JEALOUSY IN TRIADIC RELATIONSHIPS: A RELATIONAL TURBULENCE APPROACH

by

TIMOTHY RYAN WORLEY

(Under the Direction of Jennifer A. Samp)

ABSTRACT

This thesis examined relational uncertainty, interference, jealousy experience (sexual, intimacy, power, and friendship jealousy), and jealousy expression in response to the discovery of a romantic partner's extradyadic friendship. Friendships varied by type (cross-sex vs. same-sex) and history (new vs. old friendship). Men and women did not differ in their reports of relational uncertainty, interference, or jealousy experience. However, women were more likely than men to communicate about jealousy. While cross-sex friendships were judged as more threatening than same-sex friendships, relational uncertainty and interference did not vary by friendship type. Cross-sex friendships elicited more sexual jealousy than same-sex friendships, and new friendships elicited more friendship jealousy than old friendships. Finally, participants' real-life relational status was a predictor of relational uncertainty, power jealousy, and interference.

INDEX WORDS: Jealousy, Friendship, Cross-sex Friendships, Same-sex Friendships, Relational Turbulence, Relational Uncertainty, Partner Interference, Extradyadic Interference, Communicative Responses to Jealousy

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B.A., Samford University, 2007

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

ATHENS, GEORGIA

2009

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ACKNOWLEDGEMENTS

I would like to thank all those who have helped me through the long, hard work of completing this thesis. I am so thankful for the support of my committee members, colleagues, friends and family throughout this process.

First, I would like to thank Jennifer Samp, my major professor. Your guidance, feedback, and genuine excitement about my project have helped keep me going. You knew just how to push me to help me achieve my best.

I would also like to thank Jerry Hale. Without your help on my undergrad research, I would likely not have taken the academic path that I am now pursuing. Additionally, I would like to thank Tina Harris for all your guidance, support, and encouragement any time I approached you with a question, academic or otherwise. I would also like to thank my undergraduate advisor, Rhonda Parker. You lit the fuse on my love for communication and research, and for that I am forever grateful.

Finally, I would like to thank Canaan. I could never have completed this arduous task without your steadfast love, understanding, presence, and pep-talks. I love you.

TABLE OF CONTENTS

LIST OF TABLES

Page

CHAPTER 1: TOWARDS A FOCUS ON JEALOUSY AND TURBULENCE IN TRIADIC RELATIONSHIPS

Romantic relationships are a source of considerable affection, support, and positive reinforcement. Yet the very relationships that foster positive outcomes may also bring darker experiences. Jealousy is one such element of the "dark side of interpersonal communication" (Spitzberg & Cupach, 2007), and is quite common in romantic relationships. Over half of individuals interviewed by Pines and Friedman (1998) identified jealousy as an issue in their relationships. Approximately half of college students report having experienced the termination of a romantic relationship due to jealousy (White, 1988, as cited in White & Mullen, 1989). Among couples under the age of 50, jealousy was *a* or *the* primary presenting issue for around a third of couples seeking counseling (White, 2008).

Cross-sex friendships have been identified as a common cause of jealousy between romantic partners (Pogrebin, 1987; Werking, 1997). These relationships increased in prominence throughout the twentieth century (Bell, 1981), and are expected to grow in prevalence and importance throughout the twenty-first century (Monsour, 2002). Combined with the overall paucity of social norms and understandings for cross-sex friendship (Lampe, 1985; Rawlins, 1982), investigation of the influence of cross-sex friends on romantic dyads seems especially salient. Several studies have investigated the influences of relational uncertainty and jealousy within cross-sex friendships (Afifi & Burgoon, 1998; Bevan, 1999; Willams, 2005). Others have investigated jealousy and uncertainty as consequences of a romantic partner's cross-sex friendship (Hansen, 1991; Pogrebin, 1987). The current investigation will examine the influence

of cross-sex friendships and relational turbulence (Solomon & Knobloch, 2004) on the experience and expression of jealousy.

Chapter 1 of this thesis will review previous conceptualizations of jealousy, advance a systems approach based on White and Mullen's (1989) conceptualization, and review relevant characteristics of cross-sex friendships.

Conceptualizations of romantic jealousy

Several conceptual "camps" have emerged in the jealousy literature. The following approaches will be explained and evaluated below: *emotion, adaptation/instinct, perception of threat, multidimensional,* and *systems*. It should be noted that these conceptualizations overlap in some areas. For example, Teismann and Mosher (1978) defined jealousy as an emotional state based on a perceived threat of relational loss, thus incorporating elements of both the *emotion* and *perception of threat* approaches. While the following approaches are not hermetically sealed from one another, they do represent distinct conceptual emphases within the field of jealousy research.

Additionally, attempts at conceptualizing social scientific concepts invariably run the risk of reification. Reification refers to the act of attributing concrete materiality to abstractions and treating them as concrete "things" (Phillips, 1986). For example, a social scientist may observe individuals who exhibit a specific set of behaviors (e.g., fatigue, insomnia, and verbal expressions of sadness) and conclude that such processes and behaviors constitute a thing called "depression." While concepts such as depression may serve as useful heuristics for examining social phenomena, researchers should be careful of over-attributing materiality to social scientific constructs. Such constructs may perhaps best be viewed as helpful explanatory mechanisms for interpreting observed behaviors and processes.

Conceptualizations of jealousy are not immune from the dangers of reification. White and Mullen (1989) note that common views of jealousy tend to treat it as a discrete "thing" (e.g., an emotion, a cognitive appraisal, or a behavior) that exists within "jealous" individuals. Hupka (1984) emphasized this when he conceptualized jealousy as a social *label* for a specific set of emotions in contexts deemed productive of jealousy. Hupka's approach reminds researchers that they should recognize both the necessity and dangers of construct development. While reified constructs may serve useful functions in the analysis of jealousy-related phenomena, researchers and interpreters must bear in mind the non-essential nature of such concepts. The reader should keep this in mind while reading the following section on conceptualizations of jealousy.

Jealousy as an Emotion

The first set of conceptualizations view jealousy primarily in emotional terms. Mead (1931) characterized jealousy as a "negative, miserable state of feeling, having its origin in a sense of insecurity and inferiority" (p. 41). More recently, Bringle & Buunk (1991) defined jealousy as an "aversive emotional reaction" to a perceived threat of infidelity (p. 135). Various explications of the jealousy construct have focused on specific blends of emotions, including anger, sadness, fear, envy, sexual passion, and guilt (Guerrero, Trost, & Yoshimura, 2005; Sharpsteen, 1991; White & Mullen, 1989). Hupka (1984) argued that jealousy was not a fixed blend of emotions per se, but rather a cognitive label for emotional arousal in contexts that emphasize the primacy of jealousy (e.g., presence of a romantic rival).

This approach has been quite helpful for examining emotional aspects of jealousy. Jealousy is often marked by intense emotional experience. The emotional conceptualization of jealousy has shed valuable light on the emotional components, correlates, and consequences of jealousy (e.g., Becker et al., 2004; Pines & Aronson, 1983; Sharpsteen, 1991). However,

conceptualizing jealousy strictly in terms of emotion is problematic. Afifi and Reichert (1996) noted that while jealousy *experience* is psychological, jealousy expression is *behavioral*. Failing to distinguish between experience and expression is problematic, given the multi-dimensional aspects of jealousy noted by Pfeiffer and Wong (1989). Focusing purely on the emotional dimension not only precludes investigations of cognition and behavior, but also limits investigation of the cognitive and behavioral antecedents and correlates of *emotional* jealousy. Further, as emotional experience is an intrapersonal phenomenon, the focus in the emotional conceptualization remains primarily on the jealous party. However, jealousy expression has important relational consequences (Andersen, Eloy, Guerrero, & Spitzberg, 1995; Bevan & Hale, 2006; Yoshimura, 2004). Thus, a broader conceptualization of jealousy is advisable.

Jealousy as an Adaptation/Instinct

Other scholars have taken an instinctual approach to jealousy. Sociobiologists have argued that jealousy represents an evolutionary adaptation (e.g., Buss, Larsen, Westen, & Semmelroth, 1992; Dijkstra & Buunk, 1998; Symons, 1979). According to this view, jealousy is essentially a biologically-based instinct. Males, due to their inability to be certain of their own paternity, attempt to guard themselves from "cuckoldry," i.e., expending energy and resources to raise another male's offspring. Thus, for males, jealousy serves as a protective adaptation to ensure vigilance of potential paternity threats from other males and to enforce (violently, if necessary) female fidelity. Therefore, males experience more jealousy over sexual infidelity, which ostensibly raises the likelihood of cuckoldry. Females, on the other hand, face the need of ensuring male protection and provision in raising children (which, in humans, takes many years). Thus, women experience more jealousy over emotional infidelity, which would call into question the male partner's continued commitment to the relationship.

The evolutionary approach is similar to the emotion-based approach, in that both view jealousy fundamentally as a *response* to a stimulus, i.e., relational threat. This stimulus-response paradigm has been useful for investigating the antecedents of jealousy, including sex of perceiver, type of threat (i.e., sexual vs. emotional), rivals' physical attractiveness, dominance, and economic status (e.g., Buss et al., 1992, 2000; Buunk & Dijkstra, 2004; Dijkstra & Buunk, 1998). This research program has been the source of much informative empirical data.

However, the evolutionary approach to jealousy has come under increasing scrutiny, on both theoretical and empirical grounds. First, sociobiological approaches rely heavily on questionable analogies from other species. In fact, there appears to be great variety in patterns of sexual aggression and pair bonding among primates. In regard to primate sexuality, Lancaster (1985) stated, "The demands of sexual selection and paternity investment strategies fall differently on each sex and these patterns are highly species specific … it is virtually impossible to generalize about what male or female primates do" (p. 22). Thus, to rely on analogies between humans and other primates in formulating sociobiological explanations of jealousy seems tenuous at best.

Second, the sociobiological conceptualization of jealousy relies on post-hoc reasoning. In fact, sociobiological explanations for jealousy were largely formulated to explain the existing data for sex differences in jealousy (White & Mullen, 1989). Thus, the sociobiological logic appears tautological; individuals are instinctually jealous (data) because it is their instinct to be so (theory). Such explanations rely on the assumption that whatever behaviors are observed in human relationships *must have had* a genetically-based adaptive advantage, or they would not be observed today. However, these conclusions are based on inductive *post hoc* reasoning, rather than the hypothetico-deductive approach favored by Popper (2002). This is not necessarily fatal

to sociobiological theory, but it does call for extra caution in interpreting the conclusions of the evolutionary jealousy program.

Finally, more recent empirical tests of the much-cited sex differences in jealousy call into question the traditional sociobiological explanation. A number of recent studies have found results inconsistent with evolutionary predictions (e.g., Becker et al., 2004; Hupka & Bank, 1996; Pines & Friedman, 1998; Russell & Harton, 2005; Yarab et al., 1999). Taken together, these findings call into question the traditional notion that men and women differ greatly in their reactions to sexual and emotional infidelities, while suggesting that relational factors may play a greater role than previously considered (Russell & Harton). While the evolutionary conceptualization of jealousy has fostered valuable empirical investigation of the role of gender in the experience of jealousy, its utility in providing a comprehensive theoretical framework is less certain.

Jealousy as a Perception of Threat

The third conceptual paradigm views jealousy as a perception of threat. Pines (1992) defined jealousy as "a reaction to a perceived threat to a valued relationship or its quality" (p.3). While this is somewhat similar to Bringle and Buunk's (1991) definition, Pines' broader conceptualization allows for non-emotional (i.e., cognitive and behavioral) reactions to a perceived threat. This definition is quite informative for analyzing the jealousy construct. First, it emphasizes the role of *perception*. Jealousy need not have an actual, material object. Much research has noted the phenomenon of pathological jealousy, in which individuals experience and express intense jealousy over merely imagined threats (e.g., Bringle, 1991; Buss, 2000). An individual need only perceive a threat to a valued relationship; the verity of the threat is

irrelevant. If an individual believes there is a threat, he or she will think, feel and act in accordance with that threat, regardless of its material actuality.

Second, this definition notes that jealousy typically occurs only in valued relationships. It is unlikely for individuals to experience true jealousy over threats to non-valued relationships (White, 1991). Again, the value placed on the relationship is in the mind of the perceiver, not objective outside observers. Third, this definition recognizes two types of threat possible within a valued relationship. First, there is the threat to the relationship *itself* (i.e., relational termination). Second, there is a threat to *relational quality*. Aspects of relational quality include power, trust, emotional support, and perceptions of uniqueness and exclusivity (Pines, 1992; White & Mullen, 1989). Individuals need not necessarily anticipate or perceive the absolute loss of a relationship; anticipation or perception of a relative loss of relational rewards is sufficient to induce jealousy.

The perception of threat approach represents a more robust conceptualization of jealousy than the emotion-centered (e.g., Bringle & Buunk, 1991) and instinctual approaches (e.g., Buss, 2000). It illuminates the intrapersonal aspects of threat perception, emphasizes the importance of relational value, and encompasses both absolute and relative relational losses.

Jealousy as a Multi-dimensional Construct

As noted previously, other scholars have offered a multi-dimensional conceptualization of jealousy. According to this view, jealousy consists of emotional, cognitive, and behavioral components (Pfeiffer & Wong, 1989; White, 1981). Emotional jealousy refers to negative, upset feelings experienced as a result of a perceived relational threat (e.g., “I feel angry that my partner is cheating on me”). Cognitive jealousy refers to thoughts, suspicions and ruminations about the perceived threat (e.g., “I suspect that my partner is cheating on me”). Behavioral jealousy refers

to actions that manifest one's cognitive and emotional jealousies (e.g., "I looked through my partner's emails to see if they were cheating on me").

This perspective rightly recognizes the multi-dimensional character of jealousy. Jealousy is not restricted to emotional experience, but also encompasses the thoughts and actions. Thus, an individual who suspects their spouse is committing infidelity is likely to not only *feel* jealous, but also to *think* about the situation and their response to it. Additionally, while jealousy is sometimes strictly intrapersonal, it usually manifests behaviorally in such actions as snooping, questioning, or even reciprocal infidelity (Tafoya & Spitzberg, 2007).

Additionally, this approach provides the insight that jealousy is not something that is merely present or absent in a relationship; jealousy may be relatively present or absent in different ways. Related to the multi-dimensional conceptualization are conceptualizations focusing on jealousy about different aspects of relationships, including intimacy, power, sex, outside friendships, family, and activities (Bevan & Samter, 2004). This conceptualization has proven fruitful for examining correlates, antecedents and consequences of different jealousy types (Knobloch, Solomon, & Cruz, 2001; Theiss & Solomon, 2006b). Pfeiffer and Wong (1989) found that the different dimensions of jealousy appear to influence relational outcomes differently. They observed positive associations between emotional jealousy and love, and negative associations between cognitive jealousy and love. Liking was negatively associated with all three types of jealousy, and happiness was negatively associated with behavioral and emotional jealousy. These findings demonstrate the usefulness of the multi-dimensional conceptualization.

Overall, the multidimensional conceptualization deserves praise for stimulating diverse avenues of research and providing a productive typology for investigating jealousy. However,

while the multi-dimensional view is quite useful for examining intrapersonal jealousy experience and expression, it is somewhat less useful for examining higher-level jealousy phenomena. White & Mullen (1989) argue that jealousy exists on intrapersonal, dyadic, and triadic levels, as well as within the broader context of each individual's social support systems. The multi-dimensional approach does not address how jealousy experience and expression might affect actors on different systemic levels (in particular, triadic). Further model elaboration is needed, to which the discussion now turns.

Jealousy as a System(s)

All of the above approaches offer valuable insight into understanding romantic jealousy. However, these conceptualizations run the risk of treating jealousy as a discrete "thing" (White, 1991). In contrast, White and Mullen (1989) offer a systems approach to conceptualizing jealousy. This systems approach offers advantages, both conceptually and practically, for investigating romantic jealousy.

White and Mullen (1989) define jealousy as "a complex of thoughts, emotions, and actions that follows loss of or threat to self-esteem and/or to the existence or quality of the romantic relationship" (p. 9). As such, the approach incorporates the most useful aspects (for the present discussion) of both the *perception of threat* and *multi-dimensional* approaches. In this conceptualization, jealousy is viewed primarily as an intrapersonal and interpersonal process, rather than a specific, discrete emotion, thought, or behavior (White & Mullen). Jealousy is not merely something one feels, thinks or does; it is the process by which these components manifest themselves.

White and Mullen (1989; White, 1991) situate jealousy processes within an "interpersonal jealousy system." This system is composed of three actors (the Jealous, the

Beloved, and the Rival) and four relationships. The four relationships are the triadic Jealous/Beloved/Rival relationship and the three dyadic relationships embedded within it. The dyadic relationships within the "romantic triangle" are the Primary (Jealous/Beloved), Secondary (Beloved/Rival), and Adverse (Jealous/Rival) relationships. Furthermore, the triadic relationship and its dyadic components are each embedded in larger systems, including each individual's support system (other relationships that affect them, such as friendship and kin networks), and the overall system of culture (i.e., the norms, definitions and rules that guide interpretations and behaviors). While it is possible to conceptualize jealousy from the perspective of any of the three actors in the system, for purposes of this discussion the label "Jealous" will refer to the actor under observation, "Beloved" to the romantic partner of Jealous, and "Rival" to the non-romantic member of the triad.

Such a conceptualization allows for multi-level analysis of jealousy and jealousy-related phenomena. On the individual level (White and Mullen's "self-system"), each individual actor may be analyzed in terms of the intrapersonal cognitions, emotions and behaviors that constitute the jealousy complex. On the dyadic level, jealousy may be analyzed in terms of the interpersonal patterns of communication and mutual influence within the dyadic relationships of the jealousy system (primary, secondary, and adverse). On the triadic level, jealousy may be viewed as the patterns of influence within the romantic triangle. Finally, jealousy may be examined in light of the extratriadic systems of family/friendship and, ultimately, culture. Each of these systems influences, and is in turn influenced, by the systems above and below it ("suprasystems" and "subsystems," respectively), such that changes in one system lead to changes in the surrounding systems (White, 1991; Pines, 1992).

One unique feature of systems is the ability to sustain themselves (to a point) in the presence of change. For example, the system of the human body is able to sustain itself despite minor fluctuations in heart rate, metabolism, and oxygen intake. Likewise, political systems (e.g., democracy, monarchy, etc.) are often self-sustaining despite moderate changes in demographics, economics, and individual leadership. This process of maintaining stability in the presence of change is referred to as *homeostasis* (White, 1991). Homeostatic systems maintain overall consistent patterns of interaction and resist change (i.e., *morphogenesis*). Most social systems display a remarkable capacity for homeostasis. Families may add members through birth and lose them through death or divorce, yet maintain overall stable patterns of relationships and interactions between members. A teenage "clique" may resist change despite adult efforts to change it. On an individual level, an individual may encounter a wide variety of new stimuli, circumstances, and relationships, yet maintain an overall consistent self.

Systems maintain homeostasis, in part, by means of boundaries. Boundaries set limits, within which small changes are permitted, while large-scale changes are resisted. White (1991) argues that repetitive jealousy patterns may serve to delineate relational boundaries. For example, systemic experience and expression of romantic jealousy within a relationship may communicate to both partners that the relationship is valued, exclusive and romantic. Thus, White asserts that jealousy often serves to *strengthen* relational boundaries and definitions. Similarly, Hansen (1991) argued that individuals experience "boundary ambiguity" when they perceive a partner's involvement with another as conflicting with their definition of the relationship. In valued relationships, boundary ambiguity is likely to lead to jealousy (Hansen).

In a similar vein, expectations for relational exclusivity have been found to moderate relational partners' experiences of jealousy. In Weis & Felton's (1987) study, women with strong

expectations for marital exclusivity were significantly more likely to report jealousy in response to imagining their husband engaging in a variety of sexual and non-sexual activities with a cross-sex friend than were women with more liberal expectations of exclusivity. It is likely that more liberal attitudes toward exclusivity function to set wider relational boundaries. As a result, these systems are able to accommodate a wider latitude of acceptable behaviors while maintaining homeostasis. This suggests that the presence of different relational norms and definitions (i.e., boundaries) contributes to differential experiences of jealousy. Given these perspectives, it appears that jealousy serves both a defining and a protective function within romantic relationships, setting boundaries and alerting partners when these boundaries are threatened.

Because this thesis will investigate the role of cross-sex friends in the experience of romantic jealousy, the following section will review the nature and characteristics of cross-sex friendship.

Cross-Sex Friendship

O'Meara (1989) defined cross-sex friendship as "a non-romantic, non-familial, personal relationship between a man and a woman." Rawlins (1982) argued that cross-sex friendships are marked by the qualities of avoiding romance, deemphasizing sexuality in favor of companionship, emphasizing equality, and avoiding exclusivity. Such a conceptualization, on its face, might lead to the conclusion that cross-sex friendships are relatively simple and free of romantic/sexual dynamics.

However, Rawlins himself (2001), as well as others (Afifi & Guerrero, 1998; O'Meara, 1989; Werking, 1997) have noted that romantic and sexual issues may constitute a challenge in cross-sex friendships. Additionally, sexual behaviors such as flirting (Egland, Spitzberg, & Zormeier, 1996) and intercourse (Hughes, Morrison, & Asada, 2005) have been observed in

cross-sex friendships. These findings call into question straightforward "platonic" understandings of cross-sex friendships. While some cross-sex friends report few difficulties with sexual/romantic dynamics, others find them to constitute a substantial challenge (Monsour, Harris, Kurzweil & Beard, 1994).

Several authors have argued that cross-sex friendship possesses a paradoxical position in society. On one hand, friendship is generally understood to be free of romantic/sexual characteristics (Egland, et al., 1996). However, traditional gender ideologies tend to frame non-familial cross-sex interactions in romantic/sexual terms (Rawlins, 1982). Werking (1997) observed that despite increasing awareness of cross-sex friendships, the romantic relationship remains ideologically paradigmatic for male-female relationships.

The lack of consensus regarding cultural norms and definitions for cross-sex friendship further exacerbates this paradox (Lampe, 1985). Lampe applied Durkheim's notion of "anomie" (i.e., a psychologically uncomfortable situation characterized by absence of norms or rules) to cross-sex friendships in which at least one friend is married. Lampe argued that the lack of norms and definitions for cross-sex friendship contribute to an "anomic situation." In the absence of normative schemata for cross-sex friendship, both the cross-sex friends and outside observers are likely to understand the relationship in terms of the most salient schema available – a romantic/sexual relationship. Lampe asserted that this anomic situation may actually contribute to infidelity, further reifying the notion that cross-sex relationships are inextricably romantic/sexual. Brain (1976) offered a penetrating analysis of this challenge when he noted:

> We have been brought up as "dirty old men," assuming the worst when two men are constantly and devotedly together or when a boy and girl travel together as friends – if they share the same bedroom or tent, they *must* be lovers. We have imbued friendly

> relations with a smear of sexuality, so that a frank platonic enjoyment of a friend for his or her own sake is becoming well-nigh impossible. (p. 46).

O'Meara (1989) and Rawlins (1982) have also noted the existence of an audience challenge, in which cross-sex friends must define and legitimate their relationship to suspicious audiences. Rawlins (2001) argued that cross-sex friendships are vulnerable to third-party attributions of sexuality, particularly when they are perceived as threats to prevailing social institutions and norms, such as dating and marriage. In particular, romantic partners may serve as suspicious audiences (O'Meara; Werking, 1997). While it might seem that being in a romantic relationship would serve to discourage audience suspicion about cross-sex friendships, Monsour et al. (1994) found that the audience challenge was actually more salient for cross-sex friends who were also in romantic relationships. Cupach and Metts (1991) argue that if cross-sex friends are unable to successfully negotiate this audience challenge, they are likely to transform the friendship into a romantic relationship, deemphasize it, or terminate it.

Disentangling Romantic and Sexual Jealousies

Many conceptualizations of jealousy have treated romantic jealousy as virtually synonymous with sexual jealousy (e.g., Buss, 2000; Bringle & Buunk, 1991). However, such a conceptualization is problematic, given that a variety of situations may provoke jealousy processes (Hansen, 1991). Hill & Davis (2000) noted a preoccupation with sexual infidelity in the literature and called for a greater focus on jealousy other than that related to sexual infidelity. The prevailing conflation of romance and sexuality is certainly understandable, as the subjects are intricately related, and in studies focusing exclusively on sexual jealousy, the distinction may not be readily apparent. However, the traditional conflation of romance and sexuality threatens

to reify jealousy as intrinsically sexual, thereby obscuring the important ways in which non-sexual jealousy may operate in romantic relationships.

While most jealousy research has focused on romantic jealousy, more recent scholarship has noted the existence of other types of jealousy, including sibling jealousy (Rauer & Volling, 2007; Dunn & Kendrick, 1982), friendship jealousy (Parker, Low, Walker, & Gamm, 2005), professional jealousy (Miner, 1990; Wilkes & Kravitz, 1992), and father-infant jealousy (Jordan & Wall, 1993; Campbell, Oliver, & Bullock, 1993). These research areas constitute what Hill & Davis (2000) called "platonic jealousy," i.e., jealousy unrelated to sexual infidelity. This investigation into non-romantic jealousy is welcome, and serves as a needed corrective to the predominant obsession with sexual infidelity. These newer research programs rightly note the importance of jealousies other than sexually-motivated ones. However, in an attempt to differentiate the "platonic" research program from the traditional sexual program, investigations of non-sexual jealousy have largely been confined to non-romantic relationships (e.g., Aune & Comstock, 2002; Bevan, 1999; Bevan & Samter, 2004). This is also problematic for the present investigation, as romantic partners may experience jealousy about issues other than sexual infidelity.

In fact, there is warrant for examining both sexual and non-sexual jealousies within romantic relationships. Pogrebin (1987) noted that in addition to sexual jealousy, romantic partners may become jealous about non-sexual aspects of a rival relationship, including intimacy and power jealousy. Additionally, Hansen (1991) identified six sources of non-sexual jealousy within romantic relationships: reduced time with the partner due to his or her work; time spent by a partner on a hobby; devotion to a baby; a partner's activities with same-sex friends; a partner's development of a cross-sex friendship; and a partner's spending time with family. Because these

types of non-sexual jealousy occur between romantic partners, they constitute forms of non-sexual romantic jealousy. The present investigation employs a broader conceptualization of "romantic jealousy" to mean jealousy about relational issues that arises within a romantic relationship, not only (though including) jealousy *about* romance/sexuality. In this conceptualization, the emphasis is on the context in which the jealousy occurs (i.e., a romantic relationship); sources of jealousy may involve sexual aspects such as threats of infidelity, as well as non-sexual aspects such as time, attention, and influence.

Such a conceptualization does not mean, however, that any instance of jealousy experienced by an individual who happens to be involved in a romantic relationship constitutes romantic jealousy. Rather, romantic jealousy refers specifically to jealousy about relational issues between romantic partners. Thus, the definition assumes mutual relational influence between interdependent partners in the romantic dyad. Nevertheless, this definition does not require that both partners experience jealousy; in fact, in many cases this will not occur. Nor must the jealousy stem from a partner's actual behavior. It is sufficient for one partner to experience jealousy within the context of a romantic relationship due to a perceived relational threat.

Types of Jealousy Generated by Cross-sex Friends

This investigation will examine four types of jealousy: sexual jealousy, intimacy jealousy, power jealousy, and friendship jealousy. Pogrebin (1987) found that sexual, intimacy and power jealousy often occur in situations in which one's romantic partner has a cross-sex friend. *Sexual* jealousy pertains to fears and suspicions that one's partner is or may become sexually involved with the cross-sex friend. For example, if Jealous perceives that Beloved's cross-sex friend is interested in or presently engaged in a sexual relationship with Beloved, sexual jealousy is likely

(given a norm of sexual exclusivity in the primary relationship). *Intimacy jealousy* refers to being jealous that one's partner and the cross-sex friend may share intimacy (activities, secrets, emotional bonds, etc.) that the romantic partner does not share. For example, if Jealous observes Beloved engaging in long, highly disclosive conversations with the cross-sex friend (i.e., Rival), Jealous may be jealous of the fact that the adverse relationship shares greater intimacy than the primary relationship. *Power jealousy* relates to the fear that one will lose relational influence over one's partner due to the influence of the cross-sex friend. For example, if Jealous perceives that when making decisions, Beloved takes the cross-sex friend's advice into account more readily than Jealous' advice (i.e., the adverse relationship exerts greater influence on Beloved than the primary relationship), Jealous is likely to experience power jealousy. Additionally, Bevan and Samter (2004) identified friendship jealousy as common within cross-sex friendships. *Friendship jealousy* refers to jealousy over the benefits derived from another's outside friendships. While sexual, intimacy and power jealousies may be triggered by a partner's outside friendship, friendship jealousy pertains specifically to jealousy over the benefits of a partner's friendship *as friendship*, rather than specifically fears related to sexual, intimacy or power dynamics of the friendship. Friendship jealousy seems a likely outcome within the triadic relationships under consideration in this study.

One or more of these jealousy types may be present within the interpersonal jealousy system. Additionally, the primary locus of responsibility for the threat may be attributed to either Rival or Beloved; i.e., Jealous may perceive that Rival is actively seeking to "steal" an otherwise faithful Beloved, or that Beloved has "strayed" and begun actively seeking a relationship with Rival. In either case, the experience of jealousy would be present, though perception of the locus

of threat would vary depending on the attribution of intent. This pattern of locus attribution holds for all four jealousy types.

Cross-sex Friendships within the Jealousy Triangle

Discussions of romantic relationships and phenomena (e.g., jealousy) almost invariably focus on dyadic-level phenomena. Even investigations of non-exclusive relationships, such as infidelity, open marriages and "swinging" (Bringle & Buunk, 1991; Pines, 1992) tend to view each relationship as a separate dyad (i.e., the infidel is involved in two or more distinct *dyadic* relationships). This dyadic focus certainly makes sense; after all, romantic relationships tend to be viewed in dyadic terms. Nevertheless, greater attention should be given to conceptualizing supra-dyadic relationships. In particular, triadic relationships deserve attention. Just as dyadic relationships demonstrate dynamics beyond the sum of the individual partners (Kenny, Kashy, & Cook, 2006), so also triadic relationships demonstrate fundamentally different second-order dynamics from dyadic relationships (Deal et al., 1999). The present thesis conceptualizes jealousy within a triadic context incorporating romantic dyads and cross-sex friends as intact relational systems.

In line with the triadic model of jealousy employed in this investigation, the current thesis will investigate the unique contributions of the cross-sex friendship to jealousy within the romantic relationship. While jealousy within cross-sex friendships has been examined (Bevan & Samter, 2004), and cross-sex friends have been noted as potential romantic rivals (Hansen, 1991), the role of *characteristics* of cross-sex friendships in jealousy activation has not been adequately addressed. Previous investigations have largely employed dyadic-level conceptualizations, treating the cross-sex friend (i.e., rival) as a constant. This thesis will investigate the influence of relational history on jealousy experience. In particular, the role of

when the respective cross-sex friend and romantic relationships are initiated will be examined as a potential antecedent of jealousy.

Communicative Responses to Jealousy Experience

Jealousy is not only an intrapersonal phenomenon; it is often expressed behaviorally (Pfeiffer & Wong, 1989). These behaviors may include both communicative and non-communicative responses (Guerrero et al., 1995). Guerrero et al. identified eleven types of responses to jealousy. These responses were divided into two types: *interactive* and *general* responses to jealousy.

Interactive Responses

Guerrero et al. (1995) identified six types of interactive responses to jealousy. *Active distancing* involves attempts to express disaffiliation with a romantic partner (e.g., stop calling, decrease affection, ignore partner). *Negative affect expression* involves displays of negative emotion, such as insecurity, depression, or frustration. *Integrative communication* involves direct, pro-social communication about jealousy with the partner (e.g., explaining feelings, calmly questioning partner, discussing jealousy issues). *Distributive communication* involves direct, anti-social communication about jealousy with the partner (e.g., yelling, accusing, arguing). *Avoidance/denial* involves non-direct behaviors intended to avoid discussing jealousy-related issues (e.g., silence, denial of jealous feelings). *Violent communication/threats* involves direct, aggressive verbal and nonverbal threats of or actual violence against a partner (e.g., shoving, hitting, threatening harm).

General Responses

Guerrero et al. (1995) identified five types of general responses to jealousy. *Surveillance/restriction* involves behaviors used to monitor partners' behavior and restrict

partners' access to rivals (e.g., spying on partner, constantly calling partner). *Compensatory restoration* involves actions intended to increase affiliation with and attraction by the romantic partner (e.g., trying to prove love for partner, trying to be more appealing to partner). *Manipulation attempts* involves behaviors intended to provoke negative emotion within the partner and/or shift responsibility for the problem onto the partner (e.g., trying to get revenge, attempting to make the partner jealous). *Rival contacts* involves active communication with the rival (e.g., confronting the rival). *Violent behavior* involves violence toward objects (e.g., slamming doors, throwing objects).

Because this thesis is interested in direct interpersonal communication about jealousy, it will focus on interactive responses to jealousy.

Summary

Chapter 1 of this thesis introduced the topic of romantic jealousy, its prevalence, and its relevance to romantic relationships. Additionally, this chapter reviewed conceptualizations of romantic jealousy, adopting a systems approach, and viewed romantic jealousy as distinct from (though incorporating) sexual jealousy. This chapter also introduced the topic of triadic relationships and the importance of studying triadic-level phenomena. Chapter 2 will review the relational turbulence literature and advance hypotheses. Chapter 3 will propose and outline a study to test the hypotheses. Chapter 4 will propose analyses to test the hypotheses.

CHAPTER 2: THE ROLE OF FRIENDS IN NON-SEXUAL ROMANTIC JEALOUSY

The previous chapter introduced the topic of romantic jealousy, its prevalence, and consequences. The current chapter will expand on the discussion by offering a more in-depth discussion of romantic jealousy within the context of triadic relationships. First, the relational turbulence literature will be reviewed, and the model will be extended to incorporate triadic relationships. Second, relevant cross-sex friendship literature will be reviewed and applied to the discussion of relational turbulence and romantic jealousy. Finally, based on the literature reviewed, hypotheses will be advanced.

Relational Turbulence

A growing body of jealousy research has employed a relational turbulence approach to the study of jealousy and negative emotion in close relationships (Knobloch, Miller & Carpenter, 2007; Theiss & Solomon, 2006a, 2006b). The relational turbulence model (Solomon & Knobloch, 2004) attempts to explain the challenges that relational partners encounter as they develop intimacy and interdependence within close relationships. *Relational turbulence* is defined as "the variety of tumultuous experiences that occur within romantic relationships" (Solomon & Knobloch, 2004). Turbulence is believed to be most prominent in the middle stages of romantic relationships, as a result of the transition from casual dating to serious commitment (Solomon & Knobloch, 2001).

According to the model, as relational partners become more intimate, they are likely to encounter periods of turmoil and difficulty that represent significant changes in both the individual partners and the relationship as a unit (e.g., turning points, new relational definitions and expectations, increased demands for time together, etc.). Perceptions of turbulence have

been found to be associated with an array of intrapersonal and interpersonal outcomes, including jealousy (e.g., Knobloch et al., 2007; Theiss & Solomon, 2006b); negative appraisals of partner behavior (e.g., Solomon & Knobloch, 2004); and directness of communication about irritations (e.g., Theiss & Solomon, 2006a). The primary antecedents of relational turbulence that have been identified are relational uncertainty and partner interference. The relational turbulence model is explained below, and then expanded for this specific discussion.

Relational Uncertainty

Early theories of uncertainty were focused primarily on initial interactions with strangers (Berger & Calabrese, 1975; Sunnafrank, 1986). While these theories had great heuristic value, they were somewhat limited for investigation of the role of uncertainty in established close relationships, as they conceptualized uncertainty as general uncertainty about interaction partners' attitudes and behaviors. Afifi & Reichert (1996) differentiated between general uncertainty and relational state uncertainty (uncertainty about partners' relational commitment), opening the way for investigation of specifically relational uncertainty. Following this trajectory, Knobloch and Solomon (1999) proposed a model of relational uncertainty. They defined relational uncertainty as "the degree of confidence people have in their perceptions of involvement in close relationships" (p. 264). Relational uncertainty is manifested in three ways: *self uncertainty, partner uncertainty, and relationship uncertainty. Self uncertainty* refers to uncertainty about one's own level of involvement in a relationship. *Partner uncertainty* refers to uncertainty about a relational partner's involvement in the relationship. *Relationship uncertainty* refers to an individual's uncertainty about the dyadic relationship itself.

While self, partner and relationship uncertainty are separate constructs, they are related. Self and partner uncertainty are distinct constructs; however, relationship uncertainty serves as a

second-order construct, influenced strongly by both self and partner uncertainty (Knobloch and Solomon, 1999). More specifically, partner uncertainty contributes to self uncertainty, which in turn contributes to relationship uncertainty (Knobloch, Solomon & Cruz, 2001). These findings suggest that the existence of either self or partner uncertainty may be sufficient to induce relationship uncertainty, and perhaps that both must be resolved in order to alleviate relationship uncertainty.

The relational turbulence model predicts that relational uncertainty is strongest at moderate levels of intimacy within dating relationships (Solomon & Knobloch, 2004). Thus, it is expected to vary in a curvilinear manner with intimacy. However, empirical support for this assertion has been inconsistent. While Knobloch & Solomon (2002) found the predicted curvilinear relationship between intimacy and relational uncertainty, the majority of investigations have observed a negative linear association (e.g., Knobloch et al., 2001; Knobloch & Donovan-Kicken, 2006; Solomon & Knobloch, 2001; Theiss & Solomon, 2006a). It should be noted that the curvilinear relationship observed in Knobloch & Solomon (2002) applied to *episodic* relational uncertainty, but not *global* relational uncertainty. Taken together, these findings suggest two considerations. First, the assumed curvilinear relationship between intimacy and relational uncertainty has not received strong empirical support. Second, the one such relationship observed pertained to only episodic relational uncertainty (Knobloch & Solomon, 2002). While global uncertainty appears to decrease in a linear fashion with intimacy, uncertainty generated by specific unexpected events may be quite prominent in the middle stages of relationships.

Interference

In the relational turbulence model, interference occurs due to the development of interdependence between partners. As relationships develop, partners seek to integrate their lives and activities; they become more interdependent as they begin to exert more influence on one another's actions and outcomes. However, while this interdependence may be desirable within an increasingly-intimate relationship, it also interferes with each partner's own patterns of action (Knobloch & Solomon, 2004). Solomon and Knobloch (2001) define interference as the perception that a partner disrupts one's actions and outcomes. According to the relational turbulence model, as relational partners achieve greater coordination of actions and outcomes, interference decreases, replaced by coordinated behavior. This interference has generally been found to follow a curvilinear trajectory, such that interference is strongest in the middle stages of relational development, when intimacy is moderate (Knobloch & Donovan-Kicken, 2006; Solomon & Knobloch, 2001; Solomon & Knobloch, 2004). Theiss and Solomon (2008) also observed a curvilinear relationship between intimacy and interference; however, rather than the symmetrical "U-curve" predicted by the model, interference increased greatly from low to moderate intimacy, and decreased only slightly from moderate to high intimacy. In fact, a curvilinear model accounted for only four percent greater variance than did a linear model. The fact that interference remained quite high at high levels of intimacy suggests that interference is salient within relationships beyond the moderate stages. This study will explore possible sources of interference within more-developed relationships. This study will explore possible sources of interference within more intimate relationships (i.e., interference both between dyadic partners and extradyadic interference with the dyad).

According to Solomon and Knobloch (2004), relational uncertainty and interference interact to influence reactions to relational events. Solomon and Knobloch argued that negatively-valenced relational behaviors are likely to activate an appraisal process, in which individuals attempt to evaluate and respond to their partner's actions. In particular, they are likely to evaluate behaviors on the basis of *severity* (the importance or magnitude of the problematic behavior) and *relationship threat* (the degree to which the problematic behavior may result in relational damage). These two constructs (severity and relationship threat) serve as indicators of relational turbulence. The researchers found that partner interference and relationship uncertainty were positively related to negative appraisals. Thus, individuals who experience more relationship uncertainty and interference are likely to view irritations from partners as more severe and threatening to the relationship, producing more reactivity.

One recent line of investigation examines the relationship between uncertainty and jealousy. Researchers have found strong support for a positive association between relational uncertainty and jealousy (Afifi & Reichert, 1996; Knobloch, Solomon & Cruz, 2001; Theiss & Solomon, 2006a). Specifically, Afifi and Reichert found a positive relationship between partner uncertainty and the experience of jealousy. Knobloch, Miller, and Carpenter (2007) found positive associations between partner and relationship uncertainty and jealousy experience. In addition, interference has been linked to increased emotional jealousy (Knobloch et al., 2001; 2007) and more negative appraisals of relational irritations (Solomon & Knobloch, 2004). Aune and Comstock (1997) found that as couples became more interdependent, jealousy in response to a partner's extradyadic involvement increased. Thus, it appears that relational uncertainty and interference generally serve to increase jealousy in romantic relationships.

Critique of Current Relational Turbulence Model

Theiss and Solomon (2006b) have applied the relational turbulence model quite productively to research on romantic jealousy. However, Theiss and Solomon's approach demonstrates two weaknesses with the current treatment of relational turbulence. First, current conceptualizations of relational turbulence are overwhelmingly concerned with dyadic-level relationships and interactions (Solomon & Knobloch, 2001, 2004; Theiss & Solomon, 2006a, 2006b). Second, relational development and turbulence tend to be treated as strictly linear or curvilinear phenomena, precluding analysis of non-linear/non-curvilinear experiences of turbulence in established relationships. The following section will elaborate on these concerns and attempt to address these weaknesses by advancing a more comprehensive model of relational turbulence.

Moving Beyond a Dyadic-only Focus

Current treatments of relational turbulence conceptualize interference strictly on a dyadic level. For example, in the aforementioned studies, interference is understood as Romantic Partner A interfering with Romantic Partner B's everyday activities. As such, the interference remains at the dyadic level, and the goals to be interfered with tend to be of a relatively concrete variety (e.g., attending a party, doing school work, etc.). Such conceptualizations tend to treat the third party as a constant, limiting the analysis to the dyad. While quite valuable for dyadic-level analysis regarding interference with everyday activities, this conceptualization does not allow for the investigation of extradyadic interference (i.e., from a potential rival), nor of more relationally-oriented goals (i.e., intimacy, power, or relational continuity). This is particularly problematic in regard to jealousy, an inherently triadic phenomenon (even in instances of unfounded jealousy, there is always a real or imagined third party involved). In contrast to the

previous dyadic-only focus, researchers should also examine extradyadic individuals (such as cross-sex friends) as independent variables.

White and Mullen's (1989) systems conceptualization of jealousy is informative for the present discussion. Jealousy indicates the perception of threat to the existence or quality of a valued relationship (Pines, 1992). As such, jealousy indicates not only the perception of a potential threat to Jealous (individual level), but also to the primary relationship (dyadic level). More than that, in situations in which Jealous and Rival are acquainted, it may signal a threat to the adverse relationship as well (also dyadic). Further still, in situations in which Jealous, Beloved, and Rival constitute an attached triad (i.e., when Rival is a mutual friend of both Jealous and Beloved), jealousy may indicate a threat to the triadic-level relationship. Similarly, adopting White and Mullen's systems approach allows for analysis of interference at all three levels. A cross-sex friend may be perceived as interfering with Jealous (individual level), or with the primary or adverse relationship (dyadic level). Additionally, when the triadic relationship constitutes an intact friendship triad, the adverse relationship may be perceived as interfering with the triadic system.

Broadening the Conceptualization of Interference

The limits to current conceptualizations of interference are perhaps best illustrated by means of Solomon and Knobloch's (2001) operationalization of the construct. In that study, the authors offer a reliable four-item measure of interference. The items are as follows: a) my partner interferes with the plans I make; b) my partner interferes with my plans to attend parties or other social events; c) my partner interferes with the amount of time I spend with my friends; and d) my partner interferes with the things I need to do each day.

This conceptualization and operationalization of interference is helpful, but limited. It pertains strictly to interference with concrete routines, plans, and activities. While these certainly may serve as sources of partner interference, it is likely that other factors may also be perceived as interfering with individuals' goals and plans. Examples of such goals and plans include exclusivity, fidelity, and integration of partners' respective social support systems. Activities and relationships perceived as conflicting with such goals should be evaluated as partner interference. Also, the current conceptualization pertains mainly to short-term goals and plans, while many relational goals and plans are longer-term in orientation (e.g., relational continuance, growth in intimacy, marriage, children, etc.). Additionally, as noted previously, extradyadic relationships may increase uncertainty (Planalp et al., 1988) and have negative impacts on dyadic stability (Felmlee, 2001; Rusbult, 1983). Together, these conceptual limitations call for a broadening of the types and sources of partner interference investigated.

An objection might be made that third-party interference does not apply within the relational turbulence model, since the model was created to explain turbulence between dyadic partners. Or, alternately, it might be argued that in such cases, turbulence would be best conceptualized as between the jealous partner and the rival, thus keeping analysis dyadic. However, such objections, while understandable, do not hold.

First, interference need not proceed from a dyadic partner in order to have an impact on the dyadic relationship. For example, the introduction of a new baby into a household can lead to great interference with the dyadic goals and plans of the parents (i.e., continued intimacy, time alone together, vacation plans, etc.). Though the third-party child is not a member of the parental dyad, the child's presence nevertheless exerts a strong impact on the dyadic relationship (Belsky & Rovine, 1984). Likewise, in cases of actual infidelity, two sources of interference are present

for the jealous partner: both the dyadic partner's and the extradyadic rival's actions and sexual/emotional involvement interfere with the jealous partner's goals and plans. Third-party interference from friends, family, and romantic rivals has been identified as a common and negative phenomenon that often leads to jealousy (Emmers-Sommer, 1999; Roth & Parker, 2001).

Second, it should be noted that rival relationships exert both direct and symbolic effects on romantic dyads. A direct effect might include decreased time with the beloved, while a symbolic effect might be relational devaluation (White & Mullen, 1989). Thus, interference may take the form of *material interference*, in which another individual's actions interfere with one's concrete goals and plans (e.g., attending a party, completing homework, etc.). Alternately, some activities and relationships may constitute *relational interference*, i.e., interference with more abstract relational goals, such as commitment, exclusivity, and fostering a positive emotional and communicative atmosphere. Examples of relational interference include betraying a partner's confidence, flirting with an extradyadic individual, or a partner's use of distributive communication. Of course, in each case the nature and severity of the interference depends on the specific goals and plans of the individual; what is interference for one individual may not be for another. Additionally, many behaviors may simultaneously serve as *both* material and relational interference; e.g., spending increased time with a rival may both interfere with a partner's immediate social plans (material interference) and with the partner's desire for closeness (relational interference).

Curvilinearity

In addition to its failure to incorporate for extradyadic interference, the relational turbulence literature employs an overwhelmingly curvilinear (or at times, linear)

conceptualization of the association between relational development (i.e., intimacy, commitment, etc.) and turbulence (Knobloch & Solomon, 1999, 2002; Solomon & Knobloch, 2004; Theiss & Solomon, 2006a). Previous relational turbulence research has been predicated on the view that high levels of relational uncertainty, interference, and turbulence are confined to the middle stages of relationships. Solomon and Knobloch (2001) stated, "The relationship uncertainty characterizing the middle stages of relationship development should be substantially resolved once partners establish a mutual commitment to the relationship" (p. 807).

However, as previously noted, the curvilinear model posited by relational turbulence theory has received only mixed support (Solomon & Theiss, 2008). While the curvilinear relationship between intimacy and partner interference has generally received support (e.g, Knobloch & Donovan-Kicken, 2006; Solomon & Knobloch, 2001), the relationship between intimacy and relational uncertainty has been linearly negative in most studies (Solomon & Knobloch, 2001; Theiss & Solomon, 2006a). Knobloch and Solomon (2002) found a curvilinear relationship between intimacy and episodic relational uncertainty, but a negative linear relationship between intimacy and global relational uncertainty. All of these studies employed cross-sectional, self-report designs. However, self-report designs are prone to recall biases, and individuals may confound reports of turbulence and intimacy (Knobloch & Solomon, 2001). Additionally, cross-sectional designs may cause individuals to smooth out episodic relational fluctuations when reporting on global patterns (Duck & Sants, 1983).

Solomon and Theiss (2008) employed a longitudinal design to assess dating individuals' changes in perceptions of intimacy, relational uncertainty and interference. This investigation revealed week-to-week fluctuations and non-linear associations between these variables. Importantly, weekly fluctuations in intimacy were predictive of relational uncertainty and

interference levels in each week. Perhaps most importantly, the authors concluded that while relational uncertainty and interference exert a marked influence within relationships, such influence is not confined to the middle states of relationships.

Taken as a whole, these findings call into question the theorized curvilinear relationship between intimacy and turbulence. Given that turbulence arises from increases in interference and relational uncertainty, and that these factors are present in relationships beyond the middle stages (Solomon & Knobloch, 2008), it seems likely that other relational factors and events could lead to interference and uncertainty at numerous points within relationships. Indeed, Knobloch (2007) noted that "unexpected events are not uniform in the magnitude, source, or valence of relational uncertainty they produce" (p. 44). Sources of relational uncertainty include competing relationships, unexplained loss of closeness, unexpected sexual behavior, deception, changes in personality or values, and betrayal of confidences (Planalp et al., 1988) a spouse's serious illness (Brashers, Neidig, & Goldsmith, 2004), meeting an attractive rival, decreased time with outside social networks, observing a partner flirting with a rival, a partner's refusal to discuss relational issues, a partner's request to talk about the state of the relationship, and anticipated geographical separation (Knobloch & Solomon, 2002). It appears that a variety of factors, both intradyadic and extradyadic, may serve to increase uncertainty in romantic relationships.

In this author's view, turbulence is best viewed not as strictly linear or curvilinear. While macro-level analyses of relationships may reveal general linear or curvilinear trends across large numbers of individuals over time, episodic disturbances may lead to non-linear/curvilinear phenomena (Solomon & Theiss, 2008). Planalp & Honeycutt (1985) argued that relational knowledge structures are always evolving and open to question. Acquisition of relational knowledge, while generally posited to reduce uncertainty (e.g., Berger & Calabrese, 1975), may

in some cases *increase* uncertainty, when it conflicts with existing relational knowledge (Planalp & Honeycutt). Paradoxically, relational certainty carries within itself the seed of subsequent uncertainty. The more knowledge one acquires about one's self, partner or relationship, the more knowledge there is to potentially call into question. For example, one does not question a partner's commitment to a romantic relationship unless knowledge that the relationship is romantic exists, at least on an implied level. This warrants further consideration of the role of uncertainty across the life span of relationships.

Prevailing conceptualizations of uncertainty (e.g., Berger & Calabrese, 1975; Knobloch & Solomon, 1999) tend to view the process of uncertainty reduction in a fairly linear (or curvilinear) fashion. Montgomery and Baxter (1998) critiqued traditional conceptualizations of relationship development, noting a "presumption of unidirectional, linear, usually quantitative and cumulative change toward some idealized or preferred end state" (p. 160). As such, the linear views of uncertainty and turbulence imply that relational uncertainty is something typically "gotten over" and dispensed with as relationships progress toward an ideal state of certainty and stasis. Nevertheless, Montgomery & Baxter (1998) argue that relationships generally exhibit a "spiral" pattern of development, rather than a strictly linear one.

This perspective suggests that relational turbulence may be marked by episodic starts, stops, and regressions. Such experiences of non-curvilinear turbulence may be thought of as epicyclical. Thus, dating couples who have successfully weathered the initial experience of turbulence in their relationships may at later times encounter new challenges that serve to increase uncertainty and interference. Examples of such uncertainty- and interference-inducing challenges include: transitioning from a geographically close relationship to a long-distance relationship, or vice versa; engaging in an extra-dyadic affair; or a partner's chronic illness.

Situations such as these would likely lead to reappraisals of uncertainty about self, partner, and the relationship, while also introducing new challenges in routines and goal-attainment (i.e., interference).

Cross-sex Friendships and Turbulence

Particularly germane to the present discussion is the potential for the presence and/or development of cross-sex friendships to provoke turbulence, leading to jealousy and other negative emotions between romantic partners. Indeed, Planalp and Honeycutt (1985) found that competing relationships tended to provoke increased uncertainty for relational partners. A partner's development of a new cross-sex friendship may increase relational uncertainty by calling into question the exclusivity and primacy of the romantic relationship. Individuals may experience *partner uncertainty*, as they scrutinize their partner's commitment to the relationship. Additionally, they may experience *self uncertainty* as they reevaluate the costs and benefits of remaining in a romantic relationship with someone who feels the need to "look elsewhere" to fulfill relational needs. Finally, individuals may experience *relationship uncertainty* as they seek to determine the impact of the new cross-sex friendship on the existing romantic relationship.

I argue that uncertainty and interference are also present in relationships in which a cross-sex friendship existed prior to initiation of the romantic relationship (note: this refers to a cross-sex friend outside the romantic dyad, *not* a cross-sex friendship that develops into a romantic one). In such an instance, the presence of the cross-sex friend may cause the new romantic partner to feel uncertain about the "friended" partner's relational commitment, relational history, and the exclusivity of the relationship. Werking (1997) noted that many individuals view cross-sex friendship as acceptable for non-romantically involved individuals, but something which

should cease upon initiation of a "real" (i.e., romantic) cross-sex relationship. Continuation of the pre-existing friendship may therefore provoke uncertainty in the non-friended partner.

Additionally, the presence of the preexisting cross-sex friend is likely to serve as a source of interference to the dating dyad. In many cases, the friend may still desire a substantial amount of time or activities with the now-dating partner. The non-friended partner may come to resent the friend as a "third wheel" if they are included in many of the dating couples' activities. Additionally, the constant (physical or psychological) presence of the cross-sex friend may interfere with the non-friended partner's desire for such relational qualities as attention, intimacy, or exclusivity. Such interference may take the form of *material interference, relational interference,* or both.

Confounding the situation further, in many cases the pre-existing friendship may be viewed by the friends as longer lasting, more stable and more desirable than the romantic relationship. Werking (1997) found that many cross-sex friends viewed their friendships as more secure than romantic relationships. Many of Werking's interviewees expressed the view that while dating relationships come and go, friendships are less volatile and more stable sources of support. In cases of pre-existing cross-sex friendship, the non-friended romantic partner may experience jealousy over the intimacy enjoyed between their partner and their partner's friend.

Summary: Reconceptualization of Relational Turbulence

Previous conceptualizations of relational turbulence had limited utility beyond analysis of romantic dyads. The preceding discussion has sought to render the concept of relational turbulence more useful by decontextualizing and reconceptualizing it to incorporate extradyadic influences and diverse sources of uncertainty. The revised model of relational turbulence recognizes the influences of relational uncertainty and interference across the life span of non-

marital romantic relationships, and allows for extradyadic (i.e., third party) interference. Cross-sex friendships are included in the model as potential sources of relational uncertainty and extradyadic interference. The next section will further delineate the nature of cross-sex friendship and its influence on romantic relationships.

Jealousy and Cross-Sex Friendship Characteristics

As noted in Chapter 1, researchers have argued that cross-sex friendships are often met with an audience challenge (i.e., attributions of romance/sexuality by outside observers). Within the triadic context, Jealous would serve as the audience. If the cross-sex friends do not adequately negotiate the audience challenge and present their relationship as non-threatening to the primary romantic relationship, the non-friended romantic partner is likely to experience jealousy due to a perceived relational threat (Pines, 1992). However, certain relational characteristics may reduce this audience challenge. First, individuals may sanction their romantic partners' cross-sex friendships. Rawlins (2001) found that cross-sex friendships among married individuals were more likely when one or both of their spouses sanctioned the friendship. Rawlins argued that this sanctioning by the spouse upholds the primacy of the romantic relationship.

Second, acquaintance with one's partner's cross-sex friend may reduce suspicion and jealousy about the relationship. Werking (1997) noted that romantic partners of individuals with a cross-sex friend often experienced jealousy and interpreted their friendship behaviors as dating behaviors. However, she also found that over time, romantic partners often became more accepting of the cross-sex friendship, as they came to understand the "true" (i.e., non-sexual) nature of the friendship. Buunk (1978) found that among participants whose partner had committed infidelity with a rival that the jealous partner knew, jealousy was lower when the rival

was well-liked. In fact, White and Mullen (1989) suggested that suspicious individuals may actually become friends with rivals in order to increase relational security. Indeed, Hallinan (1974) found that triadic relationships were more stable and less stressful if both members of the couple were friends with the third party (i.e., Rival). Finally, relational norms and expectations may influence the audience challenge, as noted in Weis and Felton's (1987) finding that attitudes toward relational exclusivity moderated individuals' experience of jealousy in response to their partners' cross-sex friendships and activities.

Homosocial norms frame same-sex friendships as normative and prototypical, while cross-sex friendships tend to be viewed as violations of these norms (Rawlins, 1992; Rose, 1985). Thus, the existence of a partner's cross-sex friendship is likely to lead to greater uncertainty than the existence of a partner's same-sex friendship.

H1: Individuals whose partners are involved in a cross-sex friendship will report more self uncertainty, partner uncertainty, and relationship uncertainty than individuals whose partners are involved in a same-sex friendship.

Sex differences in Cross-sex Friendship

Furthermore, there is evidence that men and women may view cross-sex friendships differently. Werking (1997) found that while women tend to view their cross-sex friendships as similar to same-sex friendships, men tend to differentiate between same-sex and cross-sex friendships. Men reported that cross-sex friendships allowed them to cultivate and enjoy a new style of relating, with greater emphasis on intimacy and emotional involvement than in their same-sex friendships. In a similar vein, Rawlins (1982) noted that while women tend to view all friendships, whether same-sex or cross-sex, as similar, men tend to perceive more romantic and sexual potential in their cross-sex friendships than do women. Thus, it appears that men make

sharper distinctions between cross-sex and same-sex friendship than do women. For women, apparently, a cross-sex friend is usually "just a friend." For men, the friendship is more likely to be viewed as a stepping stone to "more than friends."

Along with men's propensity to bring greater romantic and sexual expectations into cross-sex friendships, they generally view interactions in a more sexual light than do women (Abbey, 1982; Johnson, Stockdale, & Saal, 1991; Koeppel, Montagne-Miller, O'Hair, & Cody, 1993). Abbey & Melby (1986) found that males tend to interpret female friendliness as more sexual than the female intended. In addition, males rated other males as behaving in a more sexual manner in cross-sex interactions than did females. These findings suggest that men have a generally more sexualized view of interactions and relationships.

These sex differences are particularly salient to the subject of romantic jealousy. Research from a sociobiological perspective has observed a pattern in which males are more upset by a partner's sexual infidelity, while females are more upset by a partner's emotional infidelity (e.g., Bringle & Buunk, 1985; Buss, 2000; Roscoe, Cavanaugh, & Kennedy, 1988; Symons, 1979; Teismann & Mosher, 1978). Additionally, males are more likely to be romantically or sexually attracted to a cross-sex friend than are females (Harvey, 2003). Because jealousy is triggered by the perception of a threat to a valued relationship (Hansen, 1991; White & Mullen, 1989), men should be more likely to perceive threats from their partners' cross-sex friends than should females. This yields the following prediction:

H2: Males will report a greater perceived relational threat from a romantic partner's cross-sex friendship than will females.

Pogrebin (1987) delineated three types of jealousy salient to individuals whose romantic partners have cross-sex friends: sexual jealousy (related to fears that the cross-sex friendship will

compromise the sexual exclusivity of the romantic relationship), intimacy jealousy (related to fears of increased intimacy between the romantic partner and the cross-sex friend), and power jealousy (related to fears that the cross-sex friend may gain unwanted influence over the romantic partner). Because males are more likely to experience jealousy over sexual infidelity, they should be expected to report more sexual jealousy about a romantic partner's cross-sex friendship than would females. Conversely, because females are more likely to experience jealousy over emotional infidelity, they should be expected to report more intimacy jealousy than would males.

H3: Males will report higher levels of sexual jealousy about a romantic partner's cross-sex friendship than will females.

H4: Females will report higher levels of intimacy jealousy about a romantic partner's cross-sex friendship than will males.

Predictions about power jealousy are less clear. On one hand, given the greater power generally accorded males in society, male romantic partners might perceive greater threat from a male rival than would females from a female rival. On the other hand, given females' relatively lesser power in society, they may be more motivated to maintain power and influence over their male partners. In such a case, females might experience more jealousy than males in response to the perception of losing relational power to a rival. Therefore, the following research question is proposed:

RQ1: How will males and females differ in their experiences of power jealousy about a romantic partner's cross-sex friendship?

Outside friendships have been identified as sources of jealousy (Hansen, 1991; Bevan, 1999; Bevan & Samter, 2004). Friendship jealousy is included in this investigation in order to

assess the degree to which perceptions of jealousy may differ depending on the sex of the friend (i.e., same-sex vs. cross-sex friend). This addition allows for investigation of whether jealousy is a function of outside friendships *in general*, or a function of the sex composition of the friendship.

RQ2: How will perceptions of intimacy, power, sexual and friendship jealousy differ between same-sex and cross-sex friendships, controlling for sex of participants?

Given heterosexual norms, same-sex friendships are likely less prone to be perceived by romantic partners as sexually threatening. However, same-sex friendships may nevertheless be viewed by romantic partners as alternative sources of intimacy, power, and friendship. Given that males are generally more jealous about sexual threats, while females are generally more jealousy about relational threats (e.g., Buss, 2000), it is likely that females will perceive same-sex friendships as more threatening than will males. Indeed, Hansen (1985) found that females experienced more jealousy over their partners' same-sex friendships than did males. However, differences between males' and females' jealousy over partners' cross-sex friendships were not significant. Hansen's analysis employed only a general measure of jealousy. This study will assess levels of intimacy, power, and friendship jealousy provoked by a partner's same-sex friendship.

H5: Females managing a partner's same-sex friendship will report higher levels of intimacy, power, and friendship jealousy than will males managing a partner's same-sex friendship.

Old vs. New Friendships

Given the findings that uncertainty and jealousy vary according to relational characteristics (Buunk, 1978; Solomon & Knobloch, 2004; Theiss & Solomon, 2006b; Weis &

Felton, 1987; Werking, 1997; White & Mullen, 1989), it is likely that individuals will differ in their jealousy experience depending on the nature of the triadic relationship. The following section will describe the relational conditions to be examined. In the following conditions, actors are designated by the terms "Jealous," "Beloved," and "Rival." These terms should be understood as designations of each actor's position within the triadic relationship, and not as statements about their actual experiences of jealousy and rivalry. The titles represent perspectival positions, such that *if* the jealousy process were activated, Jealous would indeed be the actor who experienced jealousy, Rival the actor viewed as a threat, and Beloved the actor (hypothetically) desired by both Jealous and Rival.

"Old Friend"

In this situation, Beloved and Rival are involved in a cross-sex friendship that existed prior to the initiation of the Jealous-Beloved romantic relationship (i.e., cross-sex friendship has temporal precedence). Given that Jealous ostensibly knew about Beloved's friendship with Rival, yet chose to begin a romantic relationship anyway, it is likely that Jealous holds less stringent expectations for relational exclusivity. These more relaxed expectations should lead to less jealousy over extradyadic involvement (Weis & Felton, 1987). Additionally, Werking (1997) found that the existence or development of romantic relationships often served as structural constraints for the development and continuance of cross-sex friendships. Many individuals never initiate cross-sex friendships due to existing romantic relationships, and those who are involved in cross-sex friendships sometimes terminate them when they begin romantic relationships. Thus, it is likely that those cross-sex friendships that do survive the initiation of a romantic relationship by a partner possess either great commitment or the approval of the romantic partner. In fact, in Werking's data, many individuals deemed cross-sex friendships

more enduring and stable than romantic relationships. Such individuals would seem to be the ones most likely to stay in a cross-sex friendship after they initiate a romantic relationship.

From a systems perspective, the cross-sex friendship serves as the original dyadic relationship. Upon romantic initiation, Jealous voluntarily enters into the relational system, rendering it triadic. Jealous may or may not find the existence of the cross-sex friendship objectionable. However, there is likely to be less relational uncertainty generated by the continuance of an existing friendship than by the initiation of a new one subsequent to romantic initiation. Additionally, the continuation of an existing relationship is less likely to lead to interference with material and relational goals than the initiation of a new relationship, since the romantic relationship developed with the cross-sex friend already "on the scene." Certainly some measure of uncertainty and interference might arise if Jealous assumed or hoped that the Beloved-Rival friendship would fade as the Jealous-Beloved relationship grew, and it did not. However, given that the "old friend" situation represents a homeostatic condition, it should be associated with less uncertainty and interference than the "new friend" situation detailed below.

"New Friend"

In this situation, Beloved develops a cross-sex friendship with Rival after the initiation of the Jealous-Beloved romantic relationship (i.e., romantic relationship has temporal precedence). In this case, the Jealous-Beloved relationship represents the original, homeostatic relationship. Beloved's initiation of a cross-sex friendship represents a morphogenetic process, in that it changes the fundamental structure of the relationship system (White, 1991). Additionally, whereas Jealous' integration with the "old friend" system is voluntary, Beloved's development of a cross-sex friendship is likely less anticipated. Jealous is much less likely to have chosen this

condition. Such a situation is likely to be associated with greater relational uncertainty and interference than the homeostatic nature of the "old friend" situation.

Given that acquaintance with a partner's cross-sex friend has been found to reduce jealousy (Buunk, 1978; Werking, 1997), and that cross-sex friendships are viewed as more acceptable when sanctioned by romantic partners (White & Mullen, 1989), it seems likely that individuals managing a partner's old cross-sex friendship will experience less partner and relationship uncertainty than will individuals managing a partner's new cross-sex friendship.

H6: Individuals managing a partner's new cross-sex friendship will report higher levels of partner uncertainty and relationship uncertainty than will individuals managing a partner's old cross-sex friendship.

Additionally, Knobloch and Solomon (2002) found that females experienced more partner uncertainty and relationship uncertainty in response to unexpected events than did males. It is likely that females in the "new friend" situations will experience more partner and relationship uncertainty than will men.

H7: Females managing a partner's new friendship will report more partner uncertainty and relationship uncertainty than will males managing a partner's new friendship.

Predictions about self uncertainty are less clear. It is possible that Jealous may perceive the new friend (i.e., Rival) as an attractive relational alternative for Beloved (Felmlee, 2001; Rusbult, 1983), thus triggering jealousy and weakening commitment to the romantic relationship. Additionally, if Jealous perceives Beloved as wavering in his or her commitment to the romantic relationship, Jealous may come to perceive Beloved as a less rewarding partner, decreasing commitment and increasing self uncertainty. Alternately, the presence of the new friendship may

provoke a protective jealousy response (White, 1991), leading to greater commitment and less self uncertainty.

RQ3: How will a partner's friendship history ("new friend" vs. "old friend") and sex of the perceiver influence perceptions of self uncertainty?

Additionally, the introduction of the cross-sex friend into the previously dyadic romantic system changes the nature of the system from dyadic to triadic. Relational dynamics function differently at dyadic and triadic levels (Deal et al., 1999). Dyadic disturbances are likely to result from the introduction of a cross-sex friendship into the previously dyadic system. Additionally, the locus of interference may be attributed to either Beloved or Rival. Disturbances may take the form of partner interference, in which Jealous perceives Beloved as interfering with his or her goals through time and interaction with Rival. Disturbances may also take the form of extradyadic interference, in which Jealous perceives Rival as interfering with his or her goals through time and interaction with Beloved.

H8: Individuals managing a partner's new friendship will report more material and relational partner interference (i.e., from the romantic partner) than will individuals managing a partner's old friendship.

H9: Individuals managing a partner's new friendship will report more material and relational extradyadic interference (i.e., from the partner's cross-sex friend) than will individuals managing a partner's old friendship.

Additionally, friendship conditions should differ in the types of jealousy experienced (i.e., sexual, intimacy, power and friendship jealousies). In the "new friend" conditions, Jealous *chooses* to participate. Therefore, Jealous is likely to be more accepting of intimacy and power (influence) by Rival, both between Jealous and Rival and between Beloved and Rival. If the

possibility of intimacy and power between Beloved and Rival were perceived as overly threatening, Jealous would be unlikely to sanction the relationship by participation in the triad. Additionally, given the findings for relational exclusivity (Weis & Felton, 1987), individuals who assent to a romantic relationship with a partner who already has a close cross-sex friend would seem more likely to hold more liberal attitudes toward exclusivity. However, as Weis and Felton found, sexual activity was considered much less appropriate, even among low-exclusivity individuals. Thus, while being in the "old friend" conditions should reduce intimacy, power and friendship jealousy, sexual jealousy should be fairly consistent across conditions(controlling for sex composition).

H10: Individuals managing a partner's old cross-sex friendship will experience less intimacy, power and friendship jealousy than will individuals managing a partner's new cross-sex friendship, but not less sexual jealousy.

Given the previous prediction about sex differences in jealousy experience, it is likely that sex composition will interact with relationship type to predict jealousy.

H11: Males managing a partner's new cross-sex friendship will experience more sexual, power, intimacy and friendship jealousy than will (in order) a) females managing a partner's new cross-sex friendship; b) males managing a partner's old cross-sex friendship; c) females managing a partner's old cross-sex friendship; d) female's managing a partner's new same-sex friendship; e) males managing a partner's new same-sex friendship; f) female's managing a partner's old same-sex friendship; and g) males managing a partner's old same-sex friendship.

Intimacy has been found to influence perceptions of turbulence within romantic relationships. Because the present study investigates uncertainty triggered by relational events

(i.e., the development of cross-sex friendships), a focus on episodic relational uncertainty is most appropriate. Knobloch and Solomon (2002) observed a curvilinear relationship between intimacy and episodic relational uncertainty. Given the use of scenarios asking participants to imagine their current romantic relationship, it is predicted that relational uncertainty will vary curvilinearly with the level of intimacy in the romantic relationship. Additionally, partner interference has been found to vary curvilinearly with intimacy (Knobloch & Donovan-Kicken, 2006; Solomon & Knobloch, 2001). Therefore, it is predicted that perceptions of partner material interference will vary curvilinearly with the level of intimacy in the romantic relationship.

H12: Participants' reported levels of self, partner and relationship uncertainty in response to the presence of a third-party friend will vary in a curvilinear manner with reported levels of intimacy in the romantic relationship, such that reports of self, partner, and relationship uncertainty will be highest at moderate levels of intimacy.

H13: Participants' reported levels of partner material interference in response to the presence of a third-party friend will vary in a curvilinear manner with reported levels of intimacy in the romantic relationship, such that reports of partner material interference will be highest at moderate levels of intimacy.

However, as intimacy increases, relational plans, goals and norms (e.g., intimacy, exclusivity, future orientation, etc.) may become more salient for romantic partners. As individuals grow closer and achieve greater interdependence, the value placed on the relationship and relational goals should increase. Involvement in actions and relationships that impede the achievement of these goals may be perceived as especially problematic in more-intimate

relationships. Therefore, it is predicted that perceptions of partner relational interference will be positively associated with intimacy.

H14: Participants' reported levels of partner relational interference in response to the presence of the third-party friend will exhibit a positive linear association with reported levels of intimacy.

Communicative Responses to Jealousy

Numerous studies have examined communicative responses to jealousy (e.g., Bevan & Samter, 2004; Guerrero et al., 1995; Guerrero & Afifi, 1999). Guerrero (1998) explored communicative responses to jealousy as a function of intimacy, while Afifi & Reichert (1996) found that responses to jealousy varied as a function of uncertainty. Other work has addressed relationships between friendship type, jealousy, and jealousy expression within triadic contexts. Some authors have investigated cross-sex friends' communication about jealousy provoked by competing friendships (Bevan, 1999; Bevan & Samter; Williams, 2003). On the other hand, a large body of work has examined jealousy experience in response to a partner's cross-sex friendship (e.g., Hansen, 1991). Roth and Parker (2001) studied the effects of same-sex friend, cross-sex friend, and romantic partner third-party interference within cross-sex friendships. However, no known research has directly compared the impact of friendship type (i.e., same-sex vs. cross-sex) on communication about jealousy within romantic relationships. Given the lack of extant data on communicative responses to jealousy about same-sex and cross-sex friends within romantic triads, the following research question is proposed.

RQ4: How will individuals differ in their communicative responses to jealousy about romantic partners' same-sex friends versus cross-sex friends?

CHAPTER 3 – METHOD

Participants

The sample consisted of 241 undergraduate students enrolled in communication courses at a large Southeastern university. Students received course credit for their participation. The majority of participants signed up for a time period outside of class in which to participate. However, approximately thirty students participated (voluntarily) during a communication class.

Participants ranged in age from 18 to 25 (M=20.0, SD=1.42). Six participants did not indicate age. The sample was 38% male (n=90) and 62% female (n=147). Four participants did not indicate sex. In regard to academic classification, 22% of participants (n=53) were freshmen, 37% (n=90) were sophomores, 20% (n=48) were juniors, 19% (n=46) were seniors, and 1.2% (n=4) did not indicate academic classification.

In regard to relational status, 11% of participants (n=27) were single, 83% (n=201) were dating, 1.7% (n=4) were engaged, 1.7% (n=4) were married, 0.8% (n=2) indicated more than one current relational status category, and 1.2% (n=3) did not indicate relational status. In regard to condition, 26% of participants (N=62) were randomly assigned to the *new cross-sex friend* condition, 25% (N=60) were assigned to the *new same-sex friend* condition, 25% (N=61) were assigned to the *old cross-sex friend* condition, and 24% (N=58) were assigned to the *old same-sex friend* condition.

Procedure

Upon arrival, participants were thanked and reminded of the voluntary and anonymous nature of the study. Participants were then given consent forms to read, sign, and return to the researcher. Next, participants were given instructions on completing the surveys. Participants

were instructed to read the directions on the survey and answer the questions accordingly. They were also instructed to return the survey to the researcher when finished. After receiving instructions, participants received surveys to fill out. Upon completion of the surveys, participants returned them to the researcher.

The surveys consisted of several components: general directions, a scenario describing the participant's romantic partner's relationship with a friend, an assessment of the realism of the scenario, measures of perceptions of threat from the scenario, measures of types and levels of jealousy anticipated in the scenario, measures of relational uncertainty anticipated from the scenario, measures of interference from the participant's romantic partner and the romantic partner's friend, measures of the types and likelihood of the participant's communicative responses to jealousy, measures of intimacy in the participant's real-life romantic relationship (if applicable), and questions about demographic data (sex, age, academic classification, and relational status).

Scenarios

This study used hypothetical scenarios to examine participants' anticipated responses to jealousy-provoking situations. While the use of scenarios may have limited external validity, it was deemed preferable to self-report methods for several reasons. First, manipulating scenarios allows for greater consistency of manipulation (Knobloch & Solomon, 2002). In self-report designs (e.g., "Think about the last time you experienced jealousy"), individuals may exhibit wide variability in the types and significance of the situations they imagine. Utilizing scenarios ensures that variability in responses is not attributable to individuals' different selections of jealousy-provoking situations. Second, retrospective accounts of responses to relational events may be influenced by the ultimate outcomes of those events, rather than *actual* immediate

responses to the events (Duck & Miell, 1986). Scenario-based manipulations allow for assessment of more immediate reactions to jealousy-provoking events. Finally, many individuals are uncomfortable admitting to having experienced or expressed jealousy, due to its generally negative connotations in Western cultures (Sommers, 1984). Using hypothetical scenarios likely reduced social desirability biases, since participants were not asked to report on actual behavior.

The scenarios used in this study were adapted from scenarios used by Bevan (1999). Bevan's scenarios pertained only to cross-sex friendships. The scenarios in the present study were modified to reflect the manipulated variables use in the study: friendship history (new vs. old) and sex composition of the friendship (cross-sex vs. same-sex). Participants were randomly assigned to one of four scenarios: *new cross-sex friend*, *new same-sex friend*, *old cross-sex friend*, and *old same-sex friend*. These scenarios described participants' romantic partners' involvement in an outside friendship. The scenarios were identical except for the manipulated variables (i.e., new vs. old friendship; cross-sex vs. same-sex friendship).

Individual participants may exhibit great variability in their definitions for, understandings of, and norms and expectations for cross-sex friendships (Lampe, 1985). In fact, in a previous study on cross-sex friendship conducted by the current author, one participants' response in a marginal comment on the questionnaire suggested that he or she understood "cross-sex friend" to be synonymous with "transgendered friend" (Worley, 2006). To promote uniformity of understanding about the definition of a cross-sex friendship, participants in the cross-sex friendship conditions read the following definition, derived from O'Meara (1989) and Bevan (1999):

> Cross-sex friendship is a non-romantic, non-familial, personal relationship between a man and a woman. This means that the partners in this relationship are friends, *not*

dating partners. It is possible that such a relationship could involve a physical or romantic component, but the relationship is not considered to be "boyfriend" and "girlfriend."

Because "friendship" is typically assumed to be same-sex (Pogrebin, 1987), it was not deemed necessary to include a definition of same-sex friendship. In fact, given the fact that homosexual relationships are often referred to as "same-sex relationships," the author was concerned about potential confusion over the nature of the relationship if an explicit definition were included. Thus, limiting discussion of same-sex friendship to the descriptions of the same-sex friendships in the scenarios was deemed preferable to including an explicit definition.

New Friend Scenarios

Participants in the *new cross-sex friend* condition read the following scenario:

You and your romantic partner have been dating for a while. Recently, your partner has developed a close friendship with a person of the opposite sex. Your partner and his or her cross-sex friend often spend time together.

In fact, your romantic partner has been roller-blading every Saturday for the past month with their cross-sex friend. This Saturday you decide to meet your romantic partner for coffee, at which time you discover your partner's cross-sex friend is a very nice person. They seem to have a closer relationship than you previously thought. In fact, your partner's friend seems to know things about him or her that your partner has never shared with you, and the two share some inside jokes. All in all, their closeness makes you feel a little left out when you are with them.

Participants in the *new same-sex friend* condition read the following scenario:

You and your romantic partner have been dating for a while. Recently, your partner has developed a close friendship with a person of the same sex. Your partner and his or her friend often spend time together.

In fact, your romantic partner has been roller-blading every Saturday for the past month with their friend. This Saturday you decide to meet your romantic partner for coffee, at which time you discover your partner's friend is a very nice person. They seem to have a closer relationship than you previously thought. In fact, your partner's friend seems to know things about him or her that your partner has never shared with you, and the two share some inside jokes. All in all, their closeness makes you feel a little left out when you are with them.

Old Friend Scenarios

Participants in the *old cross-sex friend* condition read the following scenario:

Before you began dating your romantic partner, he or she developed a strong friendship with a person of the opposite sex. While dating you, your partner and his or her cross-sex friend have continued this friendship, and often spend time together.

In fact, your romantic partner has been roller-blading every Saturday for the past month with their cross-sex friend. This Saturday you decide to meet your romantic partner for coffee, at which time you discover your partner's cross-sex friend is a very nice person. They seem to have a closer relationship than you previously thought. In fact, your partner's friend seems to know things about him or her that your partner has never shared with you, and the two share some inside jokes. All in all, their closeness makes you feel a little left out when you are with them.

Participants in the *old same-sex friend* condition read the following scenario:

Before you began dating your romantic partner, he or she developed a strong friendship with a person of the same sex. While dating you, your partner and his or her friend have continued this friendship, and often spend time together.

In fact, your romantic partner has been roller-blading every Saturday for the past month with their friend. This Saturday you decide to meet your romantic partner for coffee, at which time you discover your partner's friend is a very nice person. They seem to have a closer relationship than you previously thought. In fact, your partner's friend seems to know things about him or her that your partner has never shared with you, and the two share some inside jokes. All in all, their closeness makes you feel a little left out when you are with them.

Measures

While imagining themselves in one of the above scenarios, participants responded to survey items designed to measure *scenario realism, perception of threat, jealousy* (*sexual, intimacy, power,* and *friendship jealousy*), *relational uncertainty* (*self, partner* and *relationship uncertainty*), *partner material interference, partner relational interference, extradyadic material interference*, *extradyadic relational interference, communicative responses to jealousy,* and *intimacy*. These measures are further explained below. Preliminary analyses examined participant *sex* as a potential covariate. A one-way ANOVA was used to examine the influence of *sex* on all dependent variables. Only the *negative affect expression,* $F(1, 234) = 12.86$, $p < .001$; *integrative communication,* $F(1, 234) = 7.06$, $p < .05$; and *likelihood of marriage,* $F(1, 230) = 9.16$, $p < .05$, subscales exhibited significant differences at the .05 level due to sex. No other dependent variables exhibited significant differences due to sex.

Additionally, preliminary analyses examined the influence of participants' real-life *relational status* on all dependent variables. One-way ANOVA revealed significant effects of *relational status* on *self esteem threat*, $F(4, 237) = .2.73$, $p < .05$; *self uncertainty*, $F(4, 238) = 6.02$, $p < .001$; *partner uncertainty,* $F(4, 235) = 4.23$, $p < .05$; *relationship uncertainty,* $F(4, 234) = 4.56$, $p = .001$; *partner relational interference,* $F(4, 237) = 5.14$, $p = .001$; *extradyadic material interference*, $F(4, 238) = 3.78$, $p < .05$; *extradyadic relational interference,* $F(4, 236) = 3.24$, $p < .05$; *sexual jealousy,* $F(4, 237) = 2.85$, $p < .05$; *intimacy jealousy,* $F(4, 238) = 2.56$, $p < .05$; and *active distancing,* $F(4, 236) = 3.45$, $p < .05$. Relational status was taken into account in all subsequent analyses involving these variables.

Scenario Realism

While the scenarios used in this investigation were assumed to be realistic to participants, items were included to examine this assumption. Scenario realism was assessed by two items on a Likert scale (1= strongly agree; 5 = strongly disagree): (a) This type of situation is realistic, and (b) This situation seems fake (reverse scored). . A one-sample t-test revealed that mean scores on *realism* for all conditions ($M = 1.97$, $SD = .06$) were significantly below the scale midpoint (= 3.00). Because a lower score on the *realism* scale indicated greater perceptions of realism, these results indicated that participants viewed the scenarios as realistic. Across conditions, the realism measure was reliable, $\alpha=.86$.

Perception of Threat

Perceived threat from friendship scenarios was measured using an eight-item scale inspired by Sharpsteen (1995). Participants were presented with a prompt stating, "While imagining yourself in the scenario you just read:". After reading this prompt, they responded to the following items using a 6-point Likert-type scale (1 = *not at all threatening*, 6 = *extremely*

threatening). Principle components EFA with varimax rotation for the overall *perception of threat* scale yielded one component, suggesting a unidimensional second-order construct. Factor loadings for the items were as follows: Item 1(.86); Item 2 (.85); Item 3 (.76); Item 4 (.85); Item 5 (.74); Item 6 (.87); Item 7 (.75); and Item 8 (.85). Across conditions, the overall perception of threat scale was reliable, α =.93.A one-sample t-test indicated that overall perceptions of threat (M = 3.55, SD = 1.10) were not significantly above the midpoint of the scale (= 3.50), t(239) = 7.74, $p < .001$. Therefore, the scenarios were not generally perceived as threatening in an overall sense.

In addition to the overall *perception of threat* scale, the first two items constituted the *absolute relational threat* subscale ("How threatening would this situation be to the continuation your romantic relationship?"; "How threatening would this situation be to the existence of your romantic relationship?"). Principle components EFA with varimax rotation for the *absolute relational threat* subscale yielded one component, suggesting a unidimensional measure. Factor loadings for both items were .95. Across conditions, the *absolute relational threat* subscale was reliable, α = .88). A one-sample t-test indicated that perceptions of *absolute relational threat* (M = 3.38, SD = 1.30) were significantly above the midpoint of the subscale (= 3.50), t(240) = 4.57, $p < .001$. Therefore, the scenarios were generally seen as threatening to the existence of the romantic relationship.

The third and fourth items assessed perception of *relative relational threat* ("How threatening would this situation be to the quality of your romantic relationship?"; "How threatening would this situation be to the benefits you receive from your romantic relationship?"). Principle components EFA with varimax rotation for the *relative relational threat* subscale yielded one component, suggesting a unidimensional measure. Factor loadings

for both items were .89. Across conditions, the *relative relational threat* subscale was moderately reliable, α = .73). A one-sample t-test indicated that perceptions of *relative relational threat* (*M* = 3.60, *SD* = 1.16) were significantly above the midpoint of the subscale (= 3.50), t(240) = 8.01, $p < .001$. Therefore, the scenarios were generally seen as threatening to relational benefits and quality.

The fifth and sixth items assessed perception of *threat to self-esteem* ("How threatening would this situation be to you personally?"; "How threatening would this situation be to your view of yourself as a romantic partner?"). Principle components EFA with varimax rotation for the *threat to self-esteem* subscale yielded one component, suggesting a unidimensional measure. Factor loadings for both items were .89. Across conditions, the *threat to self-esteem* subscale was moderately reliable, α = .72). A one-sample t-test indicated that perceptions of *threat to self-esteem* (*M* = 3.61, *SD* = 1.22) were significantly above the midpoint of the subscale (= 3.50), t(239) = 7.78, $p < .001$. Therefore, the scenarios were generally seen as threatening to participants' self-esteem.

The seventh and eighth items assessed perception of *threat to relational status quo* ("How threatening would this situation be to the status quo of your romantic relationship?"; "How threatening would this situation be to the way things currently stand in your romantic relationship?"). Across conditions, the *threat to relational status quo* subscale was reliable, α = .88). Principle components EFA with varimax rotation for the *threat to relational status quo* subscale yielded one component, suggesting a unidimensional measure. Factor loadings for both items were .91. A one-sample t-test indicated that perceptions of *threat to relational status quo* (*M* = 3.59, *SD* = 1.20) were significantly above the midpoint of the subscale (= 3.50), t(240) =

7.58, $p < .001$. Therefore, the scenarios were generally seen as threatening to the status quo of the romantic relationship.

Jealousy

Jealousy in response to friendship scenarios was measured using a 20-item composite scale based on Pogrebin's (1987) jealousy types (*sexual*, *intimacy*, and *power* jealousies) and Bevan and Samter's (2004) conceptualization of *friendship jealousy*. After being reminded to imagine themselves in the manipulated scenario, participants indicated their anticipated reactions to the hypothetical scenarios using a 6-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*). Because no known previous measure existed to assess these jealousy types, the current scale was developed by the author, utilizing ideas presented in Pogrebin's and Bevan and Samter's work. The original composite *jealousy* scale is presented in Appendix A.

Principle components EFA with varimax rotation for the overall *jealousy* scale yielded five components. This was unexpected; based on the number of original subscales, four components had been anticipated. However, the discussion below will argue that the fifth factor emerged due to methodological reasons rather than conceptual reasons. Factor loadings were determined using the "60/40" rule.

Items loading on Factor 1 were as follows: Item 1 (.85); Item 2 (.71); Item 3 (.84); Item 4 (.77); and Item 5 (.79). These items corresponded exactly with the *sexual jealousy* subscale. Therefore, the *sexual jealousy* subscale was composed of Items 1-5 of the composite *jealousy* scale. Factor 1 demonstrated high internal consistency, $\alpha = .90$.

Items loading on Factor 2 were as follows: Item 6 (.64); Item 7 (.83); Item 8 (.86); Item 11 (.70); and Item 12 (.64). This factor demonstrated high internal consistency, $\alpha = .88$. However, based on conceptual reasons, Items 11 and 12 were removed from the final factor.

While Items 6-8 assessed jealousy about the partner's intimacy with a friend, Items 11 and 12 assessed jealousy about the friend's influence over the partner. Conceptually, these items fit much better with Items 13 and 14 (found in Factor 4). Additionally, removing Items 11 and 12 from Factor 2 did not substantially affect Factor 2's reliability, $\alpha = .87$, and increased Factor 4's reliability from $\alpha = .72$ to $\alpha = .79$. Thus, for both conceptual and statistical reasons, Factor 4 was reduced to Items 6-8. These items constituted the revised *intimacy jealousy* subscale.

Items loading on Factor 3 were as follows: Item 16 (.81); Item 17 (.82); and Item 19 (.74). Factor 3 demonstrated high internal consistency, $\alpha = .86$. The items in Factor 3 all derived from the original *friendship jealousy* subscale. Reliability analyses indicated that the removal of Items 18 and 20 from the *friendship jealousy* subscale increased reliability from $\alpha = .84$ to $\alpha = .86$. While this increase in reliability was marginal, it was in the direction of greater internal consistency, further justifying the removal of Items 18 and 20 from the *friendship jealousy* subscale. Thus, the final *friendship jealousy* subscale consisted of Items 16, 17, and 19.

Items loading on Factor 4 were as follows: Item 13 (.77); and Item 14 (.79). Factor 4 demonstrated moderately high internal consistency, $\alpha = .72$. However, as noted in the discussion of Factor 2, Items 11 and 12 demonstrated better conceptual fit with Factor 4 than with Factor 2. The addition of Items 11 and 12 to Factor 4 increased reliability from $\alpha = .72$ to $\alpha = .79$, yielding a more consistent subscale. Thus, Items 11-14 constituted the final form of Factor 4. Because these items all derived from the original *power jealousy* subscale, the revised *power jealousy* subscale consisted of Items 11-14.

Items loading on Factor 5 were as follows: Item10 (.60); Item 15 (.81); and Item 20 (.62). Factor 5 demonstrated marginal internal consistency, $\alpha = .65$. The items loading on Factor 5 seemed to have no conceptual similarity. However, the items were similar linguistically, as all

were negatively worded compared to the rest of the items on the scale. These items were intended to be reverse-coded in analyses. Nevertheless, these items loaded on a distinct factor and did not demonstrate substantial cross-loadings on any other factors. The emergence of this factor appeared to result from confusion about item wordings and not any conceptual distinctiveness. Therefore, items loading on Factor 5 were removed from the revised composite *jealousy* scale.

The Revised Composite Jealousy Scale included Items 1-8, 11-14, 16-17, and 19 of the original composite *jealousy* scale. Across conditions, a one-sample t-test indicated that mean *jealousy* scores ($M = 3.63$, $SD = 0.92$) were significantly higher than the scale midpoint (= 3.50), $t(238) = 2.11$, $p < .001$. However, analyses by scenario revealed that this difference was only significant in the *new cross-sex friend* condition, ($M = 3.84$, $SD = 0.77$), $t(60) = 3.42$, $p = .001$. Across conditions, the Revised Composite Jealousy Scale demonstrated high reliability, $\alpha = .90$.

The jealousy subscales are explained below.

Sexual jealousy. The sexual jealousy subscale consisted of five items. Participants responded to the following prompt: "In the situation described above" - 1) I would worry about my partner being sexually unfaithful to me; 2) I would not feel sexually threatened by my partner's friend (reverse scored); 3)I would suspect there is something going on sexually between my partner and their friend; 4) I would imagine my partner engaging in sexual activity with their friend; and 5) I would suspect sexual attraction between my partner and their friend. Principal components EFA with varimax rotation yielded one component, suggesting a unidimensional measure. Factor loadings for the individual items were as follows: Item 1(.85), Item 2 (.84), Item 3 (.77), Item 4 (.79), and Item 5 (.71). Based on the congruence of the EFA results with the original *sexual jealousy* subscale, all items were retained. Across conditions, the *sexual jealousy*

subscale was reliable, α = .89). Across conditions, a one-sample t-test indicated that mean scores for *sexual jealousy* (*M* = 3.05, *SD* = 1.30) were significantly below the subscale midpoint (= 3.50), t(239) = -5.36, *p* < .001. However, analysis by scenario revealed that scores were only significantly below the subscale midpoint (= 3.50) in the *new same-sex friend* (*M* = 2.68, *SD* = 1.44), t(59) = -4.39, *p* < .001, and *old same-sex friend* (*M* = 2.84, *SD* = 1.43), t(58) = - 3.46, *p*=.001, conditions. Therefore, the scenarios did not generally provoke sexual jealousy, and scores were particularly low for the *same-sex friend* conditions.

Intimacy jealousy. The revised *intimacy jealousy* subscale consisted of three items. Participants responded to the following prompt: "In the situation described above" - 6) I worry that my partner and their friend will keep secrets from me; 7) I would be afraid that my partner will turn to their friend instead of me to meet emotional needs; 8) I would be concerned that my partner will share things with their friend that they wouldn't share with me. Across all conditions, the *intimacy jealousy* subscale was reliable, α = .83). Across conditions, a one-sample t-test indicated that mean scores for *intimacy jealousy* (*M* = 4.23, *SD* = 1.00) were significantly higher than the subscale midpoint (= 3.50), t(240) = 11.41, *p* < .001. However, analyses by scenario revealed that scores (*M* = 3.85, *SD* = 1.37), were only significantly higher than the subscale midpoint (= 3.50) in the *old same-sex friend* condition t(57) = 2.54, *p* < .05. Therefore, the scenarios generally provoked intimacy jealousy only in the *old same-sex friend* condition.

Power jealousy. The revised *power jealousy* subscale consisted of four items. Participants responded to the following prompt: "In the situation described above" - 9) I would be concerned that my partner's friend would influence their decisions more than me; 10) I would be concerned about the friend's influence on my partner; 11) I would be concerned that my

partner's friend would offer them social benefits I cannot give them; and 12) I would worry that my partner's friend is more powerful than me. Across conditions, the *power jealousy* subscale was reliable, $\alpha = .79$. Across conditions, a one-sample t-test indicated that mean scores for *power jealousy* ($M = 3.54$, $SD = 0.97$) did not differ significantly from the subscale midpoint (= 3.50), $t(238) = 0.74$, $p = .46$. However, analyses by scenario revealed that mean scores for *power jealousy* were significantly higher than the subscale midpoint for all scenarios. The *new cross-sex friend* ($M = 4.52$, $SD = 1.08$), $t(61) = 7.47$, $p < .001$, *new same-sex friend* ($M = 4.34$, $SD = 1.24$), $t(59) = 5.23$, $p < .001$, *old cross-sex friend* ($M = 4.57$, $SD = 0.99$), $t(60) = 8.48$, $p < .001$, and *old same-sex friend* ($M = 4.39$, $SD = 1.07$), $t(57) = 6.33$, $p < .001$, conditions were all significantly above the midpoint (= 3.50). Therefore, the scenarios provoked power jealousy in all scenarios.

Friendship jealousy. The friendship jealousy subscale consisted of five items. Participants responded to the following prompt: "In the situation described above" - 13) I would be upset by the amount of my partner spent with their friend; 14) I would be bothered by the fact that my partner shared so many activities with their friend; and 15) I would feel upset about the importance my partner placed on their friendship. Across all conditions, the *friendship jealousy* subscale was reliable, $\alpha = .84$. Across conditions, a one-sample t-test indicated that mean scores for *friendship jealousy* ($M = 3.73$, $SD = 1.05$) were significantly higher than the subscale midpoint (= 3.50), $t(239) = 3.39$, $p = .001$. However, analyses by scenario revealed that mean scores for *friendship jealousy* ($M = 4.06$, $SD = 1.16$) were only significantly higher than the subscale midpoint (= 3.50) for the *new cross-sex friend* scenario, $t(61) = 3.82$, $p < .001$.

Relational Uncertainty

Relational uncertainty was operationalized using measures developed by Theiss and Solomon (2006a). After being reminded to imagine themselves in the scenario described in the manipulation, participants were presented with a question stem asking "In the situation described above, how certain would you be about…?", followed by a series of statements. Participants responded using a Likert -type scale (1 = *completely or almost completely uncertain,* 6 = *completely or almost completely certain*). These responses were reverse-coded in order to ascertain participants' levels of relational uncertainty. Following Theiss and Solomon, unidimensional subscales of items within the composite scale were identified (i.e., *self*, *partner*, and *relationship uncertainty*). Across conditions, a one-sample t-test revealed that mean scores for overall *relational uncertainty* ($M = 3.80$, $SD = 0.97$) were significantly above the scale midpoint (= 3.50), $t(234) = 4.70$, $p < .001$. However, analyses by scenario revealed the mean scores for overall *relational uncertainty* ($M = 4.10$, $SD = .99$), were only significantly above the scale midpoint (= 3.50) for the *new same-sex friend* scenario, $t(57) = 4.59$, $p < .001$. Therefore, the scenarios did not generally provoke overall *relational uncertainty*.

The *self uncertainty* subscale consisted of six items. Participants responded to the following prompt: "In the situation described above, how certain would you be about" - 1) whether you want the relationship to work out in the long run; 2) whether you want the relationship to last; 3) how much you like your partner; 4) how important the relationship is to you; 5) how much you are romantically interested in your partner; and 6) whether you are ready to commit to your partner. Across conditions, the *self uncertainty* subscale was reliable, $\alpha = .92$. Across conditions, a one-sample t-test revealed that mean scores for *self uncertainty* ($M = 4.32$, $SD = 1.02$) were significantly above the subscale midpoint (= .350), $t(240) = 12.49$, $p < .001$. Analyses by scenario revealed that mean scores for *self uncertainty* were significantly above the

subscale midpoint (= 3.50) for all scenarios. The one-sample t-test results by scenario were as follows: *new cross-sex friend* (M = 4.24, SD = 0.97), t(61) = 6.00, $p < .001$; *new same-sex friend* (M = 3.76, SD = 1.23), t(59) = 8.65, $p < .001$; *old cross-sex friend* (M = 4.25, SD = 1.00), t(60) = 5.88, $p < .001$; and *old same-sex friend* (M = 4.20, SD = 1.11), t(57) = 4.81, $p < .001$. Therefore, the scenarios generally provoked self uncertainty.

The *partner uncertainty* subscale consisted of six items. Participants responded to the following prompt: "In the situation described above, how certain would you be about" - 1) whether your partner is ready to commit to you; 2) how committed your partner is to the relationship; 3) whether your partner wants to be with you in the long run; 4) how important the relationship is to your partner; 5) whether your partner wants the relationship to work out in the long run; and 6) how much your partner is attracted to you. Across conditions, the *partner* uncertainty subscale was reliable, $\alpha = .93$. Across conditions, a one-sample t-test revealed that mean scores for *partner uncertainty* (M = 3.20, SD = 1.11) did not differ significantly from the scale midpoint (= 3.50), t(237) = -1.43, $p = .16$. However, analyses by scenario revealed that mean scores for *partner uncertainty* (M = 3.20, SD = 1.11) were significantly lower than the scale midpoint (= 3.50) for the *new cross-sex friend* scenario, t(61) = -2.12, $p < .05$. All other scenarios were not significant. Therefore, the scenarios generally did not provoke partner uncertainty.

The *relationship uncertainty* subscale consisted of eight items. Participants responded to the following prompt: "In the situation described above, how certain would you be about" - 1) whether the relationship will work out in the long run; 2) whether you and your partner feel the same way about each other; 3) whether you and your partner will stay together; 4) whether the relationship is a romantic one; 5) the boundaries for appropriate and/or inappropriate behavior in

the relationship; 6) whether your partner likes you as much as you like him or her; 7) whether it is a romantic or platonic relationship; and 8) how you can or cannot behave around your partner. Across all conditions, the *relationship uncertainty* subscale was reliable, $\alpha = .89$. Across conditions, a one-sample t-test indicated that mean scores for *relationship uncertainty* ($M = 3.71$, $SD = 1.01$) were significantly higher than the scale midpoint (= 3.50), $t(236) = 3.15$, $p < .001$. However, analyses by scenario revealed that mean scores for *relationship uncertainty* ($M = 3.97$, $SD = 0.99$), were significantly higher than the subscale midpoint (= 3.50) only in the *new same-sex friend* scenario, $t(58) = 3.70$, $p < .001$. Therefore, the scenarios provoked relationship uncertainty only in the *new same-sex friend* condition.

Partner Interference

Partner interference was measured using an 11-item composite scale similar to that employed by Theiss and Solomon (2006a). After being reminded to imagine themselves in the scenario described in the manipulation, participants indicated the degree to which they perceived interference from their partners using a 6-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*). Because the *partner interference* scale contained items designed to assess *relational interference* and *extradyadic interference*, constructs not previously tested, the composite scale was first analyzed to determine its principal component structure.

Principle components EFA with varimax rotation for the overall *partner interference* scale yielded two components, both of which corresponded exactly with the *partner material interference* (*PMI*) and *partner relational interference* (PRI) subscales described below. Factor loadings for Factor 1 (*PMI*) were as follows: Item 1(.77); Item 2 (.80); and Item 3 (.72). Item 3 demonstrated a fairly strong cross-loading (=.43) on Factor 2 (*PRI*). However, analysis of a component plot in rotated space showed that Item 3 was much closer to Factor 1 than to Factor 2.

Additionally, reliability analysis of the *PMI* subscale provided evidence of Item 3's fit to Factor 1. With Item 3 included in the *PMI* subscale, reliability was high, α=.77. With Item 3 removed, reliability decreased, α=.67. Therefore, Item 3 was retained on Factor 1 (*PMI*). Factor loadings for Factor 2 (*PRI*) were as follows: Item 4 (.79); Item 5 (.86); Item 6 (.88); Item 7 (.84); Item 8 (.78); Item 9 (.87); Item 10 (.76); and Item 11 (.85).

Analysis of the principal components EFA results confirmed the bi-dimensionality of the *partner interference* scale. Correlations of the subscales with the *partner interference* scale were as follows: *PMI* (.78), $p < .01$; and *PRI* (.80), $p < .01$. Across conditions, the overall *partner interference* scale was reliable, α = .90. Across conditions, a one-sample t-test indicated that mean scores on the composite *partner interference* scale ($M = 2.88$, $SD = 0.91$) were significantly below the scale midpoint (= 3.50), $t(239) = -10.40$, $p < .001$. Furthermore, analyses by scenario confirmed that mean scores for overall *partner interference* were significantly below the scale midpoint (= 3.50) for all scenarios: *new cross-sex friend* ($M = 2.92$, $SD = 0.83$), $t(61) = -5.53$, $p < .001$; *new same-sex friend* ($M = 3.00$, $SD = 1.00$), $t(59) = -4.17$, $p < .001$; *old cross-sex friend* ($M = 2.75$, $SD = 0.87$), $t(60) = -6.70$, $p < .001$; and *old same-sex friend* ($M = 2.92$, $SD = 0.95$), $t(56) = -4.60$, $p < .001$. Therefore, the scenarios generally did not provoke perceptions of overall *partner interference*.

The *partner material interference* subscale consisted of three statements derived from Theiss and Solomon (2006a)'s operationalization of partner interference. Participants responded to the prompt: "This situation would make me feel that" - 1) my partner's behavior would interfere with the amount of time I spend with my friends; 2) my partner's behavior would interfere with how much time I devote to my school work; and 3) my partner's behavior would interfere with the things I need to do each day. As noted above, all items on the *PMI* subscale

loaded on Factor 1 of the *partner interference* composite scale, and factor loadings were high, ranging from .72 to .80. Across conditions, the *partner material interference* subscale was reliable, α = .77. Across conditions, a one-sample t-test revealed that mean scores for *partner material interference* (*M* = 2.71, *SD* = 1.13) were significantly lower than the scale midpoint (= 3.50), t(241) = -10.78, $p < .001$. Analyses by scenario revealed that mean scores for *partner material interference* were significantly lower than the scale midpoint (= 3.50) for all scenarios: *new cross-sex friend* (*M* = 2.58, *SD* = 1.01), t(61) = -7.22, $p < .001$; *new same-sex friend* (*M* = 2.96, *SD* = 1.12), t(59) = -3.52, $p = .001$; *old cross-sex friend* (*M* = 2.74, *SD* = 1.25), t(60) = -6.96, $p < .001$; and *old same-sex friend* (*M* = 2.74, *SD* = 1.25), t(57) = -4.66, $p < .001$. Therefore, the scenarios generally did not provoke perceptions of partner material interference.

The *partner relational interference* subscale consisted of a similar set of statements developed by the present author. Participants responded to the prompt: "This situation would make me feel that" - 1) This person interferes with my desires for our relationship; 2) this person interferes with how I want to define our relationship; 3) this person interferes with what I want to get out of our relationship; 4) this person interferes with my plans for our relationship's future; 5) this person interferes with the level of intimacy I want in our relationship; 6) this person interferes with my hopes for our relationship's future; 7) this person interferes with my short-term expectations for our relationship; and 8) this person interferes with my long-term expectations for our relationship. As noted above, all items in the *PRI* subscale loaded on Factor 2 of the composite *partner interference* measure, and factor loadings for the *PRI* subscale were high, ranging from .76 to .88. Across conditions, the *PRI* subscale was reliable, α=.94. Across conditions, a one-sample t-test indicated that mean scores for *PRI* were significantly below the scale midpoint (= 3.50), t(239) = -5.76, $p < .001$. Analyses by scenario revealed that mean

scores for *PRI* were significantly below the scale midpoint (= 3.50) for the *new same-sex friend* (M = 2.96, SD = 1.24), t(59) = -3.37, p = .001; *old cross-sex friend* (M = 2.93, SD = 1.12), t(60) = -3.94, $p < .001$; and *old same-sex friend* (M = 3.09, SD = 1.12), t(57) = -4.66, $p < .05$ scenarios. Mean scores for *PRI* were did not differ significantly from the midpoint for the *new cross-sex friend* scenario, (M = 3.26, SD = 1.16), t(61) = -1.66, p = .10. Therefore, the scenarios did not generally provoke perceptions of partner relational interference.

Extradyadic Interference

Because *extradyadic interference* had not been tested previously, no known reliable measures existed for it. Therefore, this thesis developed and tested a composite *extradyadic interference* (*EI*) scale, as well as subscales for *extradyadic material interference* (*EMI*) and *extradyadic relational interference* (*ERI*). *Extradyadic interference* was measured using a 12-item composite scale similar to that employed by Theiss and Solomon (2006a). After being reminded to imagine themselves in the scenario described in the manipulation, participants indicated the degree to which they perceived interference from their partners' friend using a 6-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*). Because the unidimensionality and construct validity of the scale was unknown, the items were analyzed for unidimensionality and reliability.

Principle components EFA with varimax rotation for the overall *EI* scale yielded two components, suggesting a bidimensional construct. This accorded roughly with the two-subscale nature of the composite *EI* scale. Factor loadings for Factor 1 (*EMI*) were as follows: Item 3 (.73); Item 6 (.89); and Item 9 (.87). Factor loadings for Factor 2 (*ERI*) were as follows: Item 1 (.80); Item 2 (.84); Item 4 (.81); Item 5 (.84); Item 7 (.81); Item 8 (.86); Item 10 (.79); Item 11 (.79); and Item 12 (.88).

Item 11 was originally a part of the *EMI* subscale. However, Item 11 loaded (.79) on Factor 2 (*ERI*). Though this was unexpected, upon closer examination the loading makes sense. The *EMI* subscale was adapted from Theiss and Solomon's (2006a) *partner interference* measure. Theiss and Solomon's measure pertained to material interference within a strictly dyadic context. However, the *EMI* subscale attempted to assess extradyadic (i.e., third party) interference. Item 3 ("My partner's friend interferes with the amount of time I spend with my friends"); Item 6 ("My partner's friend interferes with how much time I devote to my school work"); and Item 7 ("My partner's friend interferes with the things I need to do each day"), which make up the revised *EMI* subscale, describe extradyadic interference with tasks unrelated to the primary (i.e., romantic) relationship. On the other hand, Item 11 ("My partner's friend interferes with the amount of time I spend with my romantic partner") describes the third party's impingement on the primary relationship. Because time spent with one's romantic partner is likely to be viewed as an important aspect of relational quality, interference with time with one's partner is likely to be viewed more in terms of interference with the relationship than in terms of interference with a day-to-day task. Therefore, Item 11 was removed from the *EMI* subscale and added to the *ERI* subscale. This change improved *EMI* reliability from $\alpha = .64$ to $\alpha = .79$; *ERI* reliability was unaffected by the addition of Item 11, $\alpha = .95$.

Across conditions, the *EI* scale was reliable, $\alpha = .93$. Across conditions, a one-sample t-test revealed that mean scores on the overall *EI* scale ($M = 3.26$, $SD = 1.01$) were significantly lower than the scale midpoint (= 3.50), $t(238) = -3.63$, $p < .001$. However, analyses by scenario revealed that mean scores on the overall *EI* scale were only significantly lower than the scale midpoint (= 3.50) for the *new same-sex friend* ($M = 3.20$, $SD = 1.01$), $t(58) = -2.11$, $p < .05$, and *old same-sex friend* scenarios ($M = 3.09$, $SD = 1.04$), $t(57) = -2.96$, $p < .05$. The *new cross-sex*

friend [(M = 3.50, SD = 0.80), t(61) = 0.00, p = .10, and *old cross-sex friend* (M = 3.24, SD = 1.01), t(59) = - 1.87, p = .07, scenarios did not differ significantly from the scale midpoint (= 3.50). Therefore, while none of the scenarios provoked perceptions of extradyadic interference, the *same-sex friend* conditions were especially low.

This final *EI* scale was composed of subscales measuring *material interference* and *relational interference*. The subscales are described below.

The *EMI* subscale consisted of two statements derived from Theiss and Solomon (2006a)'s operationalization of partner interference. Participants responded to the prompt: "This situation would make me feel that" - 1) my partner's friend interferes with the amount of time I spend with my friends; 2) my partner's friend interferes with how much time I devote to my school work; and 3) my partner's friend interferes with the things I need to do each day. Factor loadings for the *EMI* items were as follows: Item 1 (.73); Item 2(.89); and Item 3 (.87). Across conditions, the revised *EMI* subscale was reliable, α=.79. Across conditions, a one-sample t-test revealed that mean *EMI* scores (M = 1.97, SD = 0.98) were significantly lower than the scale midpoint (= 3.50), t(240) = -24.08, p < .001. Analyses by scenario confirmed this finding. Mean scores for *EMI* were significantly below the subscale midpoint (= 3.50) for the *new cross-sex friend* (M = 2.87, SD = 0.85), t(61) = -15.10, p < .001; *new same-sex friend* (M = 2.17, SD = 1.06), t(59) = -9.73, p = .001; *old cross-sex friend* (M = 1.86, SD = 1.08), t(60) = -11.85, p < .001; and *old same-sex friend* (M = 2.00, SD = 0.92), t(57) = -12.39, p < .001 scenarios. Therefore, the scenarios generally did not provoke perceptions of extradyadic material interference.

The *ERI* subscale consisted of a set of statements, similar to the EMI subscale, developed by the present author. Participants responded to the prompt: "This situation would make me feel

that“ - 1) my partner’s friend interferes with my desires for my romantic relationship; 2) my partner’s friend interferes with how I want to define my romantic relationship; 3) my partner’s friend interferes with what I want to get out of my romantic relationship; 4) my partner’s friend interferes with my plans for my romantic relationship’s future; 5) my partner’s friend interferes with the level of intimacy I want in my romantic relationship; 6) my partner’s friend interferes with my hopes for my romantic relationship’s future; 7) my partner’s friend interferes with my short-term expectations for my romantic relationship; and 8) my partner’s friend interferes with my long-term expectations for my romantic relationship. Factor loadings for the individual items were as follows: Item 1 (.84); Item 2 (.87); Item 3 (.87); Item 4 (.89); Item 5 (.85); Item 6(.89); Item 7 (.82); and Item 8 (.86). Across conditions, the *ERI* subscale was reliable, $\alpha = .95$. Across conditions, a one-sample t-test revealed that mean scores on the *ERI* subscale ($M = 3.62$, $SD = 1.30$) did not differ significantly from the scale midpoint (= 3.50), $t(238) = 1.47$, $p < .001$. However, analyses by scenario revealed that mean *ERI* scores ($M = 3.93$, $SD = 1.18$) were significantly higher than the subscale midpoint (= 3.50) for the *new cross-sex friend* scenario, $t(61) = 2.83$, $p < .05$. No other scenarios differed significantly from the midpoint. Therefore, only the *new cross-sex friend* scenario provoked perceptions of extradyadic relational interference.

Communicative Responses to Jealousy

Communicative responses to jealousy were measured using the Communicative Responses to Jealousy (CRJ) Scale, developed by Guerrero et al. (1995). Guerrero et al. identified two types of responses to jealousy: interactive and general. Interactive responses include negative affect expression, integrative communication, distributive communication, avoidance/denial, active distancing, and violent communication/threats. General responses

include surveillance/restriction behavior, compensatory restoration, manipulation attempts, rival contacts, and violent behavior. Because the present investigation was interested in interactive responses to jealousy, only the six interactive subscales were used, yielding a final thirty-item measure employed by Bevan (1999).

Participants indicated the degree to which they agreed with a set of 30 questions using a 6-point Likert-scale (1= *disagree strongly*, 6 = *agree strongly*). Participants responded to the prompt: "In the situation described above I would be likely to." The 30-item CJR interactive response measure is presented in detail in Appendix B.

First, a preliminary analysis of the combined CRJ measure was conducted to examine participants' overall levels of communicativeness. Across conditions, the combined CRJ measure was reliable, $\alpha = .87$. Across conditions, a one-sample t-test revealed that mean scores on the overall CRJ scale ($M = 2.71$, $SD = 0.60$) were significantly lower than the scale midpoint (= 3.50), $t(234) = -20.20$, $p < .001$. While this analysis was moderately informative, analyses of the CRJ subscales were needed to ascertain differences between participants' anticipated enactment of different responses.

Across conditions, one-sample t-tests were conducted for all CRJ subscales. Analyses revealed that mean scores for the *negative affect expression* ($M = 3.02$, SD = 1.05), $t(238) = -7.15$, $p < .001$; *distributive communication* ($M = 2.29$, $SD = 1.01$), $t(238) = -18.58$, $p < .001$; *avoidance/denial* ($M = 2.77$, $SD = 1.02$), $t(238) = -11.06$, $p = .001$; *active distancing* ($M = 2.69$, $SD = 1.15$), $t(238) = -10.80$, $p < .001$; and *violent communication* ($M = 1.18$, $SD = 0.52$), $t(239) = -69.64$, $p < .001$ subscales were all significantly lower than the scale midpoint (= 3.50). Mean scores for the *integrative communication* subscale ($M = 4.39$, $SD = 1.10$) were significantly higher than the scale midpoint, $t(238) = 12.55$, $p < .001$.

All of the CRJ subscales demonstrated good reliability. Subscale reliabilities were as follows: *negative affect expression* (α = .81); *integrative communication* (α = .81); *distributive communication* (α = .83); *avoidance/denial* (α = .76); *active distancing* (α = .83); and *violent communication* (α = .90).

Intimacy

Intimacy was assessed using three measures employed by Solomon and Knobloch (2004). As a set, these measures assessed participants' affective orientation (i.e., love) toward, commitment to, and future expectations for their current romantic relationship.

The first component of the intimacy construct measured was *love*. Love was measured using Rubin's (1970) Love Scale. Respondents indicated the extent of their agreement with a series of five questions using a six-point Likert scale (1 = *not at all true*, 6 = *definitely true*). Participants responded to the following prompt: "In my current (that is, "real-life") romantic relationship" - 1) I would do anything for my partner; 2) if I could never be with my partner, I would feel miserable; 3) I feel responsible for my partner's well-being; 4) I would greatly enjoy being confided in by my partner; and 5) it would be hard for me to get along without my partner. Across conditions, the *love* subscale was reliable, α = .77. Across conditions, a one-sample t-test revealed that means scores on the *love* measure ($M = 4.48$, $SD = 0.94$) were significantly higher than the scale midpoint (= 3.50), $t(238) = 16.22$, $p < .001$. Analyses by scenario revealed that mean scores for *love* were significantly higher than the scale midpoint for all scenarios: *new cross-sex friend* ($M = 4.28$, $SD = 1.00$), $t(60) = 6.13$, $p < .001$; *new same-sex friend* ($M = 4.58$, $SD = 0.84$), $t(59) = 10.01$, $p = .001$; *old cross-sex friend* ($M = 4.60$, $SD = 0.85$), $t(59) = 10.00$, $p < .001$; and *old same-sex friend* ($M = 4.47$, $SD = 1.04$), $t(57) = 7.12$, $p < .001$. Therefore, participants' reports of love were high across all scenarios. No threat due to scenario emerged.

The second component of the intimacy construct measured was participants' *commitment* to continuing the relationship. Using a 6-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*), participants indicated the extent of their agreement with three statements. Participants responded to the following prompt: "In my current (that is, "real-life") romantic relationship" - 1) I would like my relationship to last a lifetime; 2) I am attached to my dating partner; and 3) I am committed to my relationship. Across conditions, the *commitment* subscale was reliable, $\alpha = .77$. Across conditions, a one-sample t-test revealed that mean scores on *commitment* ($M = 4.90$, $SD = 1.06$) were significantly higher than the scale midpoint, $t(239) = 20.54$, $p < .001$. Analyses by scenario revealed that mean scores for *commitment* were significantly higher than the subscale midpoint (= 3.50) for the *new cross-sex friend* ($M = 4.84$, $SD = 1.10$), $t(60) = 9.54$, $p < .001$; *new same-sex friend* ($M = 4.84$, $SD = 1.07$), $t(59) = 9.77$, $p = .001$; *old cross-sex friend* ($M = 5.13$, $SD = 0.92$), $t(60) = 13.75$, $p < .001$; and *old same-sex friend* ($M = 4.78$, $SD = 1.12$), $t(57) = 8.69$, $p < .001$, scenarios. Therefore, participants' perceptions of commitment were high for all scenarios. No scenario threat emerged.

The third component of the intimacy construct was participants' expectations of *likelihood of marriage*. This item measured participants' expectations about the future of the romantic relationship by assessing their degree of confidence in the relationship's progression toward marriage. Participants responded to the question: "At this point in time, what do you feel the chance is of your relationship leading to marriage?" Participants answered by circling a response from 0 to 100% on a scale that provided 5% increments. Across conditions, mean scores on the *likelihood of marriage* measure were significantly higher ($M = 59.1$, $SD = 30.9$) than the measure midpoint (= 50.00), $t(234) = 4.53$, $p < .001$. However, the very large standard deviation across conditions argues caution in drawing any inferences from these data. Analyses

by scenario revealed that mean scores for *likelihood of marriage* were mixed. Scores for the *new same-sex friend* ($M = 60.78$, $SD = 30.48$), $t(57) = 2.69$, $p < .05$, and *old-cross-sex friend* ($M = 64.58$, $SD = 28.42$), $t(59) = 3.97$, $p < .001$, scenarios were significantly higher than the subscale midpoint (= 50.00). However, scores for the *new cross-sex friend* ($M = 53.33$, $SD = 33.28$), $t(59) = 0.78$, $p = .44$, and *old same-sex friend* ($M = 57.81$, $SD = 30.82$), $t(56) = 1.91$, $p = .06$, scenarios did not differ significantly from the subscale midpoint (= 50.00). Since participants were randomly assigned to scenarios, this difference was unexpected. The differences in reports of likelihood of marriage may have constituted a scenario threat.

CHAPTER 4: RESULTS

This chapter summarizes the results of analyses performed to test the hypotheses and research questions proposed in Chapter 2. Analyses are organized by the themes of *relational uncertainty, perception of threat, jealousy, interference, intimacy,* and *communicative responses to jealousy*.

Hypotheses and Research Questions

Relational Uncertainty

Hypothesis 1: H1 predicted that individuals whose partners were involved in a cross-sex friendship would report more *self, partner,* and *relationship uncertainty* than would individuals whose partners were involved in a same-sex friendship. Preliminary analyses indicated an effect of relational status on perceptions of all three uncertainty types. Therefore, relational status was included in the analyses. 2 (friendship type: cross-sex vs. same-sex) x 2 (relational status: unattached vs. attached) ANOVA indicated no main effects of friendship type on *self uncertainty,* $F(1, 227) = 0.36$, *ns*; *partner uncertainty,* $F(1, 224) = 0.68$, *ns*; or *relationship uncertainty*, $F(1, 223) = 1.86$, *ns*. Therefore, H1 was not supported.

However, main effects for relational status emerged on the measures of *self uncertainty* $F(1, 228) = 11.56$, $p = .001$, *partner uncertainty* $F(1, 122) = 4.17$, $p < .05$, and *relationship uncertainty* $F(1, 117) = 4.04$, $p < .05$. Independent sample t-tests were conducted to ascertain the direction of the effects. For *self uncertainty*, analyses indicated that attached participants ($M = 4.36$, $SD = 0.98$) scored significantly higher on the measure of *self uncertainty* than did unattached participants ($M = 3.65$, $SD = 0.97$), $t(226) = 3.54$, $p < .001$. For *partner uncertainty,* analyses indicated that attached participants scored significantly higher ($M = 3.41$, $SD = 1.14$) on

the measure of *partner uncertainty* than did unattached participants (M = 2.92, SD = 0.97), $t(223) = 2.102$, $p < .05$. For *relationship uncertainty,* analyses indicated that attached participants scored significantly higher (M = 3.72, SD = 0.98) on the measure of *relationship uncertainty* than did unattached participants (M = 3.29, SD = 0.97), $t(222) = 2.13$, $p < .05$. These findings are summarized in Table 1.

Table 1
Means and Standard Deviations for the Experience of Relational Uncertainty as a Function of Relational Status

	Relational Status		
	Unattached	Attached	Total
Self	3.65[a] (0.97)	4.36[b] (0.98)	4.32[b] (1.01)
Partner	2.92[b] (0.97)	3.41[c] (1.14)	3.39[c] (1.15)
Relationship	3.29[c] (0.97)	3.72[d] (0.99)	3.71[d] (1.01)

Note: Scores on the measures of uncertainty ranged from 1 (low) to 6 (high). Numbers in parentheses are standard deviations. Means with any superscript letters in common do not significantly differ (p<.05).

No interactions emerged between friendship type and relational status on the measures of *self uncertainty,* $F(1, 227) = 0.06$, *ns*; *partner uncertainty,* $F(1, 224) = 0.09$, *ns*; or *relationship uncertainty,* $F(1, 223) = 0.39$, *ns*.

Hypothesis 6: H6 predicted that individuals managing a partner's new cross-sex friendship would report higher levels of *partner* and *relationship uncertainty* than would individuals managing a partner's old cross-sex friendship. Because preliminary analyses indicated differences in all three uncertainty types based on relational status, participants were

divided into "attached" and "unattached" categories. For *partner uncertainty*, a 2 (cross-sex friendship history: new vs. old) x 2 (relational status: unattached vs. attached) ANOVA indicated that the main effect of friendship history on *partner uncertainty* was not significant, $F(1, 118) = 0.01$, *ns*. Additionally, the main effect of relational status on *partner uncertainty* was not significant, $F(1, 118) = 2.09$, *ns*. Furthermore, no interaction emerged between friendship history and relational status on reports of *partner uncertainty,* $F(1, 118) = 0.26$, *ns*.

For *relationship uncertainty*, a 2 (cross-sex friendship history: new vs. old) x 2 (relational status: unattached vs. attached) ANOVA indicated that the main effect of *friendship history* on *relationship uncertainty* was not significant, $F(1, 116) = 0.00$, *ns*. However, a main effect emerged for relational status on *relationship uncertainty*, $F(1, 116) = 4.04$, $p < .05$. An independent samples t-test indicated that attached participants ($M = 3.65$, $SD = 0.96$) scored significantly higher on the measure of *relationship uncertainty* than did unattached participants ($M = 3.13$, $SD = 1.04$), $t(115) = 2.02$, $p < .05$. No interaction emerged between friendship history and relational status on reports of *relationship uncertainty*, $F(1, 116) = 0.13$, *ns*.

While there was a main effect for *relational status* on reports of *relationship uncertainty,* the lack of a main effect for cross-sex *friendship history* indicated that H6 was not supported.

Hypothesis 7: H7 predicted that females managing a partner's new friendship would report more partner uncertainty and relationship uncertainty than would males managing a partner's new friendship. Because preliminary analyses indicated differences in all three uncertainty types based on relational status, participants were divided into "attached" and "unattached" categories. For *partner uncertainty*, a 2 (relational status: unattached vs. attached) x 2 (sex: male vs. female) x 2 (friendship history: new vs. old) ANOVA indicated that the main effect for sex on reports of *partner uncertainty* was not significant, $F(1, 224) = 1.50$, *ns*.

Additionally, the main effect for friendship history on reports of *partner uncertainty* was not significant, $F(1, 224) = 0.01$, *ns*. However, a main effect emerged for relational status on reports of *partner uncertainty,* $F(1, 224) = 4.88$, $p < .05$. An independent samples t-test indicated that attached participants ($M = 3.41$, $SD = 1.14$) scored significantly higher on the measure of *partner uncertainty* than did unattached participants ($M = 2.92$, $SD = 0.97$), $t(223) = 2.10$, $p < .05$. However, no interaction emerged between relational status, sex, and friendship history on reports of *partner uncertainty*, $F(1, 224) = 1.73$, *ns*.

For *relationship uncertainty*, a 2 (relational status: unattached vs. attached) x 2 (sex: male vs. female) x 2 (friendship history: new vs. old) ANOVA indicated that the main effect for sex on reports of *relationship uncertainty* was not significant, $F(1, 223) = 0.18$, *ns*. Additionally, the main effect for friendship history was not significant, $F(1, 223) = 0.18$, *ns*. However, a main effect emerged for relational status on reports of *relationship uncertainty,* $F(1, 223) = 4.30$, $p < .05$. An independent samples t-test indicated that attached participants ($M = 3.72$, $SD = 0.99$) scored significantly higher on the measure of *relationship uncertainty* than did unattached participants ($M = 3.29$, $SD = 0.97$), $t(222) = 2.13$, $p < .05$. Again, no interaction emerged between relational, sex, and friendship history on reports of *relationship uncertainty,* $F(1, 223) = 1.51$, *ns.*

Therefore, H7 was not supported. However, as with H1 and H6, a main effect of relational status on perceptions of *partner* and *relationship uncertainty* emerged.

Research Question 3: RQ3 asked how partners' friendship history (i.e., new vs. old) and sex of participant would influence perceptions of self uncertainty. Because preliminary analyses indicated differences in *self uncertainty* based on relational status, relational status was included as a factor in the analysis. A 2 (relational status: unattached vs. attached) x 2 (friendship history:

new vs. old) x 2 (sex: male vs. female) ANOVA indicated that the main effect for friendship history on reports of *self uncertainty* was not significant, $F(1, 227) = 0.00$, *ns*. Additionally, the main effect for sex on reports of *self uncertainty* was not significant, $F(1, 227) = 2.46$, *ns*. However, a significant main effect emerged for relational status, $F(1, 227) = 13.33$, $p < .001$. An independent samples t-test indicated that attached participants ($M = 4.36$, $SD = 0.98$) scored significantly higher on the measure of *self uncertainty* than did unattached participants ($M = 3.65$, $SD = 0.97$), $t(226) = 3.54$, $p < .001$. No interaction emerged between relational status, friendship history, and sex on reports of *self uncertainty*, $F(1, 227) = 0.76$, *ns*.

However, a two-way interaction emerged between sex and relational status, $F(1, 227) = 5.86$, $p < .05$. Post hoc Bonferroni analyses indicated that unattached males ($M = 3.97$, $SD = 0.88$) experienced greater *self uncertainty* than did unattached females ($M = 3.20$, $SD = 0.95$). In contrast, attached females ($M = 4.42$, $SD = 0.97$) experienced greater *self uncertainty* than did attached males ($M = 4.25$, $SD = 0.99$). Additionally, a series of independent samples t-tests indicated that while attached females experienced significantly more *self uncertainty* than did unattached females, $t(138) = 4.04$, $p < .001$, unattached and attached males did not differ on reports of *self uncertainty*, $t(86) = 1.06$, *ns*. Relational status was only predictive of *self uncertainty* for females. Therefore, while friendship history was not a predictor of *self uncertainty,* sex and relational status were.

To examine other possible influences on *self uncertainty, partner uncertainty,* and *relationship uncertainty,* post hoc analyses were also conducted for the influence of friendship type, friendship history, sex and relational status. Post hoc analyses with a 2 (friendship type: cross-sex vs. same-sex) x 2 (friendship history: new vs. old) x 2 (sex: male vs. female) x 2 (relational status: unattached vs. attached) MANOVA (independent variables: *self, partner,* and

relationship uncertainty) indicated a three-way interaction between friendship type, friendship history, and relational status on perceptions of *relationship uncertainty,* $F(1, 230) = 4.25$, $p < .05$. A series of independent samples t-tests indicated that within *new cross-sex friendship,* $t(57) = 1.25$, *ns*; *old cross-sex friendship,* $t(56) = 1.58$, *ns*; and *old same-sex friendship,* $t(52) = 1.20$, *ns,* scenarios, participants did not differ significantly by relational status on reports of *relationship uncertainty*. However, within *new same-sex friendship* scenarios, attached participants ($M = 4.57$, $SD = 0.91$) experienced greater *relationship uncertainty* than did unattached participants ($M = 3.53$, $SD = 0.22$), $t(51) = 2.65$, $p < .05$.

Furthermore, a three-way interaction emerged between friendship type, friendship history, and relational status on reports of *partner uncertainty*, $F(1, 221) = 4.29$, $p < .05$. A series of independent samples t-tests indicated that while scores on the *partner uncertainty* measure did not differ significantly by *relational status* for participants in *new cross-sex friendship,* $t(58) = 0.70$, *ns*; *old cross-sex friendship,* $t(57) = 1.32$, *ns*; and *old same-sex friendship,* $t(51) = 0.52$, *ns,* scenarios, scores differed significantly by relational status in the *new same-sex friend* scenario, $t(51) = 5.59$, $p < .001$. Specifically, within *new same-sex friendship* scenarios, attached participants ($M = 3.81$, $SD = 1.18$) reported higher levels of *partner uncertainty* than did unattached participants ($M = 2.47$, $SD = 0.40$).

Perception of Threat

Hypothesis 2: H2 predicted that males would report greater relational threat from a romantic partner's cross-sex friendship than would females. For *absolute relational threat,* a 2 (sex: male vs. female) x 2 (friendship type: cross-sex vs. same-sex) ANOVA indicated that the main effect for sex was not significant, $F(1, 236) = 0.31$, *ns*. However, a significant main effect emerged for friendship type on *absolute relational threat,* $F(1, 233) = 12.01$, $p = .001$. Post hoc

Bonferroni analyses indicated that cross-sex friendships (M = 3.65, SD = 1.20) elicited significantly more *absolute relational threat* than did same-sex friendships (M = 3.10, SD = 1.34). No interaction emerged between sex and friendship type on reports of *absolute relational threat*, $F(1, 236) = 0.15$, *ns*.

For *relative relational threat,* a 2 (sex: male vs. female) x 2 (friendship type: cross-sex vs. same-sex) ANOVA indicated that the main effect for sex was not significant, $F(1, 236) = 1.63$, *ns*. However, a significant main effect emerged for friendship type on *relative relational threat,* $F(1, 237) = 6.93$, $p < .05$. Post hoc Bonferroni analyses indicated that cross-sex friendships (M = 3.78, SD = 1.08) elicited significantly more *relative relational threat* than did same-sex friendships (M = 3.41, SD = 1.22). No interaction emerged between sex and friendship type on reports of *relative relational threat*, $F(1, 236) = 0.01$, *ns*.

For *relational status quo threat,* a 2 (sex: male vs. female) x 2 (friendship type: cross-sex vs. same-sex) ANOVA indicated that the main effect for sex was not significant, $F(1, 236) = 0.10$, *ns*. However, a significant main effect emerged for friendship type on *relational status quo threat,* $F(1, 233) = 5.89$, $p < .05$. Post hoc Bonferroni analyses indicated that cross-sex friendships (M = 3.78, SD = 1.13) elicited significantly more *relational status quo threat* than did same-sex friendships (M = 3.39, SD = 1.25). No interaction emerged between sex and friendship type on reports of *relational status quo threat*, $F(1, 236) = 0.39$, *ns*.

Because preliminary analyses indicated an effect of *relational status* on *self-esteem threat,* a 2 (sex: male vs. female) x 2 (friendship type: cross-sex vs. same-sex) x 2 (relational status: unattached vs. attached) ANOVA was conducted. Analyses indicated that the main effect for sex was not significant, $F(1, 226) = 0.02$, *ns*. Additionally, the main effect for relational status was not significant, $F(1, 226) = 0.35$, *ns*. However, a main effect emerged for friendship

type, $F(1, 227) = 8.22$, $p < .05$. An independent samples t-test indicated that cross-sex friendships ($M = 3.89$, $SD = 1.13$) elicited significantly more *self-esteem threat* than did same-sex friendships ($M = 3.32$, $SD = 1.24$), $t(238) = 3.70$, $p < .001$. Analyses revealed no interactions between friendship type and relational status, $F(1, 226) = 1.01$, *ns*; between friendship type and sex, $F(1, 226) = 0.04$, *ns*; between relational status and sex, $F(, 226) = 0.84$, *ns*; or between friendship type, relational status, and sex, $F(1, 226) = 0.02$, *ns*, on reports of *self-esteem threat*. Findings for threat as a function of friendship type are presented in Table 2.

While a main effect emerged for friendship type, sex was not significant in any analyses. Therefore, H2 was not supported.

Table 2
Means and Standard Deviations for Perceptions of Threat as a Function of Friendship Type

	Friendship Type		
	Cross-sex	Same-sex	Total
Absolute Relational Threat	3.65[a] (1.20)	3.10[b] (1.34)	3.39 (1.30)
Relative Relational Threat	3.78[a] (1.08)	3.41[c] (1.22)	3.60 (1.16)
Self-Esteem Threat	3.89[a] (1.13)	3.32[c] (1.24)	3.61 (1.22)
Relational Status Quo Threat	3.78[a] (1.13)	3.39[c] (1.25)	3.59 (1.20)

Note: Scores on the measures of threat ranged from 1 (low) to 6 (high). Numbers in parentheses are standard deviations. Means with different superscripts are significantly different, ($p <. 05$).

Jealousy

Hypothesis 3: H3 predicted that males would report higher levels of sexual jealousy about a romantic partner's cross-sex friendship than would females. Because preliminary analyses indicated a difference in reports of *sexual jealousy* based on *relational status*, *relational status* was included as a factor in the analysis. A 2 (sex: male vs. female) x 2 (friendship type: cross-sex vs. same-sex) x 2 (relational status: unattached vs. attached) ANOVA indicated that the main effect of sex on perceptions of *sexual jealousy* was not significant, $F(1, 226) = 0.30$, *ns*. However, a main effect emerged for friendship type on the measure of *sexual jealousy,* $F(1, 227) = 5.39$, $p < .05$. An independent samples t-test indicated that cross-sex friendships (M=3.33, SD=1.09) elicited significantly more *sexual jealousy* than did same-sex friendships (M=2.76, SD=1.43), $t(238)=3.42$, p=.001. No interactions emerged between sex and friendship type, $F(1, 226) = 0.90$, *ns*; between sex and relational status, $F(1, 226) = 0.00$, *ns*; between friendship type and relational status, $F(1, 226) = 0.23$, *ns*; or between sex, friendship type and relational status, $F(1, 226) = 0.07$, *ns*, on reports of *sexual jealousy*.

Because analyses indicated no main effect for sex on perceptions of *sexual jealousy*, H3 was not supported.

Hypothesis 4: H4 predicted that females would report higher levels of intimacy jealousy about a romantic partner's cross-sex friendship than would males. Because preliminary analyses indicated a difference in reports of *intimacy jealousy* based on relational status, relational status was included as an independent variable in the analysis. A 2 (sex: male vs. female) x 2 (friendship type: cross-sex vs. same-sex) x 2 (relational status: unattached vs. attached) ANOVA indicated no main effects for sex, $F(1, 227) = 0.37$, *ns*, friendship type, $F(1, 227) = 0.73$, *ns*, or relational status $F(1, 227) = 0.02$, *ns,* on the measure of *intimacy jealousy*. Additionally, no

interactions emerged between sex and friendship type, $F(1, 227) = 0.01$, *ns*; between sex and relational status, $F(1, 227) = 0.04$, *ns*; between friendship type and relational status, $F(1, 227) = 0.00$, *ns*; or between sex, friendship type, and relational status, $F(1, 227) = 0.02$, *ns*, on reports of *intimacy jealousy*.

Therefore, H4 was not supported.

Research Question 1: RQ1 asked how males and females would differ in reports of power jealousy about a romantic partner's cross-sex friendship. A 2 (sex) x 2 (friendship type) ANOVA indicated no main effects for sex, $F(1, 236) = 0.79$, *ns*, or friendship type, $F(1,236) = 0.08$, *ns*, on the measure of *power jealousy*. Additionally, no interaction emerged between sex and friendship type on reports of *power jealousy*, $F(1, 236)=0.28$, *ns*.

Therefore, sex was not a predictor of friendship jealousy.

Research Question 2: RQ2 asked how perceptions of *sexual, intimacy, power,* and *friendship jealousy* would differ between cross-sex and same-sex friendships, controlling for sex of participants. Because preliminary analyses indicated differences in reports of *sexual* and *intimacy jealousy* based on relational status, relational status was included as an independent variable in analyses.

With sex (male vs. female) entered as a covariate, a 2 (friendship type: cross-sex vs. same-sex) x 2 (relational status: unattached vs. attached) MANOVA indicated a main effect for friendship type on the measure of *sexual jealousy*, $F(1, 225) = 6.04$, $p < .05$. Post hoc Bonferroni analyses indicated that participants in the *cross-sex friendship* scenarios ($M = 3.34$, $SD = 1.09$) reported higher levels of *sexual jealousy* than did participants in the *same-sex friendship* scenarios ($M = 2.73$, $SD = 1.43$).

Additionally, a main effect emerged for *relational status* on the measure of *power jealousy*, $F(1, 225) = 5.66$, $p < .05$. Post hoc Bonferroni analyses indicated that unattached participants ($M = 4.10$, $SD = 0.78$) reported higher levels of *power jealousy* than did attached participants ($M = 3.56$, $SD = 1.12$). A one-sample t-test indicated that scores on the measure of *power jealousy* were significantly above the scale midpoint (=3.50) for females, $t(26) = 4.00$, $p < .001$, but not for males, $t(199) = 0.90$, *ns*.

No interactions emerged between friendship type and relational status on the measures of *sexual jealousy,* $F(1, 225) = 0.06$, *ns*, *intimacy jealousy* $F(1, 225) = 0.00$, *ns*, *power jealousy* $F(1, 225) = 0.32$, *ns*, or *friendship jealousy* $F(1, 225) = 0.04$, *ns*.

Finally, post hoc analyses where conducted to explore the potential influence of friendship history on reports of *friendship jealousy*. A one-way ANOVA was used to examine the influence of friendship history (new vs. old) on *friendship jealousy*. A main effect emerged for friendship history on reports of *friendship jealousy,* $F(1, 239) = 5.10$, $p < .05$. Post hoc Bonferroni analyses indicated that new friendships ($M = 3.92$, $SD = 1.15$) elicited significantly more *friendship jealousy* than did old friendships ($M = 3.58$, $SD = 1.18$).

Thus, the main effect of friendship type was significant only for *sexual jealousy*. However, there was a main effect of relational status on *power jealousy*, as well as a main effect of friendship history on *friendship jealousy*.

Hypothesis 10: H10 predicted that individuals managing a partner's old cross-sex friendship would experience less intimacy, power, and friendship jealousy than would individual managing a partner's new cross-sex friendship, but not less sexual jealousy. Because preliminary analyses indicated that relational status influenced perceptions of *sexual* and *intimacy jealousy*, relational status was entered as a factor in all analyses.

A 2 (friendship history: new vs. old) x 2 (relational status: unattached vs. attached) MANOVA indicated no main effects for friendship history on reports of *sexual jealousy*, $F(1, 117) = 0.69$, *ns*; *intimacy jealousy*, $F(1, 117) = 0.43$, *ns*; *power jealousy*, $F(1, 117) = 0.00$, *ns*; or *friendship jealousy*, $F(1, 117) = 1.87$, *ns*. However, a main effect emerged for relational status on reports of *power jealousy*, $F(1, 117) = 5.43$, $p < .05$. Post hoc Bonferroni analyses indicated that unattached participants ($M = 4.20$, $SD = 0.78$) reported higher levels of *power jealousy* than did attached participants ($M = 3.54$, $SD = 1.10$).

No interactions emerged between friendship history and relational status on reports of *sexual jealousy,* $F(1, 117) = 0.01$, *ns*, *intimacy jealousy,* $F(1, 117) = 0.96$, *ns*, *power jealousy,* $F(1, 117) = 0.45$, *ns*, or *friendship jealousy,* $F(1, 117) = 0.00$, *ns*.

Therefore, H10 was not supported.

Hypothesis 11: H11 predicted that males managing a partner's new cross-sex friendship would experience more *sexual, intimacy, power* and *friendship* jealousy than would (in order) a) females managing a partner's new cross-sex friendship; b) males managing a partner's old cross-sex friendship; c) females managing a partner's old cross-sex friendship; d) female's managing a partner's new same-sex friendship; e) males managing a partner's new same-sex friendship; f) female's managing a partner's old same-sex friendship; and g) males managing a partner's old same-sex friendship. Because preliminary analyses indicated that relational status influenced perceptions of *sexual* and *intimacy jealousy*, relational status was entered as a factor in all analyses. A 2 (sex: male vs. female) x 2 (friendship history: new vs. old) x 2 (friendship type: cross-sex vs. same-sex) x 2 (relational status: unattached vs. attached) MANOVA indicated a main effect for friendship type on the measure of *sexual jealousy,* $F(1, 225) = 4.30$, $p < .05$. Post hoc Bonferroni analyses indicated that participants in *cross-sex friendship* scenarios ($M = 3.34$,

SD = 1.09) reported higher levels of *sexual jealousy* than did participants in the *same-sex friendship* scenarios (*M* = 2.73, *SD* = 1.43).

A main effect also emerged for relational status on the measure of *power jealousy*, $F(1, 225) = 4.20$, $p < .05$. Post hoc Bonferroni analyses indicated that unattached participants (*M* = 4.10, *SD* = 0.78) reported higher levels of *power jealousy* than did attached participants (*M* = 3.56, *SD* = 1.12).

However, no interactions emerged between sex, friendship history, friendship type, and relational status on reports of *sexual jealousy*, $F(1, 225) = 0.04$, *ns*, *intimacy jealousy*, $F(1, 225) = 0.00$, *ns*, *power jealousy*, $F(1, 225) = 1.37$, *ns*, or *friendship jealousy*, $F(1, 225) = 0.67$, *ns*. Therefore, while main effects emerged for friendship type on reports of *sexual jealousy* and for relational status on reports of *power jealousy*, H11 was not supported.

Interference

Hypothesis 8: H8 predicted that individuals managing a partner's new friendship would report more *partner material interference* and *partner relational interference* than would individuals managing a partner's old friendship. Because preliminary analyses indicated that relational status influenced perceptions of *partner relational interference*, relational status was entered as a factor in all analyses. A 2 (friendship history: new vs. old) x 2 (relational status: unattached vs. attached) MANOVA indicated no main effect of friendship history on reports of *partner material interference*, $F(1, 226) = 1.00$, *ns*, or *partner relational interference*, $F(1, 226) = 1.11$, *ns*. However, a main effect for relational status on reports of *partner relational interference* emerged, $F(1, 226) = 10.28$, $p < .05$. Post hoc Bonferonni analyses indicated that unattached participants (*M* = 3.76, *SD* = 0.96) reported significantly higher levels of *partner relational interference* than did attached participants (*M* = 2.97, *SD* = 1.16). No interactions

emerged between friendship history and relational status on reports of *partner material interference,* $F(1, 226) = 0.97$, *ns*, or *partner relational interference*, $F(1, 226) = 0.80$, *ns*.

Because the main effects of friendship type on *partner material interference* and *partner relational interference* were not significant, H8 was not supported.

Hypothesis 9: H9 predicted that individuals managing a partner's new friendship would report more *extradyadic material interference* and *extradyadic relational interference* than would individuals managing a partner's old friendship. Because preliminary analyses indicated that relational status influenced perceptions of *extradyadic material* and *relational interference*, relational status was entered as a factor in all analyses. A 2 (friendship history: new vs. old) x 2 (relational status: unattached vs. attached) MANOVA indicated that the main effect of friendship history for *extradyadic material interference*, $F(1, 225) = 0.00$, *ns*, and *extradyadic relational interference*, $F(1, 225) = 2.84$, $p = .09$, was not significant. Therefore, H9 was not supported. However, main effects emerged for relational status on both *extradyadic material interference* $F(1, 225) = 12.05$, $p = .001$, and *extradyadic relational interference*, $F(1, 225) = 5.56$, $p < .05$]. Post hoc Bonferroni analyses indicated that unattached participants ($M = 2.60$, $SD = 1.12$) reported significantly more *extradyadic material interference* than did attached participants ($M = 1.92$, $SD = 0.94$). Additionally, unattached participants ($M = 4.23$, $SD = 1.14$) reported significantly more *extradyadic relational interference* than did attached participants ($M = 3.56$, $SD = 1.30$).

No interactions emerged between friendship history and relational status on reports of *extradyadic material interference*, $F(1, 225) = 0.29$, *ns*, or *extradyadic relational interference*, $F(1, 225) = 2.03$, *ns*.

Because the main effect of friendship history was not significant, H9 was not supported.

Intimacy

Hypothesis12: H12 predicted a curvilinear relationship between participants' reported levels of intimacy and *self, partner,* and *relationship uncertainty*. Three separate variables were used to measure intimacy: *love, commitment,* and *likelihood of marriage*. Therefore, hierarchical linear regression analyses were used to test each hypothesis, utilizing each measure of intimacy as an independent variable and each measure of uncertainty as a dependent variable. To examine the curvilinear associations between X and Y, hierarchical regression analyses were conducted. Specifically, one of the measures of intimacy was entered on the first step of the analyses. The squared term of the same intimacy measure was entered on the next step. Significance of the curvilinear relationship is revealed in the second step of the regression equation.

Because preliminary analyses indicated that *love* varied by sex, and *love, commitment,* and *likelihood of marriage* varied by relational status, separate analyses were also conducted for *love* by sex and for all three variables by relational status.

The tests and results will be reported by dependent variable (i.e., type of uncertainty).

H12(a): *Self Uncertainty*

Hierarchical linear regression analyses assessed the relationships between the independent variables (*love, commitment,* and *likelihood of marriage*) and the dependent variable (*self uncertainty*). Across sex and relational status conditions, analyses indicated significant positive linear associations between *self uncertainty* and all three *intimacy* variables. Contrary to predictions, analyses across conditions revealed no curvilinear associations between intimacy and *self uncertainty*. Results for the associations of intimacy and *self uncertainty* across conditions are reported in Table 3.

Table 3
Summary of Hierarchical Regression Analysis for Variables Predicting Self Uncertainty

Variable	R	R^2	β
Step 1			
Love	.25	.06	.25*
Commit	.29	.09	.29**
LOM	.13	.02	.13*
Step 2			
Love*Love	.25	.06	.37
Commit*Commit	.30	.09	-.35
LOM*LOM	.15	.02	-.24

Note: Analyses of each intimacy variable were conducted as separate regressions.
Commit = Commitment; LOM = Likelihood of Marriage;
*p<.05; **p<.001.

However, analyses by sex for the influence of *love* on *self uncertainty* indicated differences between males and females. Males exhibited a positive linear association between *love* and *self uncertainty*. Females exhibited a positive linear association between *love* and *self uncertainty*, but a negative curvilinear association. For females, at low levels of *love, self uncertainty* was slightly below the scale midpoint, increased to a fairly high level at moderate levels of *love*, and decreased to moderate levels at high levels of *love.* Reports of the curvilinear association for females are summarized in Table 4.

Analyses by relational status for the influence of *love, commitment,* and *likelihood of marriage* indicated a main effect of relational status on the relationship between *commitment* and *self uncertainty*. While no significant associations emerged for unattached participants, attached

Table 4
Summary of Hierarchical Regression Analyses for Variables Predicting Self Uncertainty for Females

Variable	R	R^2	R^2 *Change*	β
Step 1	.27	.07	.07	
Love				.42**
Commit				- .31
LOM				- .97
Step 2	.34	.12	.05	
Love*Love				2.37**
Commit*Commit				- .46
LOM*LOM				- .15

Note: Commit = Commitment; LOM = Likelihood of Marriage;
*$p < .05$; **$p < .01$, ***$p < .001$

participants exhibited a positive linear association between *commitment* and *self uncertainty*. Additionally, a main effect emerged for relational status on the relationship between *likelihood of marriage* and *self uncertainty*. While no significant associations emerged for unattached participants, attached participants exhibited a negative linear association between *likelihood of marriage* and *self uncertainty*. Results for the associations between intimacy and *self uncertainty* for attached participants are summarized in Table 5.

No other curvilinear associations between intimacy and *self uncertainty* emerged. Therefore, H12(a) received support only for females on *love*.

Table 5
Summary of Hierarchical Regression Analyses for Variables Predicting Self Uncertainty for Attached Participants

Variable	*R*	R^2	R^2 *Change*	β
Step 1	.33	.11	.11	
Love				.03
Commit				- .43***
LOM				- .26**
Step 2	.33	.11	.00	
Love*Love				- .20
Commit*Commit				- .14
LOM*LOM				- .06

Note: Commit = Commitment; LOM = Likelihood of Marriage;
*$p < .05$; **$p < .01$, ***$p < .001$

H12(b): *Partner Uncertainty*

Hierarchical linear regression analyses assessed the relationships between the independent variables (*love, commitment,* and *likelihood of marriage*) and the dependent variable (*partner uncertainty*). Across sex and relational status conditions, analyses revealed a significant linear association between *commitment* and *partner uncertainty*. The associations of *partner uncertainty* with *love* and *likelihood of marriage* were not significant. Results for the regressions of intimacy on *self uncertainty* across all conditions are reported in Table 6.

However, analyses by sex and relational status, with all intimacy variables entered in the analyses, indicated two significant curvilinear effects. For males, a positive curvilinear

Table 6
Summary of Hierarchical Regression Analysis for Variables Predicting Partner Uncertainty

Variable	R	R^2	β
Step 1			
Love	.08	.01	.08
Commit	.14	.02	.14**
LOM	.08	.01	.08
Step 2			
Love*Love	.09	.00	.30
Commit*Commit	.15	.02	.17
LOM*LOM	.09	.01	.20

Note: Analyses of each intimacy variable were conducted as separate regressions.
Commit = Commitment; LOM = Likelihood of Marriage;
*p < .10, *p < .05; **p < .001.

association emerged between *love* and *partner uncertainty*. For males, *partner uncertainty* was fairly high at low levels of *love,* decreased at moderate levels of *love,* and increased again to fairly high levels at high levels of *love*. Thus, while a curvilinear association emerged between *love* and *partner uncertainty* for males, it was in the opposite of the predicted direction. Results for the association between *love* and *partner uncertainty* for males are summarized in Table 7.

Furthermore, for attached participants, a separate regression test for *likelihood of marriage* on reports of *partner uncertainty* indicated a positive curvilinear association between *likelihood of marriage* and *partner uncertainty* approached significance, p = .050. For attached participants, *partner uncertainty* was moderate at low levels of *likelihood of marriage*, decreased slightly at moderate levels of *likelihood of marriage*, and again increased to moderate levels

when *likelihood of marriage* was high. Thus, while a curvilinear relationship emerged between *likelihood of marriage* and *partner uncertainty* for attached participants, it was in the opposite of the predicted direction. Results for the association between *likelihood of marriage* and *partner uncertainty* for attached participants are summarized in Table 8.

Table 7

Summary of Hierarchical Regression Analyses for Variables Predicting Partner Uncertainty for Males

Variable	*R*	R^2	R^2 *Change*	β
Step 1	.26	.07	.07	
Love				.36**
Commit				- .25
LOM				- .16
Step 2	.35	.12	.06	
Love*Love				2.55**
Commit*Commit				-1.07
LOM*LOM				0.10

Note: Commit = Commitment; LOM = Likelihood of Marriage
*$p < .05$; **$p < .01$, ***$p < .001$

Table 8
Summary of Hierarchical Regression Analyses for Likelihood of Marriage as a Predictor of Partner Uncertainty for Attached Participants

Variable	R	R^2	β
Step 1			
LOM	.01	.00	- .01
Step 2			
LOM*LOM	.14	.02	.59*

Note: Commit = Commitment; LOM = Likelihood of Marriage
*$p < .10$; **$p < .05$, ***$p < .01$

Hypothesis 12(c): Relationship Uncertainty

Hierarchical linear regression analyses assessed the relationships between the independent variables (*love, commitment,* and *likelihood of marriage*) and the dependent variable (*relationship uncertainty*). Across sex and relational status conditions, analyses revealed no significant linear associations between intimacy and *relationship uncertainty.* However, analyses by sex indicated a significant curvilinear effect. For males, a positive curvilinear association emerged between *love* and *relationship uncertainty*. For males, *relationship uncertainty* was high at low levels of *love*, decreased to moderate levels at moderate levels of *love*, and again increased to high levels of *relationship uncertainty* at high levels of *love*. Results for the association between *love* and *relationship uncertainty* for males are summarized in Table 9.

While a curvilinear association emerged for males, it was in the opposite of the predicted direction. Therefore, H12(c) was not supported.

Hypothesis 13: H13 predicted a curvilinear relationship between participants' reported levels of intimacy and *partner material interference*. Three separate variables were used to measure intimacy: *love, commitment,* and *likelihood of marriage*. Therefore, hierarchical linear regression analyses were used to test each hypothesis, utilizing each measure of intimacy as an independent variable and *partner material interference* as the dependent variable. To examine the curvilinear associations between X and Y, hierarchical regression analyses were conducted. Specifically, one of the measures of intimacy was entered on the first step of the analyses. The squared term of the same intimacy measure was entered on the next step. Significance of the curvilinear relationship is revealed in the second step of the regression equation. Across sex and relational status conditions, analyses indicated no significant linear or curvilinear associations between intimacy and *partner material interference*. Additionally, analyses by sex and relational

Table 9
Summary of Hierarchical Regression Analyses for Variables Predicting Relationship Uncertainty for Males

Variable	*R*	R^2	R^2 *Change*	β
Step 1	.27	.07	.07	
Love				.42**
Commit				- .31
LOM				- .97
Step 2	.34	.12	.05	
Love*Love				2.37**
Commit*Commit				- .46
LOM*LOM				- .15

Note: Commit = Commitment; LOM = Likelihood of Marriage;
*$p < .05$; **$p < .01$, ***$p < .001$

status indicated no significant associations between intimacy and *partner material interference*. Therefore, H13 was not supported.

Hypothesis 14: H14 predicted a positive linear association between participants' reported levels of intimacy and *partner relational interference*. Three separate variables were used to measure intimacy: *love, commitment,* and *likelihood of marriage*. Therefore, hierarchical linear regression analyses were used to test each hypothesis, utilizing each measure of intimacy as an independent variable and *partner relational interference* as the dependent variable.

To examine the curvilinear associations between X and Y, hierarchical regression analyses were conducted. Specifically, one of the measures of intimacy was entered on the first step of the analyses. The squared term of the same intimacy measure was entered on the next

step. Significance of the curvilinear relationship is revealed in the second step of the regression equation. Contrary to predictions, across sex and relational status conditions, *partner relational interference* exhibited negative linear associations with all *intimacy* variables. Results for the associations of intimacy and *partner relational interference* across conditions are summarized in Table 10.

However, analyses by sex indicated a significant influence of sex on the association between *love* and *partner relational interference*. While the negative linear association between *love* and *partner relational interference* reported above was significant for females, males exhibited no significant linear or curvilinear associations between *love* and *partner relational interference*. Additionally, analyses by relational status indicated significant effects of relational status on *partner relational interference*. The association between *love* and *partner relational interference* was positively linear for unattached participants, but not significant for attached participants. Furthermore, the association between *commitment* and *partner relational interference* was positively linear for unattached participants, but negatively linear for attached participants.

While the associations were intimacy and *partner relational interference* were generally negatively linear, positive linear associations emerged between *love* and *commitment* on *partner relational interference* for unattached participants. Therefore, H14 received partial support.

Post Hoc Regression Analyses

Additionally, because H13 and H14 did not examine perceptions of *extradyadic interference*, post hoc hierarchical regression analyses were conducted to examine the influence of each of the *intimacy* variables (*love, commitment,* and *likelihood of marriage*) on *extradyadic material interference* and *extradyadic relational interference*. These analyses were conducted in

Table 10
Summary of Hierarchical Regression Analysis for Variables Predicting Partner Relational Interference

Variable	R	R^2	β
Step 1			
Love	.13	.02	-.13*
Commit	.13	.02	-.13*
LOM	.14	.02	-.14*
Step 2			
Love*Love	.13	.02	.10
Commit*Commit	.13	.02	-.10
LOM*LOM	.16	.03	-.27

Note: Analyses of each intimacy variable were conducted as separate regressions.
Commit = Commitment; LOM = Likelihood of Marriage;
*p<.05; **p<.001.

the same manner as the H14 tests. Across sex and relational status conditions, analyses revealed no significant linear or curvilinear associations between the *intimacy* variables and *extradyadic material interference* and *extradyadic relational interference*.

Analyses by sex and relational status indicated no significant linear or curvilinear associations between *love* and *extradyadic material interference*. However, relational status significantly influenced the associations between *love* and *commitment* and *extradyadic relational interference*. Unattached participants exhibited positive linear associations between *love* and *commitment* on reports of *extradyadic relational interference*.

Finally, in order to determine if there were any interactions between *love, commitment*, and *likelihood of marriage* on reports of relational uncertainty, post hoc analyses were conducted. Hierarchical regression analyses were used for all tests.

First, analyses were conducted for *self uncertainty*. On the first step, *self uncertainty* was entered as the dependent variable, and all three intimacy variables (*love, commitment,* and *likelihood of marriage*) were entered simultaneously as independent variables. On the second step, *self uncertainty* was entered as the dependent variable, and all possible two-way interactions of the intimacy variables (i.e., *love* x *commitment, commitment* x *likelihood of marriage,* and *likelihood of marriage* x *love*) were entered as independent variables. On the third step, *self uncertainty* was entered as the dependent variable, and the three way interaction between the intimacy variables (i.e., *love* x *commitment* x *likelihood of marriage*) was entered as the dependent variable. Analyses indicated a significant main effect of *commitment* on reports of *self uncertainty*. The main effects of *love* and *likelihood of marriage* were not significant. No two-way interactions emerged between *love* and *commitment*, *commitment* and *likelihood of marriage*, or *likelihood of marriage* and *love* on reports of *self uncertainty*. Additionally, no three-way interaction emerged between *love, commitment,* and *likelihood of marriage* on reports of *self uncertainty*. These results are reported in Table 11.

Second, analyses were conducted for *partner uncertainty*. On the first step, *partner uncertainty* was entered as the dependent variable, and all three intimacy variables (*love, commitment,* and *likelihood of marriage*) were entered simultaneously as independent variables. On the second step, *partner uncertainty* was entered as the dependent variable, and all possible two-way interactions of the intimacy variables (i.e., *love* x *commitment, commitment* x *likelihood of marriage,* and *likelihood of marriage* x *love*) were entered as independent variables. On the

Table 11
Summary of Post Hoc Hierarchical Regression Analyses for Variables Predicting Self Uncertainty

Variable	*R*	R^2	R^2 *Change*	β
Step 1	.30	.09	.09	
Love				.08
Commit				.29**
LOM				- .09
Step 2	.32	.10	.01	
Love*Commit				- .89
Commit*LOM				.68
LOM*Love				- .73
Step 3	.32	.10	.00	
Love*Commit*Likelihood				- .09

Note: Commit = Commitment; LOM = Likelihood of Marriage;
*$p < .05$; **$p < .01$, ***$p < .001$

third step, *partner uncertainty* was entered as the dependent variable, and the three way interaction between the intimacy variables (i.e., *love* x *commitment* x *likelihood of marriage*) was entered as the dependent variable. No main effects emerged for *love*, *commitment*, or *likelihood of marriage* on reports of *partner uncertainty*. However, a two-way interaction emerged between *commitment* and *likelihood of marriage* on reports of *partner uncertainty*. The curvilinear relationship was such that at moderate levels of *commitment* and low levels of *likelihood of marriage*, *partner uncertainty* was slightly below the scale midpoint (= 3.50); however, at moderate levels of *commitment,* as *likelihood of marriage* reached moderate levels, *partner uncertainty* increased steadily and increased to a moderately high level. No three-way interactions emerged between *love, commitment,* and *likelihood of marriage* on reports of *partner uncertainty*. These results are reported in Table 12.

Third, analyses were conducted for *relationship uncertainty*. On the first step, *relationship uncertainty* was entered as the dependent variable, and all three intimacy variables (*love, commitment,* and *likelihood of marriage*) were entered simultaneously as independent variables. On the second step, *relationship uncertainty* was entered as the dependent variable, and all possible two-way interactions of the intimacy variables (i.e., *love* x *commitment* x *likelihood of marriage*) was entered as the dependent variable.

No main effects emerged for *love, commitment,* or *likelihood of marriage* on reports of *relationship uncertainty*. However, a two-way interaction emerged between *likelihood of marriage* and *love* on reports of *relationship uncertainty*. The curvilinear association between *love* and *likelihood of marriage* was such that at moderate levels of *love* and low levels of *likelihood of marriage*, *relationship uncertainty* was moderate. As *likelihood of marriage* increased to moderate levels, *relationship uncertainty* increased in a fairly linear manner until

Table 12
Summary of Post Hoc Hierarchical Regression Analyses for Variables Predicting Partner Uncertainty

Variable	*R*	R^2	R^2 *Change*	β
Step 1	.15	.02	.02	
Love				- .04
Commit				.19
LOM				- .02
Step 2	.20	.04	.02	
Love*Commit				.20
Commit*LOM				1.14*
LOM*Love				- .99
Step 3	.20	.04	.00	
Love*Commit*Likelihood				.71

Note: Commit = Commitment; LOM = Likelihood of Marriage;
*$p < .05$; **$p < .01$, ***$p < .001$

likelihood of marriage reached fairly high levels, at which *relationship uncertainty* began to decrease curvilinearly, such that at very high levels of *likelihood of marriage*, *relationship uncertainty* was slightly higher than at low levels of *likelihood of marriage*. Thus, *relationship uncertainty* was highest at fairly high levels of *love* and *likelihood of marriage*.

Additionally, a two-way interaction emerged between *commitment* and *likelihood of marriage* on reports of *relationship uncertainty*. The relationship was such that at moderate levels of *commitment* and low levels of *likelihood of marriage*, *partner uncertainty* was moderate; however, at moderate levels of *commitment,* as *likelihood of marriage* reached moderate levels, *relationship uncertainty* increased steadily and increased to a moderately high level. No three-way interaction emerged between *love*, *commitment,* and *likelihood of marriage* on reports of *relationship uncertainty*. These results are reported in Table 13.

Research Question 4: RQ4 asked how individuals would differ in their communicative responses to jealousy about romantic partners' cross-sex friends vs. same-sex friends. Because preliminary analyses indicated that sex influenced reports of *negative affect expression* and *integrative communication*, sex was included as an independent variable in the analyses. For the analyses, Bonferroni adjustment yielded a criterion of $\alpha = .008$. A 2 (friendship type: cross-sex vs. same-sex) x 2 (sex: male vs. female) MANOVA indicated a main effect of friendship type on reports of *distributive communication*, $F(1, 230) = 10.68$, $p = .001$. Post hoc Bonferroni analyses indicated that participants in same-sex friendship scenarios ($M = 2.50$, $SD = 1.13$) reported more *distributive communication* than did participants in cross-sex friendship scenarios ($M = 2.08$, $SD = 0.86$). An independent samples t-test indicated that males in *cross-sex friendship* scenarios ($M = 4.38$, $SD = 1.10$) reported higher levels of *integrative communication* than did males in same-sex friendship scenarios ($M = 3.80$, $SD = 1.06$), $t(87) = 2.53$, $p < .05$. However, females did not

Table 13
Summary of Post Hoc Hierarchical Regression Analyses for Variables Predicting Relationship Uncertainty

Variable	*R*	R^2	R^2 *Change*	β
Step 1	.12	.01	.01	
Love				.04
Commit				.13
LOM				.12
Step 2	.22	.05	.03	
Love*Commit				.07
Commit*LOM				1.55**
LOM*Love				- 1.26*
Step 3	.22	.05	.00	
Love*Commit*Likelihood				.04

Note: Commit = Commitment; LOM = Likelihood of Marriage;
*$p < .05$; **$p < .01$, ***$p < .001$

significantly differ on reports of *integrative communication* between cross-sex friendship (M = 4.50, SD = 1.13) and same-sex friendship (M = 4.55, SD = 1.04) scenarios, $t(144) = 0.21$, *ns*.

Furthermore, main effects of sex emerged for reports of *negative affect expression*, $F(1, 230) = 12.11$, $p = .001$, and *integrative communication*, $F(1, 230) = 8.42$, $p < .05$. For the main effect of sex on *negative affect expression,* post hoc Bonferroni analyses indicated that females (M = 3.17, SD = 1.08) reported higher levels of *negative affect expression* than did males (M = 2.69, SD = 0.93). However, one-sample t-tests indicated that scores on the measure of *negative affect expression* were significantly lower than the scale midpoint (=3.50) for both females, $t(145) = -4.45$, $p = .001$, and males, $t(88) = -8.27$, $p < .001$. For the main effect of sex on *integrative communication*, post hoc Bonferroni analyses indicated that females (M = 4.52, SD = 1.08) reported higher levels of *integrative communication* than did males (M = 4.13, SD = 1.12). One-sample t-tests indicated that scores on the measure of *integrative communication* were significantly higher than the scale midpoint (=3.50) for both females, $t(145) = 11.57$, $p < .001$, and males, $t(88) = 4.45$, $p < .001$.

No other significant main effects or interactions emerged.

CHAPTER 5: DISCUSSION

This chapter discusses the findings of the tests of the hypotheses and research questions, reported in Chapter 4. After summarizing findings for the hypotheses and research questions, implications of these findings will be discussed. Finally, limitations and directions for future research will be discussed.

Relational Uncertainty

Contrary to predictions, friendship type, friendship history, and sex were not significant predictors of relational uncertainty. Individuals managing partners' cross-sex and same-sex friendships did not differ in the amounts of self, partner, or relationship uncertainty reported (H1). Furthermore, new friendships did not differ from old friendships in the levels of self, partner, and relationship uncertainty elicited (H6, H7, and RQ3). Finally, males did not differ from females in their experiences of self, partner or relationship uncertainty (H7 and RQ3).

However, relational status was a predictor of relational uncertainty. In general, romantically attached participants reported more self, partner, and relationship uncertainty than did romantically unattached participants (H1). While attachment would initially seem likely to reduce uncertainty, this association may be due to the positive associations between intimacy and uncertainty reported in H12(a) and H12(b). Love, commitment, and likelihood of marriage were positively associated with self uncertainty, and commitment was positively associated with partner uncertainty. Preliminary analyses indicated that love, commitment, and likelihood of marriage differed by relational status, such that attached participants reported higher levels of all three intimacy variables. Although none of the intimacy variables were associated with relationship uncertainty, the significant associations between love, commitment and likelihood of

marriage on self uncertainty, and for commitment on partner uncertainty, suggest that the differences in uncertainty by relational status were related to intimacy.

Additionally, while there were no main effects of friendship type, friendship history, or sex on relational uncertainty, relational status interacted with all three variables to influence uncertainty outcomes (RQ3). The interaction between relational status and sex indicated that while self uncertainty was generally higher for attached participants than for unattached participants, males did not differ on reports of self uncertainty based on relational status. Furthermore, among unattached participants, male reported more self uncertainty than did females. However, among attached participants, females reported more self uncertainty than did males (RQ3). Thus, relational status was only predictive of self uncertainty for females.

Upon examination, the interaction seemed to be driven by males' overall higher levels of self uncertainty. Both unattached and attached males reported more self uncertainty than did unattached and attached females. However, attached females reported more self uncertainty than did unattached females. This suggests two observations. First, males may experience more self uncertainty in general. This may be due to power; despite advances in equality between males and females, males still generally hold more societal power. Second, and in line with the power explanation, unequal alternatives for males and females may have influenced self uncertainty. Given that the sample was predominantly female (which reflected the sex composition of the university campus from which it was obtained), males may have perceived a greater number of relational alternatives than did females. Prevalence of attractive alternatives has been found to negatively influence relational commitment (Thibaut & Kelly, 1959; Lin & Rusbult, 1995). Thus, males who perceive a greater number of relational alternatives than do females should be more likely question their own commitment to their current romantic relationships.

Additionally, the three-way interactions between friendship history, friendship type, and relational status indicated that while the levels of partner and relationship uncertainty provoked by new cross-sex friendships, old cross-sex friendships, and old same-sex friendships did not depend on relational status, new same-sex friendships varied by relational status in the amounts of partner and relationship uncertainty they provoked. Attached participants managing a partner's new same-sex friendship reported more partner and relationship uncertainty than did unattached participants managing a partner's new same-sex friendship (RQ3).

Thus, relational status was the primary predictor of relational uncertainty. Its importance was demonstrated both by its main effects and by its interactions with friendship type, friendship history and sex. Although unattached males experienced more partner uncertainty than did unattached females, all other findings indicated that attached participants experienced greater relational uncertainty than did unattached participants.

Perception of Threat

Hypothesis 2 predicted that males would report greater relational threat from a partner's cross-sex friendship than would females. This prediction was not supported. Sex was not a significant predictor of absolute relational threat, relative relational threat, relational status quo threat, and self esteem threat. However, friendship type was a significant predictor of all threat types. Cross-sex friendships elicited significantly more absolute relational threat, relative relational threat, relational status quo threat, and self esteem threat than did same-sex friendships. These results are congruent with Werking's (1997) finding that individuals often found their romantic partners' friendships with members of the opposite sex to be threatening. In regard to absolute relational threat, it is probable that cross-sex friends are more likely than same-sex friends to be perceived as constituting a romantic or sexual relational alternative to oneself. In

regard to relative relational threat, it is probable that a partner's attention to and investment in a potential romantic alternative may lead to devaluation of or loss of rewards in the primary romantic relationship. In regard to self-esteem threat, a partner's attention to a potential romantic alternative may lead to devaluation of oneself as a romantic partner. Finally, the presence of a cross-sex friend seems likely to disrupt both material and relational patterns of the dyadic system, thus threatening the relational status quo.

Jealousy

Contrary to predictions, no sex differences emerged for reports of jealousy. Hypothesis 3 predicted that males would experience more sexual jealousy about a romantic partner's cross-sex friendship than would females. This prediction was not supported. Sex was not a predictor of sexual jealousy. While the evolutionary model of jealousy predicted sex differences in regard to sexual jealousy (Dijkstra & Buunk, 1998; Buss, 2000), no differences emerged. Recent research has yielded mixed results in regard to sexual jealousy. While some researchers have found the predicted sex difference on sexual jealousy (Edlund, Heider, Scherer, Far, & Sagarin, 2006; Fernandez, Vera-Villarroel, Sierra, & Zubeidat, 2007), others have not (Becker et al., 2004; Russell & Harton, 2005; Green & Sabini, 2006; Penke & Asendorpf, 2008).

Along with Hypothesis 3's prediction for sexual jealousy, Hypothesis 4 predicted that females would report more intimacy jealousy about a romantic partner's cross-sex friendship than would males. This prediction was not supported either. While overall scores on the measure of intimacy jealousy were fairly high for both males and females, males and females did not differ on reports of intimacy jealousy. The predicted sex difference in intimacy jealousy was also based on the predictions of the evolutionary jealousy perspective, which argues that females experience greater distress over emotional infidelity than do males. However, this perspective

has come under criticism lately (Desteno, Bartlett, Braverman, & Salovey, 2002; Harris, 2005). Desteno et al. argued that the classic difference in male and female responses to sexual and emotional infidelity was primarily an artifact of the forced-choice methodology employed in most evolutionary jealousy research. Recent studies that compared forced-choice with continuous measures methodologies on responses to sexual and emotional infidelities support Desteno et al.'s view (Kimeldorf, 2009; Penke & Asendorpf, 2008). Additionally, the manipulations used by Buss et al. (1992) and colleagues involved a forced choice between imagining one's partner "enjoying passionate sexual intercourse" with a rival or "forming a deep emotional attachment" with a rival. Russell and Harton (2005), who failed to find the classic evolutionary sex differences, noted that such situations are rather extreme, and opted to use more subtle, everyday scenarios. The current study also used less extreme scenarios to assess jealousy experience (i.e., casually meeting a romantic partner's friend).

Additionally, recent findings suggest that while men and women do not differ significantly in their responses to sexual infidelity, women's greater reactivity to emotional infidelity may be driving findings of sex differences (Becker et al., 2004; Penke & Asendorpf, 2008). While Becker et al. presented their findings as supporting the traditional evolutionary model, they based this claim in part on a "non-significant tendency" for men reporting greater upset over sexual infidelity (p. 536). However, Harris (2005) noted that such inconclusive findings hardly constitute evidence for the broad sexual dimorphism posited by the original evolutionary model (Symons, 1979; Buss, 2000). While the validity of the evolutionary model of jealousy remains a source of controversy (e.g., Harris, 2005; Sagarin, 2005), the lack of sex differences for jealousy (particularly sexual and intimacy jealousy) in this study further call into question the traditional evolutionary perspective.

However, while sex did not predict jealousy experience, friendship type did predict sexual jealousy. Cross-sex friendships elicited significantly more sexual jealousy than did same-sex friendships. Together with the fact that cross-sex friendships elicited greater perceptions of relational threat than did same-sex friendships, it is possible that the nature of the threat perceived may have been primarily sexual in nature. It is possible that cross-sex friendships are primarily *sexually* threatening, rather than threatening in general. This view is supported by Fitness and Fletcher (1993), who found that a romantic partner's showing attention to or spending time with a person of the opposite sex constituted the prototypical jealousy-eliciting situation. Nevertheless, overall reports of sexual jealousy were only low to moderate. Sexual jealousy scores for cross-sex friendships did not differ significantly from the scale midpoint, and sexual jealousy scores for same-sex friendships were significantly below the scale midpoint.

Research Question 1 examined differences between males and females in regard to power jealousy about a partner's cross-sex friendship. No differences emerged between males and females on reports of power jealousy. Overall reports of power jealousy were moderate; scores did not differ significantly from the scale midpoint. However, while sex was not a significant predictor of jealousy, relational status emerged as a predictor of power jealousy (RQ2, H10, H11). Romantically unattached participants reported more power jealousy than did romantically attached participants. Additionally, while power jealousy scores were relatively high for unattached participants, scores were only moderate for attached participants.

Two explanations seem plausible for differences in reports of power jealousy by relational status. First, it is possible that individuals who are not involved in romantic relationships have less information by which to predict jealousy experience. Conversely, individuals who are involved in romantic relationships (and therefore are able to imagine an

actual, concrete partner) may have more information with which to predict jealousy experience. This information may take the form of knowledge of a partner's personality, traits, and attributes, as well as knowledge of a partner's actual past behaviors and one's reactions to those behaviors.

However, while the above explanation is plausible, it is somewhat surprising that relational status predicted power jealousy but not sexual, intimacy, or friendship jealousy. This suggests that the effect was driven by something unique to power jealousy. Power jealousy flows from the perception that a rival may exercise undue relational influence on one's romantic partner (Pogrebin, 1987). It is possible that romantically attached individuals, by virtue of access to actual knowledge of their selves, partners and relationships, are less likely to fear this undue influence. Additionally, Becker et al. (2004) found that while attached individuals experienced more intense reactions to infidelity, they were significantly less likely to imagine it occurring were unattached individuals. Becker et al. suggest that this may be due to relationally invested individuals' aversion to thinking about relationship-threatening events. Furthermore, given that American romantic ideology tends to privilege romantic relationships over friendships (Werking, 1997), attached individuals may be more likely to assume that they will be the primary relational influence in their romantic partners' lives. This view is made more plausible by the fact that while reports of power jealousy were significantly above the scale midpoint for unattached participants, scores for attached participants did not significantly differ from the midpoint. It is possible that assumptions of romantic/dyadic priority may have contributed to a floor effect for romantically attached individuals' reports of power jealousy.

Additionally, while sex did not predict friendship jealousy, friendship history emerged as a predictor of friendship jealousy (RQ2). New friendships elicited significantly more friendship jealousy than did old friendships. This was not surprising, given the positive correlations

between friendship jealousy and all interference types and threat types. Additionally, this finding was in line with Russell and Harton (2005), who found that rivals who were strangers elicited more jealousy than did rivals who were friends. This finding suggests that the initiation of a competing friendship constitutes a form of disturbance to the romantic relational system (Planalp & Honeycutt, 1985). This lends support to the view that extradyadic events and relationships may contribute to dyadic-level irritations, such as jealousy.

In general, the lack of clear sex differences in jealousy experience was inconsistent with the claims of the evolutionary perspective on jealousy (Dijkstra & Buunk, 1998; Buss, 2000). However, the significance of relational factors on jealousy experience (i.e., friendship type, friendship history, and relational status) was in line with emerging research that questions biological priority for differences in jealousy (Yarab, et al., 1999; Russell & Harton, 2005; Kimeldorf, 2009). These results suggest that jealousy flows primarily from structural and relational aspects of the triadic system, rather from evolutionary adaptive mechanisms.

Interference

Hypotheses 8 and 9 predicted differences between cross-sex and same-sex friendships on perceptions of interference. Specifically, same-sex friendships were predicted to elicit greater perceptions of partner material interference, partner relational interference, extradyadic material interference, and extradyadic relational interference than would cross-sex friendships. These predictions were not supported. Perceptions of interference did not differ by friendship type. Furthermore, overall scores on the measures of interference were low to moderate. Reports of partner material interference, partner relational interference, and extradyadic material interference were significantly lower than the scale midpoints, and reports of extradyadic relational interference did not differ significantly from the scale midpoints.

However, relational status was a predictor of partner relational interference, extradyadic material interference, and extradyadic relational interference. Romantically unattached participants reported more partner relational interference, extradyadic material interference, and extradyadic relational interference than did romantically attached participants. As with the influence of relational status on jealousy, unattached participants had stronger reactions to the scenarios than did attached participants. It is possible that romantically unattached participants may have more severe reactions to hypothetical scenarios than do attached participants. In fact, this phenomenon may speak to a larger methodological issue in scenario research. Individuals imagining currently inapplicable scenarios (i.e., merely hypothetical romantic partners) may have more extreme reactions to these scenarios than individuals imagining currently plausible scenarios (i.e., imagining actual romantic partners).

Intimacy

Curvilinear associations were predicted between intimacy (i.e., love, commitment, and likelihood of marriage) and relational uncertainty (i.e., self, partner and relationship uncertainty), such that uncertainty would be highest at moderate levels of intimacy. However, the predicted curvilinear associations did not emerge (H12). Several linear associations did emerge. Self uncertainty exhibited a positive linear association with love, commitment, and likelihood of marriage (H12a). Additionally, partner uncertainty exhibited a positive linear association with commitment, but not love or likelihood of marriage (H12b). No linear or curvilinear associations emerged between intimacy and relationship uncertainty when analyzed across all conditions (H12c). These findings were inconsistent with Knobloch and Solomon's (2002) finding of a curvilinear relationship between intimacy and episodic relational uncertainty.

Several curvilinear associations between intimacy and uncertainty emerged when sex and relational status were taken into account. Females exhibited the predicted curvilinear association between love and self uncertainty, such that self uncertainty was highest at moderate levels of love. Males exhibited curvilinear associations between love and partner and relationship uncertainties; however, these were opposite of the predicted direction, such that partner and relationship uncertainty were lowest at moderate levels of love. Additionally, a curvilinear association between likelihood of marriage and partner uncertainty approached significance. However, this association was also opposite of the predicted direction, such that partner uncertainty was lowest at moderate levels of likelihood of marriage. Therefore, the predicted curvilinear association between intimacy and uncertainty received partial support, and that only for females.

Partner material interference was predicted to vary in a curvilinear manner with intimacy (i.e., love, commitment, and likelihood of marriage), such that interference would be highest at moderate levels of intimacy. However, contrary to predictions no linear or curvilinear associations emerged between partner material interference and intimacy (H13). This was inconsistent with Knobloch and Donovan-Kicken's (2006) finding of a curvilinear relationship between intimacy and partner interference.

Finally, a positive linear association was predicted between intimacy (i.e., love, commitment, and likelihood of marriage) and partner relational interference. Contrary to predictions, negative linear associations emerged for all three intimacy variables on reports of partner relational interference.

Although the original relational turbulence model (Solomon & Knobloch, 2001) posited wide-scale curvilinear associations between intimacy and relational turbulence, the curvilinear

assumption did not receive strong support in this study. The association between love and self uncertainty was curvilinear for females, but not for males. Furthermore, the associations between love and partner and relationship uncertainty approached significance for males (though in the opposite direction from that predicted), but not for females. Finally, the curvilinear association between likelihood of marriage and partner uncertainty approached significance for romantically attached participants (again, in the opposite direction from that predicted), but not for those who were unattached.

Furthermore, few significant associations between intimacy and interference emerged. Intimacy was not associated with partner material interference or extradyadic material interference. For partner relational interference, interactions emerged by sex and relational status. For females, love exhibited negative linear associations with partner relational interference, while the association was not significant for males. Love and commitment demonstrated positive linear associations with partner relational interference for unattached participants. For attached participants, love was not associated with partner relational interference, and commitment exhibited a negative linear association with partner relational interference. Finally, for unattached participants, love and commitment were positively linearly associated with extradyadic relational interference.

While some evidence emerged for curvilinear trajectories of uncertainty as a function of intimacy, this evidence was rare and emerged only based on interactions of intimacy variables or when sex and relational status were taken into account. Furthermore, the linear associations that appeared between intimacy and relational uncertainty were positive, in contrast to the general trend toward finding negative linear associations (Solomon & Knobloch, 2001; Theiss & Solomon, 2006a; Solomon & Theiss, 2008). Additionally, no curvilinear associations emerged

between intimacy and interference, in contrast to previous research (Knobloch & Donovan-Kicken, 2006; Solomon & Knobloch, 2001). These results continue a general trend in the relational turbulence literature toward disconfirmation of the theory's original curvilinear conceptualization of the relationship between intimacy and turbulence (Knobloch & Carpenter-Theune, 2004; Solomon & Knobloch, 2001; Solomon & Theiss, 2008).

Interestingly, while no significant associations emerged between intimacy and partner and extradyadic *material* interference, relational status influenced the associations with intimacy of both partner and extradyadic *relational* interference. Unattached participants exhibited positive linear associations between intimacy and perceptions of partner and extradyadic relational interference. Attached participants did not exhibit associations between intimacy and relational interference, except for a negative linear association between commitment and partner relational interference. This suggests that relational interference may not be overly prominent in established romantic relationships. Nevertheless, it is conceivable that concerns about relational interference may be more prominent in the very early stages of romantic development. Although the current design did not permit analysis of this possibility, as it asked only for current relational status, future investigations should examine perceptions of relational interference at different stages of romantic development.

Communicative Responses to Jealousy

In general, neither friendship type nor sex predicted communicative responses to jealousy. However, three main effects emerged. First, friendship type was predictive of distributive communication. Same-sex friendships elicited significantly higher reports of distributive communication than did cross-sex friendships. However, for both same-sex and

cross-sex friendships, reports of distributive communication were fairly low; scores for both friendship types were significantly below the scale midpoint.

Second, sex was predictive of both negative affect expression and integrative communication. Females reported significantly more negative affect expression than did males. However, scores for both males and females were fairly low; scores on the measure of negative affect expression were significantly below the scale midpoint for both males and females. Additionally, females reported significantly more integrative communication than did males. For both males and females, reports of integrative communication were high; scores for both sexes were significantly above the scale midpoint. Third, friendship history was predictive of integrative communication. New friendships elicited significantly more integrative communication than did old friendships. Again, integrative communication scores were high (i.e., significantly above the scale midpoint) for both new and old friendships.

Furthermore, an interaction emerged between friendship type and sex on reports of integrative communication. While females did not differ between cross-sex and same-sex friendships on reports of integrative communication, males reported significantly more integrative communication in response to cross-sex friendships than they did in response to same-sex friendships.

Several general observations emerge from the findings for communicative responses to jealousy. First, only one response type (integrative communication) yielded scores significantly higher than the scale midpoint. This was not entirely surprising, given previous findings that individuals were most likely to use constructive communication strategies to handle uncertainty-producing relational events (Planalp & Honeycutt, 1985; Knobloch & Solomon, 2003; Knobloch, 2005). Additionally, given that the sample was composed of students enrolled in communication

courses, it is possible that participants were more likely to use prosocial strategies, such as integrative communication, compared to non-communication students. It is also possible that communication students are more likely to be high self-monitors. Finally, participants may have had a social desirability bias toward over-reporting use of prosocial strategies and under-reporting use of antisocial strategies. Additionally, the sex differences in regard to negative affect expression and integrative communication suggest that females may be more likely to engage in both prosocial and antisocial communication about jealousy.

Also interesting was the finding that males reported more integrative communication in response to a partner's cross-sex friendship than in response to a partner's same-sex friendship. Females did not differ between cross-sex and same-sex conditions on reports of integrative communication. While females responded to both types of friendship similarly, males appeared to differentiate more strongly between cross-sex and same-sex friendships. This supports Rawlins' (1982) claim that while females tend to view all friendships as fairly equivalent, males are more likely to draw sharper distinctions based on the sex composition of the friendship.

Limitations

Several limitations of this study were related to design issues. This study employed a cross-sectional design. This approach was only able to assess participants' perceptions at one point in time. Furthermore, the use of scenarios rendered the manipulation static; there was no ability to measure responses to dynamic changes over time. While scenarios offer the advantages of greater consistency of manipulations (Knobloch & Solomon, 2002) reduced opportunity for recall bias (Duck & Miell, 1986), and reduced chance of self-report bias (Sommers, 1984), they necessarily limit the external validity of the findings. Additionally, the

measure of relational status assessed status only on a categorical level. This precluded investigation of effects related to relational development over time.

Also, while this study represented an important first step in conceptualizing relational turbulence triadically, its focus was limited only to the influence of cross-sex friends on the "Jealous" (i.e., non-friended) romantic partner. This rendered "Beloved", the "friended" member of the romantic dyad, constant. However, it is possible that differences in the "friended" partner's attitudes and behaviors may have important effects on the management of triadic relationships.

In contrast to previous research (e.g., Solomon & Knobloch, 2001), this thesis constituted a preliminary attempt to conceptualize and measure interference relationally and extradyadically. In order to accomplish this, measures of partner relational interference, extradyadic material interference. These measures demonstrated unidimensionality and high reliability.

Additionally, this study developed scales to measure sexual jealousy, intimacy jealousy, power jealousy, and friendship jealousy. Although these jealousy categories had been employed in prior research (Bevan, 1999; Bevan & Samter, 2004), no measures had previously been created to assess specific jealousy types. For example, while Bevan (1999) measured jealousy in response to a variety of jealousy-inducing scenarios similar to those used in this study, participants in Bevan's study indicated only a generalized form of jealousy on all scenarios, using Guerrero et al.'s, 1995 emotional jealousy scale. By contrast, this study developed measures designed to measure specific types of jealousy (i.e., sexual, intimacy, power, and friendship jealousies). This approach sought a more nuanced assessment of jealousy in response to scenarios. Rather than attempting to provoke particular types of jealousy through the

scenarios (e.g., through a friendship jealousy scenario), as in Bevan (1999), this study attempted to discover which jealousy types were likely to emerge naturally from more general scenarios.

Because no known previous measures had been developed for assessing intimacy, power, and friendship jealousies, measures were developed by the author, utilizing themes from Pogrebin (1987). While Pogrebin's descriptions of intimacy, power, and friendship jealousies were heuristically useful, they were rooted primarily in anecdotal and observational data. Therefore, while the jealousy measures seemed to have good face validity, their psychometric validity had not been previously investigated. Thus, a good number of the items did not load onto the final jealousy measures, yielding low item totals for some measures. The difficulty of the factor loadings for non-sexual jealousies was particularly instructive. Given that sexual jealousy is typically viewed as the prototypic expression of jealousy (Fitness & Fletcher, 1993), participants may have been less sure about their responses on other jealousy measures. Furthermore, while reliabilities were very good for the sexual jealousy, intimacy jealousy, and power jealousy measures, the friendship jealousy measure ($\alpha = .79$) could be improved. Further investigations are needed to refine the measures of non-sexual jealousy. While the jealousy measures constituted separate factors and were reliable, the generally moderate levels of jealousy reported and the relatively low item numbers made it difficult to assess the validity of the measures. An exploratory study with more items included for each jealousy type would provide more data for assessing the measure validity.

Additionally, the sample used in this study served as a further limitation. All participants were university students, and hence, highly educated. Penke and Asendorpf (2008) found that education level significantly attenuated the experience of jealousy. In Penke and Asendorpf's study, sex differences in emotional jealousy were pronounced for low-education individuals, but

much smaller for college-educated individuals. Therefore, the lack of sex differences in jealousy experience could have been influenced by the high education level of the sample. Additionally, it is possible, given a predominantly female population and sample for this study, that perceptions of relational characteristics and events were influenced by males' and females' differential perceptions of romantic/sexual alternatives (Lin & Rusbult, 1995).

Directions for Future Research

This study reconceptualized jealousy and relational turbulence within a triadic systems framework. The importance of triadic factors (i.e., friendship type and friendship history) demonstrated the utility of this approach. Future research should seek to investigate other relational phenomena within triadic contexts. In particular, the experiences of romantic partners concurrently involved in cross-sex friendships should be examined, along with the experiences of cross-sex friends of romantically attached individuals.

Future research should also expand designs to include longitudinal investigations of the effects of triadic relationships, as well as investigations of actual behaviors and outcomes of triadic relationship initiation. Furthermore, the effects of relational development should be investigated over time, rather than simply categorically. Methods for future analyses include retrospective accounts, journals, and interviews with individuals, romantic couples, and triads.

Additionally, while this study used hypothetical scenarios involving meeting a partner's friend as the sources of jealousy and relational turbulence, future investigations should examine other sources of jealousies about extradyadic phenomena within romantic relationships. In particular, interactional studies should be conducted to assess individuals' actual responses to a partner's friendship initiation. For example, individuals could watch their romantic partners interacting with a confederate posing as a new friend for the partner. Individuals would then

report their responses to the initiation of the relationship. This interactional method would allow for real-time observation of responses to unexpected relationship initiation, and would allow for great variety in manipulations, based on characteristics of the confederate such as sex, age, and attractiveness. This method would also be less prone to recall biases. Finally, given the general lack of curvilinear associations between intimacy and uncertainty and intimacy and interference, and in light of other mounting evidence (Knobloch et al., 2001; Theiss & Solomon, 2006a; Theiss & Solomon, 2008) the traditional curvilinear model of relational turbulence may need to be reconsidered.

Conclusion

This study extended the model of relational turbulence (Solomon & Knobloch, 2004) by investigating relational uncertainty, interference, and jealousy, and responses to jealousy within a triadic relational framework (White & Mullen, 1989). In particular, the study examined reactions to the existence or initiation of a romantic partner's outside friendship. This study was unique in differentiating between material and relational interference, as well as between partner and extradyadic interference. This distinction proved useful. Friendship type (cross-sex vs. same-sex) was also significant. Partners' cross-sex friendships were generally more distressing than were partners' same-sex friendships. Sex was not a major predictor of relational uncertainty, perceptions of interference, or jealousy, although females were generally more communicative about jealousy than were males. Although some curvilinear associations emerged between intimacy and turbulence, the general lack of curvilinear associations concur with a growing body of research that questions the curvilinear assumptions of relational turbulence theory. More research will be needed to determine the nature of the relationship between intimacy and turbulence.

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APPENDIX A:

REVISED COMPOSITE JEALOUSY SCALE

While imagining yourself in the scenario you just read, answer the following items using the scale below:

1 2 3 4 5 6
Strongly Agree Strongly Disagree

In the situation described above:

	SD					**SA**
1. I would worry about my partner being sexually unfaithful to me.	1	2	3	4	5	6
2. I would not feel sexually threatened by my partner's friend.	1	2	3	4	5	6
3. I would suspect there is something going on sexually between my partner and their friend.	1	2	3	4	5	6
4. I would imagine my partner engaging in sexual activity with their friend.	1	2	3	4	5	6
5. I would suspect sexual attraction between my partner and their friend.	1	2	3	4	5	6
6. I worry that my partner and their friend will keep secrets from me.	1	2	3	4	5	6
7. I would be afraid that my partner will turn to their friend instead of me to meet emotional needs.	1	2	3	4	5	6
8. I would be concerned that my partner will share things with their friend that they wouldn't share with me.	1	2	3	4	5	6
9. I would be concerned that my partner's friend would influence their decisions more than me.	1	2	3	4	5	6
10. I would be concerned about the friend's influence on my partner.	1	2	3	4	5	6
11. I would be concerned that my partner's friend would offer them social benefits I cannot give them.	1	2	3	4	5	6
12. I would worry that my partner's friend is more powerful than me.	1	2	3	4	5	6

13. I would be upset by the amount of time my partner spent with their friend	1	2	3	4	5	6
14. I would be bothered by the fact that my partner shared so many activities with their friend	1	2	3	4	5	6
15. I would feel upset about the importance my partner placed on their friendship	1	2	3	4	5	6

Subscale Key:
Sexual Jealousy: 11-15
Intimacy Jealousy: 6-8
Power Jealousy: 9-12
Friendship Jealousy: 13-15

APPENDIX B:

COMMUNICATIVE RESPONSES TO JEALOUSY (CRJ) SCALE

Still imagining yourself in the situation described above, answer the following questions:

1 2 3 4 5 6
Strongly Agree **Strongly Disagree**

In this situation described above, I would be likely to:

	SD					**SA**
1. appear sad and depressed	1	2	3	4	5	6
2. cry or sulk in front of my partner	1	2	3	4	5	6
3. ignore my partner	1	2	3	4	5	6
4. quarrel or argue with my partner	1	2	3	4	5	6
5. give my partner the "silent treatment"	1	2	3	4	5	6
6. display insecurity to my partner	1	2	3	4	5	6
7. make hurtful or abusive comments to my partner	1	2	3	4	5	6
8. explain my feelings to my partner	1	2	3	4	5	6
9. disclose my jealous feelings to my partner	1	2	3	4	5	6
10. stop calling or initiating communication with my partner	1	2	3	4	5	6
11. yell or curse at my partner	1	2	3	4	5	6
12. get quiet and don't say much	1	2	3	4	5	6
13. become silent	1	2	3	4	5	6
14. act like I don't care	1	2	3	4	5	6

1 2 3 4 5 6
Strongly Agree **Strongly Disagree**

In this situation described above, I would be likely to:

	SD					**SA**
15. vent my frustration with my partner	1	2	3	4	5	6
16. appear hurt in front of my partner	1	2	3	4	5	6
17. physically pull away from my partner	1	2	3	4	5	6
18. give my partner cold or dirty looks	1	2	3	4	5	6
19. decrease affection toward my partner	1	2	3	4	5	6
20. push, shove, or hit my partner	1	2	3	4	5	6
21. act rude toward my partner	1	2	3	4	5	6
22. deny feeling jealous	1	2	3	4	5	6
23. use physical force with my partner	1	2	3	4	5	6
24. wear displeasure on my face for my partner to see	1	2	3	4	5	6
25. threaten to harm my partner	1	2	3	4	5	6
26. confront my partner in an accusatory manner	1	2	3	4	5	6
27. become physically violent	1	2	3	4	5	6
28. pretend nothing is wrong	1	2	3	4	5	6
29. discuss bothersome issues with my partner	1	2	3	4	5	6
30. try to talk to my partner and reach an understanding	1	2	3	4	5	6

CRJ Subscale Key:
Negative Affect Expression: 1, 2, 6, 15, 16, 24
Integrative Communication: 8, 9, 29, 30
Distributive Communication: 4, 7, 11, 21, 26,
Avoidance/Denial: 10, 12, 13, 14, 22, 28
Active Distancing: 3, 5, 17, 18, 19
Violent Communication: 20, 23, 25, 27