approach interactions with partners using inaccurate expectations and assumptions. As a result, these individuals engage in less productive conflict management and have more difficulty

establishing and maintaining experiences of intimacy and understanding (Kobak & Hazan, 1991).

Theories of adult attachment have offered an account of how individuals may develop different styles of relating to partners as well as how components of relationships, such as attachment, caregiving and sex, are related to each other over the life cycle. In fact, empirical research has shown that attachments are transferred to romantic relationships in young adulthood and that many of the factors that promote the development of attachments in infancy (e.g. caregiving, intimate contact) continue to have a positive relationship with adult attachments (Fraley & Davis, 1997). However, neither theory nor research have adequately addressed the importance of associated behavioral systems in infancy, and what may happen to these systems as children grow into adults and develop new attachment relationships. Exploratory behaviors, for example, have been identified as important in infancy, and we can only assume that they continue to play an important role in adulthood. Although Hazan and Shaver's theory presumes that the attachment behavioral system continues to function in adult relationships, the research that exists has paid surprisingly little attention to the role of exploration behaviors. To date, only four studies have examined attachment and exploration beyond childhood and infancy. However, no studies have proposed a reasonable explanation for the existence of a continued relationship between attachment and exploration or have considered the ways that exploration may have changed across the life cycle. In fact, each of these studies has conceptualized of exploration in different ways.

In the first of these studies, Hazan and Shaver (1990) investigated the ways that attachment type might be related to exploration, which was conceptualized for their study as work orientation. Responses were obtained from 670 participants who completed self-report measures on attachment, job satisfaction, and job or relationship prioritization. The results of the survey indicated that securely attached individuals approached work with confidence, felt appreciated, were relatively free from fear of failure, viewed relationships as more important than work, and maintained a balance between work and relationship concerns. Avoidant individuals were found to use their work to avoid social interactions, prioritize work over friends and social life, experience poorer job performance and not desire or enjoy leisure or vacation time. Finally, anxious/ambivalent individuals reported that they feared rejection for poor performance and felt unappreciated, acknowledged that love concerns often interfered with their work, and shared that they often 'slack off' after receiving praise. Although the results were interesting, the authors acknowledged the fact that the conceptualization of exploration of work may have been too simplistic. In addition, the work measures used in the study had insufficient reliability, and some failed to show the expected relationships to attachment type.

In the second study, Mikulincer (1997) examined attachment and exploration as represented by curiosity and cognitive closure (openness to new information). Undergraduate participants from an Israeli university completed questionnaires and engaged in decision-making tasks in each of five different studies. The results of the studies identified the securely and anxious-ambivalently attached participants as more curious, having more positive attitudes toward curiosity, and engaging in more

information search than the avoidantly attached participants. Anxious participants engaged in information search when it provided an opportunity to avoid social interaction. It was also found that secure individuals were more likely to rely on new information in making social judgments than were avoidant or anxious-ambivalent individuals. This result is consistent with the idea that secure working models may be more able to integrate new information.

In a third study, Johnston (1999) investigated the relationship between attachment styles and exploration, as defined by novelty seeking, curiosity and impulsivity. The operationalization of exploration in this study was based on drawing a parallel between the measurement of childhood and adult exploration. Through part of a larger study, 229 individuals responded to a mail survey that included measures of attachment and exploratory patterns. The attachment measure used was a revised version of Hazan and Shaver's (1987) three-category measure and the exploration measure was developed by the author for the purposes of the study. Findings indicated that secure individuals reported greater curiosity than did avoidant individuals, though none of the attachment styles differed on novelty-seeking or impulsivity. These results were consistent with the results found in earlier research on exploration and attachment in children. However, no reliability or validity data was provided for the measures of exploration that were designed for the study, and it is not clear how accurately the measures were able to differentiate between curiosity, novelty-seeking and impulsivity. Also, consistent with the limitations of previous attachment-exploration research, the author attempted to measure exploration in a manner similar to the manner in which children use exploration. However, exploration in infancy and childhood occurs as a system of behaviors that are

activated when the presence of a threat is not present. The authors fail to make a convincing argument for using child-like exploratory behaviors given that what is threatening to a child is not the same as what may be threatening to an adult. Exploration in infancy and childhood involves a component of vulnerability that is not captured in the way that exploration in adulthood has been measured in this and other studies.

Finally, in the fourth study that has looked at the role of exploration in attachment relationships, Aspelmeier and Kerns (2003) examined the relationship between attachment and exploration in college. In the first part of the research study, a relationship was found between attachment style and self-reports of exploration. Secure attachments were related to curiosity, a desire for novelty, and comfort with academic social interactions. Preoccupied and fearful attachments were related to anxiety about academic performance. In the second study, sex differences were found in exploratory behavior. Dismissive and generally insecure males were found to engage in low levels of exploration of novel objects and relationship information. Anxious males also had low levels of exploration of novel objects, but had high levels of exploration of relationship information. For females, dismissiveness was found to be related to low levels of exploration of relationship information. These results were consistent with earlier observations of exploration in children of differing attachment styles, although there were clear sex differences in the observational measures of exploration of puzzle toys. It remains unclear if the low levels of exploration of most female participants as the result of a disinterest in the puzzles themselves or an inhibition of exploration by a sex-related process. Furthermore, the use of academic competence as a measure of adult exploration

is questionable, as there does not seem to be a clear reason for the decision of the use of that particular variable.

Summary

Bowlby's (1979) attachment theory describes the development of internal working models of self and others through interpersonal experiences. Hazan and Shaver (1987) suggested that trust and security may be parallel experiences in infant and adult attachment relationships, making attachment a potentially useful framework for understanding romantic relationship dynamics. Internal working models may influence adult romantic attachments through influences on future relational choices and expectations, self-appraisal, and behavior toward others. Kobak and Hazan (1991) suggested that accurate representations should facilitate more positive relationships with others by influencing approaches to intimacy with partners and success in resolving conflict. Attachment security may also contribute to the flexibility of working models by promoting both the communication and openness to new information. Individuals with lower levels of attachment security are less able to assimilate new experiences into their working models, and may approach interactions with partners using inaccurate expectations and assumptions, resulting in less productive conflict management and difficulty establishing and maintaining experiences of intimacy and understanding (Kobak & Hazan, 1991).

Research has suggested that attachment styles do in fact describe different types of adult love relationships fairly well (Hazan & Shaver, 1990). However, the literature on infant attachment also describes the presence of related behavioral systems, such as the exploration system. Research on adult attachment has not yet effectively established

a connection between the importance of the exploration system in infancy and its role in adult attachment relationships. There remains a great deal of inconsistency in the operationalization of exploration in adulthood, with theoreticians not agreeing on the behavioral vs. emotional components of the exploration system. In order to advance this program of research, it is important to return to the infant attachment literature to understand the roots of exploratory behaviors, and the role of the attachment system in their expression. Just as infants engage in exploratory behaviors that increase their vulnerability when in secure attachment relationships, adults also engage in vulnerable exploratory behaviors. One way to conceptualize the continuation of this system in adulthood is to consider the role of vulnerability and the ways that adults might experience this as more of an emotional than a physical vulnerability.

Vulnerability and Trust

The literature on infant attachment explicates some of the ways in which trust develops in early development. This research can be used as a basis for understanding how trust might continue to develop as individuals mature and develop relationships beyond those with early caregivers. The exploration system and the attachment system in infants are related through the infant's perceived vulnerability and trust in the caregivers' responsiveness to the infant's needs (Bowlby, 1969). The extent to which the infant engages in exploration, and uses the caregiver as a secure base is largely dependent on the structure of the internal working model that the child has developed about the responsiveness of the caregiver in times of need. Having trust in the caregiver's responsiveness is important for exploration to occur. As the child develops into an adult, trust remains an important component in subsequent attachment relationships as well

(Pistole, 1993; Mikulincer, 1998). It is possible that trust may continue to play an important role by connecting variables such as self-disclosure and playfulness to the security of attachment. This section will provide a brief summary of the major contributions to the literature on trust in adult attachment relationships.

Interpersonal trust been described as “the confident expectation that a partner is intrinsically motivated to take one’s own best interest into account when acting – even when incentives might tempt him or her to do otherwise (Boon, 1993).” Rempel, Holmes, and Zanna (1985) also suggested that trust has certain critical elements, and that the first is that trust develops out of past and present interactions. These experiences with others allow individuals to make attributions about partners regarding predictability, dependability and faith. Rempel et al. (1985) suggest that trust requires putting oneself at risk through intimate disclosure, reliance on another, and sacrificing immediate rewards for future gratifications. Furthermore, trust involves feelings of confidence and security in the caring responses of a partner and the strength of the relationship (Pearce, 1974; Rempel, et al., 1985).

These definitions of interpersonal trust incorporate the ideas initially proposed in Bowlby’s (1979) conceptualization of internal working models. Internal working models, which form the basis of attachments between persons, are based on expectations that are internalized regarding one’s worthiness of care and beliefs that others will be available when needed. In other words, both internal working models and interpersonal trust seem to involve expectations about others’ responsiveness and trustworthiness during times of need or vulnerability.

Boon (1993) also conceptualizes trust as an act of risk-taking because in intimate relationships individuals are vulnerable to the behaviors and judgments of their partners. Particularly as individuals invest more in the relationship and in one another, trust involves an element of acting, and taking risks, in the presence of one's partner. In fact, it can be understood that each reaction a partner makes to an individual's disclosures to a partner contributes to that individual's understanding of the world and future interactions with others. Both the spontaneous quality of play and self-disclosure require a great amount of trust, and trust is related to the kind of understanding that one has of others' likely responses to personal vulnerability, also known as an internal working model.

To illustrate the importance of trust between partners in adult attachment relationships, Collins and Read (1990) designed three studies that examined potential correlates of adult romantic attachment. In their first study, Collins and Read developed an 18-item scale based on extrapolations from the categories in Hazan and Shaver's (1987) categorical measure of attachment. The items developed for the new scale were intended to reflect greater sensitivity to attachment-related differences. Factor analyses on the measure identified three distinct attachment dimensions: the extent to which an individual is comfortable with closeness, belief in the availability of others, and anxiety related to a fear of being abandoned or unloved. While the items did not load directly onto the three attachment styles described by Hazan and Shaver, the dimensions allowed for a more detailed understanding of relationship dynamics that might be present in each of the attachment types.

In the second study, Collins and Read used the newly-developed measure, the Adult Attachment Scale (AAS), to assess the relations between adult attachment styles and

general mental representations of self and others. Their study provided an important link between infant attachment literature, which proposed the idea of “internal working models,” and adult romantic attachment literature, by testing the hypothesis that individual differences in attachment style are related to differences in working models. 80 female and 38 male undergraduates participated in the study. Models of self were explored using measures of self-esteem, social confidence, instrumentality and expressiveness. Collins and Read found that people who scored high on the comfort with closeness and belief in the availability of others subscales of the AAS also had greater feelings of self-worth and social confidence, and were higher in expressiveness. In contrast, those who scored high on the anxiety subscale scored lower in self-worth and self-confidence. Models of others were explored using measures of trust and beliefs about human nature and social behavior. Results indicated that participants with greater comfort with intimacy and who had higher belief in the availability of others were more trusting in general and more willing to believe that others are altruistic, independent, able to control the outcomes of their lives, and adaptable to new situations. Participants higher in anxiety, however, had more negative views of the world in general, believing others to be less altruistic and more likely to conform to social pressures. These findings supported the expected patterns of results for models of self and others that are hypothesized to vary across attachment styles.

In the third study, Collins and Read tested the impact of attachment style on relationship functioning in the following areas: quality of communication, trust, and overall satisfaction. In a sample of 71 dating couples, individuals who scored higher in comfort with closeness perceived less relationship conflict, rated levels of

communication higher, and perceived their partners as more dependable. Women who were anxious trusted their partners less, felt more dissatisfied in the relationship, felt less closeness and perceived lower levels of communication with partners. Men who were anxious also trusted their partners less and felt that their partners were less dependable.

Collins and Read also examined the effects of one partner's attachment style on perceptions of the other partner. Women whose partners were comfortable with closeness perceived better communication in their relationships, felt closer to their partners, perceived less conflict, and believed their partners to be more trustworthy and predictable. Men's satisfaction in the relationship was not affected by their partner's comfort with closeness, but partner comfort with closeness did predict their beliefs in the trustworthiness of their partner, higher levels of mutual self-disclosure, and perceptions of better communication. When men's partners also believed in the dependability of others, these men perceived their partner to be more trustworthy and dependable. Men evaluated their relationships much more negatively, reporting more conflict, less closeness, worse communication and less liking when their partners were anxious.

A sense of trust is one of the most desired qualities in love relationships, and a lack of trust has been shown to increase feelings of distress, reduce relational rewards, and predict relationship dissolution (Holmes & Rempel, 1989). Studies have shown that secure attachment styles are related to the levels of trust experienced by individuals in relationships (e.g. Brennan & Shaver, 1995; Feeney & Noller, 1990; Hazan & Shaver, 1987; Simpson, 1990), to the trust experienced by one's partner, and to a individuals' sense of trust in others (Collins & Read, 1990). Trust has also been linked with the manner in which couples may communicate with one another or the amount of

information self-disclosed to another (Pearce, 1974; Levin & Gergen, 1969). Since playfulness may indicate a lack of self-censorship, trust seems also to be a potential condition for playfulness.

Mikulincer (1998) explored the role of trust in attachment relationships using a multi-method analysis of trust-related memories, goals, and strategies. Using 70 undergraduate students at an Israeli university, Mikulincer explored trust-related memories by having participants complete attachment questionnaires and also recall three positive trust-related episodes and three negative trust-related episodes in which the participant's father, mother, or romantic partner were involved. Participants were instructed to touch a button to indicate the moment that they identified an episode. Response times were recorded, and the results showed a significant interaction between attachment style and valence of memories such that secure participants responded most quickly to retrieval of positive trust-related memories and avoidant and anxious-ambivalent participants retrieved negative trust-related memories more quickly. Secure individuals also experienced more positive affect in response to positive memories, anxious-ambivalent individuals experienced strong affective responses to both positive and negative memories, and avoidant individuals displayed weak affective responses to either type of memory.

In Mikulincer's second study (1998), participants were encouraged to respond to questions related to the benefits of trust in close relationships and personal responses to violations of trust from a partner. Responses to the benefits of trust were coded according to goals of intimacy, security or control. Responses to violations of trust were coded according as denial, distancing from partner, rationalization of partner behavior,

talking with partner, or ruminative worry. Consistent with the expected variation in working models between the three types, secure participants focused on intimacy goals of trust, anxious-ambivalent participants focused on security-seeking, and avoidant participants focused on attainment of control. Responses to violations of trust were also consistent with expected patterns, with secure participants electing to talk with their partners, anxious-ambivalent participants engaging in ruminative worry, and avoidant participants opting to distance from their partners.

Study three in Mikulincer's investigation of attachment-related trust was designed to replicate the results of study two using a diary data collection technique. Over a three-week period, each day participants reported on the presence of trust-violation and trust-validation events along with the impact of the events on the trust-related goals identified in study two and participants' responses to the events. In addition, participants reported on dimensions of importance of the event, stability of the type of event, globality of the event as it reflects the quality of the relationship, partner intentionality, and partner internality. Results averaged across the three-week period supported earlier findings that secure persons reported more trust-validation events than insecure persons, and that secure persons were more likely to perceive trust-validation events as more reflective of partner intentions and personality. In contrast, avoidant and anxious-ambivalent persons reported more frequent trust-violation events and perceived these events as stable and reflective of partner personality. Secure and anxious-ambivalent persons were more likely than avoidant persons to perceive trust-validation events as important. Consistent with study two, both types of trust events impacted goals of security for anxious-ambivalent persons, who responded to trust-violation events with ruminative worry and

goals of control for avoidant persons, who responded to trust-violation events with distancing. As found previously, secure persons were more likely to respond to trust-violation events with talking to their partners.

In the final two studies, Mikulincer instructed participants to perform lexical decision tasks that required them to read a string of letters and identify as quickly as possible whether the letters spelled a word. In the first of these studies, trust-related goals (intimacy, security, and control) were embedded within trust-relevant or trust-irrelevant context sentences. Since reaction times should be quicker for those words that are most readily available in consciousness, Mikulincer hypothesized that secure individuals would show the quickest reaction times for the word *intimacy*, avoidant individuals for the word *control*, and anxious-ambivalent individuals for the word *security*. He found no significant differences in reaction times when the goal words were embedded in trust-irrelevant sentences, but found for trust-relevant sentences that reaction times overall were quicker for the word *intimacy* than for security or control. Main effects for target words supported the expected relationships. Secure people reacted quickest to the word *intimacy*, avoidant people responded quicker to *intimacy* and *control* than to *security*, and anxious-ambivalent people responded quicker to the words *intimacy* and *security*. In the second of these studies, trust-related coping strategies (talk, escape, worry) were tested in the same way. Mikulincer found that in a trust-violation context, secure people responded most quickly to the word *talk*, avoidant people responded most quickly to the words *escape* and *worry*, and anxious-ambivalent people responded most quickly to the words *talk* and *worry*.

In sum, Mikulincer's studies effectively demonstrated differences between attachment groups on trust-related memories, goals and strategies as well as on the attributions made toward relationships and partners based on trust events. One limitation to Mikulincer's study involves the use of the standard Hazan and Shaver (1987) forced-choice attachment measure. Mikulincer did not take into account Bartholomew and Horowitz' (1991) conceptualization and measurement of models of self and models of others. Since trust seems to be closely related to a model of others, this framework may have been especially relevant. Also, it is possible, since Mikulincer did not collect information on relationship phenomena other than trust, that the findings may have held just as well for other kinds of negative or positive relationship events having nothing to do with trust. Still, the results of the investigation can be generalized to some degree for relationship phenomena that involve a trust-relevant context or can activate basic trust-related cognitions. Since trust is essential for partners' comfort with self-disclosure (Steel, 1991), and may underlie the vulnerability that is expressed during romantic play, Mikulincer's studies provide an important link that suggests a possible relationship between attachment and both self-disclosure and playfulness.

Summary

Lower levels of trust in relationships have been identified as contributing to increased relationship distress and decreased relational rewards, and predicting relationship dissolution (Holmes & Rempel, 1989). In spite of the significance of these findings, there has been little research on the ways in which trust may have these effects. A few studies, however, have linked interpersonal trust to adult attachment styles. More secure attachment has been associated with greater comfort with intimacy, more trusting,

positive beliefs in others' availability (Brennan & Shaver, 1995; Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987; Simpson 1990). In addition, security of attachment has been linked directly with more positive perceptions of romantic relationships and dependability and communication ratings (Collins & Read, 1990; Mikulincer, 1998).

In sum, these findings support the idea that trust is an important component of attachment relationships, related to the internal working models that individuals have of their relationships with others. Trust is an integral component of secure attachments, and through positive working models of others, people should feel more comfortable taking risks in the presence of partners. Satisfaction and closeness in intimate relationships may be more likely to occur when partners are able to trust and take risks to express emotional openness and vulnerability. This may be expressed through activities such as self-disclosure (Pearce, 1974; Levin & Gergin, 1969) and playfulness with one's partner.

Exploration Variables: Self-Disclosure and Playfulness

The relationship between exploration and attachment is a phenomenon that has been well-supported in the infant literature (Ainsworth, et al., 1978; Main, 1983). In fact, the complementary interaction between exploratory behaviors and attachment behaviors is one of the most consistent findings of the infant attachment literature. Yet, there have been few studies that have attempted to address the role of exploration behaviors in adult attachment relationships. The reason for this may be a lack of theoretical understanding of the form that infant exploration may take in adult relationships.

Researchers have noted that it is unlikely that exploratory behaviors in adulthood would take a form similar to that of infancy (i.e. playing with toys, exploring objects in a

room), as most of this type of exploration has been accomplished by adulthood. In addition, this type of physical exploration that is observed in infants is related to the attachment system due to the fact that physical exploration risks the physical safety of the infant, and the attachment figure serves as a 'secure base' intended to preserve the safety of the infant in times of danger. Adults do not risk the same type of danger related to physical exploration of objects, and yet, adults do maintain attachment relationships with partners that are identified by many of the same types of characteristics expressed in infant attachment relationships. The fact that attachment relationships maintain their importance in adulthood (Hazan & Shaver, 1980) begs consideration of the continued role of the associated behavioral systems, such as the exploration system. However, in considering the continued role of this system, theory must take into account the changing role of the attachment system in adult relationships and the change in vulnerability that is experienced as humans develop and grow into adults.

As adults, vulnerability and exploration become more emotional than physical, perhaps due to a change in evolutionary purpose. As infants, individuals increase their reproductive fitness by maintaining physical safety so that they might grow into adults, however by the time humans grow into adults, reproductive fitness is based more on the establishing of relationships, and maintaining a bond with a single partner. One way that the attachment experience has been explained is that we engage in relationships with others in order to maintain survival. In adulthood, romantic partner bonds can assist partners in meeting financial and safety needs, as well as reproductive needs.

Trust, as a major component of internal working models, is likely to play a significant role in relationship dynamics associated with exploration. Both playfulness

and self-disclosure may act as exploratory behaviors in relationships that regulate closeness, strengthen emotional bonds, and involve some degree of vulnerability.

While playfulness has not yet been directly linked with attachment styles, the self-disclosure explanation for higher levels of relationship satisfaction among those with a secure attachment style proposed by Keelan, Dion, and Dion (1998) may suggest a potential link between attachment and playfulness. Since playfulness requires a spontaneity and vulnerability, as does self-disclosure, these two behaviors may be part of the same behavioral exploration system that is proposed to be present in adult attachment relationships. Sadler (1966) points out that play involves both vulnerability and freedom in the presence of another. Play by its very nature involves an element of self-disclosure because it is in essence a lack of self-censorship, a spontaneous way of being open with another individual. People engage in play with one another in intimate relationships for a variety of reasons related to emotional regulation of attachment relationships, including but not limited to evaluation of intimacy levels, conflict management and strengthening of bonds (Baxter, 1992).

The security that would be required in order to engage in self-disclosure and play behaviors can be easily compared with the sense of security that one might feel when involved in a secure attachment relationship. Individuals with secure attachments experience a sense of worthiness and an expectation that other people are generally accepting and responsive (Bartholomew and Horowitz, 1991). In this type of relationship, a partner may be willing to take greater emotional risks, which may involve engaging in self-disclosure and play behaviors that may reveal unconscious vulnerabilities. When individuals take such risks and are met with responsiveness from their attachment figure,

the emotional bond is strengthened, thereby also increasing reproductive fitness. In the context of an insecure attachment relationship however, an individual may feel a heightened sense of anxiety around issues of emotional vulnerability and may be less willing to explore highly vulnerable unconscious processes. To date, this link between self-disclosure, playfulness, and attachment security has not been made.

Although this link has not been made, much can be learned from existing literature in the areas of self-disclosure and playfulness. The following two sections will summarize what is currently known in each of these areas.

Self-Disclosure

In Cozby's classic review of literature on self-disclosure in intimate relationships, the thesis was advanced that the relationship between self-disclosure and satisfaction in relationships may be curvilinear. A curvilinear relationship between personal disclosure and satisfaction suggests that the amount of self-disclosure and satisfaction have a positive relationship with one another, but that there exists a point at which self-disclosure begins to actually reduce satisfaction with a relationship.

In his review, Cozby cites Levin and Gergen (1969), who suggested that medium amounts of disclosure from another person indicate desire for a closer relationship and trustfulness, but that a great deal of communication may be interpreted as a lack of discretion and may inspire distrust in a partner. Although it was not supported by empirical data, the curvilinear hypothesis was an important first step in attempting to understand the ways that self-disclosure might be related to the experience of closeness and trust in relationships.

Levin and Gergen's (1969) curvilinear hypothesis connected the experience of self-disclosure to the presence of or desire for trust in a relationship. One way that individuals in romantic relationships might express trust is through the level of self-disclosure they are willing to express. Research has suggested that trust is an important aspect of adult internal working models of partners, and that trust is also important for self-disclosure (Wheeless, 1977; Wheeless and Grotz, 1977; Pistole, 1993; Steel, 1991). Self-disclosure involves a type of emotional risk-taking, and a sense of trust is important for self-disclosure to feel comfortable or advisable in a relationship (Pearce, 1974). In the context of a romantic partnership, in which there is a risk of losing a partner or feeling judgment from an important other, trust is even more important for self-disclosure. Self-disclosure increases a person's vulnerability to another because at least some of the means for defending him/herself from unacceptable outcomes if the other is untrustworthy are abandoned (Pearce, 1974).

Amount of self-disclosure is an important aspect of disclosure that may be related to trust and relationship adjustment. However, Wheeless and Grotz (1976) recognized that self-disclosure could also include other dimensions. Building on previous research, Wheeless and Grotz aimed to develop an instrument that improved upon both the validity and dimensionality of existing measures, such as Jourard and Lasakow's (1958) popular measure of self-disclosure. Their goal was to develop a measure that allowed participants to report on their perceptions of actual disclosing communication behaviors, rather than simply to measure their frequency across a variety of content areas. They made the point that although it was reasonable to assume that some topics of self-disclosure were more

intimate than others, the perception of the intimacy of specific topics was likely to vary in important ways between individuals.

Wheless and Grotz (1976) selected a sample of 261 participants, including 100 teachers enrolled in a graduate extension course and lower division students in a communication course at an eastern university. Participants were administered a booklet containing measures of generalized trust, trust in a specific other, and the 32-item self-disclosure measure that was designed for the study. In their responses to the questionnaires, participants were assigned to consider specific target individuals that varied in their distance from the participant (e.g. brother, professor, roommate, etc.). The self-disclosure instrument was then factor analyzed using orthogonal and oblique rotational solutions. The orthogonal rotation produced a five-factor solution accounting for 60% of the total variance with 15 items meeting the criteria for loading on a factor, and the oblique rotation produced a similar six-factor solution. The authors concluded that self-disclosure was in fact multidimensional and identified at least five independent dimensions of self-disclosure, including: intent to disclose, amount of disclosure, positive-negative nature of disclosure, honesty-accuracy of disclosure, and depth of disclosure. Due to an inability to meaningfully interpret the sixth scale from the oblique rotation and a marginally acceptable level of reliability on some scales, the resulting self-disclosure scales were regarded as initial instruments in need of further item development and validation. However, the study was meaningful in the self-disclosure literature as it demonstrated the importance of considering multiple aspects of the self-disclosure process in future research.

As a follow-up to the Wheelless and Grotz (1976) study, Wheelless (1976) utilized the multidimensional construct of self-disclosure to investigate the relationship between self-disclosure and the broad concept of interpersonal solidarity. He criticized previous research for its failure to distinguish between disclosure to an individual and generalized disclosiveness and he aimed to address a failure to allow for variability in the dimensions of disclosure.

Wheelless' study set out to identify a relationship between his multidimensional conceptualization of disclosure and the concept of interpersonal solidarity, which referred to a sense of closeness derived from similarity that finds expression in sentiments, behaviors and symbols of that closeness. To test his hypotheses, Wheelless conducted two studies. The first consisted of 188 undergraduates enrolled in sections of a basic course in interpersonal communication at West Virginia University. The second study involved 374 adult graduate students enrolled in sections of an extension course on communication in the classroom. This class was offered in various locations throughout the state of West Virginia. The procedure for both studies was the same. Test booklets were distributed by instructors at the beginning of classes and were returned at the beginning of the following class period. Directions in the booklets instructed participants to respond to the questions with respect to an assigned target-person that was selected on the basis of his/her potential closeness to or social distance from the participants. Nine of the targets were categorized a priori as closer and nine as more distant. The booklet included Wheelless and Grotz's (1976) newly-developed self-disclosure measure, scales of solidarity, and other scales measuring credibility, attraction, homophily, trust and

perceived disclosure of the target person. Some of these scales were included for use in a separate study.

The results of Wheelless' research demonstrated that self-disclosure was found to be an important aspect of the solidarity construct. Additionally, an independent set of scales measuring the multidimensional aspects of self-disclosure was found to be related to interpersonal solidarity. Interpersonal solidarity was found to be higher for individuals evaluating relations with closer others than for individuals evaluating relations with more distant others. Reported self-disclosure appeared to be meaningfully higher in relationships perceived to be high in solidarity than in those perceived to be low. Also, results indicated that the general disclosiveness of an individual may have more of an impact on the occurrence of self-disclosure in the majority of relationship, but in high and low solidarity relations, solidarity itself appeared to more meaningfully facilitate or inhibit disclosiveness despite the disclosive tendencies of the individual.

One criticism of Wheelless' study is that the order of measures in the booklets was not counterbalanced. The ordering of the measures could have contributed to consistency of response due to possible effects of fatigue, or a consistent type of impact of an earlier scale on response to a later scale. Also, the authors interpreted their results in ways that necessitated further research on the relationships between variables. Finally, the five factor structure of the self-disclosure instrument was replicated in only one of the two studies. In the second, the instrument was reduced to a four-factor instrument. It is unclear whether the smaller sample size in that group or whether the content of the scale was less differentiated for that population. The author was able to add items to both factor structures which increased the reliabilities of the dimensions of the instrument to

acceptable levels, but further refinement was needed. Perhaps the most significant contribution of the Wheelless study was the refinement of an introductory measure for multiple dimensions of self-disclosure and the finding of evidence in support of the relationship between self-disclosure and the trust-related construct of interpersonal solidarity.

Wheelless and Grotz (1977) conducted another follow-up study to examine the relationship of trust to self-disclosure. Given inconsistent findings of previous research and some support for the idea that self-disclosure may require the presence of trust feelings, Wheelless and Grotz designed a study to assess the relationship between the two constructs. They began by refining the operationalization of each construct, theorizing that inconsistent conceptualizations in the past may be responsible for previously inconsistent findings. They conceptualized interpersonal trust as “a process of holding certain relevant, favorable perceptions of another person which engender certain types of dependent behaviors in a risky situations where the expected outcomes that are dependent upon that other person(s) are not known with certainty.” Self-disclosure was conceptualized as a multidimensional construct including at least five dimensions including: 1. consciously intended disclosure, 2. amount of disclosure, 3. positive-negative nature of disclosure, 4. honesty-accuracy of the disclosure, and 5. control of the depth or intimacy of disclosure.

Wheelless and Grotz used a sample of 261 lower division human communication students as well as teachers, their spouses and their oldest children. Participants were administered a booklet containing Rotter’s (1967) measure of generalized trust, a measure of trust in a specific target person that was derived from Berlo, Lemert, and

Mertz's (1969) and McCroskey's (1971, 1973) measures of trustworthiness and credibility, and Wheelless and Grotz's (1976) multidimensional self-disclosure measure.

Participants were randomly assigned to one of 20 trust-disclosure target persons.

Analysis of the data resulted in a reliable 15-item semantic differential-type instrument for measuring trust in other specified individuals. Levels of self-disclosure on a number of dimensions were found to be related to the scores from the new scales, demonstrating predictive validity of the new measure. However, similar reliability and validity were not found for selected scales measuring generalized trust. Also, the two constructs were found to be unrelated. The authors recommended use of individualized trust in future research. Additionally, differences between individuals high and low in individualized trust were found for intention to disclose and amount of disclosure. The authors found that a positive, linear relationship existed between individualized trust and disclosure on all dimensions, but the strength of the relationship was not high (seven percent of shared variance between the two constructs). They suggested that sufficient levels of trust may be a prerequisite to disclosure but not a guarantee of it.

In a final follow-up study, Wheelless (1978) explored the theoretical assertion that varying degrees of disclosure are related to varying degrees in perceptions of trustworthiness. He conceptualized trust and disclosure as attributes of interpersonal solidarity, and looked at solidarity as a viable construct for assessing the affective nature of interpersonal relationships. He hypothesized that perceived solidarity would be higher for individuals when considering relationships with close others than with more distant others. He also anticipated that a linear combination of disclosure variables would be

significantly related to a linear combination of perceived trustworthiness variables, and that these would both be significantly related to interpersonal solidarity.

In his exploration of these hypotheses, Wheelless administered a set of measures as a class assignment to 385 students enrolled in a beginning communication course at West Virginia University. The measures included the 31-item Revised Self-Disclosure Scales (RSDS; Wheelless, 1976), the General Disclosiveness Scales (GDS; Wheelless, Nesser, & McCroskey, 1976), the Individualized Trust Scale (ITS; Wheelless & Grotz, 1975, 1977), Rotter's (1977) Interpersonal Trust Scale, and an expanded version of Wheelless' (1976) interpersonal solidarity measure. Each participant was randomly assigned to one of 18 disclosure targets.

The scale developed by Wheelless to measure perceived interpersonal solidarity showed sufficient reliability and factorial guidelines to treat the measurement as unidimensional. Nevertheless, the construct of solidarity appeared to unite diverse behaviors, feelings and perceptions about interpersonal relationships. The measure was able to distinguish among closer and more distant relationships, and further testing against disclosure and trust provided further validity for the measure. The results also showed that the dimensions of reported self-disclosure were found to be positively related to the perceived trustworthiness of the individual. They were found to be related (23% shared variance) but dissimilar. Both perceived trustworthiness and the dimensions of self-disclosure to another individual were positively related to the perceived interpersonal solidarity of the relationship. However, generalized trust and predisposition to disclose were not found to meaningfully mediate individualized trust and self-disclosure in reference to specific individuals. The results seemed to indicate that generalized

predispositions may not be relevant mediators in dyadic relationships involving specific individuals. Wheelless' study was effective in establishing the connection between the dimensions of individualized self-disclosure, trust and interpersonal solidarity. However, one limitation of his studies includes the fact that all were conducted with students in communication classes attending a small University in one geographic location. This may serve as a potential limitation of the generalizability of his results to other, more diverse, populations. Research confirming his findings with diverse populations may substantially add to our understanding of the relationship between trust and self-disclosure.

Steel (1991) also examined the relationship between self-disclosure and interpersonal trust. Based on observations of trust in the therapy relationship and resulting self-disclosures, Steel hypothesized that trust should be necessary in order for self-disclosure to occur. In her study, 100 college students ranging in age from 18 to 30 years completed a questionnaire that included demographic information, a modified version of Jourard and Lasakow's (1958) self-disclosure questionnaire and Rotter's Interpersonal Trust Scale (1971). Findings suggested that women self-disclosed more often than men, but in general, interpersonal trust and self-disclosure were positively correlated. Steel also found differences between Asian Americans and Caucasians, with Caucasians self-disclosing more often. In addition, people who reported lower levels of trust also reported that they self-disclosed more often to family members than to non-family members. Overall, the results of the study suggested that trust was directly related to self-disclosure. Although the authors did not cite implications for relationship research, the results provided some background for additional exploration into the role of

trust in attachment relationships. Since trust has been established to be an important component of attachment, and related to internal working models (Collins & Read, 1990; Simpson, 1990; Mikulincer, 1998), this research provided a basis for research on the relationship between attachment styles and self-disclosure.

Consistent with this hypothesis, Pistole (1993) investigated the direct relationship between self-disclosure and attachment style. Through the use of self-report measures, Pistole examined differences in trust and self-disclosure associated with different attachment styles. 33 males and 65 females in undergraduate psychology courses filled out questionnaires that included Hazan and Shaver's (1987) attachment scale, Jourard and Lasakow's (1958) Self-Disclosure Questionnaire (SDQ) and the Trust Scale (Rempel, Holmes & Zanna, 1985). The study found that securely attached and anxious/ambivalently attached individuals had higher amounts of self-disclosure than did avoidantly attached individuals. The secure group reported higher dyadic trust and dependability than the avoidant and the anxious/ambivalent groups, and also higher levels of faith than the avoidant group. Both amount and comfort with disclosure were related to secure attachment styles, and the anxious/ambivalent group felt more comfort with disclosure than the avoidant group. It is possible that self-disclosure for anxious/ambivalent individuals may assist with connecting with a partner, and may be motivated by anxiety about losing a partner, whereas avoidantly attached individuals are not as likely to feel comfortable with being vulnerable to a partner who is perceived through working models as non-responsive. No differences were found related to ethnicity.

A number of limitations may have influenced the results that were reported by Pistole. First, there was no counterbalancing of measures, and therefore all respondents completed the questionnaires in the same order. It is possible that fatigue may have consistently affected responses to the later questionnaires, or that the order influenced responses if one measure consistently influenced responses to the measure that followed. In order to reduce this possibility, the author should have provided alternate versions of the questionnaire packet or provided a rationale for the need to place the measures in a particular order. In addition, one of the measures consisted of a single item, which may have been interpreted differently by participants. Finally, the study used only college students from a small commuter college, limiting generalizability to a larger population or a more typical college population. Notwithstanding these limitations, the results of Pistole's study do provide support for the idea that attachment is related to internal working models based on trust and expectancies of others, and that these models have an effect on the ways that people behave with one another in their relationships. Specifically, the results suggest that the degree to which people allow themselves to be vulnerable about themselves to a partner's potential judgment is related to their expectations about how the partner will receive their disclosures.

On the basis of trust being an important component of secure internal working models, Keelan, Dion, and Dion (1998) proposed a self-disclosure explanation for the higher levels of relationship satisfaction seen in those with a secure attachment style. Keelan, Dion, and Dion suggested that secure people self-disclose more to their partners than do insecure people, that greater self-disclosure heightens relationship satisfaction, and that the greater amount of self-disclosure participated in by secure people in part

mediates their greater relationship satisfaction. They tested this theory by using both self-report and behavioral measures of self-disclosure with a sample of 99 introductory psychology students. In the study, participants both filled out attachment measures and recorded four five-minute messages about: (1) a personal disappointment and (2) something they had done that made them proud. They were told that these messages were to be later listened to by their partner or by an unknown stranger of similar demographics to their partner. Order of topics and targets was randomized and participants were asked to choose different disappointments and accomplishments when directing them to two different targets. Ratings of intimacy of self-disclosure as well as comfort, anxiety, hostility, trust and warmth were all rated by judges. Inter-rater reliability was moderate ($r = .30$ to $r = .76$) across the conditions.

Keelan, Dion, and Dion replicated findings that people with secure attachment styles reported higher levels of relationship satisfaction than those with “insecure” (preoccupied, dismissing and fearful) attachment styles. However, when styles were compared individually, there was not a significant difference between the secure and the preoccupied groups. Securely attached people were also more intimate in their self-disclosures, felt more comfortable and revealed more personal facts when speaking for a partner than when disclosing to a stranger. This type of differentiation between partner and stranger did not occur for the insecure attachment styles. A positive relationship between self-disclosure and relationship satisfaction was found, even when the effect of attachment style was partialled out statistically. Partial support was found for the mediational hypothesis, as facilitative disclosure (a combination of reported disclosure to

partner and ability to make others feel comfortable disclosing) and affective quality, but not personal disclosure, were positively related to relationship satisfaction.

To their credit, Keelan, Dion and Dion utilized both behavioral and self-report measures, which served as a significant contribution to a body of literature characterized by largely self-report studies. However, it should be noted that the behavioral phase of the study featured only brief disclosures on a limited set of topics, and that the disclosure targets were not physically present during participant disclosures. These limitations make it difficult to generalize about real-life interactions between individuals in which the disclosure targets are physically present and any range of topics may be discussed. Although the mediational hypothesis of self-disclosure on relationship satisfaction was not entirely supported, the results do suggest that self-disclosure may play some role in the relationship between satisfaction and attachment.

In a study conducted by Hendrick (1981), self-disclosure was found to be positively related to marital satisfaction. In this study, 51 couples completed questionnaires that examined self-disclosure with partner as well as attitude similarity. The study was intended to improve methodology used in previous studies of self-disclosure in marriage, by measuring self-disclosure, marital satisfaction, and attitude similarity in one testing session, and with a broader population. Hendrick found that self-disclosure was a significant predictor of marital satisfaction and that married couples also reported high levels of reciprocity of self-disclosure. However, other studies have found that self-disclosure is not always rewarding (Levinger & Senn, 1967), and therefore the ability to draw a clear conclusion from the results of Hendrick's study are limited by a lack of consideration of the discloser's intentions and content. The present study will consider

the role of internal working models' influence on patterns of self-disclosure, which may serve to advance our present understanding of the complicated role that self-disclosure plays in romantic relationships.

Summary

While researchers have long recognized the importance of communication in relationships, the role of self-disclosure in attachment relationships has received surprisingly little attention. Research has supported the relationship between trust and self-disclosure, and has suggested that trust can be expressed through the act of self-disclosure (Pistole, 1993; Steel, 1991; Wheelless, 1976, 1978; Wheelless & Grotz, 1977). Trust is also an important component of attachment, as the development of internal working models is based on expectations of others' trustworthiness and dependability in times of need. Empirical studies have begun to use this information to explore the role of self-disclosure in attachment relationships, and significant associations between attachment and self-disclosure and also between self-disclosure and relationship satisfaction have been supported (Keelan, Dion, & Dion, 1998; Pistole, 1993). However, the nature of these relationships has not received consistent support, and requires further clarification.

Self-disclosure may represent one behavioral indicator of the adult exploration system because of its close association with variables such as trust and vulnerability, which are central to the development and maintenance of internal working models. Wheelless and Grotz (1976) conducted a series of studies that explored the multidimensional nature of self-disclosure and demonstrated that a positive relationship exists between trust-related constructs and the five basic dimensions of disclosure that

include: 1. intent, 2. amount, 3. valence, 4. honesty, and 5. depth. The attachment dimensions of anxiety and avoidance may be related to the dimensions of self-disclosures such that the amount and type of disclosures that are made in relationships in turn relate to the adjustment of the partners in those relationships.

Playfulness

Playfulness is a spontaneous act that involves vulnerability and trust between partners, and it has also been found to serve relationship functions such as assisting with conflict management and developing intimacy (Baxter, 1992). Since playfulness involves a vulnerability and trust in a partner, and serves many regulatory functions within romantic relationships, it is likely that play may be one way that individuals engage in attachment-related exploration in adulthood. A brief examination of play theory and empirical investigation will inform this perspective and guide our understanding of the role of play in romantic partnerships.

There has been much discussion about the role of play in relationships and multiple definitions of playfulness have been proposed. Betcher (1977) suggested that through play unconscious material may emerge into awareness. The fact that unconscious material may be accessed through play is consistent with the notion that playfulness involves an emotional vulnerability and may be anxiety-provoking. Metz and Lutz (1990) described intimate play as being characterized by "...specialness, privacy, mutual cueing, affect of delight and a distinct absence of negative feelings such as fear, anxiety, depression and guilt. And while play is the 'fun' and often seemingly lighthearted, there is also a depth to the human experience of play that is significant and serious, involving fundamental human needs such as trust, freedom, joy, and acceptance."

In a critical analysis of the phenomenon of playfulness, Sadler (1966) went further to explain that play is a means of expressing interpretations of life and the world. He points out that play begins in childhood and that the regressive experience of play is a realization of genuine human freedom. Freedom, in this case, is not a freedom *from* any thing, but a freedom *for* or *towards*. Based on observations of animal and child play, Sadler suggested that the freedom attained through play requires a sense of security. For human beings, he offers that this security is achieved through a loving and trusting relationship with another and that it is in fact this “we”-ness that is necessary for the trust to occur, as man is naturally fraught with anxiety and confusion about the nature of himself and the world around him. Play validates one’s freedom and trust, and becomes the expression of interpersonal freedom through creation of its own meaningful boundaries and form of communication. Sadler states, “To play with another within the bounds of love is to give another courage to be himself (p. 243).” The spontaneity of play is the result of that freedom that one experiences in the context of a loving and trusting relationship, and can often only occur within the bounds of that relationship. The security experienced in a healthy love relationship is what makes individuals feel safe expressing the sometimes silly or daring things that people do only in front of their partners.

Although these definitions of play suggest an inherent adaptability to playfulness, and a positive relationship between play and interpersonal connection, it is important to also consider that differences in individual defense styles and cultural attitudes toward regressive experience may also affect the frequency and forms of play that are considered to be adaptive (Betcher, 1977). The theory of playfulness and exploration that is being

examined in this paper is based largely on previous research that has been conducted with white, middle-class populations. Betcher pointed out that the importance of play for marital adaptation may be mediated by intelligence levels and socioeconomic status, such that play may have greater influence on marital adaptation in populations of higher intelligence and social class, who engage in relationships for their companionate value. In marriages that are not based on this value, play may not be highly related to the satisfaction of the couple.

A dissertation completed by Betcher (1977) may have been the first study to address the role of intimate play in marital adjustment. In this study Betcher designed a measure that has subsequently been used successfully in the few marital play studies that have been conducted. Betcher hypothesized a relationship between playfulness and marital adaptation based on a psychodynamic and optimal arousal understanding of adult relationships. His theory suggested that central to healthy interpersonal functioning were regression in the presence of another and also the experience of novelty through exploratory behavior. Betcher conceptualized play behaviors as phenomena that incorporated both the regressive and exploratory components that he believed to be central to healthy functioning in relationships.

Betcher's sample consisted of 30 heterosexual couples, ranging in age from 22 to 34 (mean = 26.8), who had been married for between 1 and 9 years (mean = 3.4 years). The study consisted of administration of a questionnaire that included two Play Questionnaires that had been designed and tested for the study, a projective test that involved couples creating stories describing the events in photographs that depicted a couple involved in playful activities, the Dyadic Adjustment Scale (Spanier, 1976),

Crowne and Marlowe's (1960) social desirability scale, and an inventory that was used to assess self-actualization. In addition, each couple engaged in a semi-structured dyadic interview.

Betcher's results revealed that couples who expressed satisfaction with their marriages also indicated that they engaged in frequent spontaneous and unstructured play activity. The couples further expressed that they both valued and enjoyed this play time. Betcher found that those couples who characterized their relationships as having a high degree of creative play, novel stimulation and spontaneity tended to score significantly higher on marital adaptation measures. Similarity in playfulness did seem to have an effect on marital adjustment, as indicated by individual items that assessed the amount of time engaged in play and similarity of humor. Some of the items on the Play Questionnaire II were not correlated with ratings of marital adaptations, and this may have been due to confusion about items on the newly-developed questionnaire. However, it is interesting to note that there was not a significant correlation between the frequency of play and marital satisfaction. It may be that the amount of play may vary for each couple, and that the quality of play when it does occur matters more than the frequency. Interestingly, a pattern was found that showed the association between play and marital satisfaction was less strong for women than for men.

This study contributed significantly to a body of research that had not yet been explored, but the study could have gone further into exploring some additional aspects of the role of play in relationships. The role of play in the couples' relationships, and times that play may be more or less present in their relationships would have been of particular interest, and are questions that will be addressed in the present study. In addition,

Betcher's study was conducted only with a white, middle-class population from one geographic area, and had a relatively small number of participants, creating a need for replication with a greater number and diversity of participants. One major contribution of Betcher's study, however, is the fact that a relationship was established with this population between marital adjustment and playfulness in marital relationships, indicating that there is an important role that play might serve in relationship satisfaction. Furthermore, given that the study was designed based on theory that suggested the role of play as a spontaneous and vulnerable emotional state, the results lend support to the idea that playfulness may involve an emotional exploration with a partner. One area for further exploration would be to discover if playfulness is related to emotional vulnerability, and how that may be related to the security or attachment that each partner experiences with the other.

An attempt to answer some of the questions provoked by Betcher's findings was made by Baxter (1992), who attempted to create a typology of play behaviors. Baxter pointed to the importance of play behaviors in a number of relationship domains including intimacy, conflict, communication, and individual expression. In the first study, Baxter extended the study of playfulness and closeness to same-sex friendships and opposite-sex romantic relationships. The objective of the investigation was to identify the different forms of play in close relationships, in order to go beyond a global understanding. Both interview and questionnaire measures were utilized to determine the amount and types of play that the participants engaged in with their partners. The measures used were a modified version of Betcher's (1977) Play Questionnaire II and the Close Relationships Questionnaire (CRQ; Maxwell, 1985). The results of Study 1

demonstrated a high level of correlation between relationship length and reported playfulness, and relationship length was used as a control variable in examining possible relationships between relationship type, reported playfulness and relationship closeness. Analyses did reveal a positive correlation between playfulness and closeness for both same-sex friendships and opposite-sex romantic relationships, though playfulness did not seem to vary by type of relationship. Additionally, eight different types of play were identified, including private verbal code, role-playing, prosocial physical play, antisocial physical play, games, gossiping, public performances, and verbal teasing.

In Study 2, participants completed a two-part task that involved sorting the types of play into as few or as many stacks as necessary to represent the similarities and dissimilarities between the types. This was followed by a task that involved rating enactments of play types on Likert-type scales representing various features such as: competitive vs. noncompetitive, structured vs. unstructured, third-party target vs. partner target, presence vs. absence of assumed role, etc. The results of participants' sortings supported the structure of Baxter's typology of play forms, with seven of the eight play forms clearly replicated in the cluster analytic work, and the eighth also represented, though with less clarity. Participants also identified attributes that seemed to describe underlying dimensions of the play types. Four underlying functions were perceived by respondents, including: risk management, intimacy indexing, distancing of self, and conflict management. The results also suggested that different types of play may be used in order to accomplish different goals in relationships. For example, private verbal code was found to be a strong indicator of intimacy. The authors distilled from the results that participants seemed to perceive certain forms of play as being more "risky" than others,

that some forms of play are effective at distancing, and other types are intended manage conflict or develop intimacy. The findings of this study are important because they establish that individuals do utilize play in an effort to regulate emotional distance in relationships, revealing the existence of a link between play and emotional vulnerability.

In another study, Metz and Lutz (1990) utilized a much larger sample to explore differences in relationship playfulness between clinical and non-clinical couples. Based on an understanding of traditional sex therapies that incorporate the use of play training, the authors were interested in learning how playfulness might be related to couples' marital and sexual functioning. This study was the first to attempt to assess the importance of playfulness in sexual function.

Participants in the study included thirty-three clinical couples (17 sex therapy (ST) and 16 marital therapy (MT)) and 50 non-clinical "control" couples. Clinical couples averaged 36 years of age, were metropolitan-dwelling, college-educated professionals, and were married on average for 10 years, with one child. The demographics for the control couples were similar, but averaged 40 years in age, were married on average 15 years, and averaged 2.3 children. The measures used were self-report and included the Couples Play Questionnaire (CPQ) (Betcher, 1977), the DAS (Spanier, 1976), two items used to assess conjoint patterns of leisure, and the Edmonds Marital Conventionalization Scale (MCS) (Edmonds, 1967), which was used to measure couples' positive distortions of their relationships.

Metz and Lutz found that the couples did differ on levels of playfulness, and revealed a pattern that the two clinical groups were distinctly less playful than the non-clinical couples. Generally, results found that the sex therapy and the marital therapy

couples were similarly inhibited in their play. In addition, the ST couples differed significantly from the non-clinical couples in the area of play flexibility, while the MT couples differed from the non-clinical couples on the Synchrony scale. The ST couples also scored lower than the MT couples on the marital adjustment measure, although the ST couples also scored higher on the conventionalization scale, indicating that the ST couples had more positive cognitive expectancies of their relationships. The fact that the ST couples scored higher on conventionalization also suggests a restriction of cognitive flexibility or reserve that may be reflected in the lower levels of playfulness observed in that group. This finding is particularly interesting in light of Bowlby's (1979) theory that individuals with insecure attachment styles may be less able to incorporate new relational information into their internal working models, thus resulting in less adaptive and less secure relationships with others in adulthood. Of course, generalization of these results to same-sex couples, minorities or low SES populations must be reserved, since the sample was so homogeneous. However, these results suggest that there does seem to be a relationship between openness and playfulness, as well as playfulness and relationship adjustment. The directionality of these relationships has not been determined, but Metz and Lutz's work does seem to support the notion that playfulness is associated with both positive relationship adjustment and that a lack of playfulness may be associated with a cognitive restrictiveness.

Following from Metz and Lutz' research on play in clinical populations, including couples in sex therapy, it is worth discussing that one type of play that is often specific to adult marital relationships is sexual play. Therefore, it might be tempting to consider the role of that sex play as an indicator of attachment style. Sex play also involves taking

emotional risks with a partner. While some studies have addressed the relationship between attachment style and sexual behaviors (Bogaert & Sadava, 2002; Stephan & Bachman, 1999), the results of studies attempting to clarify the relationship between these two types of behavior have been inconclusive. It is difficult to determine the motivations for sex play given that there are both adaptive and maladaptive reasons for engaging in “riskier” sexual behaviors with a partner, and these risks may be physical as well as, or instead of, emotional. Individuals in secure attachment relationships might engage in emotionally risky sex behaviors that might look similar to the kinds of behaviors that individuals in insecure attachment relationships might engage in, but for different reasons. The same kinds of sex play that a securely attached couple might engage in for the purposes of exploring new aspects of the relationship, or testing out private fantasies in a safe environment might also be engaged in by an insecurely attached couple for reasons such as “holding on” to a partner, punishing oneself or gaining control over a partner. Sadler (1966) also addressed the concern that at times, love-play may look like attempts at seduction. He differentiates the two by stating that attempts at seduction are efforts to possess another, which would rob the other of the freedom that is characteristic of the kind of playfulness that is engaged in based on secure attachments to partners. If true, this distinction between intents would be difficult to make. Due to the difficulty of differentiating between types of risky sexual behaviors and the reasons for them, the present study will not explore this aspect of relationship play as an indicator of the exploration system in adulthood.

In a recent study, Aune and Wong (2002) extended playfulness research beyond establishing a connection between play and relationship satisfaction by also exploring a

possible reason for the connection between the two and suggesting correlates of playfulness. Aune and Wong proposed a path model that identified higher levels of self-esteem and humor orientation as direct contributors to playfulness. They further suggested that playfulness leads to positive emotion which in turn affects relationship satisfaction. Contrary to Baxter's (1992) work, Aune and Wong argued that since the perception of the play behaviors are more important than the behaviors themselves, a global assessment of playfulness in relationships, as opposed to the specific identification of play behaviors, would be most useful for understanding the role of play in satisfaction. Using a self-report questionnaire method of data collection and a path analysis of the data, Aune and Wong found that the data fit the model that they had proposed. However, though the model as proposed was supported, additional explanations may also fit the data, as many of the variables were also correlated with one another. For example, their findings do not rule out the possibility that positive emotion also affects playfulness or that playfulness also has a reciprocal effect on self-esteem. In addition, while it is important to understand the potential reasons for a relationship between playfulness and relationship satisfaction, the findings do not provide a comprehensive explanation for this relationship nor do they eliminate the possibility of a direct relationship between playfulness and relationship satisfaction. In fact, Aune and Wong found a direct correlation between the two variables that was significant at the .01 level ($r = .55$).

Further supporting a direct relationship between playfulness and relationship satisfaction, Breuss and Pearson (1993) looked at the relationship between a type of play, idiom use, and marital satisfaction over the life cycle. They based their research on Betcher's (1987) description of "idiosyncratic communication" as a playful

communication between two partners that may lead to increased intimacy. Over the period of a few days, couples identified and explained the verbal or nonverbal personal idioms that they used in their relationship. 154 couples participated and were divided into four life-stage cycles: young couples (newlywed couples to five years of marriage, no children), childbearing couples (expecting a child or had children 1 to 5 years old), mid-life couples (children in school and still living at home), and empty nest/retirement couples (children left the home). Statistical analyses revealed an overall pattern of positive correlation between marital satisfaction of both husbands and wives to the number of recalled idioms. The results, though limited by the small sample in each of the categories, did seem to also suggest that personal idioms may be related to satisfaction across most life stages, with the exception of the empty nest/retirement stage. Although variations occurred between the groups related to the type of idiom used (partner nicknames, sexual invitations, confrontations, teasing insults, etc.), results indicated that in sum, it seemed that young couples reported an especially high number of idioms. The authors of the study suggested that idiom use may have a unique function in the developing stages of a relationship. Although idioms seem to be less salient to couples over time, they still may serve important functions in relationships. Bruess and Pearson's study needs to be replicated with a larger sample size in order to establish greater certainty about their findings, but their exploration of multiple life stages is a unique contribution to the literature. The association found between satisfaction and idiom use, an important aspect of playfulness, over multiple periods in the life cycle provides compelling reason to continue this line of research.

In a study exploring the behavioral correlates of attachment style in couples, Tucker and Anders (1998) utilized an experiential method of investigating nonverbal patterns of interaction between dating partners. Since play can be both verbal and non-verbal, Tucker and Anders' study is helpful in isolating the non-verbal aspect of interpersonal relationship behavior that may be closely tied to early infant non-verbal attachment behaviors. Building upon observations of differences in nonverbal responses among infants with different attachment styles (Ainsworth, et al., 1978), the authors explored nonverbal displays of closeness between adult romantic partners. Participants were 61 heterosexual dating couples who had been dating for at least one month, ranging in age from 17-27 years.

Each partner separately completed a battery of questionnaires that included Simpson's (1990) 13-item attachment questionnaire based on Hazan and Shaver's (1987) original single-item measure, and eight questions about their relationship containing positive, negative, or neutral content. Partners were then reunited and asked to share and discuss their answers to the eight questions. During this time, participants were videotaped and their behaviors rated for attachment style, closeness, and enjoyment. Overall reliability of the measures appeared adequate.

Results showed that securely attached individuals laughed more often, touched their partners, gazed, and smiled more than insecurely attached individuals when interacting with their partners. They also appeared to enjoy the conversations more, be more nonverbally expressive and exhibit less tenseness than avoidant persons. Preoccupied individuals were less likely to touch their partners and less likely to smile during the interaction. They were judged to be less nonverbally expressive and also to

enjoy their conversations less. Avoidant individuals were not as likely as secure or preoccupied individuals to touch their partners, gazed less, smiled less, and were judged by raters to enjoy their conversations less and be less nonverbally expressive. There were no differences between attachment styles on openness of posture or orientation toward partner or in self-reported love for partner. When considered as dyads, raters perceived securely attached pairs as more “in love” and to enjoy their conversation more than couples in which at least one of the partners was insecurely attached. There were no differences between dyad types on tenseness ratings.

This study provides an important link between the infant attachment literature and the adult attachment literature by exploring nonverbal interactions, which serve as an important variable in partner interactions and which have served as the basis for identification of infant attachment styles in some of the initial and most important work in the area of attachment. A particular strength of this study is that given a lack of comprehensive self-report measures of adult attachment, the authors developed an alternate means of identifying attachment styles in adults. This measure could be substantiated by objective raters and utilized in combination with self-report measures to determine a more accurate description of individuals’ attachment styles. Verbal expressions as well as nonverbal behaviors combine to become a part of each couples’ communication pattern and may both result from and contribute to partners’ working models of themselves and the other in the relationship. To the extent that nonverbal behavior plays a role in a couple’s communication, it may also contribute to feelings of satisfaction or intimacy within the relationship.

Unfortunately, no information about racial or ethnic background of participants was provided in this study, thereby limiting the generalizability of this work to different populations. In addition, the authors failed to counterbalance the order of discussion of the eight questions, with positive questions always preceding negative questions, resulting in a potential order effect. In this order, partners overall may have been more receptive to their partners, which may have been indicated in some way by their nonverbal behaviors. The authors also failed to counterbalance the order of the discussions and the questionnaires, with questionnaire completion occurring before discussion for each dyad. Although the authors address this problem by making the argument that a pilot study revealed participants to be less open and responsive during their interactions when discussions occurred first and by suggesting that separation from the partners would elicit more attachment behaviors (similar to the Strange Situation in infant attachment), it remains a concern that order effects may have contributed to the findings. In addition, nonverbal behaviors were measured using only behavioral observations. Alternate methods of measuring nonverbal behaviors could also have been utilized, including physiological measurement or self-report. The presence of a monomethod bias requires that caution be used when interpreting the results of these analyses because of the possibility of shared method variance. Finally, it remains a possibility that participants were affected by the laboratory situation, such that particular attachment styles may have been more limited in their nonverbal expression than others. This suggests that perhaps a questionnaire format, while having its own inherent limitation, may be the best way to assess the kind of private play or nonverbal behaviors expressed by couples. It is extraordinarily difficult to accurately observe the ways that

couples interact in private while placing them in the context of observation by a third party. Insecure attachment styles in particular, given their concerns about trusting others, may be more concerned than secure participants about being expressive and intimate with their partner in the presence of others and while aware of being videotaped. Observation of the couples in a more naturalistic setting might have allowed for collection of data that could be considered more reliably accurate. Despite these limitations, this study provided an important first step in developing a new way to assess attachment styles. Also, the authors expanded adult attachment theory to include relationship outcomes in the behavioral domain, an area with potentially important implications for relationship success and interpersonal dynamics.

Summary

Playfulness may be an important indicator of emotional exploration in relationships. Researchers have long recognized the adaptive importance of exploration, and the role of play in exploration among youth populations. However, the research that examines play in adult relationships is scarce. Nonetheless, the research that has been done suggests a clear reason to believe that playfulness is utilized in adult romantic relationships to manage emotional closeness (Baxter, 1992) and is related to feelings of vulnerability, self-esteem, and an openness to communication (Aune & Wong, 2002; Baxter, 1992; Bruess & Pearson, 1993). Furthermore, a lack of playfulness may be related to a restriction of cognitive flexibility (Metz & Lutz, 1990), suggesting that individuals with insecure attachment styles may be less able to incorporate new relational information into their internal working models, resulting in less adaptive and less secure relationships with others in adulthood. Non-verbal behaviors between partners have also

been found to be related to adult attachment styles (Tucker & Anders, 1998), suggesting that partner behaviors aimed at emotional regulation, such as play, may also be connected to attachment styles. The influence of playfulness on relationships has also been identified in multiple studies, (Aune & Wong, 2002; Betcher, 1977; Bruess & Pearson, 1993; Metz & Lutz, 1990) though only one study to date has attempted to address the reason for this relationship (Aune & Wong, 2002). Playfulness is a relatively new area of empirical study, and though research has begun in this area, we still do not understand the ways in which playfulness works to effect emotional regulation and adjustment in romantic relationships.

Relationship Adjustment

Understanding the role of exploration in adult attachment relationships is important so that we may begin to understand more about the role of attachment in contributing to relationship adjustment. The adjustment of couples in romantic relationships has been shown to be of significant consequence to both physical and mental well-being, as well as to function in social, sexual and work domains (Burns, Sayers, & Moras, 1994; Creasey, 2002). A brief review of the literature in the area of relationship adjustment and satisfaction reveals that attachment does seem to play an important role in maintaining positive relationships. Although many of the following studies use slightly different outcome variables (e.g. marital quality, marital satisfaction, marital adjustment), taken together, patterns of support for attachment-related outcomes in relationships suggest a reason to look further into attachment dynamics. A review of this literature is also helpful in identifying some of the ways that attachment dynamics have yet to be explored in adult partnerships.

In one of the first studies examining the role of adult attachment in romantic relationships, Kobak and Hazan (1991) investigated the role of working models in marital functioning. The study's major objective was to investigate accommodation processes in marital relationships in an effort to more fully understand the relationship between attachment and marital adjustment. Participants were recruited through newspaper and radio advertisements and included 40 married couples ranging in age from 24 to 46 years, with an average relationship duration of 7 years. Racial composition of the group consisted of exclusively white couples, with the exception of one black dyad.

Couples participated in two separate laboratory sessions, approximately one week apart. In the first, couples completed a Q-sort (Kobak, 1989) including 84 items that described attachment security and marital functioning. This measure was intended to encourage thoughtful discrimination on items related to interpersonal functioning, personality and the attachment dimensions of reliance on partner and psychological availability. Couples then participated in a problem-solving task in which they worked together to solve a current area of disagreement in their relationship. The purpose of this task was to assess the ability of the couple to coordinate and accommodate conflicting goals. The problem-solving task was followed by a short break and a confiding task, in which partners took turns listening to each other's feelings of disappointment or loss unrelated to the relationship. The confiding task was intended to assess partners' ability to rely on each other for comfort and support. During the second visit, couples completed a second Q-sort and a battery of questionnaires including Hazan and Shaver's (1987) single-item assessment of attachment style and Spanier's (1976) Dyadic Adjustment Scale. Reliability appeared adequate on all measures.

Analyses revealed that husbands' attachment security covaried with wives' dysfunctional emotional regulation in the problem-solving task, while wives' attachment security covaried with husbands' ability to listen effectively during a confiding task. Attachment security, ability to rely on partner, and perceptions of partner's psychological availability were related to ratings of marital adjustment for both husbands and wives. Agreement between the working models of husbands and wives was associated with effective communication in both the problem-solving task and the confiding task, even when marital adjustment was controlled for, supporting Bowlby's (1988) suggestion that the accuracy of IWMs is related to effective communication. Bowlby's second assertion that the accuracy of IWMs should be related to relationship adjustment was also supported, even while controlling for the effects of positive communication. These findings suggest that the process of accommodating current relationships into IWMs may contribute to a positive feedback loop that promotes relationship adjustment.

The hypothesized relationship between working models and functional emotional regulation received modest support. The wives in this sample who described themselves as relying less on their husbands and who described their husbands as less psychologically available exhibited a higher degree of rejecting behavior in problem-solving tasks. Likewise, husbands who described their wives as more psychologically available were more supportive and less rejecting during problem-solving tasks. The authors proposed that based on the data, insecurely attached individuals may contribute to the escalation of negative affect cycles by engaging in more rejecting behaviors.

One of the limitations of this study was that the confiding task always followed the problem-solving task, even though the changing of roles in the confiding task was

counterbalanced. There may have been order effects resulting from the confiding task following problem-solving. For instance, if the couple was unable to resolve a current problem in their relationship during their first task, one or the other partner may not be as willing to be a good listener in the confiding task, in spite of the fact that only issues unrelated to the marriage were included in this task. An additional concern about Kobak and Hazan's study involves a lack of clarity about the demographic qualities of the population studied. The geographic location in particular is not specified, calling into question issues of generalizability of the results. Furthermore, the study is limited by problems related to measurement issues. Kobak and Hazan utilized a single-item measure of attachment that identified only three primary adult attachment styles. This measure has been critiqued considerably in the current literature for reasons including the inadequacy of a three-item measure for assessing the complexity of attachment relationships and the difficulty for participants in completing a forced choice measure in which each item consists of multiple characteristics. In addition, recent developments in the area of adult attachment suggest that a two-dimensional structure, emphasizing the role of anxiety and avoidance in attachment and resulting in four attachment types, is a more valid method of assessing attachment than the typological approach (Fraley & Shaver, 2000; Fraley & Waller, 1998). Specifically, it has been stated that the three-category model fails to distinguish between dismissively and fearfully avoidant individuals and does not accurately reflect the structure of attachment orientation, whereas a two-dimensional scheme captures most of the meaningful variance in individual differences in orientations to romantic attachment (Fraley & Shaver, 2000). Another measurement issue is the limited ability to assess accuracy of IWMs by using

spousal reports, as opposed to some other, objective measurement, such as third-party raters.

Replication of the study over time would provide information about the development of attachment relationships and could substantiate or disprove the theory that couples move toward greater levels of attachment security. It remains to be determined whether these couples simply chose partners with similar IWMs, resulting in a better outcome, or if partners mutually grew over time toward agreement about IWMs, with the growth being associated with better outcomes and increased marital adjustment. A longitudinal exploration would help to eliminate alternate explanations for the findings.

In another study, Senchak and Leonard (1992) explored the relationship between attachment styles and marital adjustment among newlywed couples. Specifically, the authors examined the nature of attachment pairings and the effects of these pairings on marital intimacy, evaluations of partner functioning, and conflict resolution behaviors. Participants included 322 heterosexual couples already participating in a longitudinal study of alcohol use and marital functioning. 75% of the couples were white, and the average age was 24.18 years for wives and 23.35 years for husbands. The participants completed a battery of questionnaires including Hazan and Shaver's (1987) single-item attachment questionnaire, the Miller Social Intimacy Scale (MSIS; Miller & Lefcourt, 1982), the Family Assessment Measure (FAM; Skinner, Steinhauer, & Santa-Barbara, 1983) and the Margolin Conflict Inventory (MCI; Margolin, 1980). Overall, reliability appeared adequate with the exception of the problem-solving subscale of the MCI.

The authors examined the attachment pairings of the couples in the study and found that a non-random selection appeared to be present such that a significantly higher

number of insecure than secure husbands and wives were paired with insecure partners. Couples were compared on the basis of the four types that emerged: 1) Both secure, 2) Husband secure/ Wife insecure, 3) Husband insecure/ Wife secure, and 4) Both insecure. Husbands and wives in secure relationships reported significantly higher levels of intimacy and partner functioning than either of the mixed types. Although secure husbands and wives reported higher levels of intimacy than insecure couples, this finding did not reach statistical significance, an outcome that the authors suggested may be linked to the small number of insecure couples. Another significant finding was that secure couples reported less frequent withdrawal and verbal aggression than insecure or mixed couples. Additionally, couples in which the husband identified an ambivalent attachment style had shorter premarital relationships than couples in which the husband was secure or avoidant. It may be that the anxiety and preoccupation with relationships that is characteristic of ambivalent types may contribute to a more rapid transition to marriage. Interestingly, the proportion of securely attached couples was much higher in this sample than in other samples in previous and subsequent literature, though there were no other differences in demographics. The newlywed status of these couples may have contributed to self-perceptions of security, or secure people may be more likely to marry. Exploration of this data over time may be helpful in identifying some of the reasons for this finding. No associations were found for the MCI subscales.

This study contributes significantly to the romantic relationship adult attachment literature by providing additional information about the natural pairings of individuals with different attachment styles. In addition, the study provides important evidence that the nature of attachment pairings may be important for understanding the marital

adjustment of couples. Counseling psychologists may find this information useful in working with individuals or couples by looking to the match between models of self and others that are acting in each partner. In addition, compensatory behaviors for particular IWMs, such as withdrawal or verbal aggression, designed to serve a protective function, may be pointed out and explored in the context of self and partner expectations and the ensuing effects on the relationship.

One of the problems with the methodology of this study concerns the exclusive use of self-report questionnaires. The validity of the information gathered may have been strengthened by utilizing alternate methods of data collection. For example, withdrawal and verbal aggression in the relationship lend themselves to behavioral observation by third parties and could have provided a more objective measure of these variables. This study also utilized Hazan and Shaver's (1987) single-item measure of adult attachment, which has been criticized for its reliance on a typological measurement of attachment. An alternate method of measurement may have allowed for a fuller examination of the content of participants' IWMs. The small sample of insecure participants resulted in a process of combining insecure styles in order to analyze the pairings. The meaningfulness of the study would be improved if the two types of insecure attachment were separated. Finally, the cross-sectional nature of the study introduced some important limitations to the applicability of these results to our knowledge about relationship processes. Participants in this study were newlywed couples. A crucial question about attachment orientation in relationships is that of how attachments and attachment pairings play out over time. Is there an accommodation process that naturally occurs, altering the initial attachment dynamics, or do these dynamics remain relatively

stable within relationships? Expanding the study to look at patterns over time might assist psychologists in understanding the role of therapeutic intervention for newlywed couples.

In another study, Volling, Notaro, and Larsen (1998) examined adult attachment pairings and marital quality among couples with young children. This study also explored the effects of attachment pairings on parenting experiences and practices, but these procedures and results are not described in the present review. Participants were 62 married couples with young children. Husbands were 35.5 years of age and wives were 33.2 years of age, on average. Couples had an average of 2.3 children and the sample was predominantly white (90%). Participants separately completed questionnaire packets at two separate times in the home setting. The measures used included the single-item attachment measure designed by Hazan and Shaver (1987), the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mach, & Erbaugh, 1961), Rosenberg's (1979) self-esteem scale, the Social Provisions Scale (SPS; Cutrona & Russell, 1987), Braiker and Kelley's (1979) marital quality scale, and a single item to assess marital satisfaction. Overall reliability of the measures appeared to be adequate.

Couples were divided on the basis of attachment styles into the following categories: 1) dual-secure, 2) husband secure/wife avoidant, 3) wife secure/husband avoidant, and 4) dual-insecure. Only four couples were classified as dual-insecure, indicating that these couples either did not often form or have relationships that are shorter in length than other combinations. Wives, in general, reported higher levels of depression, and avoidant husbands married to secure wives reported more depression than secure husbands, regardless of the attachment style of the secure husbands' wives.

No differences were found between groups on levels of overall self-esteem, contrary to other studies that have examined self-esteem on the level of the individual and found reliable differences in self-esteem based on attachment style (e.g. Bartholomew & Horowitz, 1991; Collins & Read, 1990). It may be that self-esteem is best measured on the level of the individual, rather than the couple. With regard to relationship functioning, dual-secure couples reported more interaction with social networks, more love for their partners and less ambivalence about their marital relationships than dual-insecure couples. No differences, however, were found between the groups on marital satisfaction or marital conflict.

Volling, Notaro, and Larsen's study builds on previous research by utilizing an older population, thereby extending generalizability to relationships in alternate developmental stages. However, their small within-group sample size requires that caution be observed when interpreting and applying the results of this study. The sample utilized in this study also consisted of relatively well-functioning couples, limiting the generalizability of the results to less well-functioning couples. The use of mostly white participants necessitates a replication of this study with families of alternate compositions (e.g. families of color, families of lower socioeconomic status, single-parent families). The cross-sectional nature of this study limits any ability to draw causal inferences from the data found, and is limited to describing the couples at one developmental period in their relationships. It would be useful information to observe these couples over time in order to observe the way that attachment styles are related to ongoing relationship processes and emotional outcomes. A mono-method bias was observed in the measurement of all variables, including relationship quality, emotional well-being and

working models of self and others. Alternately, the research would have benefited from incorporating behavioral or physiological measures of some of these variables, such as attachment or affect regulation. A final point with regard to measurement is the questionable nature of a single item to assess a construct as complex as relationship satisfaction. Not only can this single item be interpreted differently by every individual, but individuals may endorse multiple arenas of satisfaction within a relationship differently (e.g. sexual satisfaction, emotional satisfaction, satisfaction with activities, etc.). A more thorough assessment of this aspect of relationship functioning may have provided important insights into the specific areas of relationship functioning that are affected by attachment pairings, an area that could spur further research in attachment as well as provide useful information for practicing psychologists.

In another study, Gallo and Smith (2001) introduced a new method of exploring the effects of adult attachment style on romantic relationships. Their study focused on cognitive variables as links to explain the association between attachment style and marital functioning. Given the cognitive-affective nature of IWMs that are developed on the basis of earlier experience, the authors considered the plausibility that a cognitive process was responsible for the effects of attachment style on relationship functioning through influencing appraisals and attributions of partner behaviors. Participants included 57 married couples at the University of Utah, averaging 25.4 years of age. The majority of participants were white (83%) and the remainder were Hispanic or Asian American. The first part of the study required couples to complete a series of questionnaires while separated by a partition. The questionnaires included the Adult Attachment Scale (AAS; Collins & Read, 1990), the Relationship Attribution Measure

(Fincham & Bradbury, 1992), the Quality of Relationships Inventory (Pierce, Sarason, & Sarason, 1991), and an abbreviated version of the Interpersonal Adjective Scales (IAS-R; Wiggins, Trapnell, & Phillips, 1988). Reliability of the measures appeared to be adequate, with the exception of the AAS for male participants. In the second part of the study, couples participated in interaction tasks of either agency or communication, factors thought to underlie social situations and motives. Couples were assigned to debate the same or opposite sides of a current event topic (communication) introduced to them by audiotape in either a high- or low-evaluative (agency) setting.

Results of multiple regression analyses indicated that attachment was predictive of marital functioning both within and between spouses. Anxious attachment seemed to be a stronger predictor of marital functioning than avoidant attachment overall. Furthermore, anxious attachment was associated more with perceptions of conflict and support while avoidant attachment was associated more with perceptions of support only and did not affect marital adjustment. Consistent with the findings of Volling, Notaro, & Larsen (1998), the nature of attachment pairings was found to account for a significant amount of variance in marital functioning such that couples with dual-secure attachments seem to function better than couples in which one or both members were insecurely attached. Interestingly, though, results also indicated that at least in part, the tendency to make negative attributions for spousal behaviors mediated the effects of attachment style on marital functioning. In fact, although avoidant attachment was less predictive of marital functioning overall, husbands' ability to form negative attributions about their partners' behavior acted as a mediator between their attachment style and support descriptions. While wives' attachment style did not seem to be related to their own

negative attributions, wives' adjustment was affected by their husbands' tendency to form negative attributions, suggesting that cognitive variables play an important role in the relationship between attachment and marital functioning on multiple levels. Since the completeness of cognitive mediation varied across attachment effects, the authors concluded that while cognitive variables do play some role in the effects of attachment, other mediating variables are also likely to exist.

In the second part of the study, attachment style interacted with agency and communication stressors to affect interpersonal appraisals during a discussion task. In disagreement tasks, results indicated that anxiously attached wives perceived their husbands to be more hostile, and the husbands of anxiously attached wives perceived their wives to be less dominant. In addition, more avoidant husbands both perceived less friendliness in their wives and were perceived by their wives as being less friendly. In the agreement condition, however, more avoidant husbands were perceived as friendlier than their less avoidant counterparts. Under evaluative threat, anxiously attached husbands perceived more friendly behavior from their wives than in low evaluative threat. Consistent with findings in the first part of the study, wives' avoidant attachment did not affect their appraisals of their husbands. Notable in these results is that many sex-related differences were present, possibly reflecting differences in traditional sex roles, a factor that was not examined.

Gallo and Smith's study expanded previous literature by looking at distinct dimensions of marital functioning (support and conflict). In addition, a strength of the work was their use of the AAS, a measure that captures the dimensions of anxiety and avoidance in attachment. Unfortunately, problems were found with the measure and the

authors altered the scale for male participants by deleting three items with low item-total correlations. As a result, Cronbach's alpha for the measured was improved from .45 to .68. In doing this, however, the authors utilized slightly different measures of attachment for males and females in the study - an important factor to note given the number of differences found in the analyses between men and women. Additionally, the results for the first part of the study relied exclusively on self-report measures, potentially contributing to common method variance that may have affected the results, in spite of the fact that the results were generally consistent with the authors' expectations. Generalizability of the results can also be brought into question on the basis of the controlled nature of the interpersonal interactions observed in the second part of the study, as well as on the basis of the youthfulness of the married sample obtained. The results of these studies cannot necessarily be applied to couples of dating status or at other developmental stages of marriage (e.g. with children, in retirement). A final critique of the study concerns a lack of certainty that the results obtained in support of cognitive mediators between attachment and relationship functioning fully account for alternate hypotheses. For example, it remains unclear whether the relationship between attachment and interpersonal appraisals is due to cognitive or behavioral factors. Furthermore, it also remains unclear whether partner attributions were the result of attachment styles when communication may be an equally plausible explanation. Communication, which may be affected by attachment style, may be a more direct influence on partner appraisals, an explanation that was pointed out but not accounted for by the authors.

In a final study, Scott and Cordova (2002) examined the hypothesis that attachment styles serve as a moderator between marital adjustment and depressive symptoms. The association between negative marital functioning and depression has been well-established in the literature on romantic relationship functioning (e.g. Beach, Arias, & O’Leary, 1985; Markman, Duncan, Storaasli, & Howes, 1987; O’Leary, Christian, & Mendell, 1994; Weissman, 1987). The sample was comprised of 91 married couples of primarily white racial status (95%). Husbands’ average age was 40.9 years, and wives average age was 38.7. Couples’ participation consisted of completing a questionnaire that consisted of an altered version of Hazan and Shaver’s (1987) forced choice measure of attachment (each of the three styles was rated on a Likert-type scale), the Dyadic Adjustment Scale (Spanier, 1976), and the Beck Depression Inventory (Beck & Steer, 1993).

No significant gender differences were found on any of the variables explored in this study. Consistent with previous literature, Scott and Cordova found a positive relationship between level of attachment security and marital adjustment overall. Marital adjustment and depressive symptoms were also positively related, but only for those individuals low in secure attachment. For both husbands and wives with more secure attachment styles, there was no association between marital adjustment and depression. A hierarchical multiple regression further revealed that for both husbands and wives, attachment style moderated the association between marital adjustment and depressive symptoms. These data suggest that attachment style may be an important factor in understanding the relationship between marital adjustment and depression. Specifically, attachment security may predispose some individuals to develop depressive symptoms in

the context of marital dysfunction. The authors make the suggestion that secure individuals are more likely to maintain positive views of self or others or are better able to develop additional areas of self-efficacy outside of their romantic relationships. Another theme that emerged from the data was that only for those rating themselves high on anxious-ambivalent attachment did marital adjustment maintain a negative relationship with depression. This relationship was not maintained among those who rated themselves low with regard to anxious-ambivalent attachment. No differences in depression were found between participants who rated themselves as high or low on avoidant attachment. For avoidantly attached individuals, the distanced stance they may take with their partners may prevent a significant impact of marital dysfunction on emotional outcomes. However, this stance may serve to decrease successful marital functioning overall, as findings revealed that avoidantly attached individuals overall rated their feelings of depression as higher than either anxious-ambivalent or secure types, regardless of level of marital adjustment.

Contributions of this study include the fact that the sample is representative of a range of ages (19-78 years) and relationship length ($M = 11.4$ years, $SD = 10.8$). Previous studies have been mostly limited to very young couples in relatively short relationships. Additionally, the authors linked two relatively robust findings from the literature on romantic relationships together and proposed an affiliation that may be of great importance clinically. Understanding the role of attachment orientation in the connection between relationship function and depressive symptoms may provide clinicians with critical information about clients' susceptibility to depressive symptoms when faced with relationship difficulties. Given counseling psychologists' traditional

emphasis on prevention (Gelso & Fretz, 1992), this information may be of particular use for providing an important point of intervention.

One of the limitations of this study, however, includes the fact that the researchers relied exclusively on a self-report questionnaire method of collecting data. Shared method variance, therefore, may have affected the data obtained as well as decreasing the certainty with which the constructs measured can be relied upon as accurate assessments. Additionally, the cross-sectional nature of the study limits the ability of the authors to draw any causal inferences about the relationships observed in the study. Understanding more about the relationship between marital dysfunction and depression over time would be highly useful clinically, particularly if one considers prior research that suggests the presence of an accommodation process by which couples' attachment styles are influenced by one another over time in the direction of greater security. It remains a possibility that the relationship between marital dysfunction and depression might be self-correcting, if it is mediated by an attachment relationship that is moving toward greater security. Alternately, it might be important to determine if treatment for depression might facilitate the accommodation process, thereby resulting in more positive relationship functioning. A relationship between depression and IWMs makes theoretical sense, since depression can have a significant effect on perceptions of self and others. Further research is needed that addresses these issues and also includes samples experiencing a wider range of symptoms, given the small variance for secure participants with depressive symptoms in this study. Finally, the diversity of the sample was limited in terms of racial composition, which consisted primarily of white participants. Therefore, these results may not be generalizable to older couples or other ethnic groups.

The cross-sectional association between attachment styles and relationship characteristics is one of the best-documented findings of attachment research. Studies using individuals and couples have shown that an individual's experience of relationships is related to attachment styles in theoretically consistent ways (Kirkpatrick & Davis, 1994). Individuals with more secure attachment styles have consistently reported better adjustment in their relationships, while individuals with avoidant and anxious attachment styles report less positive adjustment and feelings of satisfaction (Gallo & Smith, 2001; Scott & Cordova, 2002; Senchak & Leonard, 1992; Volling, Notaro, & Larsen, 1998). Further, it has been shown that one's partner's attachment style has additional influence on relationship appraisals (Gallo & Smith, 2001; Kobak & Hazan, 1991). In a review of adult attachment theory, Fraley and Shaver (2000) suggested that growth in the field of adult attachment may involve testing some of the more recently constructed developmental and cognitive models that account for the flexibility that people exhibit in interacting with others and the moderate degree of attachment continuity that is present over the life span. Hazan and Shaver's (1987) suggestion that the attachment, caregiving, and sexual behavioral systems move together over time in adulthood also deserves further empirical clarification. However, there are few, if any, systematic, long-term programs of research on these issues.

Attachment-related aspects of ongoing relationships are difficult to study due to challenges in measuring attachment styles as well as manipulating variables that might contribute to different attachment orientations. Understanding the formation and flexibility of adult attachment experiences over time and across relationships requires a close analysis of relational dynamics over time. Clearly, it is not ethically advisable to

manipulate the attachment formations of individuals in order to observe such processes in cross-sectional research. In the absence of ethically sound experimental designs, longitudinal evidence offers the best opportunity for achieving the type of rigor that would allow researchers to make predictions about the effects of attachment orientation on relationship dynamics and outcomes (Roisman, Madsen, Hennighausen, Sroufe, & Collins, 2001).

Longitudinal studies are particularly well-suited to provide information about the development and maintenance of relationships over time, an important area of knowledge from which clinicians can draw when working with individuals, couples or families. In spite of the usefulness of longitudinal research for studying adult attachment processes, there seem to be relatively few of these types of studies. One possible reason for the lack of longitudinal work in this area may be the fact that such studies are typically more difficult and expensive to conduct. One difficulty with longitudinal research is often the difficulty of re-establishing contact with study participants; another is the large number of participants that would be required to compare groups of couples with different attachment pairings over time. Notwithstanding these difficulties, a small number of studies have been conducted which make use of this research methodology. These studies are reviewed below.

One of the first longitudinal studies that addressed the issue of adult attachment in romantic relationships was conducted by Simpson (1990) and focused on the nature of relationships and emotions in relationships based on attachment style. In this important study, Simpson sought to identify differences in the types of relationships established by individuals of different attachment orientations, explore differences in the emotional tone

of these relationships, and examine the responses of people with different attachment styles to relationship dissolution. Study participants included 144 dating couples, averaging 19.4 years of age for men and 18.7 years for women. No information about racial or ethnic background of the participants was given. Each participant completed a questionnaire that included a modified version of the Hazan and Shaver (1987) categorical measure of attachment, Rubin's Love Scale (Rubin, 1970), the Dependency Scale (Fei & Berscheid, 1977), the Self-Disclosure Scale (Miller, Berg, & Archer, 1983), the Commitment Scale (Lund, 1985), the Investment Scale (Rusbult, 1980), the Trust Scale (Rempel, Holmes, & Zanna, 1985), the Insecurity Scale (Fei & Berscheid, 1977), a satisfaction measure (Simpson, 1987) and a frequency of emotion index. With the exception of the attachment measure, the reliability for all measures appeared adequate. Six months following their completion of the questionnaire, participants were contacted and asked about the current status of the relationship they reported on previously. If the couple was no longer dating, the participants were given a telephone survey that assessed the intensity and duration of their emotion post-dissolution.

Results indicated that individuals who rated themselves higher in security also were involved in relationships characterized by greater interdependence (assessed by using the love, dependency, and self-disclosure scales), greater commitment (assessed by using the commitment and investment scales), greater trust (assessed by using the trust and insecurity scales) and greater satisfaction. Individuals who rated themselves higher in avoidance also reported less presence of interdependence, commitment, trust, and satisfaction in their relationships. Men who rated themselves higher on anxious attachment also reported being in relationships characterized by less trust and less

satisfaction, whereas women who rated themselves higher on anxious attachment reported being involved in relationships defined by less commitment and trust. The data seemed to suggest that personal attachment style has a more significant effect on how relationships are experienced than partner's style. Males, however, did report lower levels of interdependence, commitment and satisfaction when paired with anxious females and females reported lower levels of trust and satisfaction when paired with avoidant males. Simpson also found that secure individuals described more frequent positive emotions and less frequent negative emotions within their current relationships than both insecure attachment types. In addition, women dating secure men tended to experience more frequent positive emotion than if dating insecure men and men dating secure women tended to experience more frequent positive emotion than those dating anxious women. At the six-month follow-up, results suggested that avoidantly attached individuals reported less distress at the ending of the relationship but that this effect was only significant for men.

One contribution of this study is that it clarified and extended existing knowledge about the qualitative differences between romantic relationships characterized by different attachment styles. In addition, this study utilized a longitudinal methodology to assess the likelihood and effects of relationship dissolution based on attachment style. While the longitudinal methodology is not often used in attachment research, it seems that this study could have made better use of the data collection potential at the six-month follow-up. For example, to explore the potential for accommodation processes in attachment relationships, the questionnaires could have been re-presented to each member of the dyad to assess any changes in attachment style or relationship quality over

time. Changes in the relationship, if accompanied by changes in attachment orientation, could have provided important information about the nature of proposed accommodation processes. If changes were not accompanied by changes in attachment, alternate hypotheses could be proposed and explored. Another limitation of this study concerns the exclusive use of self-report methods to obtain the data collected. As noted in previous studies, this is a limitation that could be addressed by using multiple methodologies to assess the various relationship and attachment constructs. The measurement of attachment orientation was of particular notice in this study because a non-validated altered version of an existing measure with inadequate psychometric properties was used. No psychometric information about this altered version of Hazan and Shaver's (1987) typological measure was provided. Finally, in the absence of information about the ethnic/racial background of participants in this study, these results should not be considered to be generalizable to populations of ethnic minority populations.

In another longitudinal study, Kirkpatrick and Davis (1994) examined the contribution of attachment style to the longitudinal prediction of stability in dating relationships, pairing of attachment types, and feelings relationship satisfaction, commitment and conflict. Participants included 354 couples in serious dating relationships. The average age of the participants was 21.2 years, and the sample was predominantly white (80%). At Time 1, respondents completed a questionnaire packet comprised of a Likert-type version of Hazan and Shaver's (1987) typological measure of attachment, the Relationship Rating Form (RRF; Davis & Todd, 1985), and demographic and relationship-history measures. The reliability of the RRF appeared adequate, but

reliability information for the other measures was not provided. Most participants completed these questionnaires twice, a few weeks apart, so that mean scores could be taken to determine attachment styles. At Time 2, a telephone interview was conducted with each participant to determine the current status of the relationship described at Time 1. These interviews were conducted between 7 and 14 months post-initial assessment. A second follow-up interview was conducted at Time 3, between 30 and 36 months post-initial assessment.

As in other studies, the results reflected a nonrandom pairing of attachment styles between males and females. In this sample, there were no avoidant-avoidant pairs and no anxious-anxious pairs. Instead, avoidant partners tended to pair with anxious partners, theoretically a combination in which one partner may compensate for and address the needs of the other. Also consistent with previous research, attachment security related to relationship evaluations in theoretically predictable ways. In couples in which the woman was classified as anxious, both partners rated the relationship negatively, though these relationships showed evidence of surprising stability at Time 3. In relationships that were characterized by an avoidant man, only the men rated the relationship negatively and these relationships were surprisingly stable at Time 2. Those relationships that experienced the highest rates of dissolution over time were those characterized by anxious men and avoidant women. These results may speak to the differences in traditional gender roles in relationships, and the need for an attentive female presence or stable male figure in relationships. In addition, these results create interesting questions for researchers who may wonder about the relative importance of satisfaction vs. stability of relationships. The data failed to replicate Simpson's (1990) findings that male

avoidance is inversely related to satisfaction and trust. Alternately, this study found that partners of avoidant men reported more passion and less conflict than those with anxious partners, but found no differences on satisfaction between the two groups. Overall, anxious men and avoidant women reported the lowest relationship ratings, irrespective of their partners' styles.

One contribution of this study was the use of a longitudinal methodology to assess the effects of attachment orientation on relationship stability over time. Of particular note is the length of time between assessments and the transitional period of life during which respondents participated in the study. The study examined couples moving from undergraduate status into the realms of work or higher education, typically a transitional period that may have effects on relationship success. The study also spanned a period of 2 1/2 to 3 years, a much longer period of time than is typically assessed by the longitudinal research in the field of attachment (a few months). The complex findings suggested that relationship stability is not related to attachment in a straightforward or predictable manner. The relationships of avoidant men and anxious women were at least as stable as secure relationships, in spite of the fact that these relationships reported the lowest ratings at Time 1. This study, then, serves as an important step in understanding the complexity of attachment phenomena. Finally, the results of this study further solidified the importance of looking at the effect of gender roles in future research.

One limitation of this study is that a larger sample size was needed in order to perform the 3 x 3 ANOVA that was required to compare all attachment pairings. As a result of the smaller sample size in certain cells, this comparison was not possible due to low power. Another limitation concerns the lack of a consistent time frame across

sample groups. The first sample of participants was re-tested 7-8 months later, whereas samples 2 and 3 were re-tested at 12-14 months. This may have resulted in group differences that could have affected the results between groups, so each group should have been examined separately. If accommodation is a process that occurs in attachment relationships over time, for example, time is a factor in both relationship quality and relationship status. A third limitation related to sampling is the demographic homogeneity of the sample in this study. Given that the participants were all heterosexual and were mostly white and young of age, these results cannot be considered to be generalizable to other ethnic groups, same-sex relationships, or other life or relationship stages. Concerning measurement, attachment style was assessed using Hazan and Shaver's (1987) three-category rating system to classify participants' attachment style. As noted by the authors, recent literature suggests employing a two-dimensional measure of attachment styles that does not force participants to endorse multiple items at once. The exclusive reliance on self-report measures in this study is also a problem. The authors point out that these assessments are vulnerable to social desirability biases and that semantic similarity may exist between the attachment measure and the aspects of behavior and feeling that were assessed, a problem that may have affected the amount of variance observed between measures. A last problem with measurement in this study is that the authors failed to provide reliability data for all but one measure. A final limitation of this study is that follow-up contacts were established simply to assess the current relationship status of the couple. A more fruitful endeavor may have been to include additional questionnaires at these times in order to assess relationship functioning and attachment stability. The authors note that they made a decision to avoid additional

requests of the participants at follow-up consultations because of concerns about drop-out rates. Nonetheless, this is a crucial area of research that has been neglected and could have been addressed by this study.

Finally, Whisman and Allan (1996) conducted a longitudinal study with the aim of expanding adult attachment literature to include social cognitive constructs. Since attachment styles are defined by cognitive models of self and other, the authors hypothesized that these models would result in differential attributions with regard to general relationship beliefs and partner attributions. In addition, it was an objective of this study to determine whether attachment and cognitive attributions both contributed uniquely to relationship quality. The longitudinal nature of the study was intended to provide additional information about the effects of attachment and cognitive appraisals on relationship dissolution. Participants included 68 heterosexual, undergraduate couples of mostly white racial background (85%) and a mean age of 19.4 years. Each participant independently completed a questionnaire that included the Adult Attachment Scale (AAS; Collins & Read, 1990), the Relationship Belief Inventory (RBI; Eidelson & Epstein, 1982), the short version of the Relationship Attribution Measure (RAM; Fincham & Bradbury, 1992), and the Dyadic Adjustment Scale (DAS; Spanier, 1976). Reliability of all measures appeared adequate. Six months following their initial participation, 97% of couples were successfully contacted by phone to determine the current status of their relationship.

Results indicated a modest degree of covariation between attachment and social cognition, suggesting that the variables share an important relationship while remaining largely independent. Unlike previous studies, no relationships were found between

partners' levels of attachment. However, supporting Simpson's (1990) results, the data did suggest that relationship behaviors were more strongly related to an individual's own attachment orientation than to their partner's orientation. Partial support was found for the authors' first hypothesis that unrealistic relationship beliefs would be positively associated with fears of rejection/abandonment and negatively associated with belief in others' dependability and comfort with closeness. Women's anxiety in relationships was associated with dysfunctional beliefs that one must be a perfect sexual partner, that disagreement is destructive to a relationship, and that their partner's negative behavior was intentional and selfish. Women's feelings of closeness to others were negatively related to the dysfunctional belief that sexes are different. For men, the only significant finding was that greater anxiety in relationships was experienced when men believed that disagreement is destructive to a relationship and when men viewed their partner's negative behavior as intentional and selfish. Both attachment and social cognition were related to relationship adjustment for both men and women, but neither attachment nor social cognition were related to relationship dissolution at a six-month follow-up. The lack of association between attachment and relationship dissolution is consistent with the findings of Kirkpatrick and Davis (1994).

This study applied a novel perspective to adult attachment research by evaluating specific relationship expectations and beliefs based on attachment style. This kind of approach to attachment may result in the acquisition of useful clinical information, helping psychologists begin to understand some of the ways that attachment styles may be related to cognitive attributions. Such information may support the use of specific

clinical interventions, such as applying cognitive-behavioral theory to work with couples or individuals with attachment concerns.

In spite of introducing a promising direction for future research, the study does have some limitations. First, the reliance on self-report methods for data collection has some limitations in terms of social desirability effects and biases and shared method variance. The composition of the sample group was primarily young and of white racial background. Due to the lack of representativeness, these results cannot be applied to members of other groups or relationship stages. Finally, the lack of a relationship found between partner attachment styles may have been the result of using the AAS to measure attachment. The AAS defines three dimensions of attachment – depend, close, and anxiety – but these three categories do not result in a system that categorizes attachment type in the method typically supported and validated in the literature. Further, the subscales of this measure do not all reflect adequate reliability (defined as $> .70$ alpha). Defining attachment by way of the AAS may result in the categorization of individuals into many different combinations of these dimensions, resulting in a failure to find straightforward associations between partners.

Summary

Most of the research that has investigated the association between attachment and adult romantic relationships has been conducted fairly recently. Empirical investigation consistently supports a positive relationship between attachment security and various relationship outcome variables such as marital adjustment and marital quality (Kirkpatrick & Davis, 1994; Kobak & Hazan, 1991; Scott & Cordova, 2002; Senchak & Leonard, 1992; Simpson, 1990; Volling, Notaro, & Larsen, 1998). Research has also

supported a cognitive, as well as an emotional, component of this relationship (Gallo & Smith, 2001; Whisman & Allan, 1996). The literature has effectively established a reason to continue to pursue investigation into a connection between the infant and the adult attachment literature, as studies show strong support for the usefulness of attachment theory for understanding contributors to relationship outcomes. However, while much is known about infant attachment, it is still unclear how related behavioral systems develop and mature as attachment relationships change over the developmental lifespan. Attachment security has been associated with relationship behaviors such as social interaction and communication (Volling, Notaro, & Larsen, 1998), but some of the more fundamental behaviors that have been identified as being important to infant attachment relationships have as yet remained unaddressed.

Chapter Three: Statement of the Problem

Recent U.S. census data (2000) indicates that while the age for first marriages seems to be rising, the vast majority (74 percent) of men and women have been married by their 35th birthday. Above these, we find that another 3.8 million individuals (or 3.7 percent) are unmarried but cohabitating in romantic relationships. It is clear that the majority of the population of the United States at some point is involved in a committed, intimate relationship, and the reasons for this are manifold. Aside from tax benefits and value judgments that often influence people's decisions to become engaged in married relationships, the effects of healthy relationship functioning on individuals' physical, emotional, social and sexual well-being have been well-documented in the literature. The benefits to being in relationships include emotional and economic support, higher levels of well-being, and new sources of identity and self-esteem (Mastekaasa, 1995; Diener, Suh, Lucas, & Smith, 1999). Psychologists should be concerned with gaining a better understanding of relationship factors because of the potential for positive relationship functioning to impact the quality of life experienced by their clients in a significant way.

The negative impact of low relationship quality on peoples' lives also necessitates a closer look at relationship functioning, particularly considering the great number of individuals involved in relationships. It has been clearly and repeatedly demonstrated that people involved in unsatisfying relationships experience significant declines in both psychological and physical health (Burns, Sayers, & Moras, 1994; Creasey, 2002), affecting individuals' ability to function effectively in sexual, vocational and social domains.

A review of the literature on infant and adult attachment indicates that the adoption of an attachment perspective of relationships may be helpful in understanding relationship functioning (Whisman & Allan, 1996). Early attachment theorists (Bowlby, 1979) described attachment as a process that is continual and changing throughout people's lives. While attachment figures may change and attachments may be developed with romantic partners rather than with parental figures, the basic attachment styles that can be observed in infants seem to be maintained in adulthood (Hazan & Shaver, 1987). Understandably, the quality of attachment behaviors differ as individuals age and develop alternate methods of communication and expression, but it has been found that many of the basic approaches to attachment figures are characterized by similar feelings. While adult attachment styles have gained much attention in recent literature, the behavioral systems that in infancy are complementary and antithetical to attachment, such as exploration, have been overlooked.

This study aimed to demonstrate that exploratory behaviors may also be present and related to attachment in adulthood. The exploration system is linked to the experience of vulnerability, as infants tend to engage in exploratory behavior only during times in which they perceive a safe environment. During times of distress, secure infants return to the safety of the attachment figure. Empirical evidence from attachment research on infants supports the connection between the exploration system and feelings of trust and vulnerability. It remains unclear how the exploration system may be expressed in adulthood, but one way to develop a better understanding of this expression is to look to the role of vulnerability in adult relationships. Gathering information about the ways that vulnerabilities and trust work in adult relationships may prove useful in

developing an understanding of the possible expression of the exploration system in later developmental stages.

In adult attachment relationships, exploration may be based on more of an emotional than a physical vulnerability. Infants increase their reproductive fitness by maintaining physical safety so that they might grow into adults, however by the time humans grow into adults, reproductive fitness is based more on the establishing of relationships and maintaining partner bonds that can assist in the meeting of financial, safety, and reproductive needs. Trust, as a major component of internal working models, is likely to play a significant role in relationship dynamics associated with exploration. Both playfulness and self-disclosure may act as exploratory behaviors in attachment relationships that regulate closeness, strengthen emotional bonds, and involve some degree of vulnerability.

Since self-disclosure and playfulness may be reflective of an underlying attachment style, these variables may also correspond with more or less positive relationship adjustment. The following hypotheses are based on research in the areas of infant and adult attachment, adult romantic relationships, and upon the theories presented above.

Hypothesis 1: The Relation of Self-Disclosure to Attachment

Hypothesis 1a: The intent to self-disclose can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of intent to self-disclose.

Hypothesis 1b: The amount of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of amount of self-disclosure.

Hypothesis 1c: The valence of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of valence of self-disclosure, whereas lower scores indicate more negative valence.

Hypothesis 1d: The honesty of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of honesty of self-disclosure, whereas lower scores indicate less honesty.

Hypothesis 1e: The depth of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of depth of self-disclosure, whereas lower scores indicate less depth.

When used appropriately, self-disclosure may reveal a willingness to be vulnerable and open to another individual and may serve to facilitate closeness with one's partner. In spite of early hypotheses that a lack of discretion in context or content of disclosure may discourage closeness between two people (Cozby, 1973; Lewin &

Gergin, 1969), evidence seems to support a linear relationship between dimensions of self-disclosure and individualized trust (Steel, 1991; Wheelless, 1978; Wheelless and Grotz, 1977). In early studies, Wheelless (1976) found that reported self-disclosure appeared to be higher in relationship perceived to be high in the trust-related construct of interpersonal solidarity than in those perceived to be low. As a follow-up to this study, Wheelless and Grotz (1977) found that a positive, linear relationship existed between individualized trust and disclosure on all dimensions, but the strength of the relationship was not high. They concluded that further support had been found for the relationship between trust-related constructs and self-disclosure but made the suggestion that sufficient levels of trust may be a prerequisite to, but not a guarantee of, disclosure to a partner. In more recent investigations, Steel (1991) found that interpersonal trust and self-disclosure were positively correlated and Keelan, Dion, and Dion (1998) found a positive relationship between self-disclosure and attachment security.

Hypothesis 2: Playfulness can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of playfulness.

Playfulness is defined by a lack of self-censorship, and therefore requires an trust in others and openness to spontaneous vulnerability (Metz & Lutz, 1990; Sadler, 1966). Therefore, individuals with internal working models characterized by a distrust and/or fear of others should engage in playful behaviors with their partners less often than those with attachment styles characterized by a belief in others' availability and trustworthiness.

Hypothesis 3: Relationship adjustment can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of relationship adjustment.

Empirical evidence exists to show that relationship adjustment is related to higher levels of attachment security (Kirkpatrick & Davis, 1994; Kobak & Hazan, 1991; Scott & Cordova, 2002; Senchak & Leonard, 1992; Simpson, 1990; Volling, Notaro, & Larsen, 1998). Therefore, individuals scoring higher on the attachment dimensions of avoidance and anxiety should experience lower levels of relationship adjustment than those who endorse lower levels of avoidance and anxiety.

Hypothesis 4: Self-reported playfulness, where higher scores indicate higher levels of playfulness, is positively related to relationship adjustment.

Playfulness is utilized in adult romantic relationships to manage emotional closeness (Baxter, 1992) and is related to feelings of openness, self-esteem, and communication (Aune & Wong, 2002; Baxter, 1992; Bruess & Pearson, 1993). A lack of playfulness, on the other hand, has been found to be related to a restriction of cognitive flexibility (Metz & Lutz, 1990), suggesting that individuals with insecure attachment styles may be less able to incorporate new relational information into their internal working models, resulting in less adaptive and less secure relationships with others in adulthood.

Individuals who engage in play behaviors more frequently may be better able to manage conflicts, communicate, and share vulnerabilities than those who do not engage in play behaviors. Individuals who do not engage in play behaviors may experience less

cognitive flexibility, resulting in misattributions and less effective communication between partners. These differences should result in higher levels of relationship adjustment amongst those individuals who are playful with their partners.

Hypothesis 5: The Relation of Self-Disclosure to Playfulness.

Hypothesis 5a: Intent to self-disclose to a partner, where higher scores indicate a greater intent to self-disclose, is positively related to playfulness.

Hypothesis 5b: Amount of self-disclosure to a partner, where higher scores indicate a greater amount of disclosure, is positively related to playfulness.

Hypothesis 5c: Valence of self-disclosure, where higher scores indicate more positive self-disclosures, is positively related to playfulness.

Hypothesis 5d: Honesty of self-disclosure, where higher scores indicate a higher degree of honesty/accuracy, is positively related to playfulness.

Hypothesis 5e: Depth of self-disclosure, where higher scores indicate greater depth, is positively related to playfulness.

Research has supported the relationship between trust and self-disclosure, and has suggested that trust can be expressed through the act of self-disclosure (Pistole, 1993; Steel, 1991). Wheelless and Grotz (1977) found that the positive, linear relationship between individualized trust and self-disclosure was true for all five dimensions of self-disclosure. Trust is one of the major components of playfulness, as play is characterized by vulnerability and a lack of self-censorship. In addition, couples use both self-disclosure and playfulness in an emotional-regulatory fashion in order to facilitate closeness. Therefore, it would be expected that individuals who are willing to self-

disclose to their partners experience a sense of trust in their partner and would be more open to engaging in playful behaviors.

Data was also used to address the following exploratory research questions:

Research Question 1: How will participants form natural groupings on the variables of interest (attachment style, playfulness, self-disclosure, relationship adjustment)?

Research Question 2: What do people report as factors that might affect the levels of playfulness expressed in romantic relationships?

Research Question 3: How do romantic attachment partners understand the use of play in their relationships?

Research Question 4: How does the perceived purpose of relationships (e.g. companionship, financial security, raising a family, etc.) relate to the expression of self-disclosure and playfulness in romantic relationships?

Chapter Four: Method

Design

A non-experimental, cross-sectional, descriptive survey design using qualitative and quantitative methods was used to investigate the questions of interest.

Participants

One hundred and thirty two persons involved in committed intimate relationships completed the survey and fit the criteria required for participation. Participants were recruited using an e-mail snowballing technique (Monge & Contractor, 1988). All participants accessed the study web site by following a link embedded within an e-mailed request to participate in the study (see Appendix N). Passwords were alternated in each recruiting e-mail, and participants accessed one of two forms of the questionnaire by typing the password embedded in their e-mail request. Ninety-five participants completed and submitted form 1 of the survey, and 56 participants completed and submitted form 2. No compensation was offered to participants for their participation. Table 1 displays a comprehensive description of the sample.

Of the 132 participants, 106 (80.3%) were female and 26 (19.7%) were male. Ages ranged from 22 to 70 years, with a mean age of 35.15 (SD = 10.8). The majority of participants were married (69.7%), and the remaining were engaged to be married (6.1%), involved in dating relationships (9.8%), or living together (13.6%). With regard to type of relationship, one couple marked “other” and specified “Committed Relationship.” The length of participants’ relationships ranged from 2 to 34.3 years, with an average length of 9.5 years (SD = 8.025). Participants also indicated their sexual orientation on a scale of sexuality that ranged from 1 (heterosexual) to 7 (gay/lesbian),

with bisexual rated as a 4. Of the 26 male participants, 24 identified as heterosexual; one identified as a “2” and one identified as a “3.” Of the 106 female participants, 93 identified as heterosexual, while 10 participants indicated a sexual orientation other than heterosexual (ranging from 2 to 5 on a scale of 1 to 7, with one representing identification as a heterosexual and 7 representing identification as gay/lesbian). All respondents were in relationships with opposite-sex partners. Although 11 individuals in same-sex relationships completed the survey, because of the small number of participants who fell into this group, they were not included in the final sample. The sample consisted of 76.5% White/Euro-American, 5.3% Black/African-American, 4.5% Asian/Asian-American, 3% American Indian, 2.3% Pacific Islander, 2.3% Hispanic/Latino(a), 0.8% Asian Indian, 0.8% biracial, and 4.5% Other.

The majority of the sample (63.6%) reported having no children. Another 21.2% reported one or two children. The remainder of the sample (7.6%) reported from 3 to 8 children, with 10 participants indicating no response. The sample was also highly educated; all participants had graduated from high school and 87.2% of participants had completed college degrees or higher. Most of the sample was employed full-time (71.2%), with another 15.2% employed part-time. Homemakers constituted 4.5% of the sample, and retired persons made up another 2.3%. Other participants indicated employment status as students, disabled, caring for ill family members, or seeking work.

Response Rate. Due to the nature of the recruitment, it is impossible to know how many people may have received the recruitment e-mail. However, information was collected about the number of times unique individuals visited the study website. Based on these numbers, 408 total individuals visited the website during the time of data

collection and 146 unique individuals submitted responses. An estimation of the response rate can be calculated at 35.8% based on this information. An additional consideration is that an unknown number of visitors to the site were friends and colleagues of the researcher who were interested in gathering information to send to additional contacts for the study. Although these were not actual participants, this unknown number of individuals is included in the above numbers.

In spite of this factor, the response rate obtained in the present study is consistent with earlier internet research, in which response rates have typically been reported in the range of 20% or lower (Witmer, Colman, & Katzman, 1999). While response rates of approximately 70% have been occasionally recorded, this has not been the norm and has typically been attributed to respondent cohesiveness, as might occur in organizational studies (e.g. an existing workgroup) (Andrews, Nonnecke, & Preece, 2003).

Research Assistants. A web-page designer was hired for assistance with web-page design and technical support.

Measures

An online survey was developed that included a demographics questionnaire and measures of adult attachment, relationship adjustment, playfulness in the relationship, self-disclosure to partner, generalized exploration, and social desirability. Participants were also given the opportunity to write about various aspects of their relationships including: times of increased or decreased play in the relationship, playful “secrets” unique to the relationship, the function of play within the relationship, reasons for being in a relationship, and any additional stressors experienced by the individual or couple in the previous six months.

Table 1
Demographic Characteristics of Survey Sample

<i>Characteristics</i>	<i>Number</i>	<i>Percent</i>
<i>Race/Ethnicity</i>		
<i>Black/African American</i>	7	5.3
<i>White/Euro-American</i>	101	76.5
<i>Asian/ Asian American</i>	6	4.5
<i>American Indian</i>	4	3.0
<i>Asian Indian</i>	1	0.8
<i>Pacific Islander</i>	3	2.3
<i>Hispanic</i>	3	2.3
<i>Biracial</i>	1	0.8
<i>Other</i>	6	4.5
<i>Gender</i>		
<i>Female</i>	106	80.3
<i>Male</i>	26	19.7
<i>Sexual Orientation</i>		
<i>Gay/Lesbian</i>	0	0.0
6	0	0.0
5	1	0.8
<i>Bisexual</i>	3	2.3
3	4	3.0
2	7	5.3
<i>Heterosexual</i>	117	88.6
<i>Type of Relationship</i>		
<i>Married</i>	92	69.7
<i>Dating</i>	13	9.8
<i>Engaged</i>	8	6.1
<i>Living Together</i>	18	13.6
<i>Other</i>	1	1
<i>Number of Children</i>		
0	84	63.6
1	17	12.9
2	11	8.3
3	6	4.5
4	2	1.5
5	1	0.8

Table 1 continued
Demographic Characteristics of Survey Sample

8	1	0.8
<i>Not Reported</i>	10	7.6
<i>Highest Level of Education Completed</i>		
<i>High school diploma</i>	14	10.6
<i>Technical College</i>	3	2.3
<i>College Graduate</i>	50	37.9
<i>Master's Degree</i>	37	28.0
<i>Law Degree</i>	3	2.3
<i>Doctorate/Medical</i>	20	15.2
<i>Other</i>	2	1.5
<i>Not Reported</i>	3	2.3
<i>Employment Status</i>		
<i>Part-time</i>	20	15.2
<i>Full-time</i>	94	71.2
<i>Retired</i>	3	2.3
<i>Homemaker</i>	6	4.5
<i>Seeking Work</i>	1	0.8
<i>Disabled</i>	1	0.8
<i>Other</i>	6	4.5
<i>Not Reported</i>	1	0.8
<i>Household Income</i>		
<i>Less than \$10,000</i>	1	0.8
<i>\$10,000-20,000</i>	4	3.0
<i>\$20,000-40,000</i>	13	9.8
<i>\$40,000-60,000</i>	28	21.2
<i>\$60,000-80,000</i>	23	17.4
<i>\$80,000-100,000</i>	20	15.2
<i>\$100,000+</i>	38	28.8
<i>Not reported</i>	5	3.8

Demographics.

Demographic information was collected using a questionnaire designed for this study (see Appendix L). This questionnaire asked participants to provide the following information about themselves and their partners: (a) age; (b) gender; (c) partner gender; (d) type of relationship; (e) length of relationship; (f) sexual orientation; (g) feelings of self-consciousness with partner; (h) racial/ethnic identification; (i) similarity of partner racial/ethnic identification; (j) number and ages of children; (k) education completed; (l) education completed by partner; (m) employment status; (n) partner employment status; (o) money concerns; and (p) income level.

Adult Attachment.

Adult attachment was measured using a modified version of the Experiences in Close Relationships Scale- Revised (ECR-R; Fraley, Waller, & Brennan, 2000; see Appendix G). The field of adult attachment has experienced great difficulty in developing an adequate self-report measure of adult attachment. While some researchers utilize a simple typological approach, more recent studies have utilized a two-dimensional approach, emphasizing the roles of anxiety and avoidance in determining attachment orientations. Multi-item dimensional measures have demonstrated the greatest precision and validity, but of those measures, most suffer from inadequate reliability or little information about psychometrics.

In a recent item response theory analysis of four commonly used self-report measures of adult attachment, however, Fraley, Waller and Brennan (2000) identified the Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998) as having good psychometric properties and supporting the dimensional approach to

attachment measurement that has found to best capture the construct of attachment orientation. Research has shown little evidence for a true attachment typology (Fraley & Waller, 1998). In fact, studies have found that precision is lost when typological measures are used instead of conceptualizing attachment styles as regions in a two-dimensional space. In an effort to refine the existing dimensional measures of attachment, Fraley, et al. (2000) utilized an item response theory analysis to refine the psychometric properties and increase measurement precision of the ECR. The ECR-R was developed as an alternate method of assessing adult attachment as an outcome of this process.

The ECR-R is a 36-item self-report measure designed to assess romantic attachment on the two dimensions of Anxiety and Avoidance. The Avoidance dimension taps into discomfort with closeness and discomfort with depending on another, while the Anxiety dimension measures fear of rejection and abandonment. Eighteen-item subscales measure each dimension, though the instrument can be used to categorize an individual's romantic attachment style as secure, fearful-avoidant, preoccupied or dismissive-avoidant. Respondents answer each item on a 7-point Likert scale ranging from 1 (disagree strongly) to 7 (agree strongly).

The items originally comprising the ECR-R ask the respondent to address feelings related both to partners in general and the respondent's current partner. Some statements, such as "I don't feel comfortable opening up to romantic partners," ask respondents to hypothesize about their feelings toward partners in a general sense whereas other items, such as "My partner only seems to notice me when I'm angry," ask about the current relationship that the respondent has with a specific partner. Wheelless (1978) suggested that generalized predispositions do not seem to be relevant mediators in dyadic

relationships with specific individuals. Based on this evidence and the likelihood that respondents would respond differently when referring to hypothetical partners vs. a specific current partner, an effort was made to introduce consistency between questions by changing all general items to address the respondent's current partner. For example, the above item was changed to read: "I don't feel comfortable opening up to my romantic partner."

Total scores on each subscale of the ECR-R were calculated by reverse scoring 14 of the items and then summing across responses. Total subscale scores range from 18 to 126 with higher scores indicating more anxiety and avoidance in romantic relationships (Brennan, Clark, & Shaver, 1998). Examples of items from the avoidance and anxiety scales respectively are "I am nervous when my partner gets too close to me" and "I'm afraid that once my romantic partner gets to know me, he or she won't like who I really am." Respondents obtained scores on each of the anxiety and the avoidance subscales, and this continuous data was used in analysis.

Fraley, Waller, and Brennan (2000) reported that internal consistency ratings exceeded .90 for each scale. In the present study, the internal consistency was .94 for the Avoidance scale and .95 for the Anxiety scale. Fraley, Waller, and Brennan also reported that test-retest reliability of a subset of 5 of the ECR-R items exhibited test-retest correlations greater than .70 over a period of 8 weeks. In a psychometric evaluation of the ECR-R, Sibley and Liu (2004) determined that the ECR-R subscales remained stable (85% shared variance over time) over a 6-week period. Sibley and Liu found that the scale maintained acceptable psychometric properties while assessing a range of trait scores more evenly distributed than previous measures and that the ECR-R provides

stable estimates of trait attachment that are largely free from measurement error over short assessment periods. Evidence of validity for the ECR is provided by correlations in the expected directions with the Basic Adlerian Scales for Interpersonal Success – Adult Inventory (BASIS-A; Peluso, 2002).

Hazan and Shaver's (1987) three-category measure of attachment was also included in the questionnaire, as it is a measure that demonstrates good face validity. Hazan and Shaver's forced – choice measure consists of three paragraphs that describe the ways that different attachment styles might approach relationships. Respondents indicate which of the styles they are most like by placing a check mark next to that paragraph. An example of one of the paragraphs is, "I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, others want me to be more intimate than I feel comfortable being." Selection of one of the paragraphs categorizes participants into the categories secure, avoidant, and anxious-ambivalent. As noted previously, current research indicates that dimensional measures of attachment are preferable to typological measures, but this categorical measure has been widely used in past research and is appropriate for establishing confidence in newer assessments of attachment. Hazan and Shaver (1987) provided support for the validity of the adult attachment construct. They found that college students and older adults classify themselves in the same proportions of secure, anxious-ambivalent, and avoidant styles as found in infant attachment studies. Furthermore, previous research has found evidence of both convergent and discriminant validity (Collins & Read, 1990). Seventy percent of subjects identified themselves as having the same attachment style as four years earlier

(Kirkpatrick & Hazan, 1994). The secure group was most stable; however, subjects who originally identified themselves as secure and then broke up with a partner were more likely to identify themselves as insecure four years later. In a sample of college students, there was 75% stability over 10 weeks, and change in reported style was associated with formation of new relationships (Feeney & Noller, 1992).

Relationship Adjustment

The Dyadic Adjustment Scale (DAS; Spanier, 1989; see Appendix J) was used to measure the level of relationship adjustment of the couple. The DAS is comprised of 32 items or four subscales indicating levels of dyadic consensus, satisfaction, affectational expression, and cohesion. Dyadic consensus refers to the extent of agreement within couples on a variety of important issues such as finances, religion, time spent together, and household tasks. Dyadic satisfaction assesses the amount of marital strain in the relationship and the frequency of thoughts about ending the relationship. Examples of these types of questions include “How often do you discuss or have you considered divorce, separation, or termination of your relationship?” and “How often do you and your mate get on each others’ nerves?” The affectational expression category measures satisfaction with affection and sex in the relationship. Dyadic cohesion evaluates the extent of similar activities and interests shared by the couple. Responses are indicated on Likert-type scales that vary in endpoints based on the wording of the questions. Subscales are compared to norms for appropriate groups, with low subscale scores indicating a problem and high subscale scores indicating the absence of a problem. Typically, a total raw score lower than 100 generally indicates poor dyadic adjustment. This study utilized the total score to indicate overall adjustment.

The DAS has demonstrated high internal consistency ($\alpha = .96$), stable test-retest reliability, and reasonable levels of inter-rater reliability (Margolin, Hattem, John, & Yost, 1985; Spanier, 1989). In the present study, the internal consistency was found to be .91. The validity of the DAS has been well-established through repeated use in hundreds of research studies. These studies confirm high content and predictive validity, sensitivity to changes in the marital relationship, as well as stability across different populations (Spanier, 1989).

Playfulness

Betcher's (1977) Couples' Play Questionnaire II (CPQII) (see Appendix E) was used to measure playfulness in the participants' relationships. The instrument was initially developed for use with married couples and consists of 28 statements to which respondents indicate their agreement or disagreement on a Likert-type scale ranging from 1 ("Very Strong Disagreement") to 5 ("Very Strong Agreement"). Examples of items include "I have fun acting silly with my partner," and "We play together in many different ways." The scale has been used as a unitary index of global playfulness, and scores may be added together for a total score ranging from 28 to 140, or averaged for total scores ranging from 1 to 5. Twelve items are reverse-scored. Higher scores indicate a greater amount of playfulness in the relationship. The Play Questionnaire II has been used as published and in modified forms, consistently demonstrating internal consistencies around an alpha of .85 (Aune & Wong, 2002). In the present study, the CPQ demonstrated internal consistency at a level of .85. In Aune and Wong's study on the antecedents and consequences of play in romantic relationships, the CPQ was found to be significantly related to expected correlates of playfulness including self-esteem ($r =$

0.26, $p < .01$), humor orientation ($r = 0.42$, $p < .01$) and positive emotion ($r = .60$, $p < .01$).

Information on test-retest reliability has not yet been reported.

Exploration

The Curiosity and Exploration Inventory - Trait (CEI-T; Kashdan, Rose, & Fincham, 2004; see Appendix H) was used to measure participants' openness to novel and challenging information and experiences. The four items contained in the Exploration subscale were used to assess this tendency, but the three Absorption items were not used, as they measure intensity rather than openness. Respondents rated the items on the CEI according to a 7-point Likert-type scale that indicate agreement with the statements provided from "Strongly Disagree" to "Strongly Agree". Statements refer to the respondents' tendency to engage in exploratory behaviors. An example of one statement is, "I frequently find myself looking for new opportunities to grow as a person (e.g. information, people, resources)." One item is reverse-scored, and item scores are averaged, resulting in a potential score range of 1 to 7. Higher scores indicate a higher level of exploration. The CEI is a relatively new scale and has shown adequate internal reliability, with alphas ranging from .63 to .74 for the Exploration scale (Kashdan, Rose, & Fincham, 2004). One month test-retest reliability has been reported at the level of $r = .78$ and the scale has shown moderately strong positive relationships with intrinsic motivation, hope, openness to experience, and subjective vitality (Kashdan, Rose, & Fincham, 2002). In the present study, internal consistency for the Exploration scale was found at the level of .74.

Self-Disclosure

Self-disclosure was measured using Wheelless' Revised Self-Disclosure Scale

(RSDS; Wheelless, 1978; see Appendix K). The scale includes 31 items and five subscales that measure the content areas of: Intent, Amount, Positiveness (Valence), Depth, and Honesty/Accuracy. Two versions of the RSDS are available; one measures general disclosiveness and the other is adaptable for disclosure to a specific individual. In the present study, the individual disclosure scale was used to assess the level of disclosure in the participants' current intimate relationship. Wheelless' findings support the use of the individualized scale because his analyses revealed that a number of self-disclosure variables (amount, depth and honesty of disclosiveness) were correlated with individualized trust, but only one disclosiveness variable (honesty of disclosiveness) was significantly correlated with generalized trust. He concluded that generalized predispositions do not seem to be relevant mediators in dyadic relationships with specific individuals.

For the individualized disclosure scale, respondents indicate on a Likert-type scale how the statements reflect their communication with their partner. Respondents are asked to rate each statement on the following scale: (1) Strongly Disagree, (2) Disagree, (3) Moderately Disagree, (4) Undecided, (5) Moderately Agree, (6) Agree, or (7) Strongly Agree. Examples of items include: "When I reveal my feelings about myself, I consciously intend to do so" (Intent Scale), "I often talk about myself" (Amount Scale), "I normally reveal 'bad' feelings I have about myself" (Positiveness/Valence Scale), "I intimately disclose who I really am, openly and fully in my conversation" (Depth Scale), and "I am always honest in my self-disclosure" (Honesty/Accuracy Scale).

In Wheelless' study (1978), reliability scores for the five factors ranged from .84

to .91. All items in the instrument loaded cleanly except for a single item for intent, which Wheelless excluded from his analysis. The alpha scores obtained by Wheelless are similar to scores obtained in other studies (Dickson-Markman, 1986; Wheelless, Nesser, & McCroskey, 1986). Wheelless, Nesser & McCroskey (1986) reported a unidimensional internal consistency at an alpha level of .91. In the present study, the following reliabilities were found: total scale = .88, intent = .71, amount = .90, positiveness/valence = .86, depth = .84, and honesty = .85.

Social Desirability

The Marlowe-Crowne Social Desirability Scale Short Form (Personal Reactions Inventory; PRI; Crowne & Marlowe, 1960; see Appendix I) is a 13-item inventory designed to assess social desirability. The inventory is a short-form of the 33-item measure designed by Crowne and Marlowe (1960). Items reflect behaviors, traits, and personal attitudes that are culturally acceptable but are unlikely to occur. For the purposes of this study, social desirability was explored in order to determine the extent to which respondents' may be presenting a positive picture to the researchers or may be concerned with constructing an ideal relationship image. This may be associated with less secure styles of attachment. Using a true/false format, respondents indicate whether each statement is true or false as it pertains to them. Socially desirable responses are summed, yielding a possible range of scores from 0 to 13, with high scores indicating greater social desirability. Internal consistency and test-retest reliabilities for the measure have been found in the range of .75 - .88 (Crowne & Marlowe, 1960). The measure has a test-retest reliability coefficient of .89, and is well correlated with similar measures of social desirability and validity scales on the MMPI.

Procedure

Participants were recruited and contacted through colleagues, friends and family of the primary investigator and research assistant. Eligible participants were currently involved in committed intimate relationships of a minimum of two years duration. Hazan and Ziefman (1999) concluded that two years is the amount of time that is necessary for adult romantic relationships to take on all of the characteristics of attachment relationships. It was not necessary for both partners to participate in the study, though some partners chose to do so. The data of individuals was not considered with respect to partner data.

Potential participants were initially contacted via telephone, e-mail or personal contact. All potential participants were sent an e-mail directing them to a link for a web-based survey that they were able to complete online (see Appendix N). The e-mail included a request for referrals to other potential participants. It also included a password that linked the participant to one of two different versions of the questionnaire.

The primary researcher initially contacted approximately 175 individuals via e-mail and another 25 through telephone or personal contact. The e-mail addresses consisted of personal contacts of the researcher, colleagues, and group e-mail lists through professional associations such as academic departments and counseling centers. Of this initial group, 24 of the e-mail addresses were generated by the research assistant and consisted exclusively of her friends and family. Telephone and personal contacts consisted entirely of personal friends and family members. From the initial e-mails, sixteen participants contacted the researcher and either provided additional e-mail addresses or reported that they themselves had forwarded the initial e-mail to their own

personal contacts. The researcher contacted 22 additional people through e-mail addresses provided by these individuals, and a minimum of 49 people received the e-mail via forward from someone on the initial list of e-mail contacts. A total of 408 different individuals viewed the web site. The purpose of the snowball approach and the manner in which the e-mail was written were intended to result in the forwarding of the e-mail to appropriate people who met the criteria. This seems to have happened since the total number of people who accessed the site exceeds the initial number of people to whom the e-mail was delivered. Some individuals who received information about the site but were not contacted as part of the initial group probably viewed the site to get more information and may have decided that they did not qualify or then may have forwarded the information along to others.

The two versions of the questionnaire both began with Hazan and Shaver's (1987) measure of attachment and ended with the demographic questionnaire. However, the other measures varied in order, so as to minimize the effects of order on responses. There were no statistically significant differences found between the two forms on the means and standard deviations of any of the measures. Participants returned their answers by submitting their responses online. Participants who completed the survey were directed to a screen that provided them with information about various self-help and referral resources focused on healthy relationship functioning.

Chapter Five: Results

Preliminary Analyses

Questionnaire data, descriptive data, as well as qualitative data based on responses to several open-ended questions were collected for this study. Data from three participants whose responses fell above or below three standard deviations from the mean on any of the questionnaires were eliminated from the analysis. Participant responses on the social desirability scale were also examined for evidence of false positive self-representations that may have influenced the accuracy of the data obtained.

Descriptive data for the sample were compiled and are presented in Table 1 in the previous chapter. Next, means, standard deviations, and reliabilities were computed for each of the variables of interest and are presented in Table 2. Descriptive information about the sample based on the variables of interest was compared with information gathered from previous studies, and the comparisons are presented in Table 3.

Correlations were calculated to explore the relationships between the variables of interest as well as demographic variables including age, gender, length of relationship, sexual orientation, number of children, and income. Table 4 presents these bivariate correlations.

Description of Sample

This section presents a description of the sample based on the variables of interest. In the present study, 74.2% of participants self-classified as securely attached, 17.4% self-classified as avoidant, and 8.3% self-classified as anxious-ambivalent, on Hazan and Shaver's (1987) categorical measure of attachment. The proportion of individuals that self-classified as secure was higher than those obtained in four

Table 2

Means of Total Scores, Standard Deviations, and Reliabilities of Playfulness, Anxiety, Avoidance, Self-Disclosure, Relationship Adjustment, Exploration and Social Desirability Scales

<i>Scale</i>	<i>Number of Items</i>	<i>Range</i>	<i>Mean of Total Score (SD)</i>	<i>Reliability (Cronbach's Alpha)</i>
<i>Playfulness</i> <i>Couples' Play Questionnaire (CPQII; Betcher, 1977)</i>	28	28-140	103.52 (11.8)	.85
<i>Anxiety</i> <i>Experiences in Close Relationships – Revised (ECR-R; Fraley, Waller, & Brennan, 2000)</i>	18	18-126	40.85 (22.0)	.95
<i>Avoidance</i> <i>Experiences in Close Relationships – Revised (ECR-R; Fraley, Waller, & Brennan, 2000)</i>	18	18-126	34.54 (16.21)	.94
<i>Self-disclosure</i> <i>Revised Self Disclosure Scale (RSDS, Wheelless, 1978)</i>	31	31-217	147.71 (20.15)	.88
• <i>Intent</i>	4	4-28	22.13 (3.32)	.71
• <i>Amount</i>	7	7-49	30.19 (8.39)	.90
• <i>Positiveness/Valence</i>	7	7-49	32.59 (6.96)	.86
• <i>Depth</i>	5	5-35	20.57 (6.28)	.84
• <i>Honesty/Accuracy</i>	8	8-56	42.24 (7.21)	.85
<i>Relationship Adjustment</i> <i>Dyadic Adjustment Scale (DAS; Spanier, 1989)</i>	32	0-146	115.38 (14.41)	.91
<i>Exploration</i> <i>Curiosity and Exploration Inventory - Trait (CEI-T; Kashdan, Rose, & Fincham, 2004)</i>	4	4-28	22.40 (3.97)	.74
<i>Social Desirability</i> <i>Marlowe-Crowne Social Desirability Scale Short Form (SDS-S; Crowne & Marlowe, 1960)</i>	13	0-13	5.23 (3.10)	.75

previous studies (Hazan & Shaver, 1987, Studies 1 and 2; Hazan & Shaver, 1990; Shaver & Hazan, 1987) in which the frequency of self-classification as secure ranged from 50% to 56%. The proportion of individuals that self-classified as anxious/ambivalent or avoidant was lower than found in the same previous studies, where the proportion of anxious/ambivalent individuals ranged from 19% to 21%; and that of avoidant ranged from 23% to 30%. The present sample was overall found to be lower in anxiety and avoidance than previous study samples, indicating the possibility of the presence of a self-selection bias that resulted in more securely attached couples than might be expected in the general population.

The sample's scores on the dimensional measure of attachment (ECR-R; Fraley, Waller, & Brennan, 2000), indicated means of 2.27 ($SD = 1.22$) on the anxiety dimension and 1.91 on the avoidance dimension ($SD = .90$). A norming sample of over 22,000 people with an average age of 24 ($SD = 10$; Fraley, Waller, & Brennan, 2000) found means for anxiety of 3.64 ($SD = 1.33$) and for avoidance of 2.93 ($SD = 1.18$). An effect size comparison (Vacha-Haase & Thompson, 2004) indicated a large effect size (1.07 for anxiety, .76 for avoidance) for the differences between the means in the present study and those found in Fraley, et al.'s normative study.

The sample mean for playfulness was 3.70 ($SD = .42$), which was lower than the mean ($M = 5.00$, $SD = .74$) found in Aune and Wong's (2002) study of the antecedents and consequences of adult play in relationships. An effect size comparison between the two means (Vacha-Haase & Thompson, 2004) indicated a large effect size (2.24) for the difference between these two means. It should be noted that Aune and Wong's participants were, on average, 10 years younger and more ethnically diverse than the

Table 3

Comparative Means and Standard Deviations of Scales for Attachment, Playfulness, Anxiety, Avoidance, and Relationship Adjustment

<i>Scale</i>	<i>Mean (SD) present study</i>	<i>Comparative study</i>	<i>Mean (SD) comparative study</i>
<i>Attachment</i> (Hazan & Shaver, 1987)	74.2% secure 17.4% avoidant 8.3% anxious- ambivalent	Hazan & Shaver, 1987 Hazan & Shaver, 1990 Shaver & Hazan, 1987	50-56% secure 23-30% avoidant 19-21% anxious- ambivalent
<i>Playfulness</i> <i>Couples' Play Questionnaire</i> (CPQII; Betcher, 1977)	3.70 (.42)	Aune & Wong, 2002*	5.00 (.74)
<i>Anxiety</i> <i>Experiences in Close Relationships</i> – Revised (ECR-R; Fraley, Waller, & Brennan, 2000)	2.27 (1.22)	Fraley, Waller, & Brennan, 2000**	3.64 (1.33)
<i>Avoidance</i> <i>Experiences in Close Relationships</i> – Revised (ECR-R; Fraley, Waller, & Brennan, 2000)	1.91 (.90)	Fraley, Waller, & Brennan, 2000**	2.93 (1.18)
<i>Relationship Adjustment</i> <i>Dyadic Adjustment Scale</i> (DAS; Spanier, 1989)	115.38 (14.41)	Spanier, 1976	114.8 (17.8)
<i>Exploration</i> <i>Curiosity and Exploration</i> <i>Inventory - Trait (CEI-T; Kashdan,</i> <i>Rose, & Fincham, 2004)</i>	22.40 (3.97)	Kashdan, Rose, & Fincham, 2004***	18.74-19.97 (3.10-4.37)

Note: No information about means or standard deviations was available for Self-Disclosure (RSDS)

* On average, this sample had an average age of 25.57 years ($SD = 9.17$) and was more ethnically diverse than the participants in the present study. Only 15.9% were married. Comparison of age means indicates a large effect size (.96).

** This norming sample included over 22,000 individuals with an average age of 24 years ($SD = 10$). Only 15% were married. Comparison of age means indicates a large effect size (1.07).

*** Across five different samples, all samples had an average age of 19.35 - 24.60 years ($SD = 2.16 - 7.90$). Comparison of age means indicates a large effect size (2.44-1.13).

participants in the present study.

For the exploration subscale of the Curiosity and Exploration Inventory (CEI; Kashdan, Rose, & Fincham, 2004), the sample mean was 22.40 (SD = 3.97). This was significantly higher than the means found across five different samples in Kashdan, Rose, and Fincham's (2004) norming study (Mean = 18.74-19.97, SD = 3.10-4.37). At either end of the range found in the norming study, the difference indicated a medium-to-large effect size (.58 - 1.04). The participants in their studies were also significantly younger than the participants in the present sample. Across five different samples, the average age was 19.35 - 24.60 years (SD = 2.16 - 7.90). Comparison of age means indicated a large effect size (2.44-1.13).

The relationship adjustment mean score of 115.38 (SD = 14.41) for the present sample was comparable to the normative sample mean of 114.8 (SD = 17.8; Spanier, 1976) and well above the relationship distress cutoff score of 100. An effect size comparison confirmed that there was no significant difference between the mean found in the present sample and that which resulted from the Spanier (1976) normative study.

Primary Analyses

The tests of the major hypotheses are presented in the following section.

Self-Disclosure and Attachment

Hypothesis 1a: The intent to self-disclose can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of intent to self-disclose.

Table 4
Bivariate Correlations of Variables of Interest

<i>Measure</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<i>1. Age</i>	1.00																	
<i>2. Gender</i>	-.09	1.00																
<i>3. Months in Relat.</i>	.73**	.08	1.00															
<i>4. Sexual Orientation</i>	-.16	.07	-.17	1.00														
<i>5. Income</i>	.38**	-.09	.30**	-.27**	1.00													
<i>6. Number Children</i>	.22*	.04	.22*	-.10	.08	1.00												
<i>7. Anxiety (ECR-R)</i>	.03	.03	-.08	.19*	-.08	.01	1.00											
<i>8. Avoidance (ECR-R)</i>	.26**	-.04	.06	.10	-.07	.15	.76**	1.00										
<i>9. Playfulness (CPQII)</i>	-.20*	.02	-.27**	.00	-.03	-.10	-.49**	-.53**	1.00									
<i>10. Exploration</i>	.10	-.09	-.06	.14	-.08	-.07	-.03	-.08	.26**	1.00								
<i>11. Relat. Adjust. (DAS)</i>	-.14	.00	-.16	-.14	.06	-.16	-.60**	-.65**	.65**	.00	1.00							
<i>12. Self-Disclosure (RSDS)</i>	-.18*	.16	-.15	.09	-.09	.02	-.34**	-.45**	.37**	.17	.20**	1.00						
<i>13. Intent (RSDS)</i>	.02	-.03	.10	.01	-.03	-.01	-.25**	-.32**	.14	.21*	.06	.39**	1.00					
<i>14. Amount (RSDS)</i>	-.23**	.32**	-.15	.13	-.17	.08	-.12	-.23**	.24**	.09	.00	.68**	.03	1.00				
<i>15. Valence (RSDS)</i>	-.08	-.07	-.03	-.11	.07	-.04	-.42**	-.45**	.27**	.07	.28**	.57**	.25**	.07	1.00			
<i>16. Depth (RSDS)</i>	-.23**	.20*	-.20*	.19*	-.17	.11	-.01	-.20*	.20*	.04	.03	.62**	-.05	.60**	.06	1.00		
<i>17. Honesty (RSDS)</i>	-.06	.09	-.08	.06	-.03	-.05	-.32**	-.39**	.25**	.17	.22*	.68**	.50**	.14	.42**	.16	1.00	
<i>18. Social Desirability</i>	.18*	.09	.14	-.11	.07	.05	-.07	.06	-.12	-.06	.08	-.01	.13	-.27**	.19*	-.14	.26**	1.00

Correlations significant at the $p < 0.05$ level are indicated by * and correlations significant at the $p < 0.01$ level are indicated by **.

Hypothesis 1b: The amount of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of amount of self-disclosure.

Hypothesis 1c: The valence of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of valence of self-disclosure, whereas lower scores indicate more negative valence.

Hypothesis 1d: The honesty of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of honesty of self-disclosure, whereas lower scores indicate less honesty.

Hypothesis 1e: The depth of self-disclosure can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of depth of self-disclosure, whereas lower scores indicate less depth.

Five hierarchical linear regression analyses were conducted to investigate the relationship between self-disclosure and attachment, with each dependent variable in the hierarchical regression analysis representing a different component of self-disclosure. Scores on the Personal Reactions Inventory (Crowne & Marlowe, 1960) were entered

first to control for the effects of social desirability. The avoidance and anxiety dimensions of attachment were then entered together in the second step. Results of the regression analyses are summarized in Table 5.

In examining the relationship between the intent to self-disclose and attachment, results of the hierarchical regression analysis revealed that, after controlling for social desirability, there was a significant negative relationship between the avoidance dimension of attachment and the intent to self-disclose, $\beta = -.34, p < .01$. Anxiety was found to be unrelated to the intent to self-disclose. Results also indicated that the avoidance and anxiety dimensions of attachment together accounted for a significant 12% of the variance in the intent to self-disclose, $F \text{ change } (1, 126) = 7.45, p < .01$. This pattern of results suggests that the more avoidant people are with respect to attachment, the lower their intent to self-disclose in their relationships. Although a dimensional approach to the measure of attachment has demonstrated greater precision and validity than categorical measures, beta weights were examined to allow for an extension of the findings to Bartholomew and Horowitz' (1991) prototypes as an interpretive framework. While this researcher recommends the use of dimensional descriptions of attachment patterns in future studies, this connection is made in the present study in order to provide a transition between previous and future research in the area of attachment. The pattern of coefficients found in the present study suggests that more fearful and dismissing people (higher avoidance) score lower on the intent to self-disclose than more secure and preoccupied individuals (lower avoidance).

Table 5
Summary of Hierarchical Regression Analysis for Self-Disclosure and Attachment

<i>Variables</i>	<i>R²</i>	<i>R² Change</i>	<i>F</i>	<i>F Change</i>	<i>B</i>	<i>p</i>
<i>Intent**</i>	.12		5.84			.00
<i>Step 1</i>		.02		2.37	.14	.13
<i>Social Desirability</i>						
<i>Step 2**</i>		.10		7.45		.00
<i>Avoidance**</i>					-.34	.01
<i>Anxiety</i>					.02	.87
<i>Amount**</i>	.11		5.37			.00
<i>Step 1**</i>		.07		9.11	-.26	.00
<i>Social Desirability</i>						
<i>Step 2*</i>		.05		3.34		.04
<i>Avoidance*</i>					-.26	.05
<i>Anxiety</i>					.06	.63
<i>Valence**</i>	.25		14.21			.00
<i>Step 1*</i>		.03		4.45	.18	.04
<i>Social Desirability</i>						
<i>Step 2**</i>		.22		18.49		.00
<i>Avoidance**</i>					-.37	.00
<i>Anxiety</i>					-.12	.34
<i>Honesty**</i>	.23		12.67			.00
<i>Step 1**</i>		.07		9.70	.26	.00
<i>Social Desirability</i>						
<i>Step 2**</i>		.16		13.24		.00
<i>Avoidance**</i>					-.42	.00
<i>Anxiety</i>					.02	.87
<i>Depth**</i>	.30		4.29			.01
<i>Step 1</i>		.02		2.25	-.13	.14
<i>Social Desirability</i>						
<i>Step 2**</i>		.08		5.23		.01
<i>Avoidance***</i>					-.43	.00
<i>Anxiety*</i>					.32	.02

* $p < .05$; ** $p < .01$

Regarding the relationship between the amount of self-disclosure and attachment, results of the hierarchical regression analysis indicated that, after controlling for social desirability, there was a significant negative relationship between the avoidance dimension of attachment and the amount of self-disclosure, $\beta = -.26, p < .05$. Anxiety was found to be unrelated to the amount of self-disclosure. Results also indicated that the avoidance and anxiety dimensions of attachment together accounted for 11% of the variance in the amount of self-disclosure, $F \text{ change } (1, 127) = 3.34, p < .05$. This pattern of results suggests that the more avoidant people are with respect to attachment, the less they self-disclose in their relationships. With respect to Bartholomew and Horowitz' (1991) prototypes, this pattern of coefficients suggests that more fearful and dismissing people (higher avoidance) score lower on the amount of self-disclosure than more secure and preoccupied individuals (lower avoidance).

Regarding the relationship between the valence of self-disclosure and attachment, results of the hierarchical regression analysis indicated that, after controlling for social desirability, there was a significant negative relationship between the avoidance dimension of attachment and the valence of self-disclosure, $\beta = -.37, p < .01$. Anxiety was found to be unrelated to the valence of self-disclosure. Results also indicated that the avoidance and anxiety dimensions of attachment together accounted for 25% of the variance in the valence of self-disclosure, $F \text{ change } (1, 127) = 18.49, p < .01$. This pattern of results suggests that the more avoidant people are with respect to attachment, the less positive the valence of self-disclosure in their relationships. With respect to Bartholomew and Horowitz' prototypes, this pattern of coefficients suggests that more

fearful and dismissing people (higher avoidance) disclose more negative information than more secure and preoccupied individuals (lower avoidance).

Regarding the relationship between the honesty of self-disclosure and attachment, results of the hierarchical regression analysis indicated that, after controlling for social desirability, there was a significant negative relationship between the avoidance dimension of attachment and the honesty of self-disclosure, $\beta = -.42, p < .01$. Anxiety was found to be unrelated to the valence of self-disclosure. Results also indicated that the avoidance and anxiety dimensions of attachment together accounted for 23% of the variance in the valence of self-disclosure, $F \text{ change } (1, 127) = 13.24, p < .01$. This pattern of results suggests that the more avoidant people are with respect to attachment, the less honestly they self-disclose in their relationships. With respect to Bartholomew and Horowitz' prototypes, this pattern of coefficients suggests that more fearful (higher avoidance and higher anxiety) and dismissing (higher avoidance and lower anxiety) people disclose less honestly than more secure and preoccupied individuals (lower avoidance).

Regarding the relationship between the depth of self-disclosure and attachment, results of the hierarchical regression analysis indicated that, after controlling for social desirability, there was a significant negative relationship between the avoidance dimension of attachment and the depth of self-disclosure, $\beta = -.43, p < .05$. Results also indicated a significant positive relationship between the anxiety dimension of attachment and the depth of self-disclosure, $\beta = .32, p < .05$. Together, the anxiety and avoidance dimensions of attachment accounted for 30% of the variance in the depth of self-disclosure, $F \text{ change } (1, 126) = 5.23, p < .01$. This pattern of coefficients indicates that

anxiety was positively related to the depth of self-disclosure and avoidance was negatively related to the depth of self-disclosure. As such, the more anxious and less avoidant participants were with respect to attachment, the higher their scores on the depth of self-disclosure. With respect to Bartholomew and Horowitz' prototypes, this pattern of coefficients suggests that more preoccupied people (higher anxiety) scored higher on depth of self-disclosure than more dismissing people (higher avoidance and lower anxiety). Participants who would be categorized as more secure (lower anxiety and avoidance) or fearful (higher anxiety and higher avoidance) endorsed a moderate level of depth in relation to the other two groups. Fraley, Waller, and Brennan (2000) suggest that this effect is driven by both anxiety and avoidance dimensions. They have called this particular combination of the dimensions the "hyperactivating vs. deactivating" axis in the two-dimensional space.

Playfulness and Attachment

Hypothesis 2: Playfulness can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled. Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of playfulness.

A hierarchical linear regression analysis was conducted to investigate the relationship between playfulness and attachment, with the dependent variable in the hierarchical regression analysis representing playfulness. Scores on the Personal Reactions Inventory (Crowne & Marlowe, 1960) were entered first to control for the effects of social desirability. The avoidance and anxiety dimensions of attachment were

then entered in the second step. Results of the regression analysis are summarized in Table 6.

In examining the relationship between playfulness and attachment, results of the hierarchical regression analysis revealed that, after controlling for social desirability, there was a significant negative relationship between the avoidance dimension of attachment and playfulness, $\beta = -.35$, $p < .01$. However, the results only partially supported the hypothesis, as anxiety was found to be unrelated to playfulness. Results also indicated that avoidance and anxiety together accounted for 32% of the variance in playfulness, F change (1, 125) = 27.35, $p < .01$. This pattern of results suggests that the more avoidant people are with respect to attachment, the less playfulness they report. With respect to Bartholomew and Horowitz' (1991) prototypes, this pattern of coefficients suggests that more fearful and dismissing people (higher levels of avoidance) are less playful than more secure (lower levels of avoidance and anxiety) or more preoccupied individuals (higher levels of anxiety).

Table 6
Summary of Hierarchical Regression Analysis for Playfulness and Attachment

<i>Variables</i>	R^2	R^2 Change	F	F Change	β	p
<i>Playfulness**</i>	.32		19.32			.00
<i>Step 1</i>		.02		2.31	-.13	.13
<i>Social Desirability</i>						
<i>Step 2</i>		.30		27.35		.00
<i>Avoidance**</i>					-.35	.00
<i>Anxiety</i>					-.23	.06

* $p < .05$; ** $p < .01$

Relationship Adjustment and Attachment

Hypothesis 3: Relationship adjustment can be predicted from both avoidance and anxiety dimensions of attachment when the effects of social desirability are controlled.

Specifically, the more anxious and avoidant people are with respect to attachment, the lower they will score on a measure of relationship adjustment.

A hierarchical linear regression analysis was conducted to investigate the relationship between relationship adjustment and attachment, with the dependent variable in the hierarchical regression analysis representing relationship adjustment. Scores on the Personal Reactions Inventory (Crowne & Marlowe, 1960) were entered first to control for the effects of social desirability. The avoidance and anxiety dimensions of attachment were entered in the second step. Results of the regression analysis are summarized in Table 7.

In examining the relationship between relationship adjustment and attachment, results of the hierarchical regression analysis revealed that, after controlling for social desirability, there was a significant negative relationship between the avoidance dimension of attachment and relationship adjustment, $\beta = -.48$, $p < .01$. A negative relationship was also present between the anxiety dimension of attachment and relationship adjustment, $\beta = -.24$, $p < .05$. Results indicated that the avoidance and anxiety dimensions together accounted for a 68% of the variance in relationship adjustment, F change (1, 125) = 53.06, $p < .01$. This pattern of results indicates that both avoidance and anxiety are negatively related to relationship adjustment, and that the more anxious and avoidant people are with respect to attachment, the lower their scores on

relationship adjustment. With respect to Bartholomew and Horowitz' prototypes, this pattern of coefficients suggests that more secure people (lower anxiety and avoidance) score higher on relationship adjustment than more fearful (higher anxiety and avoidance) people, and that more dismissing (higher avoidance and lower anxiety) and preoccupied (higher anxiety and lower avoidance) people fall somewhere in-between. Fraley, Waller and Brennan (2000) stated that when both coefficients are negative, the effect is driven by both dimensions and the combination is sometimes referred to as the "secure vs. insecure" axis in the two-dimensional space.

Playfulness and Relationship Adjustment

Hypothesis 4: Playfulness, where higher scores indicate higher levels of playfulness, is positively related to relationship adjustment.

To examine this relationship, the correlation between scores on the Couples' Play

Table 7
Summary of Hierarchical Regression Analysis for Relationship Adjustment and Attachment

<i>Variables</i>	<i>R²</i>	<i>R² Change</i>	<i>F</i>	<i>F Change</i>	<i>β</i>	<i>p</i>
<i>Relationship Adjustment**</i>	.68		35.71			.00
<i>Step 1</i>		.00		.552	.07	.46
<i>Social Desirability</i>						
<i>Step 2**</i>		.46		53.06		.00
<i>Avoidance**</i>					-.48	.00
<i>Anxiety*</i>					-.24	.02

* *p* < .05; ** *p* < .01

Questionnaire (CPQ II; Betcher, 1977) and scores on the Dyadic Adjustment Scale (DAS; Spanier, 1987) was computed using the Pearson's Zero-Order Correlational

Analysis. As indicated in Table 4, the correlation between playfulness and relationship adjustment was .65 ($p < .01$), indicating that individuals who report greater playfulness also report higher levels relationship adjustment.

Self-Disclosure and Playfulness

Hypothesis 5a: Intent to self-disclose to a partner, where higher scores indicate a greater intent to self-disclose, is positively related to playfulness.

To examine this relationship, the correlation between scores on the Intent Subscale of the Revised Self-Disclosure Scale (RSDS; Wheelless, 1978) and scores on the Couples' Play Questionnaire (CPQ II; Betcher, 1977) was computed using the Pearson's Zero-Order Correlational Analysis. As indicated in Table 4, no significant relationship was found.

Hypothesis 5b: Amount of self-disclosure to a partner, where higher scores indicate a greater amount of self-disclosure, is positively related to playfulness.

To examine this relationship, the correlation between scores on the Amount Subscale of the Revised Self-Disclosure Scale (RSDS; Wheelless, 1978) and scores on the Couples' Play Questionnaire (CPQ II; Betcher, 1977) was computed using the Pearson's Zero-Order Correlational Analysis. As indicated in Table 4, the correlation between amount of disclosure and playfulness was .24 ($p < .01$), indicating a positive relationship between the two variables, such that people who report a greater amount of self-disclosure also report being more playful with their partners.

Hypothesis 5c: Valence of disclosure, where higher scores indicate more positive disclosures, is positively related to playfulness.

To examine this relationship, the correlation between scores on the Positiveness/Valence Subscale of the Revised Self-Disclosure Scale (RSDS; Wheelless, 1978) and scores on the Couples' Play Questionnaire (CPQ II; Betcher, 1977) was computed using the Pearson's Zero-Order Correlational Analysis. As indicated in Table 4, the correlation between valence of disclosure and playfulness was .27 ($p < .01$), indicating a positive relationship between the two variables, such that people who report higher levels of playfulness also report more positively-valenced self-disclosures.

Hypothesis 5d: Honesty of self-disclosure, whereas higher scores indicate a higher degree of honesty/accuracy, is positively related to playfulness.

To examine this relationship, the correlation between scores on the Honesty Subscale of the Revised Self-Disclosure Scale (RSDS; Wheelless, 1978) and scores on the Couples' Play Questionnaire (CPQ II; Betcher, 1977) was computed using the Pearson's Zero-Order Correlational Analysis. As indicated in Table 4, the correlation between honesty of disclosure and playfulness was .25 ($p < .01$), indicating a positive relationship between the two variables, such that people who report higher levels of playfulness also report more honesty in their self-disclosure to partners.

Hypothesis 5e: Depth of self-disclosure, where higher scores indicate greater depth, is positively related to playfulness.

To examine this relationship, the correlation between scores on the Depth Subscale of the Revised Self-Disclosure Scale (RSDS; Wheelless, 1978) and scores on the Couples' Play Questionnaire (CPQ II; Betcher, 1977) was computed using the Pearson's Zero-Order Correlational Analysis. As indicated in Table 4, the correlation between depth of disclosure and playfulness was .20 ($p < .05$), indicating a positive relationship

between the two variables, such that people who report more playfulness also report greater depth of self-disclosure to their partners.

Research Questions

Research Question 1: How will participants form natural groupings on the variables of interest (attachment style, playfulness, self-disclosure, relationship adjustment)?

Cluster analysis. The data was analyzed using Ward's (1963) method of cluster analysis to identify natural groupings in the data. Ward's (1963) method was used to group those participants who had responded to all questions necessary for the cluster analysis (N= 126). An initial cluster solution was examined, followed by successively lower and higher cluster solutions. At each level, a judgment was made about whether the merger/split seemed substantively reasonable. Judgments of the suitability of different cluster solutions were based on the solutions' preservation of detail and yield of substantively interpretable clusters. This method for selecting a final number of clusters was based on the technique used by Trochim (1993).

Prior to running the cluster analysis, all scores on the variables of interest were standardized to z-scores. This was a necessary first step to ensure that variables with larger values did not contribute disproportionately to the clustering solution. Since cluster analysis is also sensitive to outliers, individuals with scores three or more standard deviations above or below the mean on any of the variables of interest were eliminated from the clustering procedure.

The resulting dendrogram and a graph of squared coefficient changes (similar to a Scree plot) suggested that participants fell into five distinct clusters. Since the clusters contained unequal numbers of participants, Bennett post-hoc comparisons were used to

control for the number of tests and to examine the differences between means. The results of those comparisons are shown in Table 8. The results of the Bennett post-hoc test were used to determine differences between the clusters. While only significant differences between groups were used as the basis for cluster formation, due to tremendous variability regarding length of relationships, age, and a small sample size, non-significant trends are also noted in the descriptions of the clusters. These trends are non-significant, and were not used as a basis for comparing the groups, but in an effort to present a fuller description of the data, they are noted. Additionally, information that was gathered from the qualitative information provided by the participants was reported as a part of the group descriptions. This information is summarized in Table 9.

Cluster comparisons. Figure 1 shows a graphic representation of the differences between the five clusters on the variables of interest.

Cluster one (N=15) was characterized by participants who reported low levels of relationship adjustment. This group had the highest level of anxiety, and the second highest level of avoidance. They engaged in little play with their partners. However, this group was also highly disclosing to their partners. They were intentional about their disclosure to partners and disclosed both deeply and honestly. As a result of these characteristics, this group was named the *unhappy anxious disclosers*. Nonsignificant trends indicated that this group also had the highest number of children. Analysis of the qualitative responses from members of this group indicated that the stressors that impacted this group most significantly in the last six months were related to moving (26.67%) and work or school stress (33.33%). Clusters one and two seemed to have a much larger group of members who had recently moved or were planning to move

compared to the other three groups. Times that they were more playful with their partners included long periods of unstructured time, such as vacations (33.33%), and during special events or especially positive days (20%). This category distinguished the group from clusters two and four because their playfulness was dependent on very special occasions and long periods of free time, as opposed to every-day opportunities for play. They reported decreased playfulness during times of stress (46.67%) and during problematic times in the relationship (13.33%). A large majority of participants in cluster one reported that the most important reason for being in their relationships was love (40%) or companionship (40%).

Table 8
Means, Standard Deviations and Comparisons by Cluster

<i>Name</i>	<i>N in cluster</i>	<i>Variable</i>	<i>Mean</i>	<i>SD (Z)</i>	<i>Dunnett comparisons</i>
<i>Cluster 1</i>	15	<i>Avoidance</i>	.30	.59	1>2, 1>4, 1>5
		<i>Anxiety</i>	.80	.84	1>2, 1>4
		<i>DAS</i>	-.61	.39	1<2, 1<3, 1<4, 1>5
		<i>CPQ II</i>	-.49	.54	1<2, 1<4, 1>5
		<i>RSDS</i>	.58	.41	1>2, 1>3, 1<4, 1>5
<i>Cluster 2</i>	44	<i>Avoidance</i>	-.73	.31	2<1, 2<3, 2<5
		<i>Anxiety</i>	-.68	.36	2<1, 2<3, 2<5
		<i>DAS</i>	.66	.57	2>1, 2>3, 2>5
		<i>CPQ II</i>	.35	.62	2>1, 2>3, 2<4, 2>5
		<i>RSDS</i>	.06	.51	2<1, 2>3, 2<4
<i>Cluster 3</i>	28	<i>Avoidance</i>	.44	.63	3>2, 3>4, 3<5
		<i>Anxiety</i>	.18	.82	3>2, 3>4, 3<5
		<i>DAS</i>	-.12	.45	3>1, 3<2, 3<4, 3>5
		<i>CPQ II</i>	-.15	.69	3<2, 3<4, 3>5
		<i>RSDS</i>	-.80	.50	3<1, 3<2, 3<4,
<i>Cluster 4</i>	23	<i>Avoidance</i>	-.76	.34	4<1, 4<3, 4<5
		<i>Anxiety</i>	-.65	.30	4<1, 4<3, 4<5
		<i>DAS</i>	.51	.52	4>1, 4>3, 4>5
		<i>CPQ II</i>	.99	.54	4>1, 4>2, 4>3, 4>5
		<i>RSDS</i>	1.22	.49	4>1, 4>2, 4>3, 4>5
<i>Cluster 5</i>	16	<i>Avoidance</i>	1.46	.85	5>1, 5>2, 5>3, 5>4
		<i>Anxiety</i>	1.22	.83	5>2, 5>3, 5>4
		<i>DAS</i>	-1.47	.78	5<1, 5<2, 5<3, 5<4
		<i>CPQ II</i>	-1.49	.66	5<1, 5<2, 5<3, 5<4
		<i>RSDS</i>	-.69	1.15	5<1, 5<2, 5<4

The second cluster (N=44) was comprised of participants who experienced the lowest levels of anxiety and avoidance and the highest levels of relationship adjustment. They reported high levels of playfulness, but only a moderate level of disclosure to their partners. Their disclosure patterns appeared to reflect lower amounts of disclosure, more positive valence of disclosures, less depth of disclosure, and moderate honesty. Based on these characteristics, the group was named the *happy secure moderate-disclosers*. This group also reported high levels of concerns about money. Nonsignificant trends indicated that this group seemed to have the fewest number of children and the highest income. A higher number of married participants were a part of this group than was represented in the overall sample. The qualitative responses from these individuals indicated that a wide range of stressors had been experienced in the last six months, but they predominantly included moving (25%), work or school stress (20.45%), and health or injury (13.634%). This cluster, as with cluster one, was distinguished from clusters three, four, and five by experiencing more stressors related to moving in the last six months. These participants also reported that they were more playful with their partners during every-day unstructured activities (52.27%) and during alone time (13.64%). Clusters two and four were unique from the other three clusters based on their ability to capitalize on the every-day unstructured moments of their lives to enjoy play with their partners. Times that these individuals were less playful included during periods of stress (36.36%) in general as well as during particularly stressful times of the day/week (15.91%). This group used play as a means of stress reduction/relaxation (15.91%) more than did participants in clusters one, four and five. They viewed companionship

(43.18%), followed by love (36.36%) as the most important reasons that they were in their relationships.

Participants in cluster three (N=28) showed average levels of playfulness and relationship adjustment. They had the lowest levels of disclosure, and higher levels of anxiety and avoidance than clusters two or four. This group showed low intention to disclose, low amounts of disclosure, less depth of disclosure and the least honesty in their disclosures. Additionally, these participants were found to disclose more statements of negative valence. Based on these observations, this group was named the *short-term anxious-avoidant non-disclosers*. Nonsignificant trends suggested that this group had been together for the shortest amount of time, and that couples who were dating and non-married were over-represented in this cluster. The qualitative information generated by this group indicated that the majority of their stress in the last six months was based in work or school issues (39.29%), followed by financial concerns (14.29%). This groups' stressors were more often tied to work or school stress and were more frequently financial in nature than in any other group. This cluster of participants also reported being more playful with their partners during every-day, unstructured times (21.43%), shared activities (17.86%), and during vacations or extended blocks of unstructured time (14.29%). However, no times were endorsed to a great degree above any other in this category, and responses to this question were more evenly distributed across categories than in the other groups. General stress was the major reason that this cluster reported less play in their relationships (28.57%), followed by stress that was specific to a day or time of the week (17.86%). Members of cluster three reported a higher use of playfulness for the enhancement of emotional intimacy (14.29%) and enhancement of sex

Table 9

Summary of Qualitative Data, Percent Endorsement of Category by Cluster

	<i>Cluster 1</i> <i>N = 15</i>	<i>Cluster 2</i> <i>N = 44</i>	<i>Cluster 3</i> <i>N = 28</i>	<i>Cluster 4</i> <i>N = 23</i>	<i>Cluster 5</i> <i>N = 15</i>
<i>Stressors</i>					
1. <i>Moving</i>	26.67%	25%	10.71%	8.70%	6.25%
2. <i>Job/Work/School</i>	33.33%	20.45%	39.29%	26.09%	25%
3. <i>Separation</i>	-	11.36%	3.57%	-	-
4. <i>Engagement/Marriage</i>	6.67%	2.27%	-	4.35%	6.25%
5. <i>Family</i>	-	-	3.57%	4.35%	6.25%
6. <i>Finance</i>	6.67%	6.82%	14.29%	8.70%	6.25%
7. <i>Health</i>	13.33%	13.64%	10.71%	8.70%	12.5%
8. <i>Pregnancy</i>	-	2.27%	-	4.35%	6.25%
9. <i>Death</i>	-	4.54%	-	17.39%	-
10. <i>Problems with partner</i>	-	-	3.57%	-	-
11. <i>No stressors</i>	6.67%	2.27%	-	4.35%	12.5%
12. <i>Incorrect response</i>	-	-	-	-	6.25%
13. <i>No response</i>	6.67%	11.36%	10.71%	13.04%	12.5%
<i>Times More Playful</i>					
1. <i>Special/positive events/memories</i>	20%	6.82%	7.14%	-	6.25%
2. <i>Vacations/ extended periods of unstructured time</i>	33.33%	6.82%	14.29%	17.39%	43.75%
3. <i>Every-day unstructured moments</i>	13.33%	52.27%	21.43%	56.52%	18.75%
4. <i>Enjoyable activities</i>	13.33%	4.54%	17.86%	-	-
5. <i>Sex</i>	6.67%	-	7.14%	4.35%	-
6. <i>Alone time</i>	-	13.64%	3.57%	-	6.25%
7. <i>Generally positive state</i>	-	4.54%	3.57%	17.39%	-
8. <i>Incorrect response</i>	-	4.54%	10.71%	-	12.5%
9. <i>No response</i>	13.33%	6.82%	14.29%	4.35%	12.5%
<i>Times Less Playful</i>					
1. <i>Stress</i>	46.67%	36.36%	28.57%	39.13%	31.25%
2. <i>Fatigue</i>	6.67%	11.36%	25%	8.70%	18.75%
3. <i>Problems with mood or relationship</i>	13.33%	11.36%	10.71%	21.74%	18.75%
4. <i>Other people</i>	6.67%	9.09%	3.57%	4.35%	6.25%
5. <i>Stressful times of day/week</i>	6.67%	15.91%	17.86%	17.39%	12.5%
6. <i>Incorrect response</i>	6.67%	4.54%	3.57%	4.35%	6.25%
7. <i>No response</i>	13.33%	11.36%	10.71%	-	6.25%
<i>Function of Play</i>					
1. <i>Stress reduction/ relaxation</i>	6.67%	15.91%	14.29%	8.70%	6.25%
2. <i>Elevation of positive mood</i>	6.67%	4.54%	3.57%	8.70%	-
3. <i>Enhancement of emotional intimacy</i>	6.67%	4.54%	14.29%	-	-
4. <i>Enhancement of sex</i>	6.67%	2.27%	10.71%	4.35%	6.25%
5. <i>Incorrect response</i>	6.67%	4.54%	3.57%	4.35%	6.25%
6. <i>No response</i>	60%	68.18%	53.57%	73.91%	81.25%

Table 9 Continued

Summary of Qualitative Data, Percent Endorsement of Category by Cluster

	<i>Cluster 1</i> <i>N = 15</i>	<i>Cluster 2</i> <i>N = 44</i>	<i>Cluster 3</i> <i>N = 28</i>	<i>Cluster 4</i> <i>N = 23</i>	<i>Cluster 5</i> <i>N = 15</i>
<i>Reason in Relationship</i>					
1. <i>Love</i>	40%	36.36%	21.43%	26.09%	31.25%
2. <i>Companionship</i>	40%	43.18%	50%	47.83%	31.25%
3. <i>Emotional life enhancement</i>	6.67%	6.82%	3.57%	8.70%	12.5%
4. <i>Compatibility</i>	6.67%	2.27%	7.14%	-	6.25%
5. <i>Security</i>	6.67%	2.27%	3.57%	-	-
6. <i>Family</i>	-	2.27%	7.14%	4.35%	6.25%
7. <i>Destiny</i>	-	2.27%	3.57%	8.70%	6.25%
8. <i>No response</i>	-	4.54%	3.57%	4.35%	-

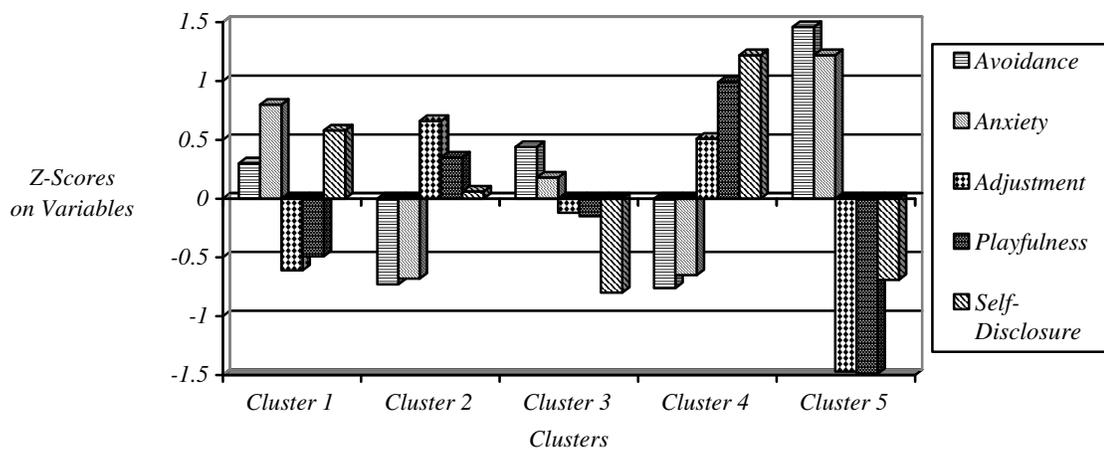
(10.71%) than did any of the other groups. They also endorsed the use of play to reduce stress at a level similar to cluster two. The majority of individuals in cluster three reported that “companionship” was the primary reason for being in a relationship (50%). Cluster four (N=23) included individuals who reported the highest levels of playfulness, the lowest levels of anxiety and avoidance, and the most successful relationship adjustment. This group had the highest levels of disclosure in terms of amount, depth and honesty. Their disclosures were also the most positive in terms of valence. Based on these defining characteristics, this group was named the *happy secure disclosers*. Nonsignificant observations suggested that this group was the youngest age group (M = 31.96 years) and had the second shortest length of relationships. They had fewer children than three of the other groups. The qualitative data provided by this group indicated that stressors in the last six months varied in type, but many fell into the category of work or school stress (26.09%). They also endorsed the highest numbers of stressors in the last six months that were due to the death of a family member, friend or pet (17.39%). This group, similar to cluster two, reported being most playful with their partners during

every-day, unstructured periods of time (56.52%). Equal numbers of participants in this group also reported increased playfulness during long periods of unstructured time, such as vacations (17.39%), and a general tendency toward playfulness regardless of events (17.39%). The tendency toward general playfulness was most highly endorsed by this group than by any other cluster. Times that these individuals were less playful fell mostly into the categories of general stress (39.13%) or during problematic times in the relationship with their partner (21.74%). The participants in cluster four were the most likely to report that they used play in their relationships to elevate already positive moods (8.7%). They endorsed the use of play as a means of relaxation and stress reduction to an equal degree (8.7%). The majority of group members in cluster four indicated “companionship” (47.83%) as their primary reason for being in a relationship. This response was followed by love (26.09%).

The fifth cluster (N=16) included participants with the lowest levels of playfulness who had the least well-adjusted relationships. They had the highest scores on anxiety and avoidance, and disclosed the least. Disclosure was characterized by a low amount, less depth, less honesty, and more negative statements. Consistent with this description, the fifth cluster was named the *long-term anxious- avoidant non-disclosers*. Nonsignificant observations suggested that this group also seemed to have the longest relationships, the lowest income, and were the oldest (M = 39.06 years). Additionally, this group had a higher representation of couples living together (unmarried) than the general sample or other groups. This group experienced the majority of their stressors in the past six months with regard to work or school stress (25%). Unlike the other clusters that reported that play occurred at a variety of times, this cluster reported that play

typically occurred only during long periods of unstructured time such as vacations and long weekends (43.75%). While this cluster reported that periods of general stress (31.25%), fatigue (18.75%) or problems in the relationship (18.75%) seemed to account for most of the reason for decreased play, they were not distinguished from any of the other clusters with regard to the times they were less playful. Similar to the other groups, most members of cluster five endorsed “love” (31.25%) and “companionship” (31.25%)

Figure 1
Five Cluster Solution



as being their primary reasons for being in a relationship. An interesting distinction of this group was that, compared to all of the other groups, a larger percentage of cluster five cited the emotional enhancement of their lives as being the most important reason to be in a relationship (12.5%).

Research Questions 2-4

Qualitative data was collected via the use of research questions that produced responses to open-ended questions. This information was analyzed to further examine the variables of interest.

For each research question, both the researcher and a doctoral-level psychologist independently evaluated the qualitative responses and developed categories that appeared to capture the data. They then discussed their categories and practiced coding the data using the revised categories. After discussing the categories and revising them a final time, two independent raters (including the researcher) rated the data into the identified categories.

The resulting categories and participant membership in each category are summarized in Tables 10, 11 and 12.

Research Question 2: What do people report as factors that might affect the levels of playfulness expressed in romantic relationships?

To evaluate this question, qualitative data was gathered from the questions “Please describe any times that you and your partner are MORE likely to be playful with one another,” and “Please describe any times that you and your partner are LESS likely to be playful with one another.” Categories were developed as described above, and inter-rater reliability was calculated in two ways. Percent agreement indicated a reliability of 99.2%. When the reliability was calculated using the Kappa statistic to correct for expected agreement by chance, inter-rater reliability was .99. Of the 132 participants, 123 responded to this question and were used to determine categories for the data.

In response to the first question, this procedure resulted in the development of seven general categories of factors that acted as facilitators for higher levels of play. The first category was titled “Special or positive events and memories.” Respondents in this category (N = 9) reported that particular types of events led to increased levels of play in their relationships. The types of events that facilitated playfulness in these relationships included holidays, birthdays, celebrations, times spent reminiscing, and “good days” in which events in their lives have gone well.

The second category developed from the data was “Vacations/ Extended periods of unstructured time.” Respondents in this category (N = 25) reported that long periods of time without work or responsibilities led to increased playfulness with their partners. The responses in this category included reference to weekends and vacations or “time away.” These responses also often made reference to lower levels of stress.

The third category that emerged from the data was “Every-day unstructured moments.” These respondents (N = 47) were similar to the second group, but the emphasis was on shorter periods of unstructured time. Their responses included daily periods of time without work or structure (e.g. meal times, evenings, first thing in the morning, before bed) and also often made reference to feeling less stressed.

The fourth distinct category that emerged from the data included “Enjoyable activities” as facilitators to play in the relationship. The responses (N = 10) that fell into this category included statements that referenced increased levels of play during times that the couple was enjoying or doing something together such as biking, hiking, sports, walking dogs, going on a date, having dinner, or watching TV.

The fifth category of facilitators to increased play included responses that referred to “Sex” as a means or as an outcome. These respondents (N = 4) reported higher levels of play when engaging in sexual activities or when making an effort to convey sexual interest or promote arousal.

The sixth category that emerged was called “Alone time.” Nine respondents reported that being alone with their partner acted as a promoter of playful behaviors. These statements made reference to activities that just involved the couple and specified the importance of being isolated with their partner (e.g. when we’re alone; when the kids are in bed or taking a nap).

The seventh category that was developed from the data included responses that indicated a “Generally Positive State.” These responses included such statements as “we always play,” or “we play most of the time.” Eight participants reported that instead of specific events being precipitants to playfulness, they engaged in a generally high level of play behaviors.

Respondents were also coded into categories that included “No response” (N = 13) or “Incorrect response” (N = 7). An example of the latter type of response included those that described playful activities without reference to times that they occurred.

Participants also responded to the question “Please describe any times that you and your partner are LESS likely to be playful with one another.” Categories were developed as described above, and inter-rater reliability was calculated in two ways. Percent agreement indicated a reliability of 96.8%. When the reliability was calculated using the Kappa statistic to correct for expected agreement by chance, inter-rater

reliability was .96. Of the 132 participants, 120 responded to this question and were used to determine categories for the data.

The first category of inhibitors to play included responses that indicated periods of high stress in respondents' lives and was titled "Stress." Responses that fell into this category (N = 46) included stress related to family, work, demands, finances, decision-making, worry, or generally "bad days."

The second category of inhibitors to playfulness included answers that referenced "Fatigue." These responses (N = 18) ranged included general statements about fatigue or being tired, and also included references to illness.

The third category of responses emerged from answers that referred to difficulties in the relationship or moods of the partners. This category (N = 21) was called

Table 10
Categories of Qualitative Data for Research Question 2

	<i>N</i>	<i>Percent of Total N</i>
<i>Times More Playful</i>		
1. <i>Special/positive events/ memories</i>	9	7.32%
2. <i>Vacations/ extended periods of unstructured time</i>	25	20.33%
3. <i>Every-day unstructured moments</i>	47	38.21%
4. <i>Enjoyable activities</i>	10	8.13%
5. <i>Sex</i>	4	3.25%
6. <i>Alone time</i>	9	7.32%
7. <i>Generally positive state</i>	8	6.50%
8. <i>Incorrect response</i>	7	5.69%
9. <i>No response</i>	13	10.57%
<i>Times Less Playful</i>		
1. <i>Stress</i>	46	38.33%
2. <i>Fatigue</i>	18	15.00%
3. <i>Problems with mood or relationship</i>	21	17.50%
4. <i>Other people</i>	9	7.50%
5. <i>Stressful times of day/week</i>	20	16.67%
6. <i>Incorrect response</i>	6	5.00%
7. <i>No response</i>	12	10.00%

“Problems with mood or relationship.” These answers included statements such as: “when disappointed, angry or distrustful of spouse;” “bad mood;” and “arguments.”

The fourth category of play inhibitors was “Other people.” Nine participants indicated that being around others or in public situations acted as an inhibitor to their play behaviors with their partners.

The fifth and final category that emerged from the data included “Stressful times of the day or week.” These answers (N = 20), while similar to the first category in that they involve stressors, all referenced a particular time of day or time of the week that play was inhibited in their relationships. Respondents in this category wrote answers to the question that included, “when I first come home from work,” “in the morning,” or “weekdays.”

All other responses were coded as “Incorrect response” (N = 6) or “No response” (N = 12).

Research Question 3: How do romantic attachment partners understand the use of play in their relationships?

To evaluate this question, qualitative data was gathered from the question, “What are some of the functions of play in your relationship? In other words, how do you and your partner use play?” Categories were developed using the procedure described above, and inter-rater reliability was calculated in two ways. Percent agreement indicated a reliability of 100%. When the reliability was calculated using the Kappa statistic to correct for expected agreement by chance, inter-rater reliability was 1.00. Due to errors in the transfer process from the web site to the data file, some information was lost and

only 43 responses were transferred to the data file. Of the 132 participants, this sample of 43 responses was used to determine categories for the data.

The first category that developed from the data included “Reduction of stress/relaxation” as a function of play behaviors in participants’ relationships. This category included 15 individuals and included statements that made reference to the use of play in an effort to reduce tension, decrease stress, improve communication when tension is present, or relax.

The next category included statements that suggested that play was used to achieve “Elevation of positive mood.” These responses (N = 7) indicated no presence of tension or stress, but suggested a use of play to increase already positive emotions in the relationship. Examples of these responses include statements such as, “to keep the relationship fun or new,” “to laugh,” “elevate mood,” or “because it is fun.”

The third category was defined by the use of play for “Enhancement of emotional intimacy.” These responses (N = 8) indicated that participants used play to feel more emotionally connected to one another, to increase feelings of intimacy, and to promote positive interactions with their partner. Examples of items in this category include, “to get closer physically and emotionally,” “well for me it is a bonding and tension buster,” and “to feel close to one another.”

The fourth category included statements that were defined by their relationship to achieving the “Enhancement of sex.” The statements that were included in this category (N = 7) made reference to the use of playful behaviors to stimulate sexual interest or to enhance the sexual relationship. Examples of items in this category include, “We

sometimes use play as a way to transition to sexual activity,” or “We play with and touch each other to increase expectations and arousal.”

The remaining statements were coded into categories that included “Incorrect response” (N = 2), in which respondents described playful behaviors but did not reference the function of their activities, or “No response/ Not applicable” (N = 4).

Table 11
Categories of Qualitative Data for Research Question 3

	<i>N</i>	<i>Percent of Total N</i>
<i>Function of Play</i>		
1. <i>Stress reduction/ relaxation</i>	15	11.36%
2. <i>Elevation of positive mood</i>	7	5.30%
3. <i>Enhancement of emotional intimacy</i>	8	6.06%
4. <i>Enhancement of sex</i>	7	5.30%
5. <i>Incorrect response</i>	6	4.54%
6. <i>No response</i>	89	67.42%

Research Question 4: How do the perceived purposes of relationships (e.g. companionship, financial security, raising a family, etc.) relate to the expression of self-disclosure and playfulness in romantic relationships?

To evaluate this question, qualitative data was gathered from the question, “What is the ONE PURPOSE of your relationship/marriage that you value most highly (examples of the purpose of a relationship or marriage MAY include such things as: companionship, financial security, supporting a family, etc.)?” Categories were developed using the procedure described above, and inter-rater reliability was calculated in two ways. Percent agreement indicated a reliability of 97.7%. When the reliability was calculated using the Kappa statistic to correct for expected agreement by chance, inter-rater reliability was .98. Of the 132 participants, 128 responded to the question and

were used in the development of categories. Although most participants responded with more than one answer to the question, only the first response to the question was coded, since the question specified an interest in “one purpose.” This strategy also increased the consistency of ratings. A summary of the categories that were developed and the number of participants who endorsed each relationship purpose is presented in Table 12.

The first category of relationship purposes that was identified was “Love.” Forty-four respondents identified “love” or “what I call love” as the most valuable purpose of their relationship. This response was often paired with selections from other categories below, but those who stated that “love” was their primary purpose, or those who listed it first, were included in this category.

The second category of relationship purpose that emerged from the responses was “Companionship.” Fifty-six participants answered that the one purpose of their

Table 12
Categories of Qualitative Data for Research Question 4

	<i>N</i>	<i>Percent of Total N</i>
<i>Reason in Relationship</i>		
1. <i>Love</i>	44	33.33%
2. <i>Companionship</i>	56	42.42%
3. <i>Emotional life enhancement</i>	9	6.81%
4. <i>Compatibility</i>	5	3.79%
5. <i>Security</i>	4	3.03%
6. <i>Family</i>	5	3.79%
7. <i>Destiny</i>	5	3.79%
8. <i>No response</i>	4	3.03%

relationship that they valued most highly was the friendship or companionship that they derived from or created in their relationship. Responses that were coded into this category

also included references to having a “best friend” in their partner, “friendship,” having someone to spend time with, or liking their partner.

The third type of purpose that was described in participants’ responses was “Emotional life enhancement.” Respondents whose answers were coded in this category (N = 9) identified their most valued purpose as being the emotional enhancement that they derived from being in a relationship. These responses included references to emotional enhancement of their lives, intimacy, emotional support, feeling known, or having fun. Examples of responses in this category include “enhance the emotional/physical/spiritual quality of my life. enhance the emotional/physical/spiritual quality of my partner's life,” “it makes me happy to be with him,” and “I like the feeling that someone else really knows who I am at my core.”

The fourth purpose of relationships that emerged from the data was “Compatibility.” This category (N = 5) included statements that made reference to the uniquely good fit with participants’ partners in terms of shared values or beliefs. Examples of items in this category include “shared values,” “similar interests,” “I’m in a relationship now because my partner and I are well suited for one another,” and “it works well.”

The fifth category of relationship purpose that was developed given participants’ responses was “Security.” These participants (N = 4) listed as their most important or valued purpose the security that they derived from being in a relationship. These responses included either direct references to security (emotional or financial) or a continuous, reliable sense of comfort or safety. Examples of items include “security - emotional and financial,” and “comfort.”

The sixth category that emerged from the data was “Family.” Five respondents identified family obligations or family aspirations as being their most valued purpose for being in a relationship. Examples of responses that were coded in this category included “we both want to start a family so that we can give back to life what our parents gave to us,” “keeping our family together,” and “for the sake of the children.”

The last category that was present in the responses included all references to “Destiny.” These responses (N = 5) included statements that referred to a higher power or a greater purpose than their own will or choices. Examples of items that fell into this category include “My partner is my soulmate,” “Calling. I believe that there is a divine plan for my life, and my marriage is part of that,” and “We were born to be together.” Participants who did not respond to the question were coded as “No response.”

In order to examine the ways in which the most valued purpose of participants’ relationships were related to playfulness, each participant’s response was coded into one of the eight categories. A one-way, between-groups analysis of variance was used to examine differences in playfulness between groups of participants who identified the primary purpose of their relationship as “love,” “companionship” and “other.” The “other” category consisted of categories 3-7 collapsed into one category (N = 28). The categories were collapsed because of the low number of participants in each of the categories. The means and standard deviations of playfulness in each group are shown in Table 13. The results of the ANOVA indicated that no differences existed in playfulness between the groups based on purpose of their relationships.

Next, a second one-way, between-subjects analysis of variance was used to examine any differences in self-disclosure between groups of participants who identified

Table 13
Means and Standard Deviations of Playfulness by Purpose of Relationship

<i>Purpose of Relationship</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
<i>Love</i>	42	3.66	.47
<i>Companionship</i>	56	3.74	.38
<i>Other</i>	28	3.63	.43

the primary purpose of their relationship as “love,” “companionship” and “other.” The mean level of self-disclosure in each group is shown in Table 14. The results of the analysis indicated that no differences existed in self-disclosure between the groups based on purpose of their relationships.

Table 14
Means and Standard Deviations of Self-Disclosure by Purpose of Relationship

<i>Purpose of Relationship</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
<i>Love</i>	44	4.84	.62
<i>Companionship</i>	56	4.75	.66
<i>Other</i>	9	4.62	.68

Additional Qualitative Analyses

Additional qualitative data was analyzed to assist in the description of naturally-forming clusters. Qualitative data was gathered from the prompt, “Please list any life stressors that you have encountered during the last 6 months (these may include things such as traumas, moving, life transitions, injury, etc.).” Categories were developed using

the same procedure as that used to explore Research Questions 2-4, and inter-rater reliability was calculated in two ways. Percent agreement indicated a reliability of 97.1%. When the reliability was calculated using the kappa statistic to correct for expected agreement by chance, inter-rater reliability was .97. Of the 132 total participants, 114 provided an answer to this question and were included in the development of categories.

The categories of stressors included the following: 1. Moving (e.g. moved; planning to move; buying a house); 2. Job/Work/School-Related Stressors (e.g. changed job; began graduate school; finished Ph.D., job loss, retirement); 3. Separation (e.g. from partner due to job, school, or military; child leaving for college); 4. Engagement/Marriage; 5. Family (e.g. in-laws; family conflict; child care; children growing up); 6. Finance; 7. Health (e.g. injury; mental or physical health concerns about self, partner, family, friends, or pets); 8. Pregnancy (e.g. getting pregnant; trying to conceive; having a baby; miscarriage); 9. Death (e.g. of a close family member, friend or pet); 10. Problems with Partner (e.g. infidelity, lies, mistrust, dishonesty). Other responses were recorded as “No stressors,” “Incorrect response,” or “No response.”

These categories were then compared across clusters and were used to assist in their description. The percent endorsement of each category by cluster is presented in Table 9.

Additional Regression Analyses

Since Kashdan, Rose and Fincham’s (2002) measure of exploration had been used little in previous research and had uncertain psychometric properties, it was not used as a basis for examining the major hypotheses in the present study. Nonetheless, theory

makes a case for examining the relationship of exploration to playfulness, as they are thought to be related through the exploration system in adulthood. A simultaneous linear regression analysis was conducted to investigate the role of exploration, as conceptualized by Kashdan, Rose and Fincham (2002), in combination with anxiety and avoidance, in the prediction of playfulness. The dependent variable in the hierarchical regression analysis represented playfulness. Scores on the Curiosity and Exploration Inventory were entered into the model along with anxiety and avoidance. Results of the regression analysis are summarized in Table 15.

In examining the relationship between playfulness and attachment, results of the hierarchical regression analysis revealed a significant positive relationship between exploration and playfulness, $\beta = .23$, $p < .01$ and a negative relationship between the avoidance dimension of attachment and playfulness, $\beta = -.34$, $p < .01$. Anxiety was found to be unrelated to playfulness, although it approached significance at , $\beta = -.23$, $p = .055$. Results also indicated that exploration, avoidance and anxiety together accounted for 59% of the variance in playfulness, F change (1, 125) = 22.14, $p < .01$. This pattern of results suggests that individuals high in exploratory motivation and low in avoidance score higher on measures of playfulness.

Table 15
Summary of Hierarchical Regression Analysis for Playfulness and Attachment

<i>Variables</i>	R^2	F	β	p
<i>Playfulness**</i>	.59	22.14		.00
<i>Exploration**</i>			.23	.00
<i>Avoidance**</i>			-.34	.00
<i>Anxiety</i>			-.23	.06

* $p < .05$; ** $p < .01$

Based on the same theoretical assumptions that supported a need to examine the relationship of exploration to playfulness, a second simultaneous linear regression analysis was conducted to investigate the role of exploration, anxiety and avoidance in the prediction of self-disclosure. The dependent variable in the hierarchical regression analysis represented self-disclosure. Scores on the Curiosity and Exploration Inventory were entered into the model along with anxiety and avoidance. Results of the regression analysis are summarized in Table 17.

In examining the relationship between self-disclosure and attachment, results of the hierarchical regression analysis revealed a negative relationship between the avoidance dimension of attachment and self-disclosure, $\beta = -.48$, $p < .01$. Both anxiety and exploration were found to be unrelated to self-disclosure. Results also indicated that exploration, avoidance and anxiety together accounted for 50% of the variance in self-disclosure, F change (1, 126) = 13.71, $p < .01$. This pattern of results indicates that the more avoidant people are with respect to attachment, the lower their level of self-disclosure within their relationships.. With respect to Bartholomew and Horowitz' (1991) prototypes, this pattern of coefficients suggests that highly fearful and dismissing people score lower on self-disclosure than highly secure and preoccupied individuals.

Table 16
Summary of Hierarchical Regression Analysis for Self-Disclosure and Attachment

<i>Variables</i>	R^2	F	β	p
<i>Self-Disclosure</i> **	.50	13.71		.00
<i>Exploration</i> **			.15	.07
<i>Avoidance</i> **			-.48	.00
<i>Anxiety</i>			.10	.92

* $p < .05$; ** $p < .01$

Finally, a third simultaneous linear regression analysis was conducted to investigate the role of exploration, anxiety and avoidance in the prediction of relationship adjustment. The dependent variable in the hierarchical regression analysis represented relationship adjustment. Scores on the Curiosity and Exploration Inventory were entered into the model along with anxiety and avoidance. Results of the regression analysis are summarized in Table 17.

In examining the relationship between relationship adjustment and attachment, results of the hierarchical regression analysis revealed a negative relationship between the avoidance dimension of attachment and relationship adjustment, $\beta = -.45$, $p < .01$, and also between the anxiety dimension of attachment of relationship adjustment, $\beta = -.27$, $p < .01$. Exploration was found to be unrelated to relationship adjustment. Results also indicated that exploration, avoidance and anxiety together accounted for 46% of the variance in relationship adjustment, F change (1, 125) = 34.33, $p < .01$. This pattern of results indicates that both avoidance and anxiety are negatively related to relationship adjustment. As such, the more anxious and avoidant people are with respect to attachment, the lower their scores on the Dyadic Adjustment Scale. With respect to Bartholomew's prototypes, this pattern of coefficients suggests that more secure people

Table 17
Summary of Hierarchical Regression Analysis for Relationship Adjustment and Attachment

<i>Variables</i>	R^2	F	β	p
<i>Relationship Adjustment**</i>	.46	34.33		.00
<i>Exploration</i>			-.04	.53
<i>Avoidance**</i>			-.45	.00
<i>Anxiety**</i>			-.27	.01

* $p < .05$; ** $p < .01$

(lower anxiety and avoidance) score higher on relationship adjustment than do more fearful people (higher anxiety and avoidance). People who fall more into the dismissing (higher avoidance and lower anxiety) and preoccupied (higher anxiety and lower avoidance) categories fall between these two groups.

Additional Correlations

Correlations between demographic and assessment variables produced some interesting results above and beyond the information gained by examination of the hypotheses. In addition, some exploratory analyses were conducted after the major hypotheses and research questions had been explored. A summary of this information is presented in the following section. The correlations discussed in this section can be found in Table 4.

In the study's sample, the age of participants was significantly correlated in important ways with other demographic and research variables. The age of participants correlated positively with the length of relationship ($r = .74, p < .01$) and attachment avoidance ($r = .26, p < .01$). Age was negatively correlated with amount of self-disclosure ($r = -.23, p < .01$), and depth of self-disclosure ($r = -.23, p < .01$). Additionally, the length of relationships was negatively correlated with playfulness ($r = -.26, p < .01$) and depth of self-disclosure ($r = -.23, p < .01$).

In terms of gender difference, only two variables of interest were found to differ by gender. In this sample, women were more likely than men to self-disclose a greater amount ($r = .316, p < .05$) and more deeply ($r = .204, p < .05$).

In terms of attachment, additional correlations indicated that higher levels of attachment anxiety were related to money concerns ($r = .27, p < .01$) and attachment

avoidance ($r = .76, p < .01$). Higher levels of attachment avoidance were also positively related to having money concerns ($r = .28, p < .01$).

In terms of the other variables of interest, higher levels of playfulness were positively related to exploration ($r = .26, p < .01$) and negatively correlated with money concerns ($r = -.23, p < .01$). Relationship adjustment was also negatively related to money concerns ($r = -.49, p < .01$).

Chapter 6: Discussion

Overview

The present study utilized the concepts of attachment to investigate aspects of relationship adjustment and emotional exploration in the committed romantic relationships of adults. There is currently a lack of research addressing this issue in the current literature, and this study provides an important exploratory effort to suggest how functions such as playfulness and exploration that have been shown to be related to attachment in children might be related to relationship satisfaction and attachment characteristics in adult attachment relationships.

This chapter provides presents an overview and discussion of the major findings of the present study. First, this section will present descriptive information about the sample, followed by the results of the major hypotheses. Next, the chapter presents the exploratory qualitative data as it was applied to the research questions. The limitations of the current study are then addressed, followed by implications of the present study's findings, with particular attention to implications for future research and practice.

Discussion of findings

Sample. In the sample obtained for the present study, the group demonstrated somewhat more securely attached individuals than have been found in previous studies (Hazan & Shaver, 1987, Studies 1 and 2; Hazan & Shaver, 1990; Shaver & Hazan, 1987). In these studies, approximately half of the participants self-identified as securely attached, whereas in the present study nearly three quarters of the participants identified as such. A particularly small percentage of participants identified as anxious-avoidant, compared to these same studies. According to scores on the ECR-R, these participants reported lower

levels of anxiety and avoidance as compared to participants in previous research studies. Observations of the present sample indicated that the sample was highly educated and successful, mostly employed, and primarily white. When compared against other studies, the present sample had also been involved in relationships of longer length and a greater percentage of the participants in the present sample were married. Based on this difference, one hypothesis to explain the over-representation of securely attached adults is that over time, repeated interactions with one's partner across years and circumstances may increase feelings of trust through increased knowledge of the other person. Also, individuals who have committed to marriage or who have been involved in longer-term committed relationships may represent individuals who are in more successful relationships that have led to this type of commitment. It could also be possible that individuals who are married and who have made permanent commitments may tend to have more positive feelings about their relationships, as indicated on a measure of romantic attachment, due to the effect of cognitive dissonance. Cognitive dissonance is a psychological phenomenon that refers to the tendency for individuals to seek consistency among their cognitions. In the case of a discrepancy between attitudes and behavior, it is most likely that the attitude will change to accommodate the behavior. As a result, individuals who have married may feel a cognitive pull to believe more positive things about their relationship, given their choice to make a commitment to marriage with their partner.

The sample participants also reported a lower level of playfulness than had been found in previous research (Aune & Wong, 2002). Examination of differences between the population in the present study and the sample in Aune and Wong's revealed that the

present sample included less diversity and a greater proportion of married participants. It is unknown how the two samples compared on other factors such as number of children. Based only on the information about length and type of relationship, however, we can conclude one possible reason for these differences in playfulness. In the present study, a significantly negative relationship was found between length of relationship and level of playfulness ($r = -.27, p < .01$). This finding is consistent with the observation that the present sample reported lower levels of playfulness than Aune and Wong's sample, given that the present sample were involved in relationships of longer length.

The sample participants were also predominantly White/European American (76.5%), female (80.3%), heterosexual (88.6%), highly educated (at least 85.6% college-educated, and at least 96.2% with high school diplomas), and employed at least part-time (90.8%). This apparent bias in sampling is most likely due to the method of sampling, which included utilizing the contacts of the primary researcher and research assistant, and the subsequent contacts of those contacts. Additionally, the method of data collection (internet study) may have contributed to a bias in the participants who could be reached and who could feasibly complete the study. Nonetheless, the method of collection may be biased against individuals of lower socioeconomic status or lower levels of education who may not have the access to technological resources such as computers or who may be unconnected with the academic environment. Kraut, et al. (2003) reported that internet users are more likely to be white, to be young, and to have children than the nation as a whole.

At the same time, the method of sampling through internet technology is perhaps the reason that the population reached consisted of individuals who were older and in

longer-term relationships than the samples obtained in earlier relationship research. This is an important population to access, as a large portion of the population has been understudied due to the high usage of convenient university samples. Kraut, et al. (2003) stated that for psychologists, who often value internal validity over generalizability, the large and diverse samples online are preferable to the college sophomores on whom much psychological theory rests. In contrast to earlier studies that tended to use convenient samples of graduate or undergraduate students, the present sample included participants that ranged across a wide spread of ages, occupations, and income.

Major Hypotheses.

Self-Disclosure and Attachment

The data provided partial support for the major hypotheses examined in the present study. As expected, participants scoring higher on either the avoidance or the anxiety dimensions of attachment reported self-disclosing information with less depth than did participants who reported lower levels of anxiety and avoidance. With regard to the intent to self-disclose, amount of self-disclosure, valence of self-disclosure, and honesty of self-disclosure, however, only the avoidance dimension of attachment demonstrated the expected negative relationship. The data did not support any relationship between the level of participants' attachment anxiety and their reported intent to self-disclose, amount of self-disclosure, valence of self-disclosure or honesty of self-disclosure.

Overall, the pattern of results indicated that the more avoidant people were with respect to attachment, the less they reported intentionality about their self-disclosure with their partners and the fewer disclosures they report that they share. Additionally, the

disclosures that they did report that they shared tended to be less honest, of less depth, and more negatively valenced. Individuals who reported higher levels of the avoidance dimension of attachment may perceive their partners through their working models as non-responsive. Consistent with this observation, these individuals would feel less comfortable being vulnerable to a partner who is perceived in this way. The findings of the present study were supportive of this hypothesis by confirming a negative relationship between self-disclosure and avoidance.

With respect to Bartholomew and Horowitz' (1991) prototypes, the findings of the present study suggested that being more fearful and dismissing (avoidant) was associated with being less intentional about self-disclosure to one's partner, disclosing to a lesser amount, and disclosing less honestly than when one is more secure or when one is preoccupied. Also, people who were more fearful and dismissing reported self-disclosure of more negative information than did people who were more secure or preoccupied (lower avoidance). Finally, the results indicated that people who were more preoccupied (higher anxiety and lower avoidance) reported that they self-disclosed more deeply than those who were more secure.

These findings were generally consistent with previous research, which has found that self-disclosure is closely associated with trust-related constructs (Wheless & Grotz, 1976). Other research has established attachment as a trust-related construct through findings that support an association between greater attachment security and greater comfort with intimacy, greater trust, and more positive beliefs in others' availability (Brennan & Shaver, 1995; Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987; Simpson 1990). Security of attachment has also been found to relate

positively to the amount of self-disclosure in a relationship (Keelan, Dion, & Dion, 1994; Pistole, 1993). The findings also provided some support for the hypothesis advanced by the present study that exploration is a critical lifelong activity that is expressed differently in the context of adult relationships than in the relationship between infants and caretakers. Types of growth sought and vulnerability experienced in these two developmental stages are different and as emotional vulnerability becomes more important than physical vulnerability, exploration behaviors may take an emotional, rather than a physical, form. Self-disclosure was proposed as one way that emotional exploration may take place on an emotional level. Self-disclosure was used to represent one behavioral indicator of the adult exploration system because of its close association with variables such as trust and vulnerability, which are central to the development and maintenance of internal working models. In terms of the findings of the present study, the data provides some support for this hypothesized association.

Playfulness and Attachment

A second indication of emotional exploration that was examined in the present study was playfulness. A working definition of playfulness was used that defined playfulness as behavior that lacks self-censorship and has a spontaneous quality that necessitates a measure of trust or security. Regression analyses were used to explore the relationship of playfulness to the trust-related attachment dimensions of anxiety and avoidance. The data indicated a negative relationship between playfulness and the attachment dimension of avoidance. The results suggested that the more avoidant people are with respect to attachment, the less they report playfulness in their relationships. With respect to Bartholomew and Horowitz' (1991) prototypes, the pattern of coefficients

found in the regressions suggested that more fearful and dismissing (more avoidantly attached) people are less playful than are more secure or preoccupied (more anxiously attached) individuals. A relationship was not found between the level of playfulness and attachment anxiety.

The negative relationship between playfulness and attachment avoidance is consistent with the findings and theories of previous researchers. While research that examines playfulness in adult relationships is scarce, existing studies have suggested that playfulness is utilized in adult romantic relationships to manage emotional closeness (Baxter, 1992) and is related to feelings of vulnerability, self-esteem, and an openness to communication (Aune & Wong, 2002; Baxter, 1992; Bruess & Pearson, 1993). These studies' findings suggest that individuals who engage in more play with their partners are also open to being vulnerable and communicative with partners in an effort to develop emotional closeness. They also suggest that individuals who have difficulty trusting partners or who have expectations of non-responsiveness or negative responses to their vulnerability may engage in fewer vulnerable behaviors such as playfulness. The negative relationship found between playfulness and avoidance in the present study was consistent with this expectation.

The findings were also consistent with the hypothesis offered in the present study, suggesting that playfulness may be one way that individuals engage in exploratory behaviors within attachment relationships. For the purposes of the present study, playfulness was defined by a lack of self-censorship, a spontaneous quality that requires a measure of trust or security. Individuals with secure attachments experience a sense of worthiness and an expectation that other people are generally accepting and responsive

(Bartholomew and Horowitz, 1991). In this type of relationship, partners may be willing to take greater emotional risks, which may involve engaging in play behaviors that may reveal unconscious vulnerabilities. These individuals would tend to score higher on measures of playfulness but lower on measures of avoidance and anxiety in attachment relationships. In the context of an insecure attachment relationship however, individuals may feel a heightened sense of anxiety around issues of emotional vulnerability and may be less willing to explore highly vulnerable unconscious processes. These individuals would be likely to score lower on measures of playfulness and higher on measures of attachment avoidance and anxiety. In the present sample, these hypotheses were partially supported, as the level of playfulness reported by participants was significantly related to the avoidance dimension of attachment, though it was not related to the anxiety dimension of attachment. The lack of support for a relationship between anxiety and playfulness is addressed below.

Relationship Adjustment and Attachment

Overall relationship adjustment in participants' current relationships was also found to have a negative relationship with the level of anxiety and avoidance reported. Participants who reported higher levels of attachment anxiety and/or attachment avoidance experienced lower overall levels of relationship adjustment. With respect to Bartholomew and Horowitz' prototypes, this pattern of results suggests that more secure people (lower anxiety) score higher on relationship adjustment than more fearful people (higher anxiety), and that people who are more dismissing or preoccupied (highly avoidant) fall somewhere in-between. These findings were consistent with the conclusions of previous studies as well. Empirical investigation has supported a positive

relationship between attachment security and the relationship outcome variables of marital adjustment and marital quality (Kirkpatrick & Davis, 1994; Kobak & Hazan, 1991; Scott & Cordova, 2002; Senchak & Leonard, 1992; Simpson, 1990; Volling, Notaro, & Larsen, 1998). The findings of the present study provide further support for the utility of an attachment perspective in developing a fuller understanding of the contributors to relationship functioning (Whisman & Allan, 1996).

Attachment theory not only leads us to consider the role of specific constructs such as trust, self-disclosure, and playfulness in relationship adjustment, but it seems to also suggest a direct relationship between attachment style and relationship functioning. Attachment theory proposes that individuals vary in the degree to which their IWMs are modifiable on the basis of experience (Bowlby, 1979). Individuals who are able to integrate ongoing experiences are more likely to develop useful models for their current relationships that guide their expectations of and interactions with others. The findings of the present study were consistent with the idea that internal working models influence adult romantic attachments through influences on future relational choices and expectations, self-appraisal, and behavior toward others. Kobak and Hazan (1991) suggested that accurate representations should facilitate more positive relationships with others by influencing approaches to intimacy with partners and success in resolving conflict. They also suggested that attachment security contributes to the flexibility of working models by promoting communication and openness to new information. Individuals with lower levels of attachment security are less able to assimilate new experiences into their working models, and may approach interactions with partners using inaccurate expectations and assumptions, resulting in less productive conflict

management and difficulty establishing and maintaining experiences of intimacy and understanding (Kobak & Hazan, 1991). The results of the present study were found to be consistent with this theory.

Avoidance vs. Anxiety

In the attachment-related regression analyses, the majority of outcomes only supported a relationship between the dependent variable of interest and the avoidance dimension of attachment. This outcome was unexpected, as each of the hypotheses predicted the relationships found to also extend to the anxiety dimension of attachment. One reason for this outcome may be due to the high level of covariation between the dimensions of anxiety and avoidance ($r = .76$). This correlation is notably higher than the .40 correlation found by Fraley, Waller and Brennan (2000) in their norming study. The differences between the present study's sample and the norming sample may suggest some reasons for the high correlation found in the present study. The present sample was significantly older in age and had been involved in longer relationships than Fraley, Waller and Brennan's sample. It is possible that for respondents involved in shorter-term and less committed relationships, attachment bonds have not yet been fully established and individuals are more likely to be moving toward the development of that bond in a way that is not fully determined by the level of anxiety. In longer relationships, it may be that some aspects of the constructs of anxiety and avoidance as measured by the Experiences in Close Relationships Scale – Revised (ECR-R; Fraley, Waller and Brennan, 2000) become more similar to each other. In terms of understanding the statistical importance of the intercorrelations among predictor variables, Licht (1996) suggested that correlations of ($r > .80$) between predictors represent potential problems of

multicollinearity. Since this correlation fell below this criterion, and because anxiety contributed a unique amount of variance in at least one of the regression analyses, these variables were considered to be separate.

Another explanation for the pattern of results is that theoretically, avoidance may have a stronger association than anxiety with exploratory variables such as self-disclosure and playfulness. Since both self-disclosure and playfulness involve a degree of vulnerability, and since being vulnerable with a partner exposes one to the possibility of emotional pain, it would make sense that individuals would naturally approach any potentially painful situation with some degree of anxiety. This natural anxiety about vulnerability may be tied to human beings' natural propensity for self-protection, and may have less to do with specific attachment style. Avoidance, on the other hand, seems to be related more to an active choice made on the basis of one's knowledge or expectations of the situation. Avoidance, therefore, may be more related to the follow-through of actual trust-related behaviors such as self-disclosure and playfulness.

Playfulness and Relationship Adjustment

Analyses indicated that the level of playfulness reported by participants in their relationships was significantly related to the level of positive relationship adjustment. These findings were consistent with hypotheses. Past research has supported this relationship by showing that playfulness can serve relationship functions such as assisting with conflict management and developing intimacy (Baxter, 1992). Playfulness has also been shown to distinguish between clinical and non-clinical couples (Metz & Lutz, 1993), and specific aspects of play, such as idiom use, have been shown to be related to relationship satisfaction (Bruess & Pearson, 1990). Betcher (1977) found that people

who characterized their relationships as having a high degree of creative play, novel stimulation and spontaneity tended to score significantly higher on marital adaptation measures. He also found that similarity in playfulness had a positive effect on marital adjustment.

Interestingly, Betcher suggested that differences in individual defense styles and cultural attitudes toward regressive experience may have an effect on the frequency and forms of play that are considered to be adaptive. He pointed out that the theory of playfulness and exploration that has been examined most frequently is based largely on prior research that has been conducted with white, middle-class populations. Knowing this, it is possible that the importance of play for marital adaptation may be mediated by socioeconomic status, such that play may have greater influence on marital adaptation in populations of higher social class, who engage in relationships for their companionate value. In marriages that are not based on this value, play may not be highly related to the satisfaction of the couple. As discussed earlier, the present study's sample was comprised of a highly educated and mostly Caucasian group of women with high incomes compared to national averages. The findings of the present study were confirmatory of Betcher's expectations of this population, but nothing can be said about the importance of playfulness for couples of lower socioeconomic status, given that few participants in the present study fell into this category. The data does confirm that for the population observed in the present study, participants who felt better about their relationships were also more playful with one another. It deserves mention, however, that no assumptions can be made on the basis of this data about the direction of the relationship. It is equally plausible based on this data that high levels of adjustment may

precipitate playfulness with a partner or playfulness may contribute positively to levels of adjustment.

Playfulness and Self-Disclosure

Playfulness was also related to dimensions of self-disclosure with partners, with the exception of intent to self-disclose. The data suggested that no significant relationship was present between the intention to self-disclose to a partner and the level of playfulness in the relationship. Past research indicates that intent was the only dimension of self-disclosure to receive inconsistent validity/reliability and is the only factor to have been recommended to not include in future research. Alternately, this could suggest that playfulness is a spontaneous behavior that is unrelated to intent, and that the act of conscious awareness of disclosure would be antithetical to the spontaneous and trusting nature of playfulness.

All other aspects of self-disclosure were found to relate to playfulness such that the more playful the participants reported being with their partners, the more likely they were to self-disclose a greater amount, more positively, more honestly and more deeply with their partners. Neither playfulness nor self-disclosure have received adequate attention in past literature, but the few studies that have been completed suggest that both playfulness and self-disclosure have a common basis in the constructs of trust and vulnerability (Aune & Wong, 2002; Baxter, 1992; Bruess & Pearson, 1993; Pistole, 1993; Steel, 1991; Wheelless, 1976, 1978; Wheelless & Grotz, 1977). Additionally, both self-disclosure and playfulness have been found to have positive relationships with the construct of relationship satisfaction, suggesting the possibility of a link through relationship functioning (Aune & Wong, 2002; Betcher, 1977; Bruess & Pearson, 1993;

Cozby, 1973; Metz & Lutz, 1990). The findings of the present study support the link between these two important relationship constructs.

Conclusions. In summary, the findings of the present study provide preliminary support for the hypothesis that self-disclosure and playfulness are trust-related constructs that are related to the dimensions of attachment in adult romantic relationships. Although it was hypothesized that both the attachment dimensions of avoidance and anxiety would be related to the variables of interest, avoidance was the single dimension of attachment that was consistently related to the outcome variables in the expected direction. Anxiety was only related to depth of self-disclosure. Additionally, a relationship between the dimensions of attachment and the broader relationship construct of adjustment was found, underscoring the importance of understanding the role of attachment in adult romantic relationships.

Research Questions.

Research Question 1: Cluster Analysis

The first research question investigated the ways that participants clustered on the variables of interest, including attachment style, playfulness, self-disclosure and relationship adjustment. The five clusters that resulted from the cluster analysis appeared to tap into different ways that couples regulate the emotional connection in their relationships. Generally, the groups seemed to identify five different prototypes of couples' attachment-related adjustment. The implications of the groupings provide directions for future research and are of clinical interest to psychologists who might be working with couples or individuals on issues related to relationship function or satisfaction.

The simplification of data eliminates a degree of richness that can be gained by looking at individual cases. Therefore, while the broad generalizations of relationship types that were developed through this data analysis can be of assistance to psychologists in conceptualizing relationship concerns, the broad nature of the clusters necessitate the use of this information in combination with established theories and techniques, clinical experience, and special attention to the characteristics, history and patterns that are unique to each individual and relationship. With that in mind, an attempt was made to simplify understanding of the differences between clusters by naming them. However, these names are not to be understood as comprehensive descriptions of the group dynamics, nor are they intended to represent the most important or influential characteristics of the qualities of the group.

The cluster analysis produced five general groups of relationship approaches. These clusters were distinguished from one another on levels of playfulness, self-disclosure, and relationship satisfaction. The first cluster, the *unhappy anxious disclosers*, seemed to represent a group of people who experienced generally low levels of relationship adjustment and were insecurely attached to their partners, but who were also willing to discuss their feelings and thoughts with their partners. Their disclosures were intentional, deep and honest, but they engaged in little play with their partners. Higher levels of anxiety paired with lower levels of avoidance may have resulted in more disclosures on the part of these participants. Though it was not significantly different, this group also showed a trend of having the highest number of children among the groups. It may be that this pattern is linked to the well-established nature of the families. The qualitative data indicated that clusters two and four, isolated times of playfulness to

special occasions and long periods of free time, as opposed to every-day opportunities for play. Examples of some of the responses from members of this category to the question related to periods of increased playfulness included, “During special occasions...holidays, vacations, birthdays, etc,” “Teasing each other about something that we’ve done in the past...” and “When everything around seems to be flowing smoothly, children happy, bills paid, and food in the house.” Examples of responses to the question related to decreased playfulness included, “when someone did something very unpleasant like cheating or lying,” “watching TV,” “weekdays,” and “When I’m angry, stressed or ‘under-the-gun’ for something.”

The second and fourth clusters, the *happy secure moderate-disclosers* and the *happy secure disclosers*, were comprised of individuals reporting the highest level of relationship adjustment. They both reported higher levels of playfulness, and lower levels of both anxiety and avoidance. The major differences between these two clusters involved the level of self-disclosure. While both groups reported higher scores on relationship adjustment, cluster four endorsed the highest levels of disclosure in the areas of amount, depth and honesty. Additionally, their disclosures were the most positive in terms of valence. The second cluster, on the other hand, reported less self-disclosure with their partners. However, in spite of the lower amount, less depth and lower level of honesty in their self-disclosure, they also endorsed more positively-valenced disclosures. This information is interesting and potentially useful for psychologists working with couples, as it seems to suggest that the valence of self-disclosure is important in well-adjusted relationships, even if the amount and depth are not essential for successful adjustment. From the qualitative data, another interesting characteristic that was shared

by these two groups was the tendency to take advantage of every-day, unstructured time to play with one another. These two groups, much more than the others, indicated that their levels of playfulness increased during every-day periods of unstructured time. Examples of responses that were indicative of this pattern included, “We have a very fun household. We wrestle together with our daughter, laugh, tell jokes so pretty much a little every day,” and “When work is over, while doing household projects, in the evenings.” Group four also had a large group of participants who reported that they were generally or always playful with their partners. This type of response is illustrated by qualitative responses such as, “We are always playful,” “In the morning; after work; at dinner; and when the kids are asleep. Actually, we are more playful than not,” and “We often do things with each other and consider each other to be best friends so we are generally playful most of the time.” This is in contrast with groups one and five (the least well-adjusted clusters), who both reported large percentages of participants who played more often during times of long unstructured time, such as vacations, and during specific activities. Examples of these responses included, “When we have had a few days away from other people/stresses,” and “When either we or she has the day off. During vacations.” This finding seems to suggest that the better-adjusted couples take advantage of their free time daily to connect with one another, rather than waiting for long-awaited vacations or activities. These individuals might engage in such a pattern as the result of generally more positive feelings toward their partners, but it may be that finding more frequent opportunities for play is a part of developing higher levels of relationship adjustment. Clinicians might utilize this information by encouraging struggling couples to identify more frequent opportunities to engage in mutual play and

researchers might use this information to further explore the effective use of play in relationships. Although not significant, it is also interesting to note that these satisfied couples also tended to be the youngest of the groups.

Individuals reporting the lowest levels of relationship adjustment were found in groups one and five, the *unhappy anxious disclosers* and the *long-term anxious-avoidant non-disclosers*, with group three, the *short-term anxious-avoidant non-disclosers*, reporting average levels of adjustment relative to the means found in the other clusters. All three groups reported higher levels of anxiety and avoidance and lower levels of self-disclosure. Groups three and five also reported more negatively-valenced disclosures. Of note to psychologists interpreting these findings is the observation that self-disclosures seem to be associated with better adjustment when those disclosures are positive rather than negative in content. Couples do not seem to feel as satisfied with their relationships when the personal information being shared is negative in nature. While the groupings suggest that general levels of self-disclosure are important in well-adjusted relationships, the findings related to valence suggest that couples may benefit from understanding how to communicate their thoughts and feelings in a more positive manner. Members of cluster three also reported higher use of playfulness for the enhancement of emotional intimacy and enhancement of sex than did any of the other groups. Examples of the responses regarding the function of play in the relationships of cluster three participants included, “to get closer physically and emotionally,” “to let each other know that we are interested in pursuing sexual intimacy,” and “to feel close to one another, to have fun and laugh, to create intimacy.” Clusters one and three also reported a higher percentage of individuals struggling with work or school stressors in the last six

months. It is possible that these types of stressors may have an effect that extends to the adjustment of the couple. The length of relationship does not seem to matter, as cluster three had been together for the shortest amount of time, while cluster five had been together for the longest. What is interesting, although not statistically significant, is that participants in groups three and five represented a larger proportion of unmarried couples relative to the overall sample.

Clinicians working with couples or individuals with relationship concerns can learn from observations about the clusters that formed naturally from this sample. However, when drawing applications from the data, clinicians and researchers need to remain aware of the sample composition that limit its' direct generalizability to more diverse populations. In particular, it is important to note that clinical populations may differ significantly from this non-clinical sample and further research should be conducted with clinical samples before applying these generalized observations. In certain clinical populations it may be necessary to determine the direction of the work and to establish baselines of healthy functioning before using these findings to work toward enhancement of relationship functioning. For example, when working with issues of interpersonal relationship violence, it would be ill-advised to encourage increased play in the relationship without first addressing issues of safety, understanding the role of power in the relationship dynamics, and teaching communication and conflict resolution skills. One of the most important themes that can be drawn from the data is that relationship adjustment and playfulness are related across groupings in a number of interesting ways. Couples with adjustment issues may benefit from working on activities that encourage playfulness in the relationship and create a safe environment to engage in

vulnerable behaviors such as play. Another important observation is that while the amount of self-disclosure does not seem to determine the level of adjustment in a relationship, other qualities, such as the valence of disclosure, seem to be highly related to the group of relationship types that a person will fall into. Finally, it seems that avoidance is more related to feelings of dissatisfaction or amount of disclosure than is anxiety. Anxiety in relationships may not be as detrimental it seems if individuals can learn to convey their feelings in a more positive manner and do not engage in high levels of avoidance. Consistent with attachment theory, high levels of anxiety and avoidance in relationships seem to be related to lessened emotional exploration in the form of playfulness and self-disclosure.

Research Question 2: Frequency of Playfulness

The second research question provided further information for clinicians and researchers looking to better understand the factors that are related to a couple's level of playfulness. This question was intended to provide an extended context for the expression of play in relationships by exploring the open-ended responses of participants when asked about the times that they are more or less playful with one another. Participants provided information that was successfully coded into useful categories that capture the types of situations that they reported to be conducive or detrimental to their playfulness. The resulting categories reinforced the theory of the present study by emphasizing the importance of positive feelings toward partners in the expression of playfulness. In fact, the second largest group of responses to the second question indicated that problems in the relationship or negative feelings toward their partners resulted in lessened play in their relationships. The results also suggested, however, that

outside contexts play an important role in the amount and expression of play.

Especially important seemed to be the availability of time and lack of structured activities to interfere in what play might naturally occur between partners. Not only did participants appear to feel that outside responsibilities and pressures prevented them from being able to play, but it also seemed that these same responsibilities and pressures might actually decrease the desire to engage in playful behaviors. Participants reported unstructured times as being conducive to their playfulness, and stressful times as reasons for decreased play. Although feelings between partners and the trust that one partner has for the other are important in the expression of playfulness, one important message that can be gained from this qualitative exploration of the data is that time and lack of structure are also important. For clinicians working with couples to increase playfulness within their relationships, it appears that emotional trust must be present, but a behavioral component must also be negotiated to allow for the expression of playful behaviors when partners feel connected or safe.

Research Question 3: Functions of Play

The third research question attempted to provide a fuller understanding of the ways that couples understand play to function in their relationships. The responses fell into four general categories: stress reduction/relaxation, elevation of positive mood, enhancement of emotional intimacy, and enhancement of sex. It seems that although playfulness is impacted in important ways by external events, when it is expressed in relationships, the effect is primarily emotional and interpersonal. Play may be useful to develop these four areas in the lives of individuals and in the functioning of their relationships. Future research might use these categories to explore the ways that the

function of play might be related to various outcome variables such as feelings of intimacy, conflict resolution, or positive and negative affect.

Research Question 4: Self-Disclosure, Playfulness, and Purpose of Relationship

The last research question explored the ways that relationship purpose is related to the outcome variables of self-disclosure and playfulness. The question explored the possibility that participants who viewed their relationship as existing primarily for the purpose of companionship or love might report engaging in higher levels of play or self-disclosure than those who identified the primary reasons for their relationships as being more functional and less emotional in nature. Given the expected relationship between playfulness, self-disclosure and vulnerability, it seemed possible that playfulness and self-disclosure might be related to more intimate or emotional perceptions of relationship function. However, while the participants were successfully coded into categories, these categories had no relationship with either outcome variable. The lack of findings with respect to this research question may have been related to the lack of diversity represented in the sample, as people representing higher socioeconomic status or a more European-American cultural background may tend to endorse more emotional or romantic reasons for involvement in relationships. In fact, a large majority of participants endorsed “Love” or “Companionship” above all other categories of purpose. For this reason, very small numbers were included in the groups that identified other types of relationship purposes, such as “Security,” “Compatibility,” or “Family.” It may have been the overrepresentation of participants in some groups that resulted in a failure to detect any differences. Future research might explore this question further with a more diverse sample.

Additional Findings

Additional regression analyses were conducted to investigate the role of generalized exploration, or tendency toward individual growth, in playfulness, self-disclosure and relationship adjustment. Exploration was found to be a meaningful contributor to the outcome variables of playfulness and self-disclosure, confirming the expected link between these two variables and exploratory tendencies. It was also expected that exploration would not account for a majority of variance in playfulness and self-disclosure, because the measure of exploration that was used tapped into facets of exploration that were unrelated to emotional exploration or vulnerability. As anticipated, the models including exploration with the anxiety and avoidance dimensions of attachment accounted for 50% of the variance in playfulness and 46% of the variance in self-disclosure. These analyses provided support for the use of playfulness and self-disclosure and behavioral indicators of exploration in the present and in future studies.

It was also expected that factors other than attachment might contribute to the expression of playfulness in relationships. In an effort to gain greater understanding of additional factors, an open-ended question was asked that invited participants to identify any stressors that they or their partners had encountered in the prior six-month period. These stressors were then coded in terms of number and type. This information was investigated with respect to levels of playfulness, and no effect of recent stressors was found. While these findings could be an indication that playfulness is robust to the effect of recent stress, it is also possible that long-term stressors have a greater impact or that the measurement of stressors could be improved in future research. Other studies might ask participants for the single most stressful event of the last six-month period, or they

might ask participants to rate on a Likert-scale their level of stress. Alternately, future research might include the use of stress measures with established psychometric properties.

Summary. In sum, the current study's findings underscore the importance of understanding the role of attachment and exploration in adult romantic relationships. Emotional exploration through playfulness and self-disclosure has an important role in the successful adjustment of relationships. These exploratory behaviors also seem to be related to attachment security in important ways. Both attachment and these behavioral indicators play an important role in the relationship adjustment of committed couples. The avoidance dimension of attachment seems to be especially important when predicting the levels of playfulness and self-disclosure that will be expressed in relationships.

The present study also identified ways that natural groupings of individuals may form on the variables of interest, which can provide preliminary information for psychologists working with individuals or couples in troubled relationships. These clusters can also be used to guide researchers in designing future studies and developing hypotheses about the types of variables that might work together in well-adjusted relationships. The clusters indicated that people in better-adjusted relationships also tended to be more playful with their partners, and reported self-disclosures of greater honesty and depth related to a greater number of issues than did those in less well-adjusted relationships. Importantly, the valence of self-disclosure had a particularly strong relationship with adjustment such that those who disclosed more positive information were also those found in well-adjusted relationships. With regard to

playfulness, individuals who viewed themselves as being playful on a more consistent basis, or who found time on a daily basis to be playful with their partners reported better-adjusted relationships than did those who reported waiting for specific activities or long periods of unstructured time. This pattern of playfulness might be understood as a tendency to “seize the moment” as opposed to “waiting for the right time.” Those participants who chose to utilize more frequent opportunities for play were clearly grouped into the most highly adjusted clusters of participants.

Limitations

It is important to recognize several important limitations to the present study in the areas of sampling, measurement, and design. While the present study is one of the only studies that addresses the importance of looking at exploration behaviors as they are related to adult attachment, there are some limitations that should be addressed when making use of the results. These limitations will be outlined in the following section. Although the present study provides some of the first information about how exploratory behaviors may be expressed and related to attachment style in adult relationships, the use of self-report measures may pose limitations. Common method bias refers to potential problems when using common measurement methods where the variance is attributed to the method of measurement rather than to the construct of interest, which affects the validity of the study’s conclusions (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). It is important to consider how much of the variance in the model was attributed to measurement error and not to the actual constructs of interest. The use of exclusively self-report measurement in the present study may contribute to this problem. While recommended measures were taken (e.g. controlling for social desirability,

counterbalancing question order) to minimize these types of method bias, a greater degree of assurance would have been achieved had the present study included multiple methods of data collection.

Another issue related to the use of self-report measures is that self-reports of exploratory behaviors among dismissive individuals may be less highly correlated with attachment style than were observed exploratory behaviors (Aspelmeier and Kerns, 2003). It should be considered that the attachment style of the individuals being surveyed may actually impact the type of impression that the participant is willing to convey to the investigator. However, since the variables being measured were all subjective variables known with greatest confidence by the individuals themselves, self-report seemed to be the most appropriate method of data collection. In an effort to control for social desirability effects, a measure of social desirability was included in the survey and outliers on this measure were not included in the analysis. The use of multiple methods of data collection would have provided a greater depth and breadth of information about the constructs being examined as well as a higher level of confidence that they were measured with accuracy and meaning.

A final note about the use of self-report measures in general, and the specific measures used in this study in particular, is that certain constructs may not have been effectively distinguished from one another. Specifically, some items contained in the measure of avoidance appeared to overlap with the construct of self-disclosure (e.g. "I don't feel comfortable opening up to romantic partners."). This overlap, and a significant correlation between the two variables, might suggest that self-disclosure may actually be a constituent of avoidance. In future research, alternate methods of data

collection could be used to clarify the relationship between these two variables or different self-report measures could be used.

The present study utilized the internet to contact participants, post surveys, convey information about the study, debrief the participants, and collect data. The internet has, over time, proven to offer many advantages to researchers over more traditional pencil-and-paper data collection. These advantages include larger samples, lower costs, security features, design options and ease of administration. In the present study, the use of internet research was particularly effective in accessing a subgroup of the population that represented individuals in much longer relationships and across a much wider range of ages than similar studies have been able to observe. This advantage allowed the present study to address information about populations that extend beyond college populations, which are often studied because of their convenience. However, in spite of the many advantages of internet research, the use of internet technology also introduces some limitations.

One limitation of internet research includes problems in obtaining accurate response rates, as unknown numbers of individuals may have received the e-mails that linked them to the study. Particularly with regard to the use of a snowball technique, the researcher has no way to determine the actual number of e-mails delivered, and of these, how many were actually opened and read. Specific measures were taken to increase the response rate in the present study, (e.g. indicating that the survey takes little time, including an embedded password) as suggested by Andrews, et al. (2003). Nonetheless, an accurate count of individuals who declined participation could not be determined.

The confidentiality of responses should also be considered as a potential limitation to the use of internet research. As an ethical researcher, it is important to ensure that the confidentiality of all participants is maintained and that data is not subject to observation by third parties. With all internet research, there is the possibility that data could be intercepted and linked to the participant's information. It is the responsibility of the researcher to take precautions against this to minimize the likelihood of a breach of confidentiality. In the present study, an attempt to protect the confidentiality of information was made by the use of a password-protected website and a secure data collection file. No information was provided in the data file with regard to the user characteristics of the participant (e.g. e-mail address, IP address) and the data file was kept on a password-protected computer system.

Another limitation of internet research relates to the external validity of the information obtained, given the nature of participant selection. An e-mail snowballing technique (Monge & Contractor, 1988) was used, which was likely to introduce bias in the demographic characteristics of participants. First, since the survey was posted on the internet, participation was limited to individuals with access to computers. This factor may bias the sample in favor of participants of higher socioeconomic status. In fact, it has been confirmed that people who participate in online surveys are different than the general population in terms of ethnicity and income (Andrews, et al. 2003). Second, because participants were contacted through social and academic contacts of the researcher and her assistant, certain subgroups of the population (e.g. highly educated, white) were more likely to be represented in the final sample. While a large range of ages and relationship types were represented in the present sample, examination of the

group characteristics suggested that the expected bias was present. The pool of participants reflected more white individuals of higher levels of education and income, than is represented in the country as a whole (U.S. Bureau of the Census, P. D., 2000). The results of this study should therefore be considered only with respect to the populations represented in this sample, and not applied to the population as a whole. As a criticism of the method of the present study, it may have been more effective to combine the use of paper-and-pencil data collection with the use of internet technology to attain a fuller range of diversity characteristics that would maintain the internal validity characteristics that were established while also increasing generalizability of the results.

Related to sampling, another limitation was the non-experimental assignment of participants to attachment groups. Since it is not ethically advisable to manipulate an individual's attachment style, all participants were necessarily non-randomly selected into attachment groups. In order to establish a greater degree of confidence in the recommendations that may be made to clinicians based on attachment research, more longitudinal studies are needed. Although many existing studies discuss attachment as an independent variable that affects subsequent relationship functioning, most of the studies are in fact correlational in nature. It is important to realize that attachment is a variable that is based on the relationship in consideration, making it a contributor to relationship functioning as well as a consequence of relationship functioning. Had the present study been conducted over a longer period of time, it would have been interesting to explore how the relationships between attachment, playfulness and self-disclosure remained associated over time. However, this would also have introduced additional

problems related to the response rate as the result of attrition, which seems to be particularly problematic for internet-based research (Andrews, et al., 2003).

The present study investigated the attachment and relationship patterns of individuals involved in committed intimate relationships. Previous research (Simpson, 1990) has found that when both partners are included in adult romantic attachment research the dyadic effects tend to be less robust than individual-level effects. This pattern of results is not surprising given that one's own attachment style affects personal perceptions, expectations and behaviors much more than a partner's attachment style. Cassidy (1999) stated that, "this bond is not between two people; it is instead a bond that one individual has to another individual who is perceived as stronger and wiser ... A person can be attached to a person who is not in turn attached to him or her (Cassidy, 1999, p. 12)." In addition, because no precedent exists for researching the role of the exploration system in adult attachment exists, this study is exploratory in nature and based primarily on early infant attachment literature. Early studies on infant attachment (Ainsworth et al., 1978) also emphasized the importance of the infant's attachment style, without consideration of the interaction of this style with the attachment style of the parent. In order to remain as consistent as possible with previous research while engaging in an exploratory endeavor, the present study looked at one member of each dyad. However, the inclusion of both members of a dyad may be an important next step in the research on exploration in adult attachment relationships. Some studies of adult attachment suggest that new relationships are assimilated into individual's working models (Hazan & Shaver, 1987; Collins & Read, 1990). Also, attachment models are not historical developments of personality that remain unaffected by outside influence.

Therefore, it is important to investigate them within the context of current relationships and to honor the ability of working models to adapt to experience (Kobak & Hazan, 1991).

One limitation in measurement that may have affected the findings of the current study involves the high correlation between the anxiety and avoidance subscales of attachment. Earlier in this paper suggestions were advanced to account for this relationship between anxiety and avoidance. These explanations included the possibility that the long-term nature of the population in the present sample may have affected the relationship between anxiety and avoidance. This explanation is based on the hypothesis that anxiety may lessen as a relevant dimension of attachment over time in long-term committed relationships because of increased familiarity and routine. Another hypothesis advanced was that avoidance may be more strongly associated with self-disclosure and playfulness as the result of specific knowledge or expectations of a particular relationship, as opposed to anxiety which may be more of a general than a specific function of self-protection. Regardless of the reason for this relationship, however, the high correlation may have limited the ability to fully understand the role of anxiety in the outcome variables of playfulness and self-disclosure. As a result of this high correlation, a portion of each major attachment-related hypothesis was unsupported. Although in the analysis the two subscales were considered to be statistically distinct, their high correlation in comparison to previous research studies suggests a possible need for reevaluation of the factor structure of the Experiences in Close Relationships Scale – Revised (ECR-R) in future research. In the present study, it may have been a better decision to use a more highly utilized and psychometrically acceptable measure such as

the original Experiences in Close Relationships Scale. While the ECR-R was developed in an effort to refine the psychometric properties and increase measurement precision of the ECR, for an exploratory study such as the present, perhaps a more solidly validated measure would have provided clearer results.

A last important consideration with respect to the limitations of the present study is that the theory proposed in this paper is complex in nature. The lack of information about exploration in adult relationships, and the complex ways in which exploration is likely to be expressed makes the testing of the theory difficult. Alternate ways of testing this theory, such as behavioral or observational measures such as use of the Adult Attachment Interview or observation and rating of couple dynamics, should be considered in future studies.

Implications and Recommendations

The area of adult romantic attachment is still in its early stages of development, and yet the implications for this body of literature in helping individuals understand developmental relationship patterns and the impact of their “working models” of others have great importance for individuals’ psychological and emotional well-being. As previously mentioned, the vast majority of individuals in the United States are involved in romantic relationships, and those who are not are often concerned with obtaining them. Attachment may help counselors and researchers understand the ways that relationship factors relate to the experience of positive adjustment and success in other areas of individuals’ psychosocial experience. By specifying a distinct but related exploratory system characterized by behaviors aimed at emotional exploration, this study has provided one means of understanding how attachment styles may work within the context

of communication and behavior in couples. The current study has found that individuals who engage in higher levels of play, at regular intervals, and who self-disclose positively and more often with their partners, also experience higher levels of relationship adjustment.

As research progresses in the area of adult attachment, the role of qualitative measures should be considered. The research that currently exists has utilized primarily quantitative research designs. Since this research is based largely on infant attachment theory, for which exploratory research has been done, the introduction of exploratory studies may help to expand and refresh existing theory with an adult perspective. The exploratory questions included in the present study provide an important step towards understanding more fully the role of exploration and attachment in adult romantic relationships. These questions may provide new insight into areas that remain unexplored in romantic relationship research.

The application of attachment theory to adult romantic relationships and families is still a relatively recent endeavor. Therefore, strong recommendations should not be made to practitioners on the basis of this research for direct practice with individuals, couples, or families. However, some important ideas emerge from the recent literature and the present study that may be of relevance to practicing counseling psychologists and deserve further attention from the field. These ideas include individuals' models of self and others and the resulting behavioral responses and cognitive attributions that then shape relationships with others, the dyadic role of internal working models, and the suggestion that accommodation processes occur over time, resulting in movement toward greater security over time in relationships. Each of these concepts have important implications

for both preventative and remedial interventions for individuals, couples and families, making this an important area for counseling psychologists to continue to focus on in coming years.

Finally, playfulness and exploration have long been of interest to the popular media and to psychologists working with couples and families. Widely supported as positive and effective means of promoting communication and positive feelings, there still as yet remains little empirical research supporting these popular ideas. The present study provided initial empirical support of the positive role of exploratory behaviors such as playfulness and self-disclosure in romantic relationships.

Implications for research are numerous. Since much is already known about the importance of the exploration system for infants, it is important to understand the ways that this system may continue to play a role as individuals mature and develop relationships beyond those with early caregivers. Earlier research on adult attachment has found support for the similarity of attachment behaviors between infant attachment relationships and adult attachment relationships. Empirical research has substantiated that “adults typically feel safer and more secure when their partner is nearby, accessible, and responsive” and that adults use partners as sources of safety, comfort and protection in times of distress, illness or threat (Hazan & Shaver, 1990). These same theories also suggest that adults will use their partners as a “secure base” from which to explore the environment by engaging in creative projects or leisure time. This last hypothesis has not received much support, however, and the present study proposed and supported an alternate hypothesis: that exploration in adult relationships remains tied to feelings of

vulnerability and is therefore not expressed physically, but emotionally, through behaviors such as self-disclosure and playfulness.

The present study provided initial support for the hypothesis that playfulness and self-disclosure may be useful measures of exploration in adult attachment relationships. Furthermore, the results have indicated that these factors play important roles in the relationship adjustment of couples. An evaluation of the qualitative data went further to suggest that the frequency with which couples are playful with one another may be related in important ways to the overall adjustment of their relationships. The data seemed to suggest that a philosophy of seizing every-day opportunities to be playful with one's partner might be more often linked with greater adjustment than a philosophy of waiting for an ideal or long-term opportunity. This pattern of results deserves further research as it provides a clear opportunity for intervention and evaluation in the work of psychotherapists with individuals or couples.

Further research should be conducted to test the theory that avoidance may be more related than anxiety to the follow-through of actual trust-related behaviors such as self-disclosure and playfulness. Since both self-disclosure and playfulness involve a degree of vulnerability, and since being vulnerable with a partner exposes one to the possibility of emotional pain, it may be that individuals naturally approach any potentially painful situation with some degree of anxiety. This natural anxiety about vulnerability may be tied to human beings' natural propensity for self-protection, and may have less to do with specific attachment style. Avoidance, on the other hand, may be related more to an active choice made on the basis of one's knowledge or expectations of the situation. This theory was proposed on the basis of the findings of the present study, but given the high

covariation between anxiety and avoidance in the present study, this theory requires further investigation before it can be said to have received adequate support.

One issue that is important to consider when making recommendations for future research is that the constructs being explored in the present study may be influenced by cultural factors. It is possible that cultural differences may play a role in the expression of attachment and exploratory behaviors. The present study, due to a limited sample, was unable to examine these differences in a meaningful way. Also, socialization of gender can play an important role in the expectations of partners and relationships, and the different gender structure involved in same-sex relationships may reveal that different factors become important in promoting relationship adjustment for these couples. Future studies should conduct replications of the present study with these populations to develop a greater understanding of how these factors may influence the results that were found.

While the present study is useful in terms of understanding the continued role of exploration in the dynamic of adult attachment relationships for a specialized population, participants who participated in the study also seem to have directly benefited from considering the role of these variables in their own relationships. Examples of comments provided by participants include “After taking this survey I think my husband and I need to find more ‘fun’ in our relationship. We have lost intimacy in our marriage and in our relationship,” and “Things are going better than I sometimes may think (In the heat of the moment). It's important to reflect on the relationship not only during a conflict, but during times of peace.” Perhaps surveys such as the one utilized in the present study can find a useful place in therapists’ direct work with couples, providing important information about the functioning of the relationship in terms of healthy attachments and

exploratory behaviors. This information may prove useful to clinicians who may be able to identify couples as belonging to particular clusters and work with current levels of playfulness and self-disclosure to build better relationship functioning and bolster feelings of trust.

Given the importance of healthy relationship functioning in people's lives, continuation of this area of research is of important consequence. It has been said that "Humanity has advanced, when it has advanced, not because it has been sober, responsible, and cautious, but because it has been playful, rebellious, and immature."¹ Perhaps a similar statement can be made for love relationships. The present study provided some support for such a statement by supporting a relationship between the adjustment of love relationships and the behaviors of self-disclosure and playfulness through the lens of attachment theory.

¹ Tom Robbins (1936-)



“Exploration in Adult Attachment Relationships through Self-Disclosure and Play”

Instructions:

On the following pages, you will be asked to complete various questionnaires pertaining to different aspects of yourself and your relationship. It is important that you answer honestly, so that we might be able to understand the function and effect of the different variables that we will be exploring in this study. Since many individuals’ quality of life is significantly affected by their relationships, this research may help psychologists to understand some of the variables that may be related to the satisfaction that people experience in their relationships and general lives.

You will notice that some of these questionnaires will refer to “playfulness” in your relationship. For the purposes of this study, the experience of playfulness in a relationship is a subjective term defined in a general sense as shared behaviors that lead to a sense of delight and an absence of negative feelings such as anxiety and guilt. However, the experience of playfulness is different in each relationship, so please respond to these questions related to how YOU define playfulness in your own relationship.

Other questions that you will see will ask you about your feelings about your partner and relationships in general, things that you have shared with your partner, and certain aspects of your personality.

If you have any additional questions, you may contact:

Mandy K. Mount, M.A.
mmount@wam.umd.edu

Or Mary Ann Hoffman, Ph.D.
mh35@uamail.umd.edu

Thank you for completing this survey!

Appendix B: Consent Form

Consent for Participation in Research

If you choose to participate you will be asked to complete a survey about your committed, romantic relationship. It will take approximately 20-30 minutes to complete.

It is important that you understand the following regarding your participation in this research:

- 1) In order to participate in this research, you must be of at least 18 years of age.
- 2) The confidentiality of your responses will be closely protected to the extent permitted by law. Your name will not be used or matched with your responses and all data that you provide will be grouped with data others provide for reporting and presentation. This data will be stored in password-protected databases, and in secure, private locations available only to the researchers. Due to the public nature of the Internet, absolute confidentiality cannot be guaranteed (the possibility of someone intercepting your data is highly unlikely, although theoretically possible nonetheless).
- 3) Your participation in this research is entirely voluntary and you may choose to ask questions or withdraw from the study at any point.
- 4) If you do not exit or close your Internet browser when you have completed your survey it is possible that another person using your computer at a later time could view your responses. It is therefore important that you close your browser after you have submitted your survey.
- 5) You should be aware that, although unlikely, your participation in this survey could elicit negative emotions (e.g., feelings of dissatisfaction in your relationship).
- 6) The benefits of participation to you are that you may grow in your understanding of the interactions that you have with your partner. You will also be contributing to research on an important, understudied topic. This research may eventually help us understand some of the processes that may be related to satisfaction in romantic relationships.

This research project has been approved by the University of Maryland Institutional Review Board (IRB). This approval indicates that methods adequately protect the rights and welfare of the participants. The IRB may be contacted at irb@deans.umd.edu or 2100 Lee Building, University of Maryland, College Park, MD 20742. If you have any questions about participating in this project, please feel free to contact me (Mandy K. Mount at mmount@wam.umd.edu) or my faculty advisor (Professor Mary Ann Hoffman at mh35@uemail.umd.edu).

By clicking the NEXT link below you are indicating your consent to participate in this research project.

Appendix C: Categorical Measure of Attachment

Hazan and Shaver (1987)

These questions are concerned with your experiences in romantic love relationships. Take a moment to think about these experiences and answer the following questions with them in mind.

Read each of the three self-descriptions below (A, B, and C) and then place a checkmark next to the **single** alternative that best describes how you feel in romantic relationships or is nearest to the way you feel. (Note: The terms “close” and “intimate” refer to psychological or emotional closeness, not necessarily to sexual intimacy.)

_____A. I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, others want me to be more intimate than I feel comfortable being.

_____B. I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't worry about being abandoned or about someone getting too close to me.

_____C. I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to get very close to my partner, and this sometimes scares people away.

Appendix D: Qualitative Questions on Frequency of Play

Please describe any times that you and your partner are MORE likely to be playful with one another.

Please describe any times that you and your partner are LESS likely to be playful with one another.

Appendix E: Measure of Playfulness

CPQ II (Betcher, 1977)

For the following questions, please click on the number that best corresponds to your degree of agreement about the question.

The scores are as follows:

Very strong disagreement = 1, Disagreement = 2, Neutral = 3, Agreement = 4, Very strong agreement = 5.

	Very strong Disagreement				Very Strong Agreement
1. We rarely do things together.	1	2	3	4	5
2. I enjoy my partner's sense of humor.	1	2	3	4	5
3. My partner likes to play much more than I do.	1	2	3	4	5
4. We have our own unique and creative ways of having fun together.	1	2	3	4	5
5. When we play games, winning and losing become more important.	1	2	3	4	5
6. We tend to play the same games over and over again.	1	2	3	4	5
7. Our play is often stimulating and refreshing.	1	2	3	4	5
8. I enjoy being spontaneous with my partner.	1	2	3	4	5
9. Many times when one of us feels like playing, the other isn't in the mood.	1	2	3	4	5
10. I don't enjoy acting irrational with my partner.	1	2	3	4	5
11. We usually don't have time to play.	1	2	3	4	5
12. I am happiest when we have time to relax and be spontaneous with each other.	1	2	3	4	5
13. We tend to make love the same way every time.	1	2	3	4	5
14. Sometimes the same humorous thought crosses our minds at the same time.	1	2	3	4	5
15. When we play, one of us is always the more dominant one.	1	2	3	4	5
16. I don't like my partner to act like a child.	1	2	3	4	5
17. I like to play much more than my partner does.	1	2	3	4	5
18. I have fun acting silly with my partner.	1	2	3	4	5
19. We play together in many different ways.	1	2	3	4	5
20. We often try out new things with each other.	1	2	3	4	5
21. I don't like being surprised by my partner.	1	2	3	4	5
22. We engage in a lot of sex play when the two of us are alone.	1	2	3	4	5
23. We have similar senses of humor.	1	2	3	4	5
24. I find that our play is often meaningful and rewarding for me.	1	2	3	4	5
25. We never kid around in our love-making.	1	2	3	4	5

26. I much prefer having a serious talk to playing together with my partner.	1	2	3	4	5
27. We invent novel things to do together.	1	2	3	4	5
28. Our spontaneity can be so complementary, it feels like we're playing a duet.	1	2	3	4	5

Appendix F: Qualitative Questions on Use of Play

Please describe up to three examples of playful “secrets” that you and your partner have with one another (e.g. private language, ‘inside jokes,’ secret names, knowing glances) in the space below.

What are some of the functions of play in your relationship? In other words, how do you and your partner use play?

Appendix G: Measure of Attachment

ECR-R (Fraley, Waller, and Brennan, 2000)

Using the scales provided, please circle the number that best corresponds to your degree of agreement about the question. There are no right or wrong answers.

1. I'm afraid that I will lose my partner's love.
strongly disagree 1 2 3 4 5 6 7 strongly agree
2. I often worry that my partner will not want to stay with me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
3. I often worry that my partner doesn't really love me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
4. I worry that romantic partners won't care about me as much as I care about them.
strongly disagree 1 2 3 4 5 6 7 strongly agree
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
strongly disagree 1 2 3 4 5 6 7 strongly agree
6. I worry a lot about my relationships.
strongly disagree 1 2 3 4 5 6 7 strongly agree
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
strongly disagree 1 2 3 4 5 6 7 strongly agree
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
9. I rarely worry about my partner leaving me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
10. My romantic partner makes me doubt myself.
strongly disagree 1 2 3 4 5 6 7 strongly agree
11. I do not often worry about being abandoned.
strongly disagree 1 2 3 4 5 6 7 strongly agree
12. I find that my partner(s) don't want to get as close as I would like.
strongly disagree 1 2 3 4 5 6 7 strongly agree

13. Sometimes romantic partners change their feelings about me for no apparent reason.
strongly disagree 1 2 3 4 5 6 7 strongly agree
14. My desire to be very close sometimes scare people away.
strongly disagree 1 2 3 4 5 6 7 strongly agree
15. I'm afraid that once my romantic partner gets to know me, he or she won't like who I really am.
strongly disagree 1 2 3 4 5 6 7 strongly agree
16. It makes me mad that I don't get the affection and support I need from my partner.
strongly disagree 1 2 3 4 5 6 7 strongly agree
17. I worry that I won't measure up to other people.
strongly disagree 1 2 3 4 5 6 7 strongly agree
18. My partner only seems to notice me when I'm angry
strongly disagree 1 2 3 4 5 6 7 strongly agree
19. I prefer not to show a partner how I feel deep down.
strongly disagree 1 2 3 4 5 6 7 strongly agree
20. I feel comfortable sharing my private thoughts and feelings with my partner.
strongly disagree 1 2 3 4 5 6 7 strongly agree
21. I find it difficult to allow myself to depend on romantic partners.
strongly disagree 1 2 3 4 5 6 7 strongly agree
22. I am very comfortable being close to romantic partners.
strongly disagree 1 2 3 4 5 6 7 strongly agree
23. I don't feel comfortable opening up to romantic partners.
strongly disagree 1 2 3 4 5 6 7 strongly agree
24. I prefer not to be too close to romantic partners.
strongly disagree 1 2 3 4 5 6 7 strongly agree
25. I get uncomfortable when a romantic partner wants to be very close.
strongly disagree 1 2 3 4 5 6 7 strongly agree
26. I find it relatively easy to get close to my partner.
strongly disagree 1 2 3 4 5 6 7 strongly agree
27. It's not difficult for me to get close to my partner.
strongly disagree 1 2 3 4 5 6 7 strongly agree

28. I usually discuss my problems and concerns with my partner.
strongly disagree 1 2 3 4 5 6 7 strongly agree
29. It helps to turn to my romantic partner in times of need.
strongly disagree 1 2 3 4 5 6 7 strongly agree
30. I tell my partner just about everything.
strongly disagree 1 2 3 4 5 6 7 strongly agree
31. I talk things over with my partner.
strongly disagree 1 2 3 4 5 6 7 strongly agree
32. I am nervous when partners get too close to me.
strongly disagree 1 2 3 4 5 6 7 strongly agree
33. I feel comfortable depending on romantic partners.
strongly disagree 1 2 3 4 5 6 7 strongly agree
34. I find it easy to depend on romantic partners.
strongly disagree 1 2 3 4 5 6 7 strongly agree
35. It's easy for me to be affectionate with my partner.
strongly disagree 1 2 3 4 5 6 7 strongly agree
36. My partner really understands me and my needs.
strongly disagree 1 2 3 4 5 6 7 strongly agree

Appendix H: Measure of Exploration

CEI (Kashdan, Rose, and Fincham, 2002)

Using the scale shown below, please respond to each of the following statements according to how you would usually describe yourself. There are no right or wrong answers.

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

- _____ 1. I would describe myself as someone who actively seeks as much information as I can in a new situation.
- _____ 2. I frequently find myself looking for new opportunities to grow as a person (e.g., information, people, resources).
- _____ 3. I am *not* the type of person who probes deeply into new situations of things.
- _____ 4. Everywhere I go, I am out looking for new things or experiences

Appendix I: Measure of Social Desirability

Personal Reactions Inventory

Please respond to the following items as being either True or False.

1. I sometimes feel resentful when I don't get my way. T / F
2. On a few occasions, I have given up doing something because I thought too little of my ability. T / F
3. There have been times when I felt like rebelling against people in authority even though I knew they were right. T / F
4. No matter who I'm talking to, I'm always a good listener. T / F
5. I can remember "playing sick" to get out of something. T / F
6. There have been occasions when I took advantage of someone. T / F
7. I'm always willing to admit it when I make a mistake. T / F
8. I sometimes try to get even rather than forgive and forget. T / F
9. I am always courteous, even to people who are disagreeable. T / F
10. There have been times when I was quite jealous of the good fortune of others. T / F
11. I am sometimes irritated by people who ask favors of me. T / F
12. I have never deliberately said something that hurt someone's feelings. T / F
13. I have never been irked when people expressed ideas very different from my own. T / F

Appendix J: Measure of Relationship Adjustment

DAS (Spanier, 1976)

Most people have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list. Circle the star under one answer for each item.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
1. Handling family finances.....	*	*	*	*	*	*
2. Matters of recreation.....	*	*	*	*	*	*
3. Religious matters.....	*	*	*	*	*	*
4. Demonstrations of affection.....	*	*	*	*	*	*
5. Friends.....	*	*	*	*	*	*
6. Sex relations.....	*	*	*	*	*	*
7. Conventionality (correct or proper behavior)	*	*	*	*	*	*
8. Philosophy of life.....	*	*	*	*	*	*
9. Ways of dealing with parents or in-laws...	*	*	*	*	*	*
10. Aims, goals, and things believed important	*	*	*	*	*	*
11. Amount of time spent together.....	*	*	*	*	*	*
12. Making major decisions.....	*	*	*	*	*	*
13. Household tasks.....	*	*	*	*	*	*
14. Leisure time interests and activities...	*	*	*	*	*	*
15. Career decisions.....	*	*	*	*	*	*

	All The Time	Most Of The Time	More Often Than Not	Occasionally	Rarely	Never
16. How often do you discuss or have you considered divorce, separation, or termination of your relationship?.....	*	*	*	*	*	*
17. How often do you or your mate leave the house after a fight?.....	*	*	*	*	*	*
18. In general, how often do you think that things between you and your partner are going well?.....	*	*	*	*	*	*
19. Do you confide in your mate?.....	*	*	*	*	*	*
20. Do you ever regret that you married (or lived together)?.....	*	*	*	*	*	*
21. How often do you and your partner quarrel?....	*	*	*	*	*	*
22. How often do you and your mate get on each others' nerves?.....	*	*	*	*	*	*

	Every Day	Almost Every Day	Occasionally	Rarely	Never
23. Do you kiss your mate?.....	*	*	*	*	*

	All of Them	Most of Them	Some of Them	Very Few Of Them	None of Them
24. Do you and your mate engage in outside interests together?.....	*	*	*	*	*

How often do the following occur between you and your mate?

	Never	Less Than Once A Month	Once Or Twice A Month	Once Or Twice A Week	Once A Day	More Often
25. Have a stimulating exchange of ideas.....	*	*	*	*	*	*
26. Laugh together.....	*	*	*	*	*	*
27. Calmly discuss something.....	*	*	*	*	*	*
28. Work together on a project.....	*	*	*	*	*	*

These are some things about which couples sometimes agree or disagree. Indicate if either item caused differences of opinion or were problems in the past few weeks.

	Yes	No
29. Being too tired for sex.....	*	*
30. Not showing love.....	*	*

31. The stars on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Circle the star above the phrase which best describes the degree of happiness, all things considered, of your relationship.

*	*	*	*	*	*	*
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

32. Which of the following statements best describes how you feel about the future of your relationships? Circle the letter for one statement.

A.	I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
B.	I want very much for my relationship to succeed, and will do all I can to see that it does.
C.	I want very much for my relationship to succeed, and will do my fair share to see that it does.
D.	It would be nice if my relationship succeeded, but I cant do much more that I am doing now to keep the relationship going.
E.	It would be nice if it succeeded, but I refuse to do any more that I am doing now to keep the relationships going.
F.	My relationship can never succeed, and there is no more that I can do to keep the relationship going.

What is the ONE PURPOSE of your relationship/marriage that you value most highly? (examples of the purpose of a relationship or marriage MAY include such things as: companionship, financial security, supporting a family, etc.)

Appendix K: Measure of Self-Disclosure

RSDS (Wheless, 1978)

Please mark the following statements to reflect how you communicate with your partner.

Indicate the degree to which the following statements reflect how you communicate with your partner by marking whether you (7) strongly agree; (6) agree; (5) moderately agree; (4) are undecided; (3) moderately disagree; (2) disagree; (1) strongly disagree.

Record the number of your response in the space provided.
Work quickly and just record your first impressions.

	Strongly Agree	Agree	Moderately Agree	Undecided	Moderately Disagree	Disagree	Strongly Disagree
1. When I wish, my self-disclosures are always more accurate reflections of who I am.	7	6	5	4	3	2	1
2. When I express my personal feelings, I am always aware of what I am doing and saying.	7	6	5	4	3	2	1
3. When I reveal my feelings about myself, I consciously intend to do so.	7	6	5	4	3	2	1
4. When I am self-disclosing, I am consciously aware of what I am revealing.	7	6	5	4	3	2	1
5. I do not often talk about myself.	7	6	5	4	3	2	1
6. My statements of my feelings are usually brief.	7	6	5	4	3	2	1
7. I usually talk about myself for fairly long periods at a time.	7	6	5	4	3	2	1
8. My conversation lasts the least time when I am discussing myself.	7	6	5	4	3	2	1
9. I often talk about myself.	7	6	5	4	3	2	1
10. I often discuss my feelings about myself.	7	6	5	4	3	2	1
11. Only infrequently do I express my personal beliefs and opinions.	7	6	5	4	3	2	1
12. I usually disclose positive things about myself.	7	6	5	4	3	2	1

13. On the whole, my disclosures about myself are more negative than positive.	7	6	5	4	3	2	1
14. I normally reveal "bad" feelings I have about myself.	7	6	5	4	3	2	1
15. I normally express my "good" feelings about myself.	7	6	5	4	3	2	1
16. I often reveal more undesirable things about myself than desirable things.	7	6	5	4	3	2	1
17. I usually disclose negative things about myself.	7	6	5	4	3	2	1
18. On the whole, my disclosures about myself are more positive than negative.	7	6	5	4	3	2	1
19. I intimately disclose who I really am, openly and fully in my conversation.	7	6	5	4	3	2	1
20. Once I get started, my self-disclosures last a long time.	7	6	5	4	3	2	1
21. I often disclose intimate, personal things about myself without hesitation.	7	6	5	4	3	2	1
22. I feel that I sometimes do <u>not</u> control my self-disclosure of personal or intimate things I tell about myself.	7	6	5	4	3	2	1
23. Once I get started, I intimately and fully reveal myself in my self-disclosures.	7	6	5	4	3	2	1
24. I cannot reveal myself when I want to because I do not know myself thoroughly enough.	7	6	5	4	3	2	1
25. I am often not confident that my expressions of my own feelings, emotions, and experiences are true reflections of myself.	7	6	5	4	3	2	1
26. I always feel completely sincere when I reveal my own feelings and experiences.	7	6	5	4	3	2	1
27. My self-disclosures	7	6	5	4	3	2	1

are completely accurate reflections of who I really am.							
28. I am not always honest in my self-disclosure.	7	6	5	4	3	2	1
29. My statements about my own feelings, emotions, and experiences are always accurate self-perceptions.	7	6	5	4	3	2	1
30. I am always honest in my self-disclosures.	7	6	5	4	3	2	1
31. I do not always feel completely sincere when I reveal my own feelings, emotion, behaviors or experiences.	7	6	5	4	3	2	1

Do you have any secrets that you don't share with your partner, or are there things that you intentionally misrepresent or lie to your partner about?

Please share the general nature of these secrets or issues.

10. How many children live in your household?: _____

11. Please indicate the ages of any children in your household:

12. Highest level of formal education completed by YOU (check one):

- High school diploma
- Technical college
- College graduate
- Master's degree
- Law degree
- Doctorate/ Medical Degree
- Other (please specify) _____

13. Highest level of formal education completed by your PARTNER (check one):

- High school diploma
- Technical college
- College graduate
- Master's degree
- Law degree
- Doctorate/ Medical Degree
- Other (please specify) _____

14. YOUR employment status (school or work)?

- Part-time
- Full-time
- Retired
- Homemaker
- Seeking work
- Disabled
- Other (please specify) _____

15. Employment status of your PARTNER (school or work)?

- Part-time
- Full-time
- Retired
- Homemaker
- Seeking work

_____ Disabled
_____ Other (please specify) _____

17. How often does money become a problem or concern in your relationship?

1	2	3	4	5
Very often	Often	Sometimes	Rarely	Never

18. Yearly gross household income? (check one):

_____ < \$10,000
_____ \$10,000 - \$20,000
_____ \$20,000 - \$40,000
_____ \$40,000 - \$60,000
_____ \$60,000 - \$80,000
_____ \$80,000 - \$100,000
_____ >\$100,000

19. Is there anything else that you would like to say, after reflecting on your responses?

Appendix M:

Debriefing Information

Thank you very much for participating in this study. The goal of this research is to get a better understanding of the correlates of adult attachment styles, and the contribution of factors to relationship adjustment. The two major variables of interest were self-disclosure to partner and playfulness with partner. Briefly, it is expected that securely attached individuals will exhibit the highest levels of playfulness, moderate levels of self-disclosure, and will also experience the highest levels of relationship adjustment.

If you would like additional information on maintaining a healthy relationship with your partner, please visit <http://www.apa.org/topics/>. If you are interested in locating a psychologist to discuss any of the concerns that may have arisen for you while completing this questionnaire, please visit <http://helping.apa.org/> or call **1-800-964-2000**.

If you have any questions or concerns about this study, please do not hesitate to contact the primary researcher listed below. You may also contact the primary researcher if you would like a copy of this study's results when they become available.

Thank you once again for your participation.

Mandy K. Mount, M.A.
Primary researcher
University of Maryland, College Park
mmount@wam.umd.edu

Professor Mary Ann Hoffman
Research advisor
University of Maryland, College Park
mh35@uemail.umd.edu

Appendix N:

E-mail Contact

“Exploration of Adult Attachment Relationships through Self-Disclosure and Play”

Are you currently involved in a committed relationship of at least 2 years? If so, please consider completing a brief questionnaire designed to examine the ways that partners interact with one another based on internal perceptions.

If you don't qualify at this time, but know others who do, please pass along this email to them so that they might have the opportunity to participate!

Your participation will assist researchers interested in understanding more about the reasons for satisfaction or dissatisfaction in romantic relationships, and it may also prove interesting for you as you reflect on some of your answers to the questions! The questionnaire should take you about 20 minutes to complete and can be accessed by visiting the following web site:

www.umdrelationshipstudy.com

Please use the following

username: Participant

and password: Maryland

This research project has been approved by the University of Maryland Institutional Review Board (IRB). This approval indicates that methods adequately protect the rights and welfare of the participants. The IRB may be contacted at: irb@deans.umd.edu or 2100 Lee Building, University of Maryland, College Park, MD 20742. If you have any questions about participating in this project, please feel free to contact me (Mandy K. Mount at mmount@wam.umd.edu or my faculty advisor (Professor Mary Ann Hoffman at mh35@umail.umd.edu).

If you have any questions regarding whether you are eligible to participate, please contact the primary investigator, Mandy Mount, at mmount@uci.edu.

Mandy K. Mount, M.A.
Doctoral Candidate
University of Maryland, College Park
3214 Benjamin Building
College Park, Maryland 20742

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