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**INTEGRATING THE RELATIONAL TURBULENCE MODEL AND  
RELATIONAL COMMUNICATION TO EXPLAIN REACTIONS TO HURTFUL  
MESSAGES IN PERSONAL RELATIONSHIPS**

A Dissertation in

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by

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## ABSTRACT

The aim of this dissertation was to explain why people have varied reactions to relational events. I addressed this issue by integrating relational communication into the relational turbulence model and developing specific predictions about the associations among relational turbulence, dominance, disaffiliation, and reactions to hurtful events. Specifically, I hypothesized that relational turbulence would be positively associated with perceptions of dominance and disaffiliation in a hurtful interaction with a romantic partner (H1). I also predicted that perceptions of dominance and disaffiliation would result in more intense reactions to hurt, as indexed by intensity of hurt, negative emotions, and perceptions of intentionality (H2). In an effort to bring a dyadic approach to these predictions, I posited that the associations specified in H1 and H2 remain significant after controlling for the perpetrator's perceptions of the victim's reactions to hurt (H3).

I also considered the effects of relational turbulence on conversations that partners have about a past hurtful message. In a fourth hypothesis, I predicted that relational turbulence is positively associated with people's perceptions of dominance and disaffiliation in a conversation about a past hurtful event (H4). To the extent that partners are experiencing turbulence, they might have difficulty drawing similar relational inferences. Consequently, I also predicted that relational turbulence increases partner's discrepancies in perceptions of dominance and disaffiliation in a conversation about past hurtful events (H5). In turn, I hypothesized that discrepancies in partners' perceptions of dominance and disaffiliation decrease their mutual understanding and increase their perceptions of the difficulty of the conversation (H6). In other words, misaligned

relational inferences obstruct people's ability to achieve mutual understanding and increase feelings of difficulty during a conversation focused on resolving a past hurtful event

I conducted three studies to test my predictions. Although the findings for the associations among relational turbulence, dominance, and disaffiliation were inconsistent across the three studies, the results provided initial support for the integration of relational communication and the relational turbulence model. Results showed that relational turbulence positively influences perceptions of dominance, with regard to either a hurtful interaction or a conversation focused on resolving a past hurt. Furthermore, perceptions of dominance positively predicted perceptions of disaffiliation, which influenced people's reactions to hurt, as indexed by intensity of hurt, negative emotions, and perceived intentionality. Finally, results showed that discrepancies in perceptions of dominance and disaffiliation between partners negatively influenced their ability to achieve mutual understanding in a conversation about a past hurtful event. This dissertation provides a theoretical contribution to the relational turbulence model by integrating relational communication. Furthermore, it demonstrates the relational inferences that influence hurt, as well as illustrates how relational judgments influence people's ability to discuss a past hurtful event.

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## **Chapter 1**

### **Introduction**

The Scottish writer Thomas Carlyle aptly declared, “There are good and bad times, but our mood changes more often than our fortune.” Carlyle’s words are an appropriate description for many interpersonal relationships, especially pre-marital romantic associations. Partners in dating relationships face a variety of challenging situations, such as geographical separation or interference from people in their social network (e.g., Surra, 1987). Making matters more complicated, people’s responses to the same relationship events can vary. For example, dating partners’ annoyances with each other might be a source of conflict one day, but at other times, the same annoyance goes unnoticed (Roloff & Johnson, 2002). Similarly, people experience hurtful messages from a dating partner, but the impact of those messages can range from moderate to severe (e.g., Vangelisti, 2001). The variability in people’s responses to relational events raises important questions for interpersonal communication scholars. Why is communication sometimes meaningless and unremarkable, whereas other times a message is enough to elicit biased cognitions, strong emotions, and extreme communication?

The aim of this dissertation is to address this question. My goal is to understand why cognitive, emotional, and communicative reactions to messages vary within personal relationships. In answering this question, I propose that people’s reactions to relationship events vary because the relational implications of those messages vary. In other words, the impact of messages may be a function of the meaning that people derive from another person’s communication. For example, a simple misunderstanding may have severe relational implications if an individual infers that the misunderstanding reflects of a

greater relational problem. On the other hand, seemingly harsh and hurtful words may be deemed inconsequential if the relational inferences made for that exchange are framed in a positive light. Thus, relational inferences may have a strong effect on the reactions people have to relationship events.

Although a variety of communication events elicit diverse reactions, the focus of this dissertation is on experiences of hurtful messages. Hurt is a social emotion that is evoked when someone feels emotionally injured (Folkes, 1982) or personally rejected (Fitness, 2001). Furthermore, hurt can occur when another person devalues the relationship in some way (Leary, Springer, Negel, Ansell, & Evans, 1998) or violates an expectation in the relationship (Bachman & Guerrero, 2006). According to appraisal theorists, emotions occur when a person appraises that the environment is relevant to his or her goals (Lazarus, 1991). In relationships, people often have the goal to be valued by a partner (Leary et al., 1998) or to maintain a view of self as worthy of love (Feeney, 2005). Thus, a person may experience hurt when a partner's communication conveys a lack of regard (Leary et al., 1998).

Despite people's best efforts, careless words and hurtful messages occur often in relationships (e.g., Leary & Springer, 2001). Even seemingly innocent messages, if scrutinized, may result in hurt feelings (Leary et al., 1998). Furthermore, feeling hurt can have individual repercussions, such as lowered self-esteem, and it can also impact relational closeness and stability (Leary & Springer, 2001; Metts & Bowers, 1994; Mills, Nazar, & Farrell, 2002; Shaver, Schwartz, Kirson, & O'Connor, 1987). The action tendency associated with feeling hurt is relational distancing, such that people have a predisposition to withdraw from the source of hurt to protect themselves from further

harm (e.g., Vangelisti & Young, 2000). Thus, hurt feelings are emotions that can have a significant impact on people's lives.

The study of hurt is also important because it has implications for many different relationship types and contexts. For example, a disconfirming, hurtful message from a co-worker might change a person's comfort and productivity in the workplace. A parent's careless words could negatively affect a child's self-esteem and confidence. People suffering from a disease or illness might be targets for hurtful words from others. An already fragile relationship might end in a break-up due to an exchange of painful messages. Thus, research in this area may have practical and socially significant implications for the victims and perpetrators of hurt.

In addition to its social significance, the study of hurt presents an opportunity for theoretical development and contribution. Although some studies have explored hurt by applying appraisal theories of emotion (e.g., McLaren & Solomon, 2008) and expectancy violations theory (e.g., Bachman & Guerrero, 2006), these efforts are limited in that they explain hurt from an individual perspective, without much consideration for the dynamic interplay between relationship and individual characteristics. In this dissertation, I use the relational turbulence model (Solomon & Knobloch, 2001, 2004) as a theoretical framework that provides an explanation for reactivity to relational events. The constructs in the relational turbulence identify individual and relationship characteristics that may influence reactions to hurtful messages. In the next section, I discuss the relational turbulence model in more detail.

## The Relational Turbulence Model

The relational turbulence model proposes that as romantic partners increase their interdependence and intimacy, they experience periods of turmoil that are characterized by increased reactivity to relational events (Solomon & Knobloch, 2001, 2004). The theory nominates relational uncertainty and goal interference from a partner as the two parameters that contribute to reactivity in relationships. Relational uncertainty is an intrapersonal mechanism that refers to ambiguity or doubts about the relationship as a unit (Knobloch & Solomon, 1999, 2002a). Partner interference is an interpersonal mechanism that refers to the extent to which an individual's plans or behaviors are hindered by a partner's influence (e.g., Berscheid, 1983). In the next sections, I review the assumptions of the relational turbulence model, and I discuss possible ways to extend the theory.

### *Relational Uncertainty and Reactivity*

*Relational uncertainty* refers to the degree of confidence people have about their perceptions of involvement in the relationship (Knobloch & Solomon, 2002a; 2004). Relational uncertainty is a construct that emerges from three distinct sources of doubt: partner, self, and relationship uncertainty. (Berger & Bradac, 1982; Knobloch & Solomon, 1999; 2002a). *Partner uncertainty* refers to ambiguity surrounding the other person's involvement or commitment to the relationship (i.e., "I don't know if my partner wants to be with me"). The second distinct source of relational uncertainty is *self uncertainty*, which refers to doubts an individual has about his or her own involvement in a relationship (i.e., "Do I want to be in a relationship with this person?"). The level of doubt people have about their partner's involvement can lead them to question their own

involvement in the relationship (Knobloch & Solomon, 1999; Solomon & Knobloch, 2004). The final source, *relationship uncertainty*, refers to the degree of doubt that a person has about the relationship as a unit (i.e., “I’m not sure about the status of this relationship”). Empirical tests have shown that self and partner uncertainty contribute to relationship uncertainty, and the three combine to make an umbrella construct called relational uncertainty (Solomon & Knobloch, 2004). Relational uncertainty is deemed an *intrapersonal* issue because it involves a person’s own thoughts about the relationship.

Relational uncertainty is associated with polarized communication and more extreme emotions and cognitions. For example, empirical research has shown that relational uncertainty is positively associated with topic avoidance (Knobloch & Carpenter-Theune, 2004; Planalp, Rutherford, & Honeycutt, 1988) and indirect communication about irritations in a relationship (Theiss & Solomon, 2006a). Furthermore, relational uncertainty is associated with more destructive responses to surprising events (Knobloch, 2005). In terms of emotions, uncertain individuals report more negative emotions in general (Planalp & Honeycutt, 1985; Planalp et al., 1988), and more anger, fear, sadness, and jealousy, in particular (Knobloch, Miller, & Carpenter, 2007). Furthermore, individuals report increased levels of jealousy when they are in relationships characterized by uncertainty (Afifi & Reichert, 1996; Theiss & Solomon, 2006b). Cognitively, people with relational uncertainty have difficulty drawing relational inferences (Knobloch & Solomon, 2005), make more negative appraisals of potential irritations (Solomon & Knobloch, 2004), and have perceptions of greater network interference (Knobloch & Donovan-Kicken, 2006). This body of research illustrates how relational uncertainty affects communication, emotions, and cognitions.



### *Partner Interference and Reactivity*

The relational turbulence model includes a second mechanism that also drives reactivity: *interference from a partner*. This mechanism was derived from Berscheid's emotion-in-relationships model (ERM), which posits that people develop routinized sequences of action to perform their everyday activities (1983, 1991). These behavioral action sequences are habitual, and they are designed to run from beginning to end without interruption. When two individuals enter into a relationship, they begin to incorporate each other into their everyday activities and action sequences. With increasing influence over each other's activities also comes the potential for interruptions. Especially in developing relationships, people experience inevitable missteps and difficulties before achieving smooth and coordinated action sequences. When their plans are interrupted, there is a potential for either positive or negative emotions in response to the disruption. Berscheid (1983) termed the two types of interruption as *partner interference*, which occurs when one person hinders another's plans, and *partner facilitation*, which occurs when one person promotes the accomplishment of another's plan (Berscheid, 1983). The relational turbulence model extends Berscheid's thinking by positioning partner interference as an interpersonal parameter that contributes to emotional, communicative, and cognitive reactivity in romantic relationships (Solomon & Knobloch, 2004).

As the relational turbulence model proposes, partner interference has been associated with more extreme communication, emotions, and cognitions in empirical studies. In terms of communication, people experiencing partner interference use fewer dyadic pronouns (Knobloch & Solomon, 2003), suggesting that they feel less interdependence with their partner. Similar to relational uncertainty, partner interference

is positively related to reported levels of negative emotions experienced in the previous week (Knobloch et al., 2007a). In addition, partner interference is positively associated with negative appraisals of potential irritations (Solomon & Knobloch, 2004) and experienced irritations (Theiss & Solomon, 2006a), as well as perceptions of network interference (Knobloch & Donovan-Kicken, 2006). Taken as a set, extant research supports the assumption of the relational turbulence model that partner interference is one mechanism that leads to reactivity.

#### *Explicating Relational Turbulence*

At the heart of the relational turbulence model is the concept of turmoil or turbulence. When partner interference and uncertainty are high, the relational turbulence model predicts that individuals will experience turbulence, which is manifest through partners' extreme and polarized communication, emotions, and cognitions. Although turbulence is central to the theory, it has been defined in vague terms. Solomon and Knobloch (2004, pg. 796) stated that relational turbulence is the "variety of tumultuous experiences that occur within romantic relationships." Relational turbulence is further described as an inherent or natural period of turmoil that occurs as a relationship increases in intimacy (Solomon & Knobloch, 2004). In some cases, turbulence is presented as synonymous with reactivity; in other places, reactivity (defined as magnified reactions to relational events) is considered to be a "marker" or an outcome of turbulence (Solomon & Knobloch, 2004, pg. 799).

Originally, the relational turbulence model argued that the critical transition from casual to serious dating relationships was characterized by turbulence (Solomon & Knobloch, 2004). More recent research utilizing the theory highlights other times of

transition in relationships as turbulent, such as when one person in a couple is diagnosed with breast cancer or a couple experiences infertility (Solomon, Weber, & Steuber, in press). Transitions can be defined as moving from the known and familiar to the unknown and the novel, and they may spark changes in the definition of a relationship or alterations in patterns of behavior (Falicov, 1988; Rapaport, 1963). The relational turbulence model defines *transitions* as the “changes in circumstances that create the *potential* for relationships to change, rather than as the changes in relationships themselves” (Solomon et al., in press, pg. 4). In other words, not all times of transition are characterized by turmoil. Depending on how people adapt to changes in the relationship, they may or may not experience turbulence. More specifically, to the extent that partners are able to navigate changes with minimized disruption through partner interference and relational uncertainty, their experience of turmoil will be minimized.

Empirical research on relational turbulence as a construct itself is limited to two studies. Knobloch (2007a) measured turbulence through three different methods: a self-report measure of turbulence, observer ratings of relationship narrative instability, and relationship thinking. The three sources of relational uncertainty had divergent associations with turmoil, so the relationship among those variables is still unclear. Partner interference was positively associated with relational turbulence, narrative instability, and relationship thinking. Furthermore, interference partially mediated the convex relationship between intimacy and perceptions of turmoil. In a second study measuring turbulence, McLaren, Solomon, and Priem (2008) used a version of Knobloch’s (2007a) self-report scale. That study found that relational uncertainty, partner interference, and facilitation from a partner influenced people’s perceptions of turbulence

in their relationship. In turn, relational turbulence was positively associated with people's reactions to hypothetical scenarios describing hurtful messages from a romantic partner. Although there are only two studies to date that have measured perceptions of turmoil, results indicate that turbulence has meaningful associations with the other parameters in the relational turbulence model.

In the McLaren et al. study (2008), the relational turbulence model was applied to the context of hurtful communication. Results showed that relational turbulence was a relevant construct for predicting reactions to hurt, such that relational turbulence was positively associated with feelings of hurt, anger, sadness, and worthlessness in response to hypothetical scenarios. Furthermore, the authors found that relational turbulence was positively associated with cognitive responses, such as the perceived intentionality of the hurtful message and amount of relational uncertainty evoked by the episode. This study provides initial evidence that the relational turbulence model is an appropriate theoretical perspective for examining feelings of hurt.

In summary, the relational turbulence model posits that two factors are relevant for predicting experiences of turmoil in relationships: relational uncertainty and partner interference. Empirical research supports the notion that individuals who are uncertain and are experiencing interference from a partner react more extremely in terms of their cognitions, emotions, and communication. Furthermore, two studies have supported the construct of turbulence as the core mechanism driving reactivity, and one of these studies supports the use of the relational turbulence model for understanding hurt feelings.

### Thinking Relationally About Relational Turbulence

Thus far, I have described the overarching question of this dissertation, which is to understand why certain relational events have more of an impact than others. I nominated hurtful messages as an appropriate and socially important context for examining this question, and I positioned the relational turbulence model as a relevant theoretical perspective. I also proposed that people's reactions vary because the relational implications of messages vary. This dissertation, then, connects the relational turbulence model to the concept of relational inferences to explain why people's reactions to hurtful messages vary.

By my reasoning, people's relational judgments are influenced by individual and relationship characteristics, which together influence reactivity. At the individual level, people's uncertainty influences their ability to make relational judgments (Knobloch & Solomon, 2005). At the relational level, relationship characteristics, such as intimacy or relational quality, may influence people's tendencies to draw certain relational inferences. For example, in the context of hurt, relational quality acts as a buffer to the negative impact of hurtful messages (e.g., Vangelisti & Young, 2000), possibly because people in high quality relationships tend to make more positive attributions for their partner's negative behaviors.

At the dyadic level, people can come to understand the meaning of their partner's behaviors through communication. For example, when a partner commits a relational transgression, the victim might confront the perpetrator to understand why the transgression occurred (e.g., Roloff, Soule, & Carey, 2001). Extant literature indicates that when people are confronted about their transgression, they may respond in a number

of ways, such as offering accounts for their behaviors or apologizing (for a summary, see Metts, 1994). Sometimes, those accounts and reasons are enough to garner forgiveness from their partner; other times, partners disagree about why an event occurred or what it meant for the relationship (Metts, 1994). Thus, at level of the dyad, people's disagreement about the meaning of an interaction might contribute to their reactivity.

In summary, existing literature on the relational turbulence model and hurtful messages can be expanded by incorporating relational communication as a consequence of turbulence and a predictor of reactions to hurt. Furthermore, relational turbulence might help to explain the similarity or dissimilarity of people's relational judgments, which might provide further insight into patterns of reactivity. Thus, my aim in this dissertation is to extend the relational turbulence model by integrating a dyadic view of relational communication into the theory. I then test my thinking in three ways. In a first study, I position relational messages as the mechanism that links relational turbulence to reactivity. In a second study, I consider how relational turbulence and relational inferences predict judgments about hurtful events from both the victim and perpetrator's perspectives. Finally, a third study examines how relational turbulence influences relational inferences and characteristics of conversations about past hurtful events.

### Conclusion

In this chapter, I articulated the major aim of this dissertation, which is to examine factors that explain why people's reactions to relational events vary. I specified the context of the dissertation as hurtful communication, because people's reactions to hurtful messages can vary widely. I nominated the relational turbulence model as my theoretical perspective, because it offers an explanation for reactivity, based on a person's

level of relational uncertainty and the interference they experience from their partner. The relational turbulence model also positions perceptions of turbulence in a relationship as the central construct that connects relational uncertainty and partner interference to reactivity. I proposed that reactions to relationship events vary because relational turbulence influences the relational meanings that people derive from those events.

In Chapter 2, I review the literature on interdependence and uncertainty, which are two core constructs in the relational turbulence model; this discussion lays the foundation for integrating relational communication into the theoretical perspective. In Chapter 3, I review the literature on relational communication, and I advance the hypotheses for the dissertation. Chapters 4 through 6 present the methods and results for three studies that test my predictions. Finally, Chapter 7 discusses the studies' findings, as well as the implications of my findings and the limitations of this investigation.

## **Chapter 2**

### **Literature Review**

In the previous chapter, I reviewed the assumptions and empirical support for the relational turbulence model, and I identified the need to extend the theory by considering the relational messages exchanged between participants. In my effort to expand the relational turbulence model, I turn to the literature on relational uncertainty and interdependence, the two main constructs in the theory, and I consider how relational communication might be relevant to both. First, I review the literature on uncertainty, with a special focus on the research that has linked relational uncertainty and relational messages. Then, I review the literature related to interdependence processes, beginning with social exchange theories and ending with research related to cognitive interdependence, and I discuss how interdependence processes might be relevant to relational inferences.

#### **Explicating Uncertainty**

The concept of uncertainty has enjoyed a prominent place in interpersonal communication research in the last three decades, beginning with Berger and Calabrese's (1975) uncertainty reduction theory (URT). Uncertainty plays an important role in other theoretical perspectives, such as information attribution theory (Heider, 1958) and social comparison theory (Festinger, 1954); however, URT struck a special chord with interpersonal communication researchers and inspired many studies examining communication patterns in the initial stage of relationships (e.g., Berger & Gudykunst, 1991, Clatterbuck, 1979; Douglas, 1994; Sunnafrank, 1986).



URT focuses on how people's behavior is guided by uncertainty during initial interactions, when people know little about each other (Berger & Calabrese, 1975). When people first meet, their uncertainty is high, because they have little ability to predict or understand each other's behaviors (Berger, 1987; Berger & Calabrese, 1975). The feeling of uncertainty is assumed to be an uncomfortable state, because it hinders people's ability to interact smoothly (Berger & Bradac, 1982); consequently, people are motivated to reduce their uncertainty by seeking information (Berger & Gudykunst, 1991). Only if people resolve uncertainties about each other can their relationship progress and develop (Berger, 1987).

In addition to the empirical work that tested the assumptions of URT (e.g., Berger & Gudykunst, 1991, Clatterbuck, 1979; Douglas, 1994; Sunnafrank, 1986), researchers extended tests of uncertainty reduction beyond initial interactions (Berger, 1979, 1988; Berger & Bradac, 1982). For example, Turner (1990) examined communication in marital relationships surrounding events that increased uncertainty. Planalp and her colleagues (Planalp & Honeycutt, 1985; Planalp et al., 1988) documented the different types of uncertainty-increasing events in friendships and romantic relationships; in some cases, these events prompt individuals to end the relationship. Parks and Adelman (1983) observed that people talk to members of their romantic partner's social network to reduce uncertainty about their partner. These initial studies cemented the importance of examining uncertainty in both new and established relationships.

Despite the move from initial interactions to close relationships, the concept of uncertainty remained relatively the same. For example, uncertainty was construed generally as doubts about the self, the relationship, and especially the partner (Berger &

Bradac, 1982; Berger & Calabrese, 1975). Even when uncertainty was defined more narrowly, research typically focused on questions about a partner's personality or attitudes (e.g., Parks & Adelman, 1983), instead of considering issues that might be unique to close relationships. Knobloch and Solomon (2002a) questioned the potential differences in the experience of uncertainty in initial interactions as compared to close relationships, and they proposed a new conceptualization of uncertainty that customized the concept to the issues relevant to close relationships. Specifically, *relational uncertainty* was defined as the degree of certainty individuals have about the nature of involvement in a relationship (Knobloch & Solomon, 1999, 2002a).

As detailed in the previous chapter, relational uncertainty has three distinct sources: self uncertainty, partner uncertainty, and relationship uncertainty (Berger & Bradac, 1982; Knobloch & Solomon 1999, 2002a). Knobloch and Solomon (2002a) found that self uncertainty includes three levels of content: people's questions about their desire to be in the relationship, their evaluation of how valuable the relationship is, and their own goals for the relationship. Similar to self uncertainty, partner uncertainty also has three levels of content: questions about the partner's desire to be in the relationship, their partner's evaluation of the worth of the relationship, and the partner's goals for the development of the relationship (Knobloch & Solomon, 2002a). There are four levels of content in relationship uncertainty: questions people have about the mutuality of their feelings for each other, the definition of the relationship, the behavioral norms in the relationship, and the future of the relationship (Knobloch & Solomon, 2002a). These three sources of uncertainty often co-occur (Knobloch & Solomon, 1999; 2005);

however, they are empirically and conceptually distinct (see Knobloch, 2007b, for review).

Relational uncertainty has received considerable attention from communication researchers (e.g., Afifi & Reichert, 1996; Knobloch & Carpenter-Theune, 2004; Planalp & Honeycutt, 1985; Theiss & Solomon, 2006a). For example, people who are experiencing relational uncertainty report more jealousy than those who are more certain about a romantic association (Afifi & Reichert, 1996; Theiss & Solomon, 2006b). In addition, uncertain individuals report more negative feelings (Planalp & Honeycutt, 1985; Planalp et al., 1988), including more anger, sadness, fear and jealousy (Knobloch et al., 2007a). Relational uncertainty has also been linked to topic avoidance (Knobloch & Carpenter-Theune, 2004; Planalp et al., 1988). This body of work indicates that relational uncertainty has ramifications for a variety of relationship experiences.

People experiencing uncertainty may face particular challenges when it comes to producing messages in conversations (e.g., Knobloch, 2006; Knobloch & Carpenter-Theune, 2004). Berger (1997) discussed the challenges that message producers face, especially under circumstances of cognitive uncertainty. For people to achieve their goals and plans, message producers must anticipate how their interaction partner will interpret their communication. The message recipient may process and understand the communication in a myriad of different ways, making the task of the message producer difficult, and even more so if the message producer has uncertainty. In a similar way, Berger (1997) speculated that uncertainty may undermine a person's ability to process messages from a relational partner. Despite the importance of understanding how uncertainty affects both message production and processing, most research has focused

on the experience of message producers, and the association between uncertainty and message processing has largely been neglected (see Berger, 1997, for a review).

One study that examined the influence of uncertainty on message processing focused specifically on relational uncertainty and relational messages. In particular, Knobloch and Solomon (2005) argued that people experiencing relational uncertainty should have difficulty processing messages because they lack information about how to draw appropriate relational inferences. Specifically, they hypothesized that relational uncertainty influences judgments of relational messages and perceptions of the difficulty of an interaction. They observed 120 romantic partners' conversations and found support for their hypotheses. First, relational uncertainty corresponded with less extreme relational inferences. In other words, people experiencing uncertainty made judgments about the relationship that hovered around the mid-point of the scale, revealing the tentative nature of their inferences. Similarly, relational uncertainty was positively associated with perceptions of the difficulty of the interaction, which highlights how uncertainty complicates people's ability to relate to each other.

In another study, Knobloch, Miller, Bond, and Mannone (2007) examined the influence of relational uncertainty on message processing in marital relationships. Spouses engaged in two 10-minute conversations about a positive aspect of their marriage and a surprising event in their relationship. Results showed that relational uncertainty was negatively associated with perceptions of affiliation and positively associated with dominance in the conversations, but was not associated with the ratings of outside observers. Knobloch et al. concluded that relational uncertainty exacerbates spouses' reactions to conversations that seem normal to outside observers. The results of

the Knobloch and Solomon (2005) study and the Knobloch et al. study illustrate how relational uncertainty affects message processing.

This review of the research on uncertainty reveals that uncertainty is a relevant and significant experience in new relationships, as well as established ones. The conceptualization of uncertainty has evolved and become more refined as researchers have attended to the nuances, sources, and levels of uncertainty in close relationships. Relational uncertainty has grown out of a long history of research on uncertainty, and it is now featured as one of the two driving mechanisms in the relational turbulence model. One area that requires further development, however, is the effect of relational uncertainty on message processing.

#### Explicating Interdependence

The other parameter in the relational turbulence model is interference from a partner, which is a consequence of interdependence processes in relationships. Interdependence holds a prominent place in many theories, and has been the focus of numerous empirical investigations (e.g., Agnew, Van Lange, Rusbult, & Langston, 1998; Berscheid, 1983; Rusbult, 1983; Thibaut & Kelley, 1959). Interdependence can be broadly defined as the extent to which individuals exert mutual influence over each other. In its traditional form, interdependence has been conceptualized as a behavioral phenomenon; in other words, the focus is on how people's behavioral outcomes are affected by one another (e.g., Berscheid, 1983; Thibaut & Kelley, 1959). This approach is reflected in the relational turbulence model, which highlights how one partner's actions can interfere with the other's everyday goals and routines. More recent studies acknowledge that interdependence might occur at a higher level of abstraction, such as in

people's cognitions (e.g., Agnew et al., 1998). In this section, I review the relevant literature on behavioral and cognitive interdependence in an effort to trace the roots of the relational turbulence model. I also draw upon other related literatures to argue that the theory could benefit from a more expanded view of interdependence.

#### *Traditional Conceptions: Behavioral Interdependence*

Some of the earliest theoretical perspectives incorporating interdependence were social exchange theories. Roloff (1981) reviewed five different social exchange theories that focus on decision-making and exchange patterns in relationships. Homans' operant psychology approach, which is based on behavioral psychology, states that people repeat actions that are rewarded and do not repeat actions that are punished (Homans, 1958; 1961; 1974). Blau's economic approach expands upon Homans' theory by adding the possibility that certain behaviors can emerge in an interaction that cannot be explained by previously reinforced behaviors (Blau 1964; 1968). Thibaut and Kelley's theory of interdependence, which is based on drive reduction and gaming theories, focuses on the mutual influence of a dyad's behavior on their outcomes and perceptions of outcomes (Kelley, 1979; Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). Foa and Foa's resource theory seeks to link the cognitive structures that influence people's behavior with the effects of reinforcement (Foa, 1971; Foa & Foa, 1974). Finally, Walster, Berscheid, and Walster's (1973) equity theory assumes that people act in ways to maintain equity with a relational partner, where equity is defined as the perception that a person's ratio of costs and rewards is the same as the other person. All of these social exchange perspectives have similar assumptions, but Thibaut and Kelley's interdependence theory is especially relevant to a discussion of behavioral interdependence within ongoing relationships.

After discussing interdependence theory, I review the literature on two other behaviorally-focused interdependence theories: Rusbult's investment model and Bersheid's emotion-in-relationship model.

### *Thibaut and Kelley's Interdependence Theory*

Interdependence theory states that individuals evaluate the rewards and costs associated with a relationship to determine its worth (Thibaut & Kelley, 1959). Rewards can be defined as the elements of a relationship that bring benefit, pleasure, and satisfaction. Costs, on the other hand, are the negative elements of participating in the relationship, such as punishments, time invested, or forgoing other rewards in pursuit of the relationship (Blau, 1964). Another cost of being in a relationship is dependence, or relying on the relationship to satisfy needed outcomes. Thus, the overall worth of a relationship can be calculated by subtracting the relationship costs from the rewards. The impact of the experience of rewards relative to costs is shaped by two points of reference: the comparison level (CL) and the comparison level of alternatives (CL<sub>alt</sub>).

The comparison level can be defined as the expectations individuals have for what they will get out of the relationship. These expectations might be influenced by past relationship experiences, awareness of what other people get out of their relationships, or societal norms. When a relationship exceeds the CL, an individual is likely to evaluate the relationship positively (Thibaut & Kelley, 1959). The second standard of comparison is the comparison level of alternatives, which is an evaluation of a current relationship based on other relationship alternatives. As Roloff (1981, pg. 48) clarifies, the CL<sub>alt</sub> is "the lowest level of relational rewards a person is willing to accept given available rewards from alternative relationships or being alone." The theory integrates costs,

rewards, CL, and CLalt, to predict whether relationships are stable and satisfying. In particular, relationships are presumed to be satisfying to the degree that the outcome of the relationship exceeds the comparison level; relationships are presumed to be stable if the outcome exceeds the comparison level of alternatives.

Thibaut and Kelley drew from gaming principles to illustrate the interaction between individuals' rewards and costs based on certain outcomes. Because relational partners' outcomes depend on each other, they must work together to achieve desirable outcomes. A two-person game matrix is one way of looking at the payoffs and costs to each individual depending on different outcomes. Thibaut and Kelley (1978) and Kelley (1979) described three types of matrices that operate in social relationships. The first is a given matrix, which represents how the environment, internal factors such as skill or ability, and other external factors strongly control possible outcomes and behavioral choices. Although the given matrix is constraining, people can move beyond it by taking into consideration their outcomes, as well as their partner's outcomes; in so doing, they transform the matrix. The transformation matrix "represents a rule by which two people alter their conceptions of their alternative behaviors and the associated outcomes in an interaction" (Roloff, 1981, pg. 52). The final matrix is the dispositional matrix, which represents an individual's general approach or beliefs about how rewards should be exchanged. These three matrices provide a method of analyzing the ways in which people's outcomes depend on each other and can influence each other.

Based on these principles, a social exchange perspective has been used to examine many interpersonal processes, such as relationship development and conflict dynamics. Thibaut and Kelley's original work inspired other relationship development



theories, such as Altman and Taylor's (1973) social penetration theory and Levinger's incremental social exchange (Levinger & Snoek, 1972; Levinger, 1974). These perspectives suggest that relationships develop as partners exchange more resources and their behavioral outcomes become increasingly dependent on each other. The application of a social exchange perspective to conflict has emphasized that relational dynamics are related to power or conflict management. For example, Lawler and Bacharach (1987) used social exchange principles to define dependence power, which is the influence people have over others who rely on their relationship for unique rewards. Extant research has found that dependence power can exert a chilling effect within relationships, such that dependent persons do not voice concerns or irritations in the relationship to their partner (e.g., Cloven & Roloff, 1993; Samp & Solomon, 2001; Solomon, Knobloch, & Fitzpatrick, 2004). Thibaut and Kelley's interdependence theory provided the basis for many other lines of inquiry, including Rusbult's investment model.

#### *Rusbult's Investment Model*

The investment model (Rusbult, 1980, 1983; Rusbult, Drigotas, & Verette, 1994) grew out of interdependence theory constructs (Thibaut & Kelley, 1959) and focuses on explaining the process of becoming committed to and staying in relationships. The investment model follows from a social exchange perspective, in that it highlights people's desire to maintain relationships that provide them with maximal rewards and minimal costs (Rusbult & Buunk, 1993). Rusbult extends this thinking by asserting that people's dependence on the relationship determines the extent to which they will work to maintain the association. The investment model specifies that there are three factors that contribute to commitment to the relationship: satisfaction level, quality of alternatives,

and investment size (Rusbult, 1983). Drawing from interdependence theory, satisfaction level is defined as the extent to which people experience high rewards and low costs, and the degree to which this ratio exceeds their comparison level. Quality of alternatives refers to perceptions of other potential relational partners, and it is akin to the comparison level of alternatives. Investment size can be defined as the quantity of resources that are attached to a relationship and whose worth would decline in value or be lost if the relationship ended (Rusbult et al., 1994). People are dependent on the relationship to the extent that they have high satisfaction, low quality of alternatives, and a high investment in the relationship (Rusbult, 1983). The model posits that dependence is subjectively experienced as heightened commitment to the relationship.

Empirical work has supported the premise that people behave in pro-social ways to maintain relationships that they are committed to. This body of work indicates that people engage in positive behaviors when they are highly committed to a relationship (e.g., Wieselquist, Rusbult, Foster, & Agnew, 1999), and that decisions to remain in or leave a relationship are based on a person's level of commitment (Rusbult, 1980; 1983). In subsequent work, Rusbult and Martz (1995) examined decisions to stay or leave an abusive relationship and Duffy and Rusbult (1986) applied the investment model to study satisfaction and commitment in heterosexual and homosexual couples. The investment model has even been used to predict job satisfaction (Farrell & Rusbult, 1981) and brand commitment in consumers (Geyer, Dotson, & King, 1991).

Central to the theory is an assumption that people can respond to a partner's dissatisfying behaviors in ways that are destructive or constructive for the relationship. Rusbult and colleagues (i.e., Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991)

expanded on the types of responses individuals might have when confronted with dissatisfying relational circumstances. The two detrimental responses are exit and neglect: the exit response includes behaviors that are active in trying to terminate the relationship, and the neglect response includes passive behaviors that allow the relationship to fall apart. The two constructive responses are voice and loyalty: voice responses are active responses that aim to improve the relationship (i.e., talking about the problem), and loyalty responses are behaviors that show a person is optimistically waiting for the situation to improve. Voice and loyalty characterized as accommodation because they are positive and pro-relationship behaviors, despite also being effortful and costly to the individual.

Interdependent couples may find themselves in an accommodative dilemma, which is a situation where one partner enacts destructive behaviors (exit or neglect) and the other partner has to decide how to respond (Arriaga & Rusbult, 1998). Individuals are inclined to reciprocate with negative behaviors, leading the couple down a road of damaged functioning. The accommodative dilemma occurs when people must decide whether to overcome their natural desire to reciprocate destructive behaviors in favor of responding with accommodating behaviors of voice or loyalty (Arriaga & Rusbult, 1998). Because commitment promotes accommodation, it is the mechanism that links experiences of rewards and costs, alternatives, and investments to relationship maintenance behaviors.

In summary, Rusbult's investment model grew out of interdependence theory, highlighting the utility of an economic model for understanding relationship maintenance processes. Specifically, the investment model focuses on the satisfaction, quality of

alternatives, and investment size to explain people's dependence in relationships.

Furthermore, this line of research has specified how committed people might respond in constructive or destructive ways to a partner's dissatisfying behaviors.

#### *Berscheid's Emotions-In-Relationship Model*

Berscheid's (1983, 1991) emotions-in-relationship model (ERM), which is based on Mandler's theory of emotion (1975), positions interdependence as a significant factor in understanding emotions in close relationships. Berscheid asserted that people have cognitive plans that exist as organized action sequences, which often operate unconsciously to aid in the achievement of everyday goals. After performing a series of actions frequently, the actions become automatic and part of a unit of behavior. Based on Mandler's thinking (1975), Berscheid (1983, 1991) argued that interruptions to a person's everyday action sequences evoke emotions. When the sequence is interrupted or disrupted before completion, people experience arousal, which can evoke emotions. If a person experiences a disruption that interferes with a goal, negative emotions will result; if the interruption helps to facilitate the achievement of a goal, positive emotions are evoked.

Berscheid (1983, 1991) expanded upon Mandler's thinking by applying the theory of emotion to relationships, a context where people often experience emotions. She argued that when individuals develop a relationship with another person, they allow each other to influence their everyday actions, plans, and goals. The coordination of these action sequences is not always smooth, as partners inevitably make mistakes and missteps. Over time, however, partners learn how to successfully coordinate their plans, resulting in meshed patterns of behavior (Berscheid, 1983). When people reach this level

of coordination, they rely on the other person to achieve their everyday goals and plans. These points of connection are all potential opportunities for partners to either facilitate or interfere with each other's plans, resulting in a host of emotional responses, both positive and negative.

Extending this logic, emotional investment is defined as “the number and strength and diversity of the interchain event sequences and represents the potential degree of emotion the individual may experience within the relationship” (Berscheid, 1983, pg. 84). Close relationships are ones that have a high degree of emotional investment, with many causal links between their activities (e.g., Kelley et al., 1983). In the beginning of a relationship, people's action sequences are still independent and they do not have much influence over another person's outcomes. Close relationships can be differentiated because there are many inter-chain connections, demonstrating the level of interdependence and investment the people have in the relationship. People in established relationships might seem to experience very little emotion at times, which may lead some to question the closeness of the relationship. According to Berscheid's thinking, however, the closeness of the relationship is not defined by the emotions experienced, but by all the potential opportunities for positive and negative emotions to occur, which are represented by the number of connections between people's action sequences.

The emotions-in-relationship model represents another line of research that emphasizes the behavioral nature of interdependence. This can be seen in the operationalization of the model, the relational closeness inventory (RCI), which measures emotional investment in terms of the diversity, frequency, and strength of interaction (Berscheid, Snyder, & Amato, 1989). Specifically, the RCI contains items about the types

of activities the dyad does together (diversity), how often they spend time together (frequency), and the perceived degree of influence their partner has over the individual's plans and goals (strength). Thus, this measure and conceptualization of interdependence is one focused mainly on the behaviors of two individuals.

### *Beyond Behavior: Cognitive Interdependence*

Traditional conceptions of interdependence have focused on influence at the level of behaviors, as is evident in the review of Thibaut and Kelley's (1959) interdependence theory, Rusbult's (1989) investment model, and Berscheid's (1983, 1991) emotions-in-relationship investment model. In more recent years, scholars have recognized that people's interdependence might be evident in their thoughts and cognitions (i.e., Agnew et al., 1998; Aron, 1986). In this section, I discuss the self-expansion model (Aron & Aron, 1986) and the self in relationship model (Agnew et al., 1989) as examples of contemporary conceptions of interdependence that extend beyond behavior.

#### *The Self-Expansion Model*

The self-expansion model (Aron & Aron, 1986) purports that individuals have a desire to expand their own self-concept through merging with another person. The model has two components: the self-expansion motivation and inclusion-of-the-other-in-self. The self-expansion motivation states that people are motivated to get into relationships that allow them to expand their perceptions of their own resources, perspectives, and characteristics by including the other in the self (Aron, Aron, Tudor, & Nelson, 1991). Love is thought to be the motivating emotion that drives self-expansion (Aron & Aron, 1996). Empirical tests have examined the implications for the self-expansion motivation

in terms of falling in love (Aron, Dutton, Aron, & Iverson, 1989) and marital satisfaction (McKenna, 1989).

The second component of the self-expansion model is the concept of including the other in self (Aron & Aron, 1986). According to the theory, close relationships are characterized by a sense of interconnectedness or overlapping of oneself and another (Aron & Aron, 1986). The notion of overlapping selves has been present in other literatures (e.g., Greenwald & Pratkanis, 1984; Levinger & Snoek, 1972), but the self-expansion model moves this idea into the realm of close relationships. Because a person's self-concept is so closely merged with another person's, decisions or outcomes that positively affect one person are assumed to have similar implications for the other. For example, Aron et al. (1991) found that when participants were asked to allocate money between themselves and a close other, they distributed the money more equally than with a stranger or acquaintance. Conceptions of other in self have been measured through the inclusion-of-other-in-self scale, which is a single-item measure that uses diagrams of circles that overlap to varying degrees to represent various levels of self and other intergration (IOS; Aron, Aron, & Smollan, 1992).

The self-expansion model is a departure from the behavioral interdependence literature because it emphasizes the importance of cognitions for explaining the connection between two individuals. Aron et al. (1991) reasoned that people in close relationships might have a unique cognitive structure in that the self and other may occupy the same cognitive space or overlap in portions of a mental matrix. The self-expansion model is similar to the self in relationship model (Agnew et al., 1998), which is an outgrowth of research on the investment model.

*Self in Relationship Model*

Agnew et al. (1998) observed that increased commitment to a relationship is associated with accommodation behaviors and decreasing patterns of negative reciprocity in interactions (e.g., Gottman, 1979; Rusbult et al., 1991). Based on these changes in communication, Agnew et al. argued that people's mental representations are restructured as relationship commitment increases, such that people see themselves more as part of a collective unit than as an individual. These "collective mental representations of the self in relationship" are termed cognitive interdependence (Agnew et al., 1998, pg. 939). Cognitions about the relationship and the partner are more easily accessible when one is committed to the relationship. Thinking of oneself as part of a collective unit also prompts people to act in ways that promote the relationship, even in the face of great costs or significant effort (Agnew et al., 1998).

Empirically, strong commitment to a romantic relationship is associated with greater perceptions of unity between the self and partner, suggesting that cognitive interdependence develops along with the relationship (Agnew et al., 1998). Furthermore, committed individuals demonstrate their perceptions of self in relationship through more spontaneous use of plural pronouns and judgments that the relationship is central to who they are (Agnew et al., 1998). Although there is not much research to date on the self in relationship model, initial empirical work supports the notion that individuals who are committed to their relationship have thoughts that reflect their identity as a person in a relationship.

The self in relationship model and the self-expansion model provide two additional ways of conceptualizing interdependence. The degree of interdependence



between two people can be reflected in thoughts about themselves and their relationship. Furthermore, the merging of two people might provide them with unique resources, which is one possible motivating factor for getting into and staying in relationships (Aron & Aron, 1986; Aron & Aron, 1996).

### *Interdependence and Relational Inferences*

Although the behavioral and cognitive conceptualizations of interdependence are important, they are each limited. First, behavioral interdependence does not take into account the other ways in which people might experience connectedness, apart from actions. Cognitive interdependence takes into account the mental level of connection, but focuses mainly on the individual, without acknowledging the ways that people might need to coordinate their relationship conceptualizations. Bringing together the idea of coordinating behaviors and the concept of cognitive interdependence highlights two important and novel questions about interdependence. First, do people coordinate the meaning they derive from relational events? If so, are people subject to interference from partners in the meaning they create about their relationship and/or external events?

Although there have not been empirical studies focused explicitly on interdependence and relational judgments, one area of research that relates to the idea of coordinating relational inferences comes from the literature on attributional conflict. Orvis, Kelley, and Butler (1976) studied the explanations people give for certain behaviors or actions and the ways in which those attributions can differ between romantic partners. For example, although two people might agree that a particular behavior occurred (“I raised my voice at you”), those people might disagree about *why* that behavior occurred. The way in which individuals make sense of the world and the

explanations they offer for people's behavior are revealed in their attributions. Often times, at the heart of conflict are differences of attributions; in other words, people disagreeing about why things occurred.

The idea of attributional conflict illustrates the difficulty that might arise between people who have incompatible relational inferences. Although speculative, it seems that people not only need to coordinate their behaviors and cognitions, but they also need to align the relational meanings that they attach to shared experiences. More generally, this review of literature on social exchange highlights how expanding the conception of interdependence beyond a focus on behavior to considering relational messages is a fruitful direction.

#### Summary

In this chapter, I reviewed the two major components of the relational turbulence model: relational uncertainty and interference from a partner. I reviewed the literature on relational uncertainty and highlighted two studies that have examined the influence of relational uncertainty and relational message processing. Then, I reviewed the literature on interdependence and distinguished between traditional conceptions of behavioral interdependence and cognitive interdependence. Finally, I used the concept of attributional conflict to argue that interdependence processes, such as interference from a partner, also might influence relational judgments.

My review of the literature suggested that both relational uncertainty and interference from a partner, the two main constructs in the relational turbulence model, may have implications for relational inferences. By my reasoning, the relational turbulence model could be expanded by incorporating relational inferences as the

mechanism by which turbulence influences reactivity to relational events. Although there are many events in life that allow for misunderstanding or misaligned perceptions, the ones that seem the most threatening and important for people in close relationships are messages that have relational implications. Messages that carry with them relational meaning may influence people's perceptions of themselves, the relationship, and their partner. Because relational communication is an especially important area for people to coordinate their perceptions and inferences, the next chapter turns to this topic.

## **Chapter 3**

### **Relational Communication**

In the previous chapters, I discussed the relational turbulence model as a fitting theoretical perspective to explain why people's reactions to relationship events vary. I also reviewed the literature on interdependence and uncertainty and argued that the relational turbulence model could be extended with the addition of relational inferences as a core construct. Relational communication can be defined as the aspect of messages that define or redefine a relationship (Rogers & Farace, 1975) or the notion that messages with the same content dimension may carry with them vastly different relationship meanings (Bateson, 1935, 1958). Relational communication has been the focus of a vast amount of research and theorizing, and even has a place as one of the axioms of human communication presented in introductory interpersonal communication textbooks (e.g., Wood, 2007). In this chapter, I review the literature on relational communication and I advance hypotheses that link parameters of the relational turbulence model to relational communication.

#### **Perspectives on Relational Communication**

Over the years, there have been many perspectives on relational communication. In the beginning, researchers focused on defining relational communication. Then, scholarly attention turned to identifying the content of relational communication in terms of factors or components; different units of analysis and methodologies were proposed for how to study these factors. More contemporary work on relational communication seeks to explain the process by which people make relational judgments. In the following sections, I review the major programs of research in this area, including relational coding,

data reduction studies, relational topoi, relational schemas, relational models, and relational framing theory. The perspectives are arranged in loose chronological order, although some work developed at the same time.

*Bateson and the Palo Alto Group*

Many scholars studying relational communication trace their roots back to Gregory Bateson and his work in the 1930's (see Parks, 1977 for review). In Bateson's ethnographic research on the Iatmul tribe in New Guinea, he examined the interactions between the native people in an effort to understand their culture. Examining multiple people was a striking departure from past anthropological research, which mainly focused on the individual. Bateson observed that messages involved both a report and command aspect to them (1935, 1958). In other words, messages contained both a content level of meaning, but also included a dimension that implied the relationship between the two people. Bateson highlighted the control aspect of communication; in other words, people try to dominate each other through communication. Furthermore, he noticed patterns in interactions that were symmetrical or complementary (1935, 1958). If people matched each other's behavior or communication, their interaction could be classified as symmetrical. If people acted in opposition to one another, then their interaction was deemed to be complementary. For example, one person might attempt to exert influence over another person, who could respond by also being dominant (symmetrical) or by submitting to the bid for power (complementary).

The command and report dimensions of communication sparked a great deal of interest and new research ideas, especially among Bateson's colleagues. He and other scholars, referred to as the Palo Alto Group, began using this idea of relational

communication in their work as clinicians (i.e., Watzlawick, Beavin, & Jackson, 1967). In their seminal work, *Pragmatics of Human Communication*, Watzlawick et al.'s (1967) presented their ideas about content and relationship dimensions in a more detailed way, drawing upon their research on marriages and families. Their book contains a thorough analysis of the function of communication and offers several axioms of communication that are still part of the discipline today, such as the “impossibility of not communicating” and the content and relationship dimensions of communication (Watzlawick et al., 1967, pg. 48).

The Palo Alto group also expanded on ideas about the command aspect of communication, which encompasses the level of dominance in a message. As summarized by Parks (1977), Bateson's work focused on two different patterns in people's relationships: symmetry and complementarity. Complementary messages function to maximize power differences and promote inequality, whereas symmetrical messages are aimed at equality and minimizing the power differences. Over time, these patterns of symmetry between two people competing for dominance will continue to spiral and lead to stronger and stronger assertions of control. Patterns of complementarity were also thought to spiral, as one person continues to gain control and the other person becomes increasingly submissive. The foundational work on relational communication by members of the Palo Alto group sparked many other lines of inquiry, which illustrates how influential their thinking was to the study of human communication.

#### *Relational Coding Schemes*

Millar and Rogers (1976), who were influenced by the Palo Alto group's research, defined relational communication as the aspect of messages that defines or redefines

relationships. Relational communication, then, contains information about how people see themselves in relation to one another, especially in terms of power and control (Millar & Rogers, 1976; Rogers & Farace, 1975; Rogers-Millar & Millar, 1979). The major contribution of this line of thinking was the development of a coding scheme aimed at uncovering the relational aspect of messages (Millar & Rogers, 1976; Rogers & Farace, 1975; Rogers-Millar & Millar, 1979). The coding scheme involves three types of messages: one-up messages are attempts to gain power or influence (denoted by a upwards arrow), one-down messages give up control (denoted by a downward pointing arrow), and one-across messages are neutral in regard to control (denoted by a right pointing arrow). According to the coding scheme, grammar codes such as questions, talk-overs, support, and nonsupport statements can be coded in terms of control (Rogers-Millar & Millar, 1979). By classifying an entire interaction through a series of arrows, researchers could examine and quantify the patterns in the exchange.

Rogers-Millar and Millar (1979) use the relational coding scheme to identify and differentiate between domineeringness and dominance. Domineeringness is the ratio of one-up messages over the total number of messages an individual says in an interaction. Domineeringness refers to the attempts at gaining control within a larger interaction. Because not all dominance attempts are successful, it is necessary to examine pairs of messages. The number of the one-up messages that are followed by a submissive responses (one-down) is defined as dominance. By examining both dominance and domineeringness, researchers can also determine the amount of dominance in comparison to failed attempts at control (Courtright, Millar, & Rogers-Millar, 1979).

Empirical research has demonstrated the utility of the relational coding scheme. For example, Soldow and Thomas (1984) applied the relational coding scheme to marketing in an effort to encourage sales people to take the relational aspect of communication into consideration. Martin (1992) examined individual differences, such as cognitive complexity, to predict patterns of relational communication in marriages. Wigginton (1995) applied the relational coding scheme to physician-patient interactions and observed that patients are more satisfied when physicians used less one-up communication.

Although the relational coding scheme is a parsimonious way of examining patterns of relational communication, it has been criticized with regard to its empirical verification, its validity, and its exclusion of nonverbal communication (Folger & Poole, 1982). The coding schemes are based on theorizing and not based on data, which raises concerns about their utility; a shortcoming that Rogers and Millar (1982) acknowledged. In regard to validity, the coding scheme may be too rigid and may not derive the same relational meaning from messages as the participants themselves experience. For example, a question is always coded as a submissive speech act, despite contextual cues that might change the meaning of the question. The last criticism of the relational coding scheme involves its exclusion of nonverbal behavior, which again may provide important contextual information.

In summary, the relational coding scheme was the first attempt by researchers to operationalize the central concepts of relational communication. The methodology has been utilized in a range of contexts, such as physician-patient interactions (von Friederichs-Fitzwater, Callahan, Flynn, & Williams, 1991; Wigginton, 1995) and family



therapy sessions (Raymond, Friedlander, Heatherington, Ellis, & Sargent, 1993).

Although the coding scheme is not without criticism, it represents an important milestone in the literature on relational communication. A separate vein of relational communication research that emerged focused on determining the fundamental forms or components of human relationships and communication. These can be classified as the data reduction studies because they were all aimed at paring down the information about relationships and messages into succinct factors. Although there are many studies that could be included in this review, I highlight a few especially prominent ones.

#### *Relational Communication Data Reduction Studies*

The data reduction studies are all similar in that they aimed to reduce the components of human behavior and communication into their essential elements.

Bochner (1984) described two ways that data reduction studies contribute to the literature on relational communication: (a) they identify the content, scope, and boundaries of interpersonal behavior; and (b) they allow for comparison among patterns of behavior in ways that facilitate future research.

The primary method used in these studies was factor analysis; however, some researchers utilized qualitative measures and observational methods as well. Researchers used a variety of data to analyze, such as personality characteristics (White, 1980), division of labor conceptions (Kemper, 1973), and ratings from small group interactions (Borgatta, 1964). Wish, Deutsch, and Kaplan (1976) examined dimensions of interpersonal communication, which they later tested by asking participants to rate speech acts (Wish, D'Andrade, & Goodnow, 1980). In addition, Bochner (1984) and his colleagues (i.e., Bochner & Kaminski, 1974; Bochner, Kaminski, & Fitzpatrick, 1977)

performed a number of factor-analytic studies aimed at uncovering the dimensions of communication. Researchers generated different types of dimensions from formal-informal to love-hate, but there were some commonalities among them.

Two factors surfaced repeatedly in the data reduction studies, suggesting that there may be a few core dimensions underlying human interaction. For example, Kemper (1973; 1988) observed two fundamental dimensions of power and status, and classified many relationships as falling at points along those two dimensions (e.g., love relationships are high in power and status). Furthermore, White (1980) found that personality characteristics fell along two dimensions, which he termed solidarity/conflict and dominance/submission. Bochner and Kaminski (1974) and Kemper (1973) synthesized the data reduction studies and concluded that there was consistency and convergence about the existence of two fundamental dimensions of relationships. These two factors varied in terminology depending on the study, but they can generally be classified as affiliation (also solidarity, affinity, and sociability) and dominance (also power and control). There is little doubt about the empirical support for these two general dimensions (Bochner, 1984), but related literature aligns with these two factors as well. Baumeister and Leary (1995) argued that belongingness is a fundamental human need, lending further support to the validity of the affiliation dimension. Furthermore, Bateson's (1935) original theorizing about the control aspect of communication and the subsequent work on relational coding (e.g., Millar & Rogers, 1976) highlight people's need for control or power, further cementing the relevance of the dominance factor.

Although research usually revealed two dimensions to human relationships, in some cases a third dimension appeared. Bochner and Kaminski (1974) observed that the

third factor implied the rate of activity or level of involvement. Generally, involvement is defined as the enmeshment between speakers or level of engagement (Cappella, 1983; Cegala, Savage, Brunner, & Conrad, 1982). Involvement is usually represented through nonverbal cues, which might be expressed in a forward body lean, eye contact, and facial expressions (Mehrabian, 1976). The level of involvement gives insight into the relationship between the individuals interacting and can range from independent (uninvolved) to interdependent (highly involved). Thus, the concept of involvement or immediacy was sometimes recognized as a third factor to dimensions of relational communication (Osgood, Suci, & Tannenbaum, 1957).

There has been some debate about the meaning of these involvement cues. Burgoon and Hale (1984) included involvement as a substantive relational dimension, because they believed that involvement cues reveal unique information that is not present in the affiliation and dominance factors. Cappella (1983), on the other hand, argued that involvement has no substance or meaning in and of itself. Instead, it is a variable that connotes how extreme the interaction is between individuals. Having high involvement or immediacy does not inherently mean that an interaction is either hostile or friendly; instead, the level of involvement modifies judgments about the intensity of the substance of that conversation. More recent studies have confirmed that involvement does not contain any substantive information (e.g., Andersen & Andersen, 2005; Floyd & Erbert, 2003). Instead, the level of involvement serves to inform intensity judgments about the content of the interaction, and it can be considered a third, but non-substantive, dimension of relationships.

In summary, the data reduction studies provided a rich empirical base that cemented the importance of the two substantive dimensions of interpersonal relationships, affiliation and dominance. Although there has been debate about a possible third factor, most researchers now agree that involvement is a modifier or intensifier judgment.

### *Relational Topoi*

Burgoon and Hale's (1984) influential piece on the fundamental topoi of relationships is similar to the data reduction studies in that these scholars drew from many different scholarly traditions in an effort to discover the most fundamental patterns of behavior. They found support for the three dimensions of dominance, affiliation, and involvement, but they wanted to provide a more nuanced conception of the content of human communication. To that end, they offered twelve related but conceptually distinct relational dimensions: dominance-submission, intimacy, affection-hostility, intensity of involvement, inclusion-exclusion, trust, depth-superficiality, emotional arousal, composure, similarity, formality, and task-social orientation. Based on those dimensions, Burgoon and Hale (1987) created a self-report scale so other researchers could examine the twelve dimensions in different relational contexts.

To date, the relational messages scale has been utilized in a host of research studies. For example, Burgoon has utilized the relational messages scale in her work on expectancy violations theory (Kelley & Burgoon, 1991) and interpersonal deception theory (Burgoon & Buller, 1994). The relevance of relational topoi has also been applied to computer-mediated communication (Walther & Burgoon, 1992). Furthermore,

Comstock and Higgins (1997) examined buyers and seller preferences in task relationships using the relational messages scale.

Although the research on relational topoi is a type of data reduction study, its contribution was especially influential in interpersonal communication research and theory. Furthermore, the development of the relational messages scale allowed scholars to test a more nuanced view of relational communication in a variety of contexts.

### *Relational Schemas*

Another tradition in relational communication comes from a social cognition perspective and represents a push toward understanding the process of perceiving, interpreting, processing, and storing relational knowledge. Planalp (1985) criticized the relational coding line of research by because it assumes that all messages have the same impact and influence on relationships (e.g., Planalp & Hewes, 1982). In addition, Planalp (1985) critiqued the data reduction studies (which she refers to as relationship terms) because they do not offer an explanation of how relationship knowledge affects interactions. Based on her criticisms, Planalp proposed that researchers should study relational knowledge and interaction together to test their associations.

Planalp (1985) drew from the social cognition literature and proposed that people have cognitive representations of relational knowledge, which act as mental models and help to guide interactions (Baldwin, 1992; 1995; Planalp, 1985). Planalp called these mental models relational schemata, which she defined as “coherent frameworks of relational knowledge that are used to derive relational implications of messages and are modified in accord with ongoing experience with relationships” (Planalp, 1985, pg. 9). People’s interactions are influenced by past experiences with their relational partner and

prototypical experiences stored in memory. When individuals attempt to understand interactions, they rely on their pre-existing mental models or schemas to help make sense of information. Furthermore, schemas function to guide interaction and fill in missing information in an effort to make sense of social experiences. Because individuals are often faced with information-overload, schemas help people to notice relevant and important clues for understanding an interaction.

Research offers empirical support for the concept of relational schemas. Planalp (1985) found that relational knowledge, in the form of behavior-specific knowledge, guided memory of past conversations. Furthermore, Smith (1995) examined nonverbal relational messages and found that schemas operate when processing nonverbal messages as well. In a more recent line of research, Baldwin (1992, 1995) argued that people's relational knowledge (which he calls schemas) contain integrated information that guides interactions and also helps an individual maintain a consistent view of him or herself. This information is learned over time and so it varies from person to person, depending on their experiences (Baldwin, 1992, 1995; Planalp, 1985).

The relational schemas perspective is unique in that it highlights the processing of relational information, thereby connecting relationship information with interaction. It represents a departure from the relational coding approach and the focus on dimensions of relationships.

### *Relational Models*

The concept of relational models (Fiske, 1992) emerges from another line of research that emphasizes the importance of cognitions for understanding relational communication. Based on an ethnographic study of people in a West African Village,

Fiske (1992) observed that humans are fundamentally social creatures. Fiske argued that people organize their social world based on four basic categories of relationships, which allows them to discern the appropriate behavior for a particular relationship. These categories are not dimensions; instead they are separate, mutually exclusive models of relationship types. In other words, the relational models are fundamental schemas that guide people's interactions, allowing them to manage their relationships more smoothly. Fiske asserted that these four relational models are universal in that they can be found in all cultures.

The first type of relational model, communal sharing, and can be likened to a family relationship. When the communal sharing model is in operation, all people are considered equal, and they all share resources with each other freely. The second model is authority ranking, wherein people behave in line with their positions in a social hierarchy. An example of authority ranking is an organization, such as the military, in which each person has a position and everyone knows who has power. The third model is called equality matching, which is characterized by relationships where everyone keeps track of their contributions to the groups and attempts to keep a balanced distribution. An example of equality matching would be a babysitting co-op group. Finally, the market-pricing model represents the relationship between a buyer and a seller. Members must negotiate the cost and worth of goods and resources in order to exchange them.

Although a particular relationship can usually be characterized by one model (Haslam, 1995; Haslam & Fiske, 1998), in some circumstances people use separate models for different interactions with the same person. For example, two roommates might each pay the same amount of rent (equality matching), but they might also share

clothes and food freely without keeping track of contributions (communal sharing).

Subsequent research has shown support for the predictive power of relational models on everyday cognitions and social action (Haslam & Fiske, 1992). Haslam and Fiske argued that relational models are the exclusive way that people think about social relationships; they asserted that other models that present continuous dimensions are not valid (e.g., Haslam & Fiske, 1992).

This program of research represents a departure from the other relational communication research in that it focuses on cognitive categories. One benefit of the relational models is that they offer a parsimonious view of human interaction that is supposed to predict both cognitions and behaviors. In addition, relational models are thought to be more representative of the way humans think about relationships in comparison to dimensions (Haslam, 1994). Other recent research has provided empirical support for relational models (e.g., Koerner, 1999).

### *Relational Framing Theory*

Relational framing theory draws on the rich history of relational communication research, but takes it a step further by specifying the nature of relational judgments and relational message processing (Dillard, Solomon, & Samp, 1996). Consistent with previous research, Dillard et al. (1996; Dillard, Solomon, & Palmer, 1999) contended that the two fundamental dimensions of relational communication are dominance-submission and affiliation-disaffiliation. What is unique about relational framing theory is that those dimensions are thought to be functional frames for interaction that allow people to process social messages, resolve ambiguities, and draw relational inferences (Dillard &



Solomon, 2005). Once the frames are activated, they are thought to aid in the interpretation of relational messages.

*The nature of relational judgments.* Dillard et al. (1999) argued that relational frames evolved out of necessity; thus, they are hard-wired into our brains. To survive, people had to pay attention to cues that conveyed power and dominance, as well as the other person's attempt to foster an affiliative relationship with them. Both of these types of relationships were important for survival, and consequently, a tendency to monitor them became part of the traits that were passed on to future generations. Thus, Dillard et al. (1996) argued that the two fundamental dimensions of dominance-submission and affiliation-disaffiliation are the most parsimonious and valid constructs for understanding relational communication.

The two substantive dimensions refer to the judgments people make about the nature of the interpersonal association. The dominance-submission dimension refers to the degree of power, control, or status that one person has over another. The affiliation-disaffiliation dimension refers to the degree of liking, appreciation, or solidarity one person has for another. Dillard et al. (1999) found that the twelve dimensions from Burgoon and Hale's (1984) relational messages scale formed two second-order bi-polar factors of dominance-submission and affiliation-disaffiliation. Affiliation was a more nuanced construct and subsumed the factors of similarity, affect, receptivity, equality, composure, and formality. In addition to the two substantive dimensions, Dillard et al. (1999) found a third dimension, which they termed involvement.

Relational framing theory further specifies that people also make judgments about the intensity of the substantive relational dimensions. Involvement refers to the level of

enmeshment and immediacy present in the interaction (see also Andersen & Andersen, 2005; Cegala et al., 1982). Involvement is a unipolar construct, which can range from uninvolved to extremely engaged. According to the theory, involvement serves to modify the substantive judgments on the dominance-submissiveness and affiliation-disaffiliation frames (Dillard et al., 1996). More specifically, involvement cues inform the extremity of the relational judgment, as represented by the difference between liking and loving or between moderate distaste and outright hatred. Involvement cues are like a volume knob; they do not change the “music” that is playing, but they serve to intensify our experiences of that music.

*The process of relational judgments.* Although relational framing theory draws from many previous works on relational communication, it is unique in that it specifies the interface among cognitive structures, interaction cues, and relational judgments. The process of relational framing begins when one of the two cognitive frames, dominance-submission and affiliation-disaffiliation, is activated. Activation is influenced by a number of proximal and distal factors, which range from specific utterances in a message to cultural norms and practices (see Solomon, Dillard, & Anderson, 2002). For example, the content of utterances may be enough to evoke the affiliation-disaffiliation frame (“I’m so lucky to have you as my friend”) or the dominance-submission frame (“You better shape up or you’re off the team!”). At a higher level of abstraction, the function of the social episode may be a relevant cue alerting people to power issues (e.g., a job review) or social closeness (e.g., a date request). If two people have a history of interacting in a particular way, then relational characteristics may also be activation cues. Furthermore, people may have dispositional tendencies to see interactions in terms of affiliation-

disaffiliation or dominance-submission. At the most abstract level, cultural or social norms also can direct people's attention to the dominance-submissiveness or affiliation-disaffiliation features of an interaction.

The dominance-submission and affiliation-disaffiliation frames are thought to be in competition, so that only one can be activated at a time (Dillard et al., 1996). Dillard et al. (1999) argued that processing messages through both frames at the same time would be inefficient; dual-frame activation can occur, but it is more cognitively taxing than privileging one frame over the other. Although absolute displacement has not been observed in empirical studies (e.g., Tusing, 2000), research shows that either a dominance-submission frame or an affiliation-disaffiliation frame tends to be relevant to a message (e.g., Dillard et al., 1996).

The activated frame then directs a person's attention to features of the interaction so that appropriate relational inferences can be made. If the messages are relatively straightforward and consistent with the activated frame, then relational judgments should occur easily. If the interaction is more ambiguous, then the salient frame provides meaning for the polysemic messages. In addition, involvement cues serve to modify the extremity of the judgments about the relational frame.

*Empirical evidence for relational framing.* Relational framing theory has been evaluated in a number of contexts. In the original studies (e.g., Dillard et al., 1996), framing was examined in conjunction with the goal of an interaction episode. Participants were presented with requests from an imagined same-sex friend who was enacting a compliance-gaining goal or an affinity-seeking goal. Results showed that the dominance-affiliation frame was considered more relevant to the compliance-gaining request and the

affiliation-disaffiliation dimension was seen as more relevant to the affinity-seeking request. This pattern was replicated in a study that included both same-sex and cross-sex dyads (Solomon et al., 2002).

Two studies have focused on individual differences as a way of explaining frame activation (Solomon et al., 2002; Solomon & Knobloch, 2005). Solomon et al. examined attachment styles in relation to the salience of relational frames. They found that people who were anxious over relationships evaluated strategic messages from peers as relevant to both the affiliation-disaffiliation frame and the dominance-submissiveness frame. Solomon et al. reasoned that perhaps the lack of frame displacement made it even more difficult for anxious individuals to make sense of a partner's communication and, thus, served to exacerbate anxiety. On a related note, Knobloch and Solomon (2005) found that people who were high in relational uncertainty rated conversations with a relational partner as more difficult and made less definitive relational inferences. Those scholars proposed that uncertainty makes it difficult for individuals to determine which frame is salient and, consequently, people make more hesitant relational inferences.

Relational framing theory has also been applied in other contexts. For example, Henningsen, Henningsen, Cruz, and Morrill (2003) applied relational framing theory to group interactions and found evidence that the dominance-submission and affiliation-disaffiliation frames tended to displace each other. In addition, Lannutti and Monahan (2002) examined the effect of alcohol consumption on framing and found that mixed-messages about sex were seen as more dominant when individuals were under the influence of alcohol. Finally, Solomon (2006) examined people's perceptions of social-sexual communication in the workplace. She found that perceptions of dominance or

affiliation mediate the effect of situational, personal, and message features on evaluations of the interaction as sexually harassing. These applications of relational framing theory highlight its flexibility and utility for understanding a number of relational contexts and communication situations.

In conclusion, the concept of relational communication has a long and rich history. Bateson's original research spawned many ways of conceptualizing and researching relational communication: from relational codes to schemas to frames. Relational framing theory draws upon the history of relational communication, but focuses more specifically on the process by which individuals draw relational inferences. Because relational communication relates to the relational implications of messages, it is especially relevant to the expansion of the relational turbulence model offered in Chapter 2. More specifically, communication that carries relational implications is precisely the type of communication that individuals need to coordinate in order to resolve relational uncertainty and achieve interdependence. Furthermore, to the extent that relational inferences are misaligned, individuals will probably experience more relational uncertainty and partner interference and hence, more turbulence. In the next section, I elaborate on these ideas and state specific hypotheses based on my reasoning.

#### Linking the Relational Turbulence Model to Relational Communication

As discussed in Chapters 1 and 2, the relational turbulence model posits that interdependent partners experience periods of turmoil, which are characterized by interference from their partners and relational uncertainty, and result in more polarized and extreme reactions to relational events (Solomon & Knobloch, 2004). I argued for expanding the relational turbulence model to include relational judgments as an

explanation for why turbulence leads to reactivity. The following sections advance hypotheses linking the relational turbulence model to aspects of relational communication.

### *The Content of Relational Judgments*

Based on the research reviewed in this chapter, it is clear that the content of relational judgments varies. At the most broad level, messages are about affiliation-disaffiliation or dominance-submission; however, people also make more specific judgments about the meaning of communication. In the context of hurt, people come to conclusions about the motivation or reasons behind other people's hurtful words. For example, if the victim of hurt frames the message in an affiliative way (e.g., "She was just trying to help me"), then he or she may not feel as intensely hurt as if the message is viewed in a disaffiliative way (e.g., "She doesn't like me, so she wanted to make me feel bad."). Thus, the dimensions of relational communication can provide a parsimonious index of how people make sense of hurtful interactions.

Previous research has linked individual characteristics with relational judgments. As discussed in Chapter 2, Knobloch et al. (2007) found that relational uncertainty was negatively associated with perceptions of affiliation and involvement in a conversation with a spouse, and positively associated with perceptions of dominance. In other words, relational uncertainty influenced people's judgments of relational communication in negative ways. The Knobloch et al. study also showed that the ratings of independent judges for affiliation, involvement, and dominance were not associated with relational uncertainty, suggesting that spouses experiencing uncertainty may perceive messages in biased ways uniquely tied to their relationship characteristics. Although this study

focused exclusively on relational uncertainty, the logic of the relational turbulence model suggests that these effects stem from the relational turbulence that is associated with relational uncertainty.

In Chapter 2, I reasoned that people can develop interdependence at the level of coordinating relational meaning, in addition to the more traditional conceptions of behavioral and cognitive interdependence. Although there are no empirical studies that examine the associations among interdependence processes, such as interference from a partner, and relational judgments, it seems that people who are having difficulty coordinating their behavioral interdependence would also struggle to align their relational judgments.

Previous research has shown that relational uncertainty and interference from a partner are positively associated with turbulence (e.g., McLaren et al., 2008). Consequently, I expect that relational turbulence influences people's relational judgments about hurtful messages from their dating partner. In line with the negative consequences of relational uncertainty documented by Knobloch et al., I expect that turbulence is positively associated with judgments that a partner's behavior is dominating and judgments that a partner's behavior expresses disaffiliation. Thus, the first hypothesis is as follows:

H1: Relational turbulence is positively associated with perceptions of dominance and disaffiliation associated with hurtful messages.

If people perceive hurtful messages as high in dominance and disaffiliation, how does this influence other outcomes associated with hurt? I propose that perceptions of dominance and disaffiliation are positively associated with reactions to a hurtful message,

as indexed by intensity of hurt and negative emotions. Because romantic relationships are formed and maintained through responsive expressions of mutual affection (Reis & Shaver, 1988), communication that conveys dominance or disliking runs counter to relationship expectations (e.g., Feeney, 2005). By extension, I expect that hurtful messages that are perceived as high in dominance and disaffiliation lead to more intense feelings of hurt and other negative emotions than messages that are low in dominance and disaffiliation.

Perceptions of dominance and disaffiliation might also affect attributions of the intentionality of hurtful messages. Extant research shows that hurtful messages range in perceived intentionality, from not at all intentional to extremely intentional (Vangelisti & Young, 2000). Vangelisti and Young outlined eight types of unintentional attributions people make for hurtful messages: expressive (consequence of partner's emotional or physical state), strategic (tactic to achieve interpersonal goal), descriptive (accurate description or understandable response to situation), supportive (trying to help other or meet other's needs), accidental (unaware of emotional impact message would have), justified (response to something the other person said or did), self-centered (a means to fulfill partner's need or want), and trait-oriented (result of partner's enduring traits). At the same time, empirical evidence indicates that hurtful messages, especially those that are intensely hurtful, tend to be perceived as intentional acts (Vangelisti & Young; McLaren & Solomon, 2008). Although speculative, I anticipate that people who communicate hurtful messages with dominance and disaffiliation are seen as more intentional, as compared to people who deliver hurtful messages in ways that are low in dominance and disaffiliation.



Taken together, extant research suggests the following hypothesis:

H2: Dominance and disaffiliation are positively associated with the intensity of hurt, negative emotions, and intentionality associated with hurtful messages.

Most extant research has focused on the perception of hurtful events from one person's point of view without taking into account the perceptions of the other member of the dyad (but see Feeney & Hill, 2006). In an effort to adopt a more dyadic view of relational events, I think it is important to test the associations of H1 and H2 in an interdependent model. If the predictions of H1 and H2 are robust, they should be significant above and beyond the perceptions of the perpetrator of hurt. In other words, people experiencing relational turbulence should react more strongly to hurtful messages, even after controlling for the perpetrator's perception of the victim's reactions to hurt. Thus, I posit another hypothesis focused on testing the associations among relational turbulence, relational communication, and reactions to hurt in a dyadic manner:

H3: The associations specified H1 and H2 are significant after controlling for the perpetrator's perceptions of the victim's intensity of hurt and negative emotions and the perpetrator's self-reported perceptions of intentionality.

#### *Discrepancies in Relational Inferences*

The previous hypotheses have focused on perceptions of hurtful messages based on the individual. Although people come to conclusions about the meaning of a hurtful message in their own minds, it is also likely that people talk to or confront their partner about a hurtful encounter. How do people come to the conclusion that their partner is justified in saying hurtful things (e.g., "He was just having a bad day.") as opposed to unjustified due to their inability to control their emotions (e.g., "He is always taking

things out on me.”)? When partners talk about hurtful experiences in their relationship, they may offer different reasons for why things occur and come to a conclusion together about the meaning of an event.

What is the effect of relational turbulence on these conversations? Drawing on the reasoning for H1, which linked relational turbulence to perceptions of dominance and disaffiliation in a hurtful message, I propose that relational turbulence leads to more negative relational inferences in conversations about a past experience of hurt. In addition, people experiencing relational turbulence may have difficulty coordinating their relational inferences. One consequence is that romantic partners experiencing turbulence may have more discrepancy in their perceptions of dominance and disaffiliation. In turn, the discrepancy in people’s perceptions of dominance and disaffiliation should contribute to the perceived difficulty of the conversation and a perceived lack of understanding. Thus, I predict the final three hypotheses:

H4: Relational turbulence is positively associated with perceptions of dominance and disaffiliation in a conversation focused on resolving a past hurtful incident.

H5: Relational turbulence is positively associated with the magnitude of the discrepancy between romantic partners’ perceptions of dominance and disaffiliation.

H6: The magnitude of discrepancy between romantic partners’ perceptions of dominance and disaffiliation is negatively associated with perceived understanding and positively associated with the perceived difficulty of the conversation.

## Conclusion

In this chapter, I reviewed the broad and diverse history of relational communication research, including the literature on relational coding, the data reduction studies, relational topoi, relational schemas, relational models, and relational framing theory. This body of work has consistently pointed to the existence of two substantive dimensions of relational communication: dominance and affiliation. By integrating relational messages into the framework provided by the relational turbulence model, I offered hypothesis linking relational turbulence to perceptions of hurtful messages and the conversations people have about hurtful episodes. In Chapters 4 through 6, I report the results of three studies that test my predictions.

## **Chapter 4**

### **Study 1**

In the previous chapters, I articulated the goal of this dissertation, which is to explain why cognitive, emotional, and communicative reactions to social interactions within personal relationships vary. More specifically, I reviewed the relational turbulence model, which offers an explanation for why people's reactions to relational events vary, and highlighted an avenue for further developing the theory. I also reviewed the literature on relational communication in an effort to understand how people draw relational inferences from messages. At the end of Chapter 3, I advanced hypotheses about the associations among relational turbulence, relational judgments, and perceptions of hurtful episodes. In this chapter, I describe the first study aimed at testing a subset of these hypotheses: H1, which predicts that turbulence is positively associated with perceptions of dominance and disaffiliation in hurtful messages; and H2, which posits that dominance and disaffiliation are positively associated with people's reactions to hurtful messages, as indexed by intensity of hurt, negative emotions, and perceived intentionality.

This first study focuses on two main issues that arise from the review of the literature in the previous two chapters. One core question concerns the connection between relational turbulence and relational messages: do relational inferences vary as a function of turbulence? The second consideration addresses the ability of relational inferences to predict reactions to hurtful messages: are relational judgments linked to experiences of hurt, feelings of negative emotions, and perceiving hurtful messages as

intentional? Overall, then, Study 1 examines how relationship characteristics and relational judgments contribute to variations in people's reactivity to hurtful interactions.

Previous research on hurt and the relational turbulence model showed that relational turbulence predicts people's reactions to hypothetical scenarios that included hurtful messages (McLaren et al., 2008). The present study seeks to extend the McLaren et al. study by considering the role of people's perceptions of dominance and disaffiliation. The hypothesized model, which includes H1 and H2, can be found in Figure 4-1. Based on extant research, the model shows that self uncertainty and partner uncertainty are positively associated with relationship uncertainty. Furthermore, relationship uncertainty and interference from a partner are positively associated with turbulence. As predicted by H1, the model shows that turbulence is positively associated with perceptions of dominance and disaffiliation in a hurtful message from a partner. Per H2, the relational judgments that people make for their partner's behavior are positively associated with their reactions to a hurtful message, as index by intensity of hurt, negative emotions, and perceived intentionality.

### Method

To test the hypotheses, Study 1 focused on people's experiences of relational turbulence and their reactions to hurtful messages. Individuals rated their perceptions of hurt, negative emotions, and perceived intentionality after engaging in two five-minute conversations with their romantic partner about the participant's traits or values. To evoke hurt, one partner was recruited as a confederate and was coached to be unsupportive and hurtful in one conversation with the participant. The specific methods and measures are described in the sections that follow.

### *Participants*

Participants were recruited from introductory undergraduate communication classes and received course credit for their participation. Participants were screened to ensure they had a romantic partner who was able to attend a lab session on campus with them. A total of 183 dyads took part in the study, including 31 dyads that were part of a control group. Of the remaining 152 participants in the experimental condition, there were 71 males and 81 females, who ranged from 18 to 24 years in age ( $M = 20.11$ ,  $SD = 1.09$ ); most were sophomores ( $n = 52$ ) or juniors ( $n = 67$ ), with 7 freshmen and 26 seniors. There were 140 participants who identified as Caucasian (92.1%), 2 were African American (1.3%), 1 was Native American (0.7%), 2 were Asian (1.3%), 4 were Hispanic (2.6%), 1 reported 'other' (0.7%), and 2 did not respond to the question (1.3%). The length of the romantic relationships ranged from 1 month to 8 years in length ( $M = 1.75$  years,  $SD = 1.46$  years). The majority of participants ( $n = 141$ ) identified their romantic relationship as serious dating relationships (92.8%), with 3 in casual dating relationships ( $n = 2\%$ ), 4 engaged couples ( $n = 2.6\%$ ), 2 married couples ( $n = 1.3\%$ ), and 2 that did not report the specific type of romantic relationship. The married couples were excluded from further analyses because this study focused on pre-marital romantic relationships ( $n = 2$ ). The remaining sample size for the experimental condition was 150 participants.

### *Procedures*

Participants were asked to bring a romantic partner with them to the communication lab for a total of 60 minutes. During the lab procedures, participants and their partners completed questionnaires about their relationship in separate rooms (see

Appendix A). Next, the researcher reunited the couple to engage in two five-minute videotaped conversations. Finally, the participants were separated, and each completed a post-interaction questionnaire about the conversations (see Appendix B). In the following sections, I describe the procedures and the measures in more detail.

*Pre-interaction procedures.* When participants arrived at the lab with their partner, research assistants separated them into two different rooms. The participant and partner each received an informed consent form. After agreeing to participate, they completed an initial questionnaire, which included demographic items, measures of relational quality, relational uncertainty, partner interference, and perceptions of relational turbulence.

The participant, who was receiving course credit for completing the study, had additional pre-interaction procedures. Specifically, the participants were asked to write down three core traits or values that are central to who they are on the survey and then copy each one onto a separate note card. The directions for this question stated, “Many people have personal characteristics that are especially important to them. Although you probably have a lot of traits, beliefs, or attitudes that you could describe, we would like you to think about traits and values that you feel are central to who you are. These could be parts of your identity, personality traits, abilities, or values and beliefs.” These traits were then given to the partner and used as the topic of the conversation. Throughout the lab procedures, the participant provided three saliva samples and was hooked up to a heart-rate monitor during the procedures; these physiological data were part of another study.

After the participant wrote down his or her three traits or values on note cards, a research assistant took the note cards to the partner in the next room. The researcher then explained the interaction procedures to the partner. The researcher gave the partner the three note cards with the participant's core traits or values and explained that the couple was going to engage in two five-minute conversations, with each conversation focusing on one of the traits from the note cards. The partner was instructed to be as supportive as possible during the first conversation by agreeing with the participant about the trait, bringing up times when the participant demonstrated that trait/value, and by saying that it was a trait that the partner admired. The partner was allowed to choose one of the three traits to be supportive about for this first conversation.

The partner had to choose another trait/value to discuss for the second five-minute conversation, but he or she was instructed to try to be unsupportive or hurtful with regard to this trait. The researcher explained that the partner could be unsupportive by disagreeing that the participant had that trait or value, reminding the participant of times when he/she acted contrary to the trait, or trying to argue that it is not an important trait to have. The partner was allowed to choose a trait/value to discuss for the second conversation; the final trait/value that was not used in the study. The research coached and worked with the partner to make sure that the procedures were understood. The partner was also given a prompt card with reminders for the goals of the two conversations.

Early in the data collection process, a group of participants was randomly assigned to a control group ( $n = 31$ ). The control group went through the same procedures described above. They were allowed to choose two of the three of the participant's



traits/values to discuss. The control group differed in that the confederates were coached to be supportive in both of the 5-minute conversations. Thus, the control group dyads did not receive the experimental manipulation that involved coaching the partner to be hurtful.

*Interaction procedures.* When the participant completed the pre-interaction questionnaires, the couple was reunited in a room equipped with video and audio recording equipment. Participants were given a prompt card, asking them to describe what the trait or value means to them, how it affects their actions, and why it is important to them. The participants were not aware of their partner's role as a confederate. A five-minute timer was set as a cue for the couple to stop talking about the first trait after five minutes and start talking about the second trait. The researcher left the room for the two conversations and returned at the end of ten minutes.

*Post-interaction procedures.* After the conversations, the partner returned to a separate room to complete a post-interaction questionnaire regarding perceptions of the two conversations and the participant's feelings. The participant stayed seated for a ten-minute rest period and then completed a questionnaire about perceptions to the conversations. The rest period was necessary to monitor physiological recovery, which was part of another project.

After both the participant and partner completed the post-interaction questionnaire, the couple was reunited and debriefed by a researcher. The researcher revealed the confederate's role for the interaction and emphasized that the partner was coached to be unsupportive during the second conversation. The researcher continued

talking with the participant until they indicated he/she was no longer upset and gave the couple information about local counseling services before releasing them.

### *Measures*

All measures were evaluated for unidimensionality using confirmatory factor analyses (CFA; Hunter & Gerbing, 1982). I utilized the following criteria to determine goodness of fit:  $\chi^2/df$  less than 3.00, CFI greater than .90, and RMSEA less than .10 (Browne & Cudeck, 1993; Kline, 1998).

*Relational quality.* The procedures of this study required dating partners to report jointly to the communication lab, which likely resulted in a sample of more intimate dating partners, relative to previous research on the relational turbulence model that has surveyed individuals in dating relationships (e.g., McLaren et al., 2008). To evaluate relational quality for descriptive purposes, participants completed a modified version of the Huston, McHale, and Crouter's (1986) Marital Opinion Questionnaire (MOQ). The language on the items was altered to reflect romantic relationships in general, instead of marriages. Respondents rated their relationship on eight 7-point semantic differential scales (e.g., miserable-enjoyable, rewarding-disappointing), which were averaged to form a composite variable ( $\alpha = .92$ ,  $M = 6.17$ ,  $SD = 0.80$ ), and on one single-item global measure of relational satisfaction. The final score was the average of the composite variable and the response to the single item ( $r = .57$ ,  $M = 6.08$ ,  $SD = 0.83$ ). Higher scores reflect more intimate, close, and satisfying associations. Using an independent sample *t*-test, the sample from the present study reported significantly higher relational quality ( $M = 6.08$ ,  $SD = 0.83$ ) than the sample collected in previous research ( $M = 5.59$ ,  $SD = 1.29$ ) testing a similar model,  $t(519) = 4.18$ ,  $p < .00$  (McLaren et al., 2008).

*Relationship characteristics.* Knobloch and Solomon's (1999) measure of relational uncertainty was used to assess the participants' self, partner, and relationship uncertainty. Participants indicated their level of agreement with statements that followed the question, "How certain are you about...?" Responses were recorded on a 6-point Likert-type scale (1 = *completely or almost completely uncertain*, 6 = *almost or completely certain*). The items were recoded so that higher values reflected greater uncertainty. The scores for items within subscales were averaged to form measures of *self uncertainty* ( $M = 1.50$ ,  $SD = 0.67$ ,  $\alpha = .88$ ), *partner uncertainty* ( $M = 1.65$ ,  $SD = 0.77$ ,  $\alpha = .88$ ), and *relationship uncertainty* ( $M = 1.69$ ,  $SD = 0.62$ ,  $\alpha = .79$ ). The three measures of relational uncertainty were maintained as separate variables in the analyses based on the theoretical characterizations of self, partner, and relationship uncertainty as distinct constructs (Berger & Bradac, 1982; Knobloch, 2007).

When compared to a sample of individuals in romantic relationships collected in previous research (McLaren et al., 2008), the sample in the present study had significantly less uncertainty. Specifically, the present sample had significantly less self uncertainty ( $M = 1.50$ ,  $SD = 0.67$ ) than the sample in the previous study ( $M = 1.83$ ,  $SD = 0.96$ ),  $t(519) = 3.74$ ,  $p < .05$ , significantly less partner uncertainty ( $M = 1.65$ ,  $SD = 0.77$ ) than the previous sample ( $M = 2.20$ ,  $SD = 1.29$ ),  $t(519) = 4.74$ ,  $p < .001$ , and significantly less relationship uncertainty ( $M = 1.69$ ,  $SD = 0.62$ ) than the previous sample ( $M = 1.89$ ,  $SD = 0.97$ ),  $t(519) = 2.27$ ,  $p < .05$ . These differences suggest that people who report to a study location with a romantic partner are less uncertain about the relationship than people who respond as individuals to a survey about their romantic associations.

Experiences of goal interference were measured using scales employed in previous tests of the relational turbulence model (Knobloch & Solomon, 2004; Solomon & Knobloch, 2001). Respondents noted their level of agreement (1 = *strongly disagree*, 6 = *strongly agree*) with a series of statements that characterized the partner as disrupting a variety of everyday activities; higher scores reflected greater interference from a partner. The scale consisted of five items that were averaged to form a composite ( $M = 2.61$ ,  $SD = 1.16$ ,  $\alpha = .89$ ). The results of an independent sample  $t$ -test showed that the sample in the present study ( $M = 2.61$ ,  $SD = 1.16$ ) reported more partner interference than the sample collected in the McLaren et al. study ( $M = 2.24$ ,  $SD = 1.21$ ),  $t(519) = 3.12$ ,  $p < .05$ . This finding is consistent with evidence that interference from a partner is higher in intimate relationships, relative to less intimate associations (Solomon & Theiss, in press).

To measure *turbulence*, participants responded to several 7-point semantic differential scales that were based on the self-report items developed by Knobloch (2007a) and used in McLaren et al. (2008). Respondents were asked to indicate where their relationship fell along dimensions that reflected turmoil (e.g., chaotic - stable, tumultuous - running smoothly); items were recoded so that higher numbers reflected greater turbulence. Consistent with McLaren et al., four items were retained and averaged into a single scale ( $M = 2.56$ ,  $SD = 1.18$ ,  $\alpha = .91$ ). The present sample reported significantly less relational turbulence ( $M = 2.56$ ,  $SD = 1.18$ ) than the McLaren et al. sample ( $M = 2.95$ ,  $SD = 1.48$ ),  $t(519) = 2.81$ ,  $p < .05$ .

*Intensity of hurt.* Participants were asked to identify which of the two conversations was more negative or dissatisfying and then answer a number of questions about that conversation. To measure the *intensity of hurt* they experienced, participants

reported how hurtful the interaction was (1 = *not at all hurtful*, 7 = *extremely hurtful*), how much emotional pain it caused (1 = *no emotional pain*, 7 = *intense emotional pain*), and how hurt they felt overall (1 = *not at all hurt*, 7 = *extremely hurt*). Participants also rated the extent to which they agreed with the 5-point Likert-type item, “During this conversation, my partner made me feel hurt” (1 = *strongly disagree*, 5 = *strongly agree*). I converted the 7-point items into the corresponding number on a 5-point scale before averaging together the four items together ( $M = 2.41$ ,  $SD = 1.13$ ,  $\alpha = .94$ ).

*Negative emotions.* To examine other emotional responses to the negative conversation, participants rated their agreement (1 = *strongly disagree*, 5 = *strongly agree*) with the following prompt “During this conversation, my partner made me feel...” The prompt was followed with emotion words. Three items (worthless, sad, and hopeless) were retained and averaged together to form a composite scale for *negative emotions* ( $M = 2.04$ ,  $SD = 1.03$ ,  $\alpha = .79$ ).

*Intentionality.* Participants also indicated their level of agreement (1 = *strongly disagree*, 5 = *strongly agree*) with three statements about the *intentionality* of their partner’s hurtful messages (e.g., “My partner was trying to hurt me”). An additional item asked people to rate the situation on a 7-point scale indexing perceived intentionality (1 = *not intentional*, 7 = *extremely intentional*). This item was converted to the corresponding number on a five-point scale and then the four items were averaged together to form a composite ( $M = 2.16$ ,  $SD = 1.11$ ,  $\alpha = .84$ ).

*Relational judgments.* To assess perceptions of *dominance* during the conversation, participants were asked to rate the extent to which each term was characteristic of their conversation (e.g., 1 = *no dominance*, 7 = *extreme dominance*). The

three items were averaged and formed a reliable measure ( $M = 3.28$ ,  $SD = 1.41$ ,  $\alpha = .82$ ). Similarly, participants rated their perceptions of *disaffiliation* in the conversation by responding to four terms (e.g., 1 = *no disaffection*, 7 = *extreme disaffection*). Higher values represented more disaffiliation. The four items were averaged together to form a scale ( $M = 3.20$ ,  $SD = 1.38$ ,  $\alpha = .87$ ).

*Typicality and realism.* Finally, participants indicated how typical the conversation was as compared to other conversations they have had with the same person (e.g., “This conversation was similar to others I’ve had with this person”). Participants rated their level of agreement with the four items (1 = *strongly disagree*, 7 = *strongly agree*), which were averaged to form a measure of *typicality* ( $M = 4.06$ ,  $SD = 1.48$ ,  $\alpha = .80$ ). In addition, participants responded to a final item rating the extent to which they believed their conversation was *realistic* ( $M = 4.35$ ,  $SD = 1.95$ ).

## Results

### *Preliminary Analyses*

First, I conducted a power analysis using G-power (3.0). Results showed that with a sample of 150 participants, there was 23% power to detect small effects ( $r = .10$ ), 97% power to detect medium effects ( $r = .30$ ), and 100% power to detect large effects ( $r = .50$ ). The power of each specific statistical test varies, but the results for detecting bivariate correlations provide a general sense of observed power.

As mentioned previously, thirty-one dyads were in a control condition in which their partner was asked to be supportive in both conversations. An independent sample *t*-test revealed that those in the experimental condition reported feeling significantly more hurt ( $M = 2.41$ ,  $SD = 1.12$ ) than those in the control condition ( $M = 1.16$ ,  $SD = 0.51$ ),

$t(178) = -5.69, p < .001$ . I also examined which conversation was selected as most hurtful. Five participants chose the first conversation as the most negative instead of the second conversation, and 5 did not indicate which conversation they thought was more hurtful. I excluded these participants from further analyses, leaving 140 participants.

Second, I performed one-sample  $t$ -tests to determine if participants considered the conversation to be realistic, but not ordinary. A single-item measure (“This conversation seemed unrealistic,” 1 = *strongly disagree*, 7 = *strongly agree*) was reverse-coded, so that higher scores reflected greater perceptions of realism. The mean ( $M = 4.35, SD = 1.95$ ) was significantly above the mid-point of the item (= 4),  $t(139) = 2.04, p < .05$ . The typicality of the conversation ( $M = 4.06, SD = 1.48$ ) was not significantly above the mid-point for the scale (= 4),  $t(139) = .46, p = ns$ . These results suggest that the conversations in the lab departed from day-to-day experiences, but were still realistic.

Third, I checked whether or not the conversations evoked feelings of hurt. The results of a one-sample  $t$ -test revealed that the levels of hurt reported by participants in the experimental condition ( $M = 2.41, SD = 1.12$ ) were significantly below the midpoint of scale (= 3),  $t(137) = -6.12, p < .001$ . Coupled with the comparison to the control group reported previously, these results indicate that the conversations produced by the procedures were more hurtful than the control interactions, but they were not themselves highly hurtful. Because ethical constraints limit the amount of hurt that can be produced by experimental procedures, I deemed that the manipulation of hurtful communication was sufficient for the purposes of this study.

Fourth, I inspected the correlations among the independent variables (Table 4-1). As expected, self, partner, and relationship uncertainty were all positively correlated.

Interference from a partner had a significant positive association with relationship uncertainty. Furthermore, relational turbulence was positively correlated with self uncertainty, relationship uncertainty, and interference from a partner.

The correlations among the dependent variables are in Table 4-2. Dominance and disaffiliation were positively correlated with each other, as well as with hurt, negative emotions, and intentionality. Not surprisingly, hurt, negative emotions, and intentionality were all positively correlated. Finally, to determine if sex differences were present in the data, I performed an independent sample *t*-test for males and females on all of the independent and dependent variables. Results showed one significant difference, such that females reported higher levels of hurt ( $M = 2.66, SD = 1.12$ ) than males ( $M = 2.13, SD = 1.06$ ),  $t(139) = -2.89, p < .05$ . No other sex differences were apparent in the data.

#### *Substantive Analyses*

To test the predicted model, I used structural equation modeling (AMOS 7.0), with the following goodness of fit criteria:  $\chi^2/df$  less than 3.00, CFI greater than .90, and RMSEA less than .10 (Browne & Cudeck, 1993; Kline, 1998). I used parcels as single-item indicators of the latent variable and set the error variances of the parcels to  $(1 - \alpha)(\sigma^2)$  to account for the measurement error of the scales (Bollen, 1989). Because of the sex difference in intensity of hurt revealed in the preliminary analyses (see also McLaren & Solomon, 2008), I utilized multi-group structural equation modeling analysis with participant's sex as the grouping variable. The exogenous variables were self and partner uncertainty, as well as interference from a partner. The mediator variables were relationship uncertainty, turbulence, dominance, and disaffiliation. The dependent variables were hurt, negative emotions, and intentionality. Because of the significant



correlations among the dependent variables and our relatively small sample size, I tested a separate model for each dependent variable.

First, I attempted to fit the unconstrained model for hurt, which allows the structural weight paths, covariance paths, and residual weights (i.e., disturbance terms) to vary between groups of males and females. The unconstrained predicted model did not adequately fit the data (see Table 4-3),  $\chi^2 = 103.48$ ,  $df = 34$ ,  $\chi^2/df = 3.04$ , CFI = .82, RMSEA = .12. I consulted the modification indices and added a path from dominance to disaffiliation. When that path was added, I removed the nonsignificant path from dominance to hurt. The fit for the resulting model was acceptable (see Table 4-3) and met my criteria for goodness of fit,  $\chi^2 = 49.69$ ,  $df = 34$ ,  $\chi^2/df = 1.46$ , CFI = .96, RMSEA = .06.

After achieving a satisfactory fit for the unconstrained model, I compared this model fit to the structural weights model, in which all the path coefficients for males and females were forced to be equal. The  $\chi^2$  test revealed that the unconstrained model resulted in a better fit than the constrained model,  $\Delta\chi^2 = 18.03$ ,  $\Delta df = 8$ ,  $p < .02$ , suggesting the presence of sex differences in the path coefficients. After examining the differences between the path coefficients in the unconstrained models, I decided to unconstrain the path between turbulence and dominance, because of the large differences in the path coefficients between males and females. After allowing that path to vary between males and females, the  $\chi^2$  test revealed that there were no longer significant differences between the unconstrained model and the structural weights model,  $\Delta\chi^2 = 13.12$ ,  $\Delta df = 7$ ,  $p < .07$ .

The fit for the structural weights model met my criteria for goodness of fit (see Table 4-3); therefore, I compared the structural weights model to the structural covariance model, which also restricts the covariance among the exogenous variables to be equal between groups. I found that the structural weights and the structural covariance models did not differ significantly,  $\Delta\chi^2 = 11.34$ ,  $\Delta df = 6$ ,  $p < .08$ . Furthermore, the structural covariance model fit adequately for all the goodness of fit indices (see Table 4-3). As a final step, I eliminated the path from turbulence to disaffiliation, because it was not significant for either males or females. The final model, then, was the structural covariance model that included an unconstrained path from turbulence to dominance,  $\chi^2 = 77.00$ ,  $df = 48$ ,  $\chi^2/df = 1.60$ , CFI = .93, RMSEA = .07.

I replicated the above steps for the models with the dependent variables of negative feelings and intentionality. I followed the exact same steps as the model for hurt and ended up with the same model. The unconstrained predicted models for negative emotions and intentionality did not have a good fit for the data. After the addition of the path from dominance to disaffiliation and the removal of the path from dominance to the outcome, the fit indices for the unconstrained modified model were within my criteria. Then, I found that the structural weights and structural covariance models also had sufficient fit. For the final model, I removed the nonsignificant path from turbulence to disaffiliation. In summary, the fit statistics for the final models for hurt, negative emotions, and intentionality were all within my criteria for goodness of fit. The fit statistics for the models are in Table 4-3 and the resulting final model is in Figure 4-2.

The path coefficients for the final models for intensity of hurt, negative emotions, and intentionality (see Table 4-4) showed partial support for H1 and H2. Relationship

uncertainty and partner interference were positively associated with turbulence, which was consistent with my hypothesized model. The paths from turbulence to dominance and turbulence to disaffiliation were not entirely consistent with H1. Instead, the modification indices indicated the need for a path from dominance to disaffiliation (path *f*) and showed that the path from turbulence to disaffiliation was nonsignificant. In addition, I observed a sex difference in the path from turbulence to dominance (path *e*), such that this path was significant only for males and not females. In summary, the predicted association between turbulence and dominance was supported only among males, and the effect of turbulence on disaffiliation was conveyed only indirectly via this association. Among females, dominance was positively associated with disaffiliation, but turbulence was significantly associated with neither dominance nor disaffiliation.

### Discussion

I began this chapter with the goal of extending the relational turbulence model by including relational judgments as an explanation for people's reactivity to hurtful messages. I posited two hypotheses that were subsumed within the model depicted in Figure 4-1. Specifically, H1 stated that turbulence is positively associated with dominance and disaffiliation; H2 predicted that dominance and disaffiliation are positively associated with reactions to hurt, as indexed by intensity of hurt, negative emotions, and perceived intentionality. To test my hypotheses, participants brought their dating partners with them to the lab to engage in conversations about the participants' core traits or values. Researchers trained the participant's partner to be disconfirming in one conversation, with the intention of evoking hurt feelings in the participant. Through self-report measures, I assessed the variables required to test the model.

To achieve a satisfactory fit to the data, I made three modifications to the hypothesized model: I added a path from dominance to disaffiliation, removed the path from dominance to the outcome, and removed the path from turbulence to disaffiliation. The resulting model provided a good fit for all three dependent variables: intensity of hurt, negative emotions, and intentionality. Moreover, the model fit for both males and females, once the path between turbulence and dominance was allowed to differ between those groups.

The path coefficients for the final model showed that the effects of turbulence operated through relational judgments for males, which is consistent with the reasoning underlying my hypotheses. Specifically, relational turbulence increased perceptions of dominance for males. For both males and females, perceptions of dominance were positively associated with perceptions of disaffiliation, and disaffiliation was positively associated with the dependent variables. Thus, perceptions of relational judgments were significant predictors of people's reactions to hurtful interactions.

### *Implications*

The main contribution of this study was the addition of relational judgments to the relational turbulence model parameters. Based on extant research, I anticipated that relational turbulence would lead to more perceptions of more dominance and disaffiliation in a romantic partner's hurtful message. Results supported this reasoning for males, but not for females. Although my reasoning was only supported for males, this study illustrates the importance of considering how relational characteristics, such as turbulence, influence judgments of dominance and disaffiliation. Furthermore, this study

implies that research on hurtful messages could benefit from the addition of relational characteristics and relational judgments.

Another contribution of this study was in clarifying how dominance and disaffiliation might be related to one another in the context of a hurtful interaction. The results of the structural equation model showed that perceptions of dominance influenced perceptions of disaffiliation. According to the relational framing theory, people first make inferences based on the dimension they see as most relevant, either dominance-submissiveness or affiliation-disaffiliation. Although I did not measure the order in which people made relational judgments, results suggest that people process hurtful messages through a dominance-submissiveness frame first, and then they make inferences about affiliation and disaffiliation. Specifically, judgments of dominance were positively associated with disaffiliation, such that the more a person felt dominated, the more they felt disliked by their romantic partner. In turn, disaffiliation increased the intensity of hurt, negative emotions, and perceived intentionality associated with a hurtful message.

Another contribution of Study 1 was the assessment of people's contemporaneous responses to hurtful messages from their dating partner. The hurtful episodes were contrived by coaching confederates to be hurtful; nonetheless, the methodology allowed me to assess people's immediate responses to a hurtful conversation, as opposed to people's retrospective accounts of hurt. Past research, in contrast, has mainly focused on individual's retrospective reports of hurt feelings (e.g., McLaren & Solomon, 2008), presumably because of the difficulty of capturing naturally occurring hurtful messages. The present study represents a unique methodology that allowed me to assess people's reactions hurtful interactions in real time.

*Limitations*

There are two limitations of this study that deserve mention. First, the sample poses a possible limitation because of the limited variance in the relational turbulence measures and the high level of relational quality relative to other tests of the relational turbulence model. A major difference in the present study and the McLaren et al. (2008) study, which tested similar hypotheses, was the requirements for people to participate. In the McLaren et al. study, individuals responded to an online questionnaire about a romantic partner or romantic interest. In the present study, participants were required to bring a dating partner with them to the communication lab. Couples who were required to come to the lab together had significantly higher quality relationships, reported less uncertainty, more interference, and less relational turbulence than the participants who completed an online questionnaire about their romantic partner. Thus, the sample in the present study showed restricted variance in the relational turbulence model measures. In addition, the relationship characteristics reported by participants in this sample complicate comparisons with other studies of the relational turbulence model.

The second limitation in Study 1 was the relatively low ratings of intensity of hurt reported by participants. The goal of the study was to evoke feelings of hurt in participants by coaching their dating partner to be disconfirming in a conversation about the participant's traits or values. As might be expected, the confederates ranged in their ability to communicate in disconfirming ways with their dating partner. In fact, five participants rated the "supportive" conversation as more hurtful than the disconfirming conversation. Preliminary analyses suggested that the manipulated conversations were realistic, atypical, and more hurtful than in the control interactions, but the low to

moderate amounts of hurt evoked by these interactions may have tempered some of the findings.

In summary, results for Study 1 showed partial support for H1 and H2. People's perceptions of dominance and disaffiliation in a conversation with a romantic partner were relevant for predicting people's reactions to hurt. Furthermore, turbulence influenced male's judgments of the dominance of hurtful messages. Taken together, the results provide a partial answer to the overarching aim of this dissertation, which is to explain why people's reactions to relational events vary. Males react to hurtful messages more strongly to the extent that they are experiencing relational turbulence, and males and females experience more hurt, have more negative feelings, and perceive hurtful messages as more intentional when dominance and disaffiliation are prominent relational messages during a hurtful interaction.

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 Table 4-1. *Correlations Among Independent Variables*

	V1	V2	V3	V4	V5
V1: Self uncertainty	---				
V2: Partner uncertainty	.62**	---			
V3: Relationship uncertainty	.81**	.65**	---		
V4: Interference from a partner	.09	-.07	.19*	---	
V5: Turbulence	.37**	.17	.43**	.27*	---

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Note.  $N = 137$ .

\* $p < .05$ . \*\* $p < .001$ .



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 Table 4-2. *Correlations Among Dependent Variables*

Variable	V1	V2	V3	V4	V5
V1: Dominance	---				
V2: Disaffiliation	.57**	---			
V3: Hurt	.44**	.52**	---		
V4: Negative Feelings	.44**	.56**	.78**	---	
V5: Intentionality	.27*	.43**	.32**	.30**	---

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 Note.  $N = 140$ 

 \*  $p < .05$ . \*\* $p < .001$ .

Table 4-3. *Fit Statistics for Structural Equation Models*

<u>Hurt</u>	$\chi^2$	<i>df</i>	$\chi^2/df$	CFI	RMSEA
Unconstrained Predicted Model	103.48	34	<i>3.04</i>	.82	.12
Unconstrained Modified Model	49.69	34	1.46	.96	.06
Structural Weights Model	62.80	41	1.53	.94	.06
Structural Covariance Model	74.14	47	1.58	.93	.07
Final Model	77.00	48	1.60	.93	.07
<u>Negative Emotions</u>					
Unconstrained Predicted Model	104.33	34	<i>3.07</i>	.82	.12
Unconstrained Modified Model	51.92	34	1.53	.95	.06
Structural Weights Model	64.10	41	1.56	.94	.06
Structural Covariance Model	75.44	47	1.61	.93	.06
Final Model	78.82	48	1.64	.92	.07
<u>Intentionality</u>					
Unconstrained Predicted Model	95.79	34	2.82	.82	.12
Unconstrained Modified Model	43.28	34	1.27	.97	.04
Structural Weights Model	56.82	41	1.39	.96	.05
Structural Covariance Model	68.16	47	1.45	.94	.06
Final Model	71.06	48	1.48	.93	.06

Note.  $N = 137$ . Values in italics fall below my a priori standards.

\* $p < .05$ . \*\* $p < .001$ .

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Table 4-4. *Standardized Path Coefficients for Structural Equation Models Depicted in Figure 2*

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>
<u>DV: Hurt</u>							
Males	.80**	.21*	.42**	.31**	.30*	.80**	.81**
Females	.81**	.21*	.28**	.21**	-.12	.83**	.59**
<u>DV: Negative Emotions</u>							
Males	.80**	.21*	.42**	.31**	.30*	.76**	.86**
Females	.81**	.21*	.28**	.21**	-.12	.79**	.69**
<u>DV: Intentionality</u>							
Males	.80**	.21*	.42**	.31**	.30*	.83**	.49**
Females	.81**	.21*	.28**	.21**	-.11	.76***	.49**

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*Note.* Path *e* was significantly different for males and females for all three dependent variables. There are minimal differences in some of the other path coefficients due to the multi-group analysis estimates.

\* $p < .05$ . \*\* $p < .001$ .

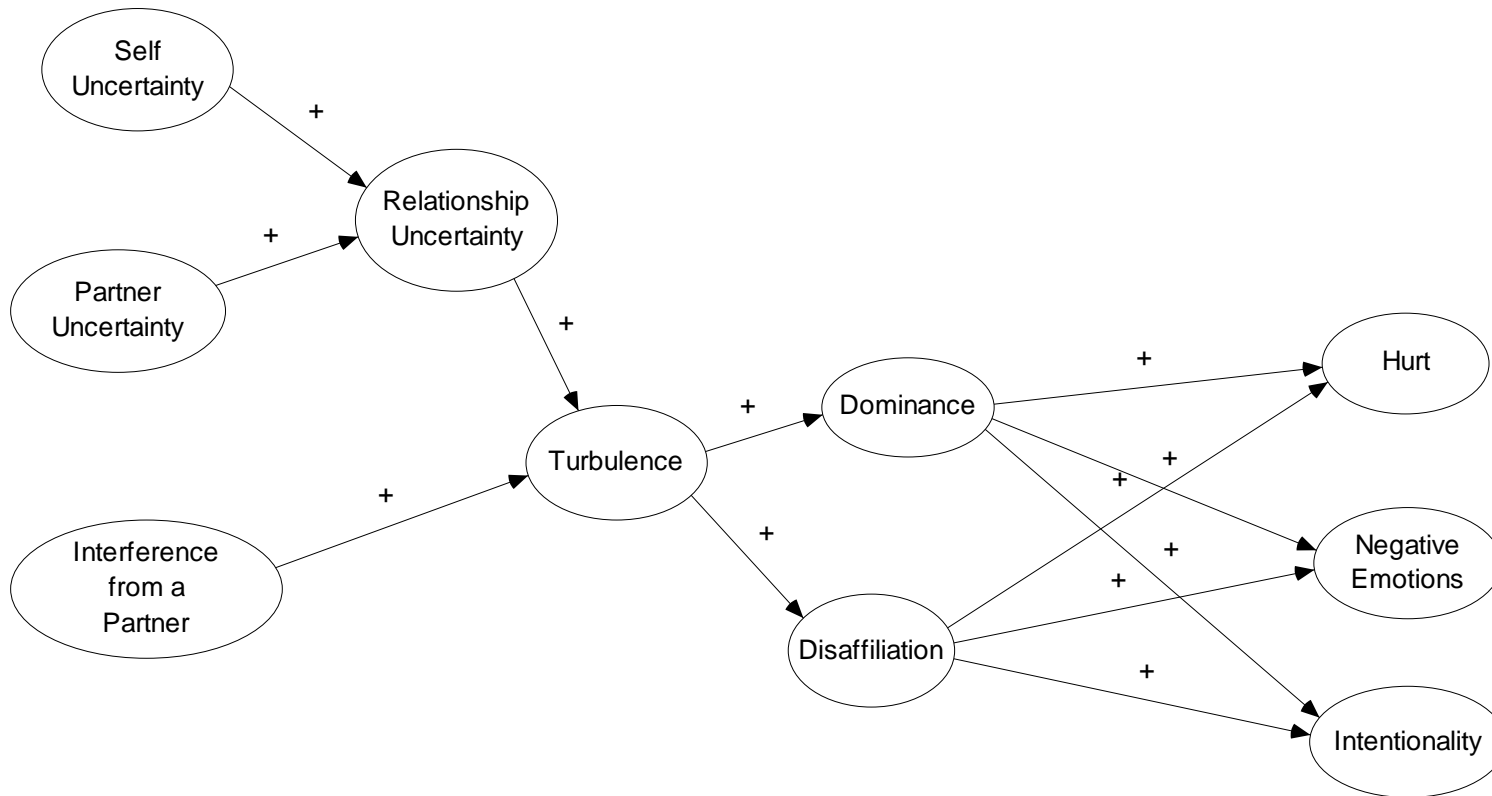


Figure 4-1. *The Predicted Model for Associations among Relational Uncertainty, Partner Interference, Turbulence, Relational Judgments, and Experiences of Hurtful Messages*

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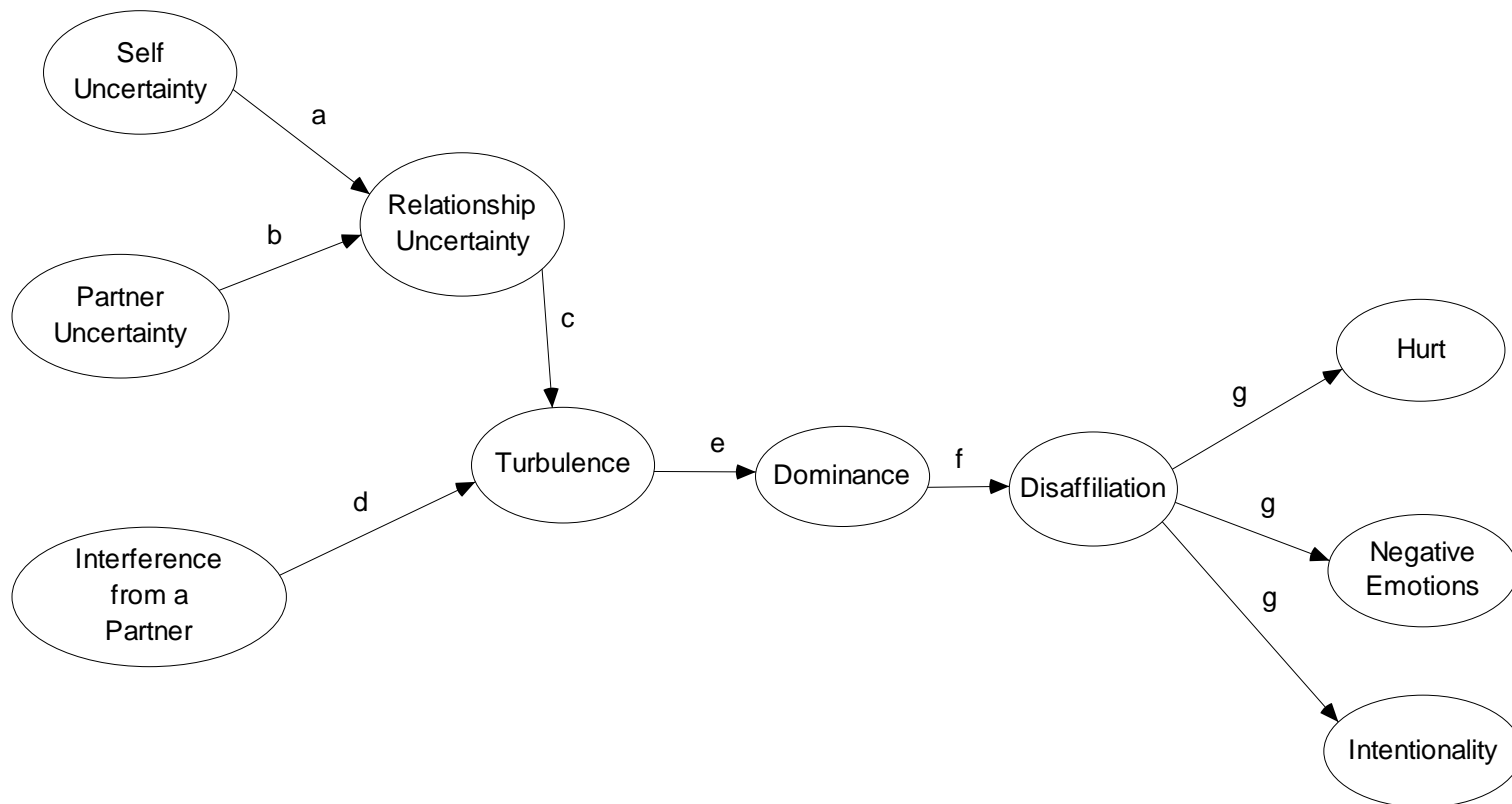


Figure 4-2. *The Final Model for Associations among Relational Uncertainty, Goal Interference and Facilitation, Turbulence, and Experiences of Hurtful Messages*

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## Chapter 5

### Study 2

In Study 1, I tested a model linking parameters in the relational turbulence model to relational judgments and people's reactions to hurtful messages. In Study 2, I aim to replicate the results from Study 1 using dyadic data. To review, I predicted that relational turbulence increases judgments of dominance and disaffiliation in a partner's hurtful message (H1), which in turn increases the intensity of hurt, negative emotions, and perceived intentionality associated with a hurtful event (H2). Although Study 1 utilized a sample of dating dyads, the procedures completed in the lab focused on the experiences of one person who was the target of a manipulated interaction. Study 2, in contrast, involved asking both participants' in a romantic dyad to report on hurtful events that they previously experienced. In particular, each partner reported on one episode where they were a victim of hurt and one where they were the perpetrator; consequently, Study 2 yielded data about the same events from both partners' point of view.

This design also allowed me to test H3, which predicts that the associations specified in H1 and H2 remain significant after controlling for the perpetrator's perceptions of the victim's intensity of hurt, negative emotions, and the perpetrator's perception of their own intentionality. H3 follows from my assumption that turbulence disrupts intersubjectivity between romantic partners. More specifically, each partners' experience of turbulence leads them to overreact to events that occur within the relationship. In the following sections, I discuss the methods, results, and conclusions of Study 2.

## Method

Participants brought their dating partner to the lab to answer questions about hurtful incidents in their relationship. Each individual answered questions about two events: one where they were the victim of hurt and another when they were the perpetrator of hurt. The design of this study allowed me to gather data from both members of the couple, so that I could assess the extent to which turbulence influenced perceptions of hurt from both in general, and after controlling for the perpetrator's perceptions. A further benefit of this design is that it allowed me to evaluate discrepancies in partners' perceptions of the same event.

### *Participants*

Participants were recruited from an introductory communication course, where they received 2% course credit for participation in the study. Recruited individuals were asked to bring their dating partner with them to a campus location to participate in the study. A total of 70 dyads participated (140 individuals): 67 heterosexual couples, 2 gay couples, and 1 lesbian couple. There were 69 females (49.3%) and 71 males (50.7%), ranging in age from 18 to 29 ( $M = 20.38$ ,  $SD = 1.57$ ). The sample was 85.7% Caucasian, 2.9% African American, 4.3% Asian, 5.7% Hispanic, and 1.4% who listed their race as other. Most participants were in serious (83.6%) or engaged relationships (2.86%); only 10% were in casual dating relationships. The married participants ( $N = 4$ ) were excluded from the analyses because the study was focused on pre-marital romantic relationships.

### *Procedures*

Upon arrival, the dyad was separated to complete questionnaires about recent experiences of hurt feelings in their relationship. First, participants were asked to list and

describe on note cards any incidents in the past two weeks when their partner said something that hurt their feelings. After they were done listing their events, the researcher instructed them to set aside any note cards that they did not feel comfortable sharing with their partner; those cards were excluded from the remainder of the study. Then, participants were asked to list on separate note cards any times in the past two weeks that they said something that hurt their partners' feelings. In other words, each participant generated a list of times when they were a victim of hurt and a list of times when they were a perpetrator of hurt. The perpetrator note cards were not included in the analyses for this study.

The researcher took the note cards with the victim accounts of hurt and switched them between partners, so that each individual had the stack of note cards with their partner's accounts of being hurt. The researcher asked participants to set aside any cards that they did not recognize or remember occurring in their relationship. Then, the researcher randomly chose one of the remaining note cards from each participant's stack of hurtful accounts. The resulting two note cards represented a hurtful account from each partner in the couple that was remembered by the perpetrator.

The participants then moved to individual computer stations to complete an online questionnaire about their relationship (see Appendix C). The participants were seated so that they could not see each other. After completing the relationship characteristics measures, the researcher gave the participants their note card with the description of their victim account of a hurtful message. The participants continued with the survey, which contained follow-up questions about the incident when they were victims of hurt. After participants completed the victim account questions, the researcher switched their note



cards and the participants answered questions focused on the incident where their partner was a victim of hurt (i.e., they were the perpetrator). When both partners completed the questionnaire, the researcher reunited them, answered any questions, and allowed them to leave.

### *Measures*

All measures were evaluated for unidimensionality using confirmatory factor analyses (CFA; Hunter & Gerbing, 1982). I utilized the following criteria to determine goodness of fit:  $\chi^2/df$  less than 3.00, CFI greater than .90, and RMSEA less than .10 (Browne & Cudeck, 1993; Kline, 1998).

*Relational quality.* To assess relational quality for descriptive purposes, participants responded to an adapted version of the marital opinion questionnaire (MOQ; Huston et al., 1986). The MOQ contained eight 7-point semantic differential scales (e.g., *miserable-enjoyable*, *rewarding-disappointing*), which were averaged to form a composite variable ( $M = 6.19$ ,  $SD = 0.79$ ,  $\alpha = .91$ ), and on one single-item global measure of relational satisfaction. The final score was the average of the composite variable and the response to the single item ( $r = .66$ ). Higher scores reflect more intimate, close, and satisfying associations. As with Study 1, this sample reported significantly higher relational quality ( $M = 6.13$ ,  $SD = 0.91$ ) than the sample in the McLaren et al. (2008) study ( $M = 5.59$ ,  $SD = 1.29$ ) in which participants were not required to bring their dating partner to the lab,  $t(516) = 4.51$   $p < .001$ .

*Relationship characteristics.* I used the same measures of the relationship characteristics utilized in Study 1. Specifically, Knobloch and Solomon's (1999) measure of relational uncertainty was used to assess the participants' self, partner, and relationship

uncertainty. Participants indicated their level of agreement with statements that followed the question, “How certain are you about...?” Responses were recorded on a 6-point Likert-type scale (1 = *completely or almost completely uncertain*, 6 = *almost or completely certain*). The items were recoded so that higher values reflected greater uncertainty. The scores for items within subscales were averaged to form measures of *self uncertainty* ( $\alpha = .90$ ), *partner uncertainty* ( $\alpha = .93$ ) and *relationship uncertainty* ( $\alpha = .90$ ). When compared to the sample in the McLaren et al. (2008) study, the present sample had significantly less self uncertainty ( $M = 1.60$ ,  $SD = 0.69$ ) than the previous sample ( $M = 1.83$ ,  $SD = 0.96$ ),  $t(516) = 2.57$ ,  $p < .05$ , and significantly less partner uncertainty ( $M = 1.85$ ,  $SD = 0.95$ ) than the previous sample ( $M = 2.20$ ,  $SD = 1.29$ ),  $t(516) = 2.90$ ,  $p < .05$ . Relationship uncertainty ( $M = 1.86$ ,  $SD = 0.82$ ) was not significantly different between the two samples,  $t(516) = 0.32$ ,  $p = ns$ .

To assess *partner interference*, respondents noted their level of agreement (1 = *strongly disagree*, 6 = *strongly agree*) with a series of statements that characterized the partner as disrupting a variety of everyday activities (Knobloch & Solomon, 2004; Solomon & Knobloch, 2001). Higher scores reflected greater interference from a partner. The interference scale consisted of five items that were averaged to form a composite ( $\alpha = .88$ ). Similar to Study 1, the present sample reported significantly more partner interference ( $M = 2.57$ ,  $SD = 1.03$ ) than the McLaren et al. (2008) sample ( $M = 2.24$ ,  $SD = 1.21$ ),  $t(516) = 2.84$ ,  $p < .05$ .

To assess *relational turbulence*, participants indicated where their relationship fell along dimensions that represented turmoil (e.g., chaotic - stable, tumultuous - running smoothly); items were recoded so that higher numbers reflected greater turbulence. Four

items were averaged into a single scale ( $\alpha = .90$ ). Participants reported significantly less turbulence ( $M = 2.57, SD = 1.33$ ) than those in a previous sample (McLaren et al., 2008;  $M = 2.95, SD = 1.48$ ),  $t(516) = 2.64, p < .05$ .

*Intensity of hurt.* For both the victim and perpetrator instances of hurt, participants responded to the same set of measures about the hurtful event; the items were re-worded to reflect the role of either victim or perpetrator. After describing the incident in an open-ended question, participants indicated the intensity of hurt experienced (1 = *not at all hurtful*, 7 = *extremely hurtful*), how much emotional pain it caused (1 = *no emotional pain*, 7 = *intense emotional pain*), and how hurt this made them (or their partner) feel overall (1 = *not at all hurt*, 7 = *extremely hurt*). In addition, they rated the extent to which they agreed that the episode made them (or the victim) feel hurt (1 = *strongly disagree*, 5 = *strongly agree*). The first three items were converted to their corresponding number on a 5-point scale and then the four items were averaged to form a composite for the victim's self-reported intensity of hurt ( $M = 2.94, SD = 1.06, \alpha = .92$ ) and the perpetrator's perceptions of the victim's intensity of hurt ( $M = 3.58, SD = 0.97, \alpha = .92$ ).

*Negative emotions.* To examine other responses to the hurtful event, participants rated their agreement (1 = *strongly disagree*, 5 = *strongly agree*) with the prompt "During this episode I felt..." or "During this episode, I think my partner felt..." (for the perpetrator version). The prompt was followed with 11 emotion words. As with Study 1, I retained three items to represent negative emotions: worthless, sad, and hopeless. These items formed a fairly reliable composite variable for the victim's *negative emotions* ( $M = 2.49, SD = 1.07, \alpha = .76$ ) and the perpetrator's perceptions of the victim's *negative emotions* ( $M = 2.76, SD = 1.00, \alpha = .75$ ).

*Intentionality.* Participants also indicated their level of agreement (1 = *strongly disagree*, 5 = *strongly agree*) with three statements about the intentionality of the hurtful messages: (a) My partner was trying to hurt me, (b) My partner intended to hurt my feelings, and (c) It was an accident; my partner did not mean to hurt my feelings [reverse-coded]. An additional item asked people to rate to extent to which they believed their partner was intentionally hurtful (1 = *not intentional*, 5 = *extremely intentional*). For the perpetrator version, participants indicated their perception of how intentional they were in hurting their partner. The four items were averaged together to form a scale for the victim's perception of the perpetrator's intentionality ( $M = 2.00$ ,  $SD = 1.06$ ,  $\alpha = .92$ ) and the perpetrator's perceptions of their own intentionality ( $M = 1.68$ ,  $SD = 0.92$ ,  $\alpha = .88$ ).

*Relational judgments.* To assess levels of dominance and disaffiliation in the hurtful interaction, participants indicated their level of agreement with four statements about their partner's behavior during the hurtful interaction. The measures of dominance and disaffiliation from Study 1 were modified so that they followed the format of the other items in the survey. In the present study, participants indicated their level of agreement with statements whereas Study 1 involved responding to semantic differential items. There were two items for *dominance*: (a) my partner was trying to dominate me, and (b) my partner was trying to influence me. The dominance items failed to form a reliable measure ( $M = 2.11$ ,  $SD = 1.08$ ,  $\alpha = .39$ ), so I retained only the first item as a measure of dominance because of its face validity. The *disaffiliation* measure also consisted of two items: (a) my partner expressed dislike toward me and (b) my partner expressed negative regard toward me. These two items formed a reliable measure of disaffiliation ( $M = 2.35$ ,  $SD = 1.24$ ,  $\alpha = .75$ ).

## Results

### *Preliminary Analyses*

Before testing my hypotheses, I performed a number of preliminary analyses to examine associations among the variables and to test for sex differences. These analyses were performed at the level of the individual, so they do not account for the dependence in data provided by relationship partners. Although there is dependence in the data that is unaccounted for, the results of the preliminary analyses provide a general sense of the patterns in the dataset.

First, the results of a power analysis (G-power 3.0) showed that for the tests using the full sample of 140 participants, the observed power ranges from 21% for small effects ( $r = .10$ ) to 100% for large effects ( $r = .50$ ). Because many of the substantive analyses were performed at the level of the couple, I also performed a power analysis with a sample size of 70 couples. Results showed there was 13% power to detect small effects ( $r = .10$ ), 74% power to detect medium effects ( $r = .30$ ), and 99% to detect large effects ( $r = .50$ ). The specific power differs, however, depending on the type of statistical test.

To begin, I examined the correlations among the independent variables and found they were all in the expected directions (see Table **5-1**). Self, partner, and relationship uncertainty were all positively correlated with each other, as expected. Interference from a partner was positively correlated with self uncertainty. Finally, turbulence was positively associated with all the relational uncertainty measures and positively associated with interference from a partner. The patterns of association among the relational turbulence model variables mirror those observed in prior work (e.g., Knobloch, 2007a; McLaren et al., 2008).

Next, I examined the correlations among the dependent variables (see Table 5-2); correlations between turbulence and the dependent variables are also included in this table to provide initial insight into H1. For the victim accounts of hurt, relational turbulence was positively correlated with all the dependent variables except dominance. Hurt was positively associated with negative feelings, intentionality, and disaffiliation, and negative feelings were similarly associated with perceived intentionality and disaffiliation. These associations were all in the expected directions. Perceived intentionality of the hurtful message was positively associated dominance and disaffiliation. Finally, dominance and disaffiliation were positively correlated. For the perpetrator accounts of hurt, the association among the dependent variables was similar, but there was one notable differences. First, intentionality was significantly associated with intensity of hurt for victim accounts, but not for perpetrator accounts.

I also examined the correlations between victim and perpetrator accounts of the same event (see Table 5-3). This analysis assesses the extent to which victim and perpetrators have overlapping perceptions when they are reporting on the same event. For both male and female victim accounts of hurt, there were significant correlations between all the variables for the victim and the perpetrator. Although the correlations ranged in magnitude, they were all positive and significant.

After examining the correlations, I performed a series of paired sample *t*-tests to assess sex differences within couples (see Table 5-4). For the relational turbulence model variables, there were no significant sex differences. When comparing victim accounts of hurt, female victims reported being more hurt than males did. Male victims reported greater levels of dominance in their partner's hurtful message. When comparing the

perpetrator accounts of hurt, male perpetrators perceived their partners as being more hurt and experiencing more negative emotions than female perpetrators did.

Next, I performed a paired-sample *t*-test to assess role related differences in the accounts of hurtful events (see Table 5-5). I separated the events into incidents when the female was the victim and incidents when the male was the victim. For events with a female victim, male perpetrators perceived that the victim experienced more hurt and negative emotions than the female victims reported in conjunction with the same event. Female victims also perceived that perpetrators acted with more intentionality than the perpetrator self-reported. For events with a male victim, female perpetrators perceived victims to be more hurt than male victims self-reported. Overall, these patterns illustrate the presence of sex and role related differences in experiences of hurtful events.

### *Substantive Analyses*

In Study 1, I found that relational turbulence was positively associated with perceptions of dominance for males. In Study 2, I sought to extend the model by including perceptions of an event from both members of the dyad. The inclusion of dyadic data resulted in an actor partner interdependence model (APIM; Kashy & Kenny, 1999; Kenny, 1996a). Because the focus of Study 2 is primarily on the dyadic data, I decided to exclude the other relational turbulence model variables (i.e., self, partner, and relationship uncertainty and interference from a partner) and focus on the associations among turbulence, dominance, disaffiliation, and responses to hurt. The associations among the uncertainty measures, partner interference and relational turbulence were documented in Study 1, as well as in previous research (e.g., McLaren et al., 2008). Furthermore, the bivariate correlations among these variables are all in expected

directions (see Table 5-1). Thus, I tested a model that was less complex and focused on the specific hypotheses for the present study.

Based on the findings for Study 1, I predicted a positive association between turbulence and perceptions of dominance, a positive association between dominance and disaffiliation, and a positive association between disaffiliation and intensity of hurt, negative emotions, and intentionality. Because my sample consisted of two individuals in a couple, I constructed a single model representing both partners in the dyad (see Figure 5-1). The top half of the model represents the female in the couple and the lower half of the model represents the male. To account for the dependence in the data, I allowed the errors for relational turbulence to be correlated (Kenny, Kashy, & Cook, 2006). Because my models were based on grouping by sex, I was not able to define the roles for the gay and lesbian participants in these analyses; therefore, they were excluded from the substantive analyses.

To assess the predicted model, I utilized structural equation modeling (AMOS 7.0) with the following criteria:  $\chi^2/df$  less than 3.00, CFI greater than .90, and RMSEA less than .10 (Browne & Cudeck, 1993; Kline, 1998). I used parcels as single-item indicators of the latent variable and set the error variances of the parcels to  $(1 - \alpha)(\sigma^2)$  to account for the measurement error of the scales (Bollen, 1989).

The fit statistics for the predicted models are in Table 5-6. The predicted model produced a good fit for the data for hurt,  $\chi^2 = 18.14$ ,  $df = 21$ ,  $\chi^2/df = 0.86$ , CFI > .99, RMSEA = .00, and for negative emotions,  $\chi^2 = 28.64$ ,  $df = 21$ ,  $\chi^2/df = 1.36$ , CFI = .92, RMSEA = .08. The predicted model for intentionality did not produce a sufficient fit,  $\chi^2 = 55.79$ ,  $df = 21$ ,  $\chi^2/df = 2.66$ , CFI = .77, RMSEA = .16. Specifically, the CFI and



RMSEA did not meet my criteria for goodness of fit. Because the goal of Study 2 is to provide a second test of H1 and H2 and identify robust patterns in the data, I did not explore modifications within the particular model predicting perceptions of intentionality.

The path coefficients were similar across the dependent variables. In all the models, turbulence had a positive association with dominance for females, but turbulence was not significantly associated with dominance for males. This sex difference was not in my hypothesized model and it is the opposite of the sex difference documented in Study 1, where turbulence predicted perceptions of dominance for males, but not females. Consistent with the hypothesized model, dominance had a positive significant path to disaffiliation, and disaffiliation positively predicted intensity of hurt or negative emotions. The path coefficients for the models can be seen in Table 5-7 and the corresponding paths are pictured in Figure 5-2. Although the model for intentionality did not fit, I report the path coefficients for informational purposes; notably, the path coefficients for intentionality were consistent with the models for hurt and negative emotions.

To assess H3, I constructed additional models that accounted for the perpetrator's perceptions of the hurtful incident. Specifically, I included an exogenous variable in the models that represented the perpetrator's perceptions of the victim's hurt and negative emotions, as well as the perpetrator's perception of his or her own intentionality (see Figure 5-3). By doing so, I was able to assess the effects of relational turbulence on people's reactions to hurt, after accounting for the variance that was predicted by their partner's perceptions.

The predicted model had a sufficient fit to the data with hurt as the dependent variable (see Table 5-8). For the model predicting negative feelings, the CFI was slightly lower than my criteria (.89 instead of  $>.90$ ), but the rest of the fit indices were within the range of acceptable criteria; consequently, I considered the negative emotions model to be an acceptable fit for the data. Once again, the model for perceived intentionality did not fit the data.

For the models with hurt and negative emotions as the dependent variables, turbulence was a positive predictor of dominance for females, but this path was not significant for males. The remaining paths were all positive and significant, such that dominance had a positive path to disaffiliation, which positively predicted hurt and negative emotions. Furthermore, the additional path from the partner's perceptions of hurt to the victim's perceptions of hurt was positive and significant. In the model with negative emotions as the outcome, the path from the partner's perceptions of negative emotions to the victim's perception of negative emotions was also significant and positive. Notably, the original model remained the same, even with the addition of the partner variables, which is consistent with H3. The standardized path coefficients for the model can be found in Table 5-9 and the corresponding paths are pictured in Figure 5-4.

### Discussion

The goal of Study 2 was to determine if relational turbulence and relational judgments predicted people's reactions to hurtful messages. I sought to extend the model from Study 1 with the addition of dyadic data. For females, the results were consistent with my hypothesized model: relational turbulence predicted perceptions of dominance, which influenced perceptions of disaffiliation and ultimately influenced reactions to

hurtful messages. For males, the path from turbulence to dominance was not statistically significant, and therefore it was inconsistent with my hypotheses; however, the results for males revealed the expected paths between dominance, disaffiliation, and reactions to hurtful events.

There were some important similarities between Study 1 and Study 2. In both studies, participants were required to bring their dating partner with them to the communication lab. As in Study 1, the sample in the present study reported significantly higher relational quality, less self and partner uncertainty, and less relational turbulence when compared to the McLaren et al. (2008) study, which did not require participants to bring their dating partners into the lab. Although a sample with more variance in the relationship characteristics would be preferable, the similarity of the samples allow for more direct comparisons between Study 1 and Study 2.

Another similarity in the findings for Study 1 and 2 were in the associations among dominance, disaffiliation, and responses to hurt. Specifically, dominance had a positive association with disaffiliation, which had a positive path to intensity of hurt and negative emotions in response to a hurtful event. Even when the variance associated with the perpetrator's perspective was taken into account, the associations among dominance, disaffiliation, hurt, and negative emotions remained the same. Taken together, these two studies illustrate the relevance of relational inferences for understanding reactions to hurt.

Study 1 and Study 2 had a few notable differences in methodology, which may have influenced the results. In Study 2, participants recalled hurtful events that occurred recently in their relationship; in Study 1, hurtful messages were created in the laboratory. In this way, Study 1 examined contemporaneous reactions to hurtful messages that were

not naturally occurring, and Study 2 focused on retrospective accounts of real hurtful events. The different methodology of these studies produced divergent results.

Specifically, the path from turbulence to dominance was significant only for males in Study 1, and it was significant only for females in Study 2. Although speculative, it is possible that for females, relational turbulence has a stronger influence on perceptions of relational messages for retrospective accounts. Although it is unclear why Study 1 and Study 2 showed divergent findings for males and females in the association between turbulence and perceptions of dominance, it is clear that turbulence is relevant for predicting relational inferences in at least some situations.

Another unique contribution of Study 2 was the inclusion of the perpetrator's perceptions of the victim's intensity of hurt and negative emotions. There was a positive and significant path from the perpetrator's perceptions of the victim's intensity of hurt and negative emotions to the victim's ratings of those variables. These findings illustrate that the two members of the dyad viewed the event in similar ways. Perhaps because the participants' were in high quality relationships, their perspective related differences were limited.

Unlike Study 1, the model for intentionality in Study 2 did not fit the data. One possible reason that the model for intentionality did not fit, is that perceived intentionality is more of a cognitive reaction to hurtful events than an emotional one, as indexed by intensity of hurt and negative emotions. Nonetheless, examination of the path coefficients showed that perceptions of disaffiliation were positively associated with perceived intentionality, which is consistent with the models with hurt and negative emotions as dependent variables. In contrast, the path from the perpetrators' self-reported

intentionality was not significantly associated with the victim's perception of intentionality in the SEM, but was significantly correlated at the bivariate level. This suggests that the associations between victims' and perpetrators' perceptions of intentionality might be more complicated than intensity of hurt and negative emotions.

In conclusion, the results from Study 2 are largely consistent with my hypotheses. Relational turbulence influenced perceptions of dominance for females, which aligns with H1. For both males and females, perceptions of dominance in a partner's hurtful message were positively associated with perceptions of disaffiliation, and the more disaffiliation that people perceived in a partner's hurtful message, the more intensity of hurt and other negative emotions they reported experiencing. Although the hypothesized model did not fit for perceptions of intentionality, the pattern of results generally supports H2. Study 2 also introduced dyadic data to the model, with the inclusion of the perpetrator's perceptions of the hurtful event. Consistent with H3, the results indicated that relational turbulence, for females, and relational judgments, for males and females, predicted a person's reactions to hurtful events, over and above the reactions reported by the perpetrator of those events. In general, the results of this study contribute to the overall aim of this dissertation by providing further evidence that people's reactions to hurtful events are influenced by a number of proximal and distal factors, including relational turbulence and perceptions of relational messages.

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 Table 5-1. *Correlations Among Independent Variables*

Variable	V1	V2	V3	V4	V5
V1: Self uncertainty	---				
V2: Partner uncertainty	.52**	---			
V3: Relationship uncertainty	.66**	.81**	---		
V4: Interference from partners	.21*	.05	.16	---	
V5: Turbulence	.39**	.36**	.57**	.28*	---

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 Note:  $N = 134$ 

 \*  $p < .05$ . \*\*  $p < .001$

Table 5-2. *Correlations Among Dependent Variables*


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	V1	V2	V3	V4	V5	V6
V1: Turbulence	---	.18*	.29*	.24*		
V2: Hurt	.20*	---	.66**	.13		
V3: Negative Emotions	.29*	.64**	---	.08		
V4: Intent	.44**	.38**	.36**	---		
V5: Dominance	.15	.11	.11	.41**	---	
V6: Disaffiliation	.26**	.34**	.31**	-.47**	.41**	---

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*Note:*  $N = 134$ . Values below the diagonal represent correlations among the variables for the victim accounts of hurt. Values above the diagonal represent correlations among the variables for the perpetrator accounts of hurt. Dominance and disaffiliation were not measured in the perpetrator accounts of hurt, so those cells are empty above the diagonal.

\*  $p < .05$ . \*\*  $p < .001$ .

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Table 5-3. *Correlations Among Dependent Variables for Victim and Perpetrator Accounts*

	Male Victim (Female Perpetrator)	Female Victim (Male Perpetrator)
V1: Hurt	.54**	.53**
V2: Negative Emotions	.33*	.48**
V3: Intent	.53**	.37*

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*Note.*  $N = 65$  for each column. Values represent correlations between variables reported by the victim and the perpetrator.

\*  $p < .05$ . \*\*  $p < .001$ .



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Table 5-4. Paired Sample *t*-tests Comparing Variables for Males and Females Within Couples

	Males ( <i>N</i> = 65)	Females ( <i>N</i> = 65)	<i>t</i>
Self-Uncertainty	1.62 (0.70)	1.59 (0.71)	-0.20
Partner Uncertainty	1.83 (0.90)	1.84 (0.99)	0.64
Relationship Uncertainty	1.85 (0.75)	1.82 (0.83)	-0.34
Interference	2.56 (0.97)	2.63 (1.09)	0.42
Turbulence	2.67 (1.38)	2.49 (1.31)	-1.41
<u>Victim Variables</u>			
Hurt	2.64 (1.02)	3.23 (1.06)	3.69**
Negative Emotions	2.56 (1.09)	2.36 (1.04)	1.18
Intentionality	1.95 (1.06)	2.12 (1.10)	1.00
Dominance	2.38 (1.06)	1.85 (1.09)	-2.57*
Disaffiliation	2.38 (1.14)	2.29 (1.34)	-0.44
<u>Perpetrator Variables</u>			
Hurt	3.76 (0.87)	3.47 (1.02)	-2.14*
Negative Emotions	2.96 (0.95)	2.58 (1.01)	-2.58*
Intentionality	1.62 (0.90)	1.72 (0.94)	-0.67

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*Note.* Cell entries for males and females are means; parenthetical values are standard deviations. Ease of forgiveness and resolution are on a 6-point scale; positive consequences, negative consequences, and relational distancing are on a 7-point scale. The remaining variables are on a 5-point scale.

\*  $p < .05$ . \*\*  $p < .001$ .

Table 5-5. Paired Sample *T*-tests Comparing Variables for Hurtful Events Between Victims and Perpetrators

	Female Victim ( <i>N</i> = 65)	Male Perpetrator ( <i>N</i> = 65)	<i>t</i>
Hurt	3.23 (1.06) <sub>a</sub>	3.76 (0.87) <sub>c</sub>	-4.54**
Negative Emotions	2.56 (1.09) <sub>b</sub>	2.96 (0.95) <sub>d</sub>	-2.72*
Intentionality	2.12 (1.10)	1.62 (0.90)	4.01**

	Male Victim ( <i>N</i> = 65)	Female Perpetrator ( <i>N</i> = 65)	<i>t</i>
Hurt	2.64 (1.02) <sub>a</sub>	3.47 (1.02) <sub>c</sub>	-6.81**
Negative Emotions	2.36 (1.04) <sub>b</sub>	2.58 (1.01) <sub>d</sub>	-1.65
Intentionality	1.95 (1.06)	1.72 (0.94)	1.62

*Note.* Matching subscripts for cell entries in same column denote significant differences between the means for the accounts between males and females (see Table 5-4).

\*  $p < .05$ . \*\*  $p < .001$ .

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Table 5-6. *Fit Statistics for Predicted Structural Equation Models*

	$\chi^2$	<i>df</i>	$\chi^2/df$	CFI	RMSEA
Hurt	18.14	21	0.86	1.00	.00
Negative Emotions	28.64	21	1.36	.92	.08
Intentionality	55.76	21	2.66	.77	.16

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*Note.*  $N = 65$ . Values in italics fall below my a priori standards for the fit statistic.

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Table 5-7. *Standardized Path Coefficients for Predicted Structural Equation Models Depicted in Figure 5-2*

<i>Path</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
Hurt	.53*	.66*	.50**	.32	.52*	.47**
Negative Emotions	.51*	.68*	.51**	.33	.53*	.43*
Intentionality	.54*	.84*	.65**	.33	.54*	.71**

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*Note.*  $N = 65$ . Paths *a*, *b*, and *c* represent female participants and paths *d*, *e*, and *f* represent male participants. The model for intentionality did not meet the criteria for goodness of fit.

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Table 5-8. *Fit Statistics for Predicted Structural Equation Models*

	$\chi^2$	<i>df</i>	$\chi^2/df$	CFI	RMSEA
Hurt	29.94	31	0.97	1.00	.00
Negative Emotions	44.80	31	1.45	.89	.08
Intentionality	66.39	31	2.14	.78	.13

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*Note.*  $N = 65$ . Values in italics fall below our a priori standards for the fit statistic. The modified model had a path added from dominance to intentionality.

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Table 5-9. *Standardized Path Coefficients for Structural Equation Model in Figure*

<i>Path</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>
Hurt	.53*	.66*	.39*	.52**	.32	.52*	.39*	.56**
Negative Emotions	.51*	.68*	.43*	.30*	.33	.52*	.31*	.60**
Intentionality	.52*	.85*	.66*	-.02	.33	.54*	.70*	.15

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*Note.*  $N = 65$ . Paths *a*, *b*, *c*, and *d* represent female participants and paths *e*, *f*, *g*, and *h* represent male participants. The model for intentionality did not meet the criteria for goodness of fit.

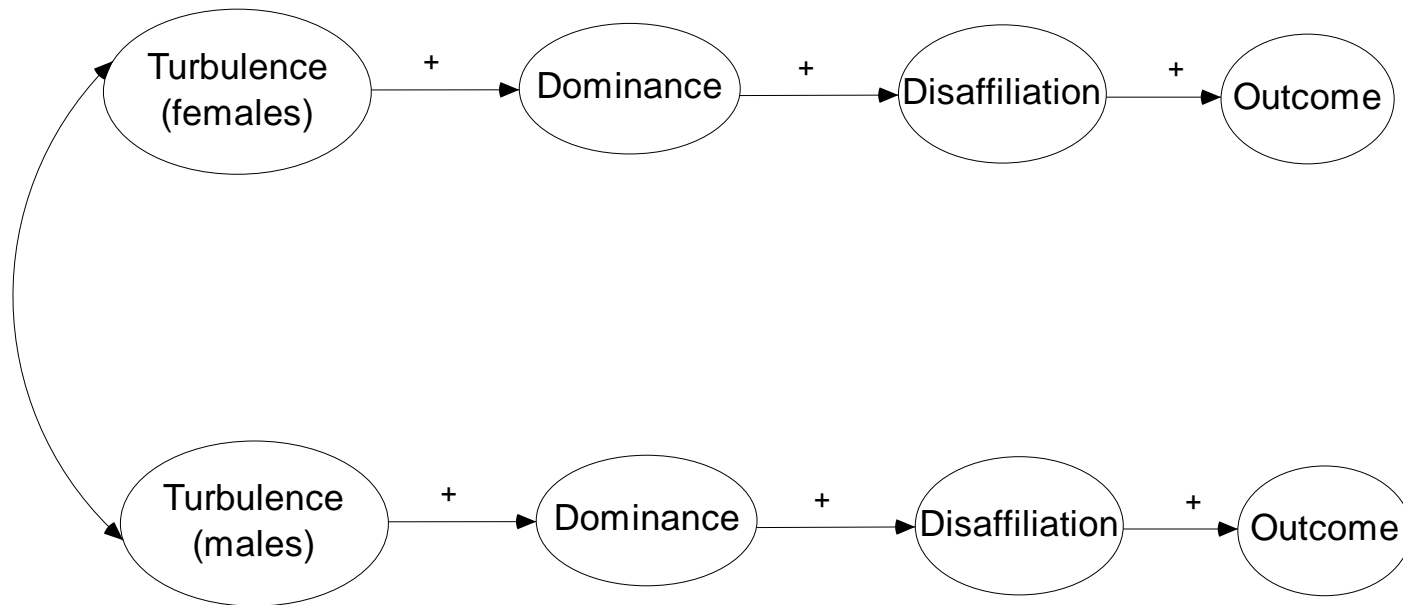


Figure 5-1. *Structural Equation Model for Turbulence Predicting Reactions to Hurt*

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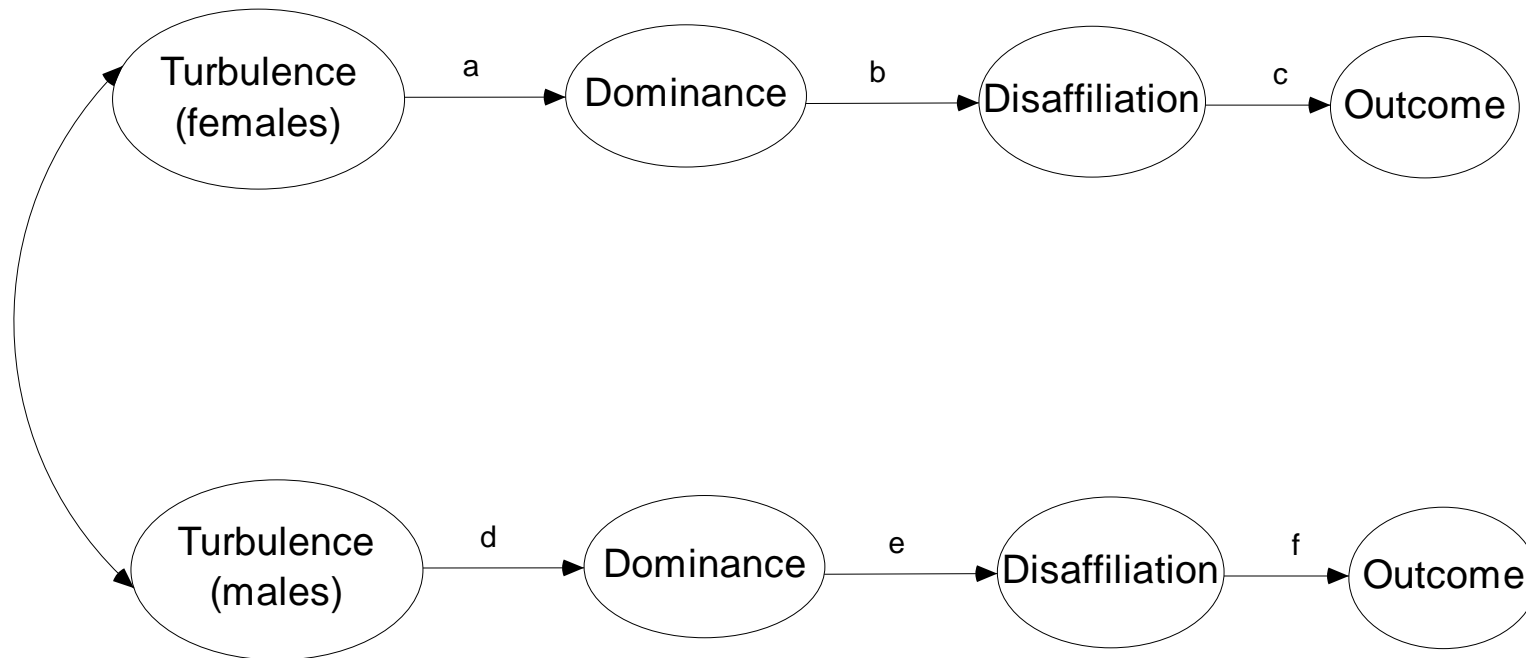


Figure 5-2. *Structural Equation Model for Turbulence Predicting Reactions to Hurt*

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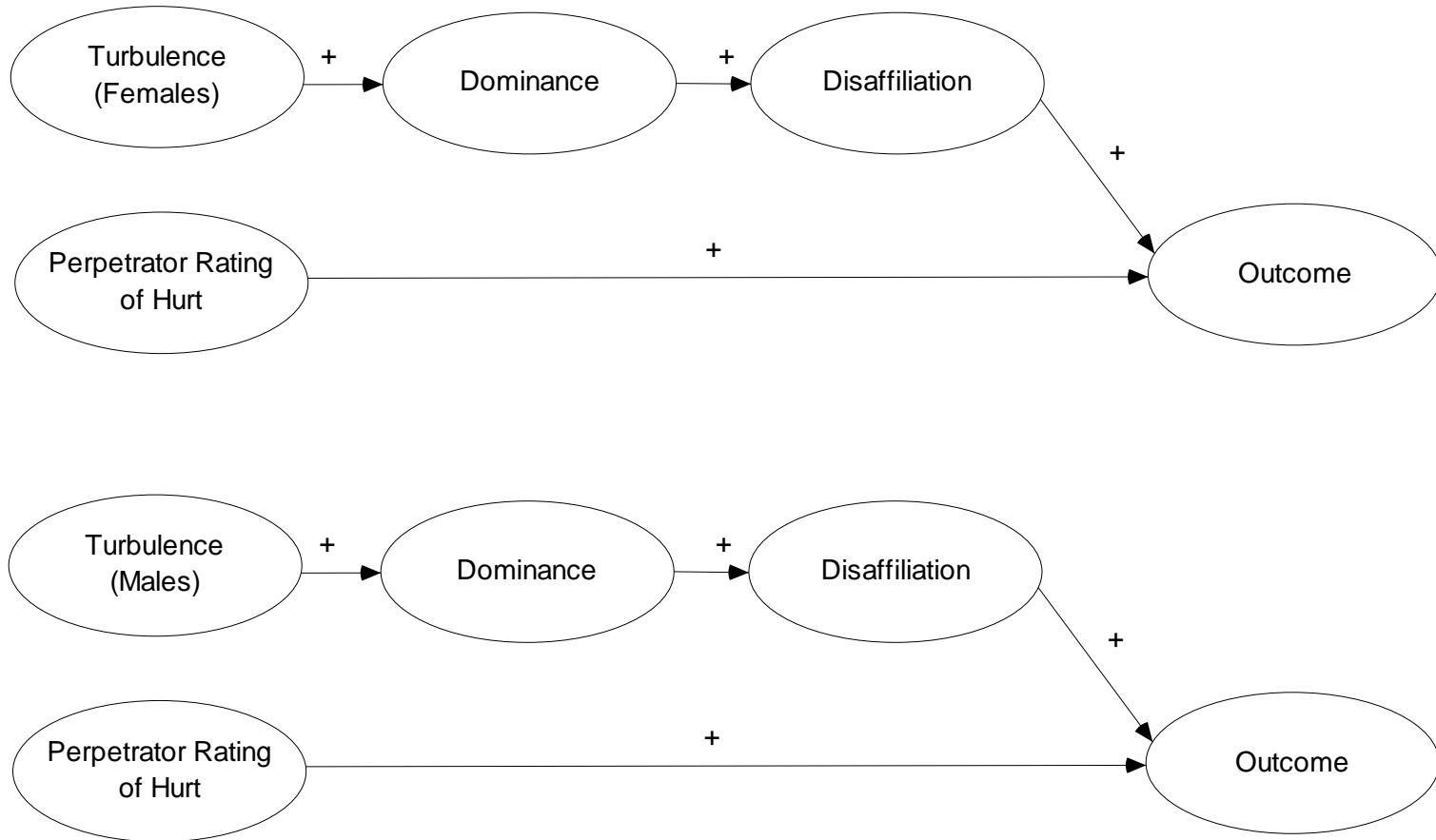


Figure 5-3. Structural Equation Model for Turbulence and Perpetrator's Hurt Predicting Victim's Reactions to Hurt

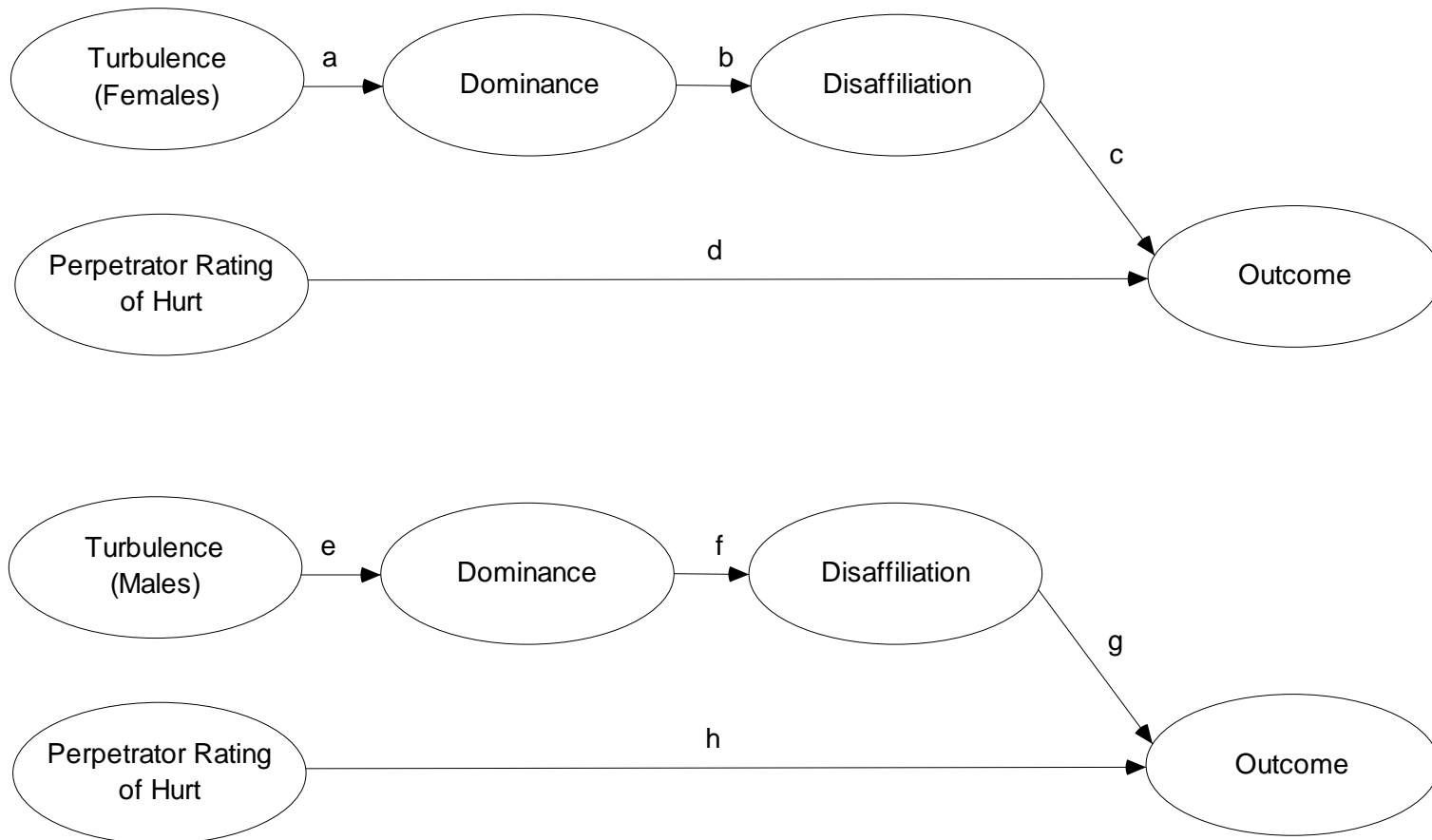


Figure 5-4. Structural Equation Model for Turbulence and Perpetrator's Hurt Predicting Victim's Reactions to Hurt

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## Chapter 6

### Study 3

In Study 1 and Study 2, I tested the H1, H2, and H3, which focused on the associations among relational turbulence, relational judgments, and reactions to hurtful interactions. I found evidence in Study 1 that turbulence influenced perceptions of dominance for males. In Study 2, I found evidence that turbulence influenced perceptions of dominance for females. The results of both studies supported my reasoning that perceptions of dominance and disaffiliation predict reactions to hurtful messages, as indexed by intensity of hurt, negative emotions, and in Study 1, perceived intentionality.

The aim of Study 3 is to understand how relational turbulence influences the similarity of romantic partners' perceptions of a conversation about a previous hurtful event. More specifically, Study 3 tests H4 through H6, which focus on the associations among relational turbulence, relational judgments, and perceptions of conversations about past hurtful events. Although some of the methods are similar to Study 2, the present study also required participants to have a conversation about incidents of hurt that occurred in their relationship and record their perceptions of that conversation. I tested these hypotheses through a multi-part study, which is described below.

#### Method

Study 3 consisted of four parts: daily diaries, a pre-interaction lab questionnaire, an interaction, and a post-interaction questionnaire. In the diary portion, romantic dyads completed daily questionnaires about experiences of hurt over the course of two weeks. Then, they came into the lab to complete a pre-interaction questionnaire about two hurtful events they documented in their daily diaries. The third part of the study involved a

computer-assisted interaction where romantic partners discussed the two hurtful events. The conversation took place over networked computers, so that the participants could also voice aloud their thoughts while typing to their partner. In the final portion of the study, the typed conversation was played back for the participants after the interaction. The researcher stopped the recording of the typed conversation every two minutes to allow participants to respond to items about their ongoing perceptions of the conversation. The overall research design allowed me to assess the influence of relational turbulence on perceptions of a conversation about past hurtful events. Furthermore, collecting data from both members of the dyad allowed me to take into account both partners' perspectives on the conversation.

### *Participants*

A total of 66 individuals (33 males, 33 females) participated in Study 3. The participants ranged in age from 18 to 29 years old ( $M = 20.44$ ,  $SD = 1.66$ ), including 5 freshmen (7.6%), 28 sophomores (42.4%), 14 juniors (21.2%), 17 seniors (25.8%) and 2 who were in their fifth or more year of college (3.0%). The participants identified themselves as Caucasian ( $n = 52$ , 78.8%), African American ( $n = 9$ , 13.6%), Asian ( $n = 1$ , 1.5%), Hispanic ( $n = 1$ , 1.5%), and other ( $n = 3$ , 4.5%). The majority of people characterized their relationship as either serious dating ( $n = 53$ , 80.3%) or casual dating ( $n = 11$ , 16.7%). Partners in one couple both identified the relationship as a friendship in the beginning of the study ( $n = 2$ , 3.0%), but they identified each other as dating partners by the time they completed the lab procedures.

*Part 1: Daily Diaries**Procedures*

Individuals were recruited through a communication class. They were eligible to participate if they were at least 18 years old and had a dating partner that they could bring to the communication lab with them. Participants completed daily diaries for 14 consecutive days prior to coming into the lab, and they were paid \$20 each for this portion of the study.

Recruited participants and their dating partners received an email with a personalized secure link to an online survey, which contained questions about characteristics of their relationship. Both members of the couple had to respond to the initial questionnaire before their participation in the study was confirmed (see Appendix D). After the initial questionnaire, participants received a new link at the end of each day to an online questionnaire. Those surveys asked respondents to recall any incidents of hurt feelings that occurred that day (see Appendix E).

In the first part of the daily survey, participants were asked to report any times that day when their partner hurt their feelings. If they indicated that such an event occurred, they answered follow up questions about the hurtful incident. If their partner did not say anything hurtful, they did not answer any questions about being a victim of hurt that day. There were 18 participants who did not report any victim accounts of hurt in the daily diaries. From the remaining participants, there were a total of 98 victim accounts of hurt across the 14 days, with the number of events reported per person ranging from 1 - 6 ( $M = 2$ ,  $SD = 1.77$ ,  $Mode = 1$ ). On average, 11.58% of the sample

reported victim accounts of hurt on a given day. The specific descriptive statistics for each of the 14 days of the diary can be found in Table 6-1.

In the next section of the online diary, participants were asked whether or not they said anything to hurt their partner's feelings that day. If they indicated yes, then they answered questions about that event. There were a total of 81 perpetrator accounts of hurt, with the number of events reported per person ranging from 1 - 6 ( $M = 2$ ,  $SD = 1.24$ ,  $Mode = 1$ ). On average, 9.56% of the sample reported perpetrator accounts of hurt on a given day. More specific descriptive data on the daily perpetrator accounts can be found in Table 6-1. The data on the daily perpetrator accounts of hurt contributed to a different project.

On the final day of the diary study portion, participants were also asked the same relationship characteristics questions that were presented on the initial survey (see Appendix D). Just as in Study 1 and Study 2, participants responded to items assessing their relational quality, self, partner, and relationship uncertainty, interference from a partner, and relational turbulence. These variables were measured in the same manner as the first two studies.

### *Measures*

The first and final surveys included measures of relationship characteristics, which contained the same scales used in Studies 1 and 2. The daily diaries collected information specific to any hurtful events reported each day.

*Relational quality.* Eight items assessing relational quality were averaged together (pre-diary:  $M = 5.96$ ,  $SD = 0.97$ ,  $\alpha = .94$ ; post-diary:  $M = 5.92$ ,  $SD = 1.16$ ,  $\alpha = .95$ ). Then, the composite was averaged with a single-item assessing relational satisfaction to make

the *relational quality* measure (pre-diary:  $r = .80$ ,  $M = 5.95$ ,  $SD = 1.04$ ,  $\alpha = .89$ ; post-diary:  $r = .82$ ,  $M = 5.83$ ,  $SD = 1.21$ ,  $\alpha = .68$ ). As a comparison, I used an independent samples *t*-test to determine whether the present sample differed significantly from a sample in a previous study utilizing different recruitment methods (McLaren et al., 2008); in this test, as well as similar ones that are reported subsequently, I used the post-diary measures of relationship characteristics because they are the most proximal to the variables used to test my hypotheses. The present sample was not significantly different in terms of relational quality (post-diary:  $M = 5.83$ ,  $SD = 1.21$ ) as compared to the McLaren et al. study ( $M = 5.59$ ,  $SD = 1.29$ ),  $t(445) = 1.40$ , *ns*; however, the difference in the means is similar to that observed in Studies 1 and 2, which also recruited dating partners.

*Relational uncertainty.* All of the relational uncertainty measures contained the same items as in the previous two studies. *Self uncertainty* contained six items (pre-diary:  $M = 1.71$ ,  $SD = 0.81$ ,  $\alpha = .93$ ; post-diary:  $M = 1.78$ ,  $SD = 1.04$ ,  $\alpha = .96$ ), *partner uncertainty* contained six items (pre-diary:  $M = 2.08$ ,  $SD = 1.15$ ,  $\alpha = .95$ ; post-diary:  $M = 2.11$ ,  $SD = 1.23$ ,  $\alpha = .95$ ), and *relationship uncertainty* contained eight items (pre-diary:  $M = 1.98$ ,  $SD = 0.95$ ,  $\alpha = .95$ ; post-diary:  $M = 2.02$ ,  $SD = 1.31$ ,  $\alpha = .94$ ), each of which were averaged to form their respective composite scores. I compared the relational uncertainty scores to those from the McLaren et al. study and found that there were no significant differences between the two samples.

*Interference from a partner.* This variable was calculated by averaging together five items assessing the extent to which their partner hindered a number of daily activities (pre-diary:  $M = 2.58$ ,  $SD = 1.07$ ,  $\alpha = .89$ ; post-diary:  $M = 2.89$ ,  $SD = 1.14$ ,  $\alpha = .89$ ). The

independent sample *t*-test showed that participants in the present study reported significantly more partner interference ( $M = 2.89$ ,  $SD = 1.14$ ) as compared to the sample in the McLaren et al. study ( $M = 2.24$ ,  $SD = 1.21$ ),  $t(445) = 4.06$ ,  $p < .05$ . This finding is consistent with Studies 1 and 2.

*Relational turbulence.* The measure of relational turbulence consisted of three items that formed a reliable scale (pre-diary:  $M = 2.66$ ,  $SD = 1.31$ ,  $\alpha = .88$ ; post-diary:  $M = 2.55$ ,  $SD = 1.31$ ,  $\alpha = .88$ ); data were missing from 2 males on the post-diary survey, so I imputed their scores by substituting their pre-diary responses. Although four items were used in the measure of relational turbulence in Studies 1 and 2, one item was inadvertently left out of the questionnaire and, thus, was not included in the scale. The sample in the present study reported significantly less relational turbulence ( $M = 2.55$ ,  $SD = 1.31$ ) than the McLaren et al. sample ( $M = 2.95$ ,  $SD = 1.48$ ),  $t(445) = 2.06$ ,  $p < .05$ .

*Perceptions of hurtful events.* If participants indicated that they were either a victim or perpetrator of hurt within a daily survey, they answered questions about the event. The questions were worded according to the role (either for the victim of hurt or perpetrator of hurt). Respondents were asked to describe the hurtful event, indicate the *intensity of hurt* (1 = *not at all hurtful*, 7 = *extremely hurtful*), and report the *intentionality* of the hurtful message (1 = *not at all intentional*, 7 = *extremely intentional*). I included single-item measures of these variables to minimize the amount of time the diaries took each day, in hopes that participants would remain in the study and refrain from underreporting events (per Feeney & Hill, 2006). For the same reason, I omitted the multi-item measure of negative feelings. For the victim accounts of hurt, the mean rating for intensity of hurt was 3.83 ( $SD = 1.74$ ) and for the perpetrator ratings it was 3.91 ( $SD =$



1.53). For intentionality, the average rating from victim accounts was 2.60 ( $SD = 1.77$ ), and the perpetrators ratings of their own intentionality was 2.43 ( $SD = 1.82$ ).

### *Part 2: Pre-interaction Questionnaire*

#### *Procedures*

For the lab portion of the study, participants either earned extra credit for a communication class or an additional \$10, if they were the dating partner who was not in the communication class from which I recruited. Upon arrival to the lab, members of the dyad were separated into different rooms. The researcher explained that two of the events that they described in their diaries would be the topic for a discussion (one from each of their diaries). They were given a print out of the open-ended portion of their own diaries from the previous two weeks. From those entries, participants were asked to set aside any events that they did not feel comfortable discussing with their partner. From the remaining diaries, the researcher randomly chose one of the victim events and moved the participant to a computer to complete follow-up questions about that event (see Appendix F). Although the participants filled out single-item measures for the intensity of hurt and perceived intentionality in the daily diaries, the questionnaire in the lab included additional questions and multi-item scales.

The researcher asked the 18 participants who did not record any victim accounts of hurt in their diaries to think of an incident that occurred at another time in their relationship where their partner said something that hurt their feelings. These directions were the same as the directions used in Study 2, and all of the 18 participants who did not have diary entries were able to generate other victim accounts of hurt. A total of 48

participants (72.7%) responded to questions about an event they recorded in their diary, and 18 participants (27.27%) generated events in the lab.

After the participants completed the questions about their hurtful event, they were asked to respond to questions about a time their partner identified that he or she had been hurt. The participant read their partner's account of this hurtful event and indicated on the survey whether they remembered that incident occurring. Only one individual (1.6%) did not recognize the incident and, therefore, did not respond to any of the follow-up questions. The rest of the 65 participants remembered the incident and answered follow-up questions about it.

### *Measures*

Participants completed measures about the intensity of hurt experienced and their perceptions of intentionality with regard to the hurtful event. The items were adapted for either victims or perpetrators.

*Intensity of hurt.* Participants responded to 4 items regarding their experience of hurt as a victim and as a perpetrator. First, they responded to items about the intensity of hurt experienced (1 = *not at all hurtful*, 7 = *extremely hurtful*), how much emotional pain it caused (1 = *no emotional pain*, 7 = *intense emotional pain*), how hurt the event made them (or their partner) feel overall (1 = *not at all hurt*, 7 = *extremely hurt*). In addition, they rated the extent to which they agreed that the episode made them (or their partner) feel hurt (1 = *strongly disagree*, 5 = *strongly agree*). The first three items were converted to their corresponding number on a 5-point scale. Those items were averaged to form a composite scale of intensity of hurt for victims' ( $M = 2.77$ ,  $SD = 0.93$ ,  $\alpha = .89$ ) and perpetrators' perceptions of the victim's intensity of hurt ( $M = 3.26$ ,  $SD = 0.99$ ,  $\alpha = .94$ ).

*Intentionality.* Participants indicated their level of agreement (1 = *strongly disagree*, 5 = *strongly agree*) with three statements about the intentionality of their partner's hurtful messages. In addition, they indicated the extent to which they believed their partner was intentionally hurtful (1 = *not intentional*, 5 = *extremely intentional*). For the perpetrator version, they indicated their perceptions of their own intentionality in hurting their partner. The four items were averaged together to form a scale for victims' perceptions of the perpetrator's intentionality ( $M = 1.85$ ,  $SD = 0.97$ ,  $\alpha = .91$ ) and perpetrators' perceptions of their own intentionality ( $M = 1.70$ ,  $SD = 1.05$ ,  $\alpha = .95$ ).

### *Part 3: Computer-Assisted Interaction*

#### *Procedures*

Once the follow-up questionnaires for the hurtful events were complete, the researcher explained that the participants would be engaging in a conversation over networked computers about the two hurtful events that were the focus of their pre-interaction questionnaire. Participants sat at a computer station that had a web camera, microphone, and software that recorded the computer-mediated conversation in a video format (Camtasia Studio). Participants were asked to voice aloud their thoughts while chatting with their partner via the computer. The researchers trained the participants in the voice aloud technique and answered any questions until the individuals felt comfortable with the procedures.

Dyads then engaged in a 3-minute practice session to get acquainted with the networked computers and the voice aloud procedures. The voice aloud technique is called the *protocol method*, and it has been used in other studies examining people's cognitions during a conversation with a stranger (Daly, Weber, Vangelisti, Maxwell, & Neel, 1989)

and with a romantic partner (Vangelisti, Corbin, Lucchetti, & Sprague, 1999). As in previous research, the participants could not see or hear each other; they could only read what their partner typed through the Internet chat. The voiced aloud thoughts were not included in the analyses of this study.

After the 3-minute practice session, the researcher randomly chose one hurtful episode for the dyad to discuss first. Both participants were given instructions to discuss this incident and try to resolve what occurred, why it occurred, and what it meant for the relationship. During the interaction, the researcher sat behind the participant, so as not to intrude on their conversation, which follows previous protocol methods (Ericsson & Simon, 1993). If the participants stopped speaking, the researcher reminded them to voice aloud their thoughts and to continue speaking out loud.

After the computer-mediated conversation, participants responded to items about their perceptions of the conversation.

### *Measures*

The follow-up questionnaire assessed realism, typicality, comfort with the interaction, and comfort with the technology (see Appendix G). These measures were used as a manipulation check to ensure that the interactions were sufficiently realistic and comfortable for the participants.

*Typicality and realism.* Participants rated the extent to which they agreed with statements characterizing their conversation (1 = *strongly disagree*, 7 = *strongly agree*). The *typicality* measure consisted of four items about the conversation: (a) was similar to others I've had with this person, (b) wasn't typical for my partner and I [reverse-coded], (c) happens often in our relationship, and (d) felt natural. These four items were averaged

together to form a measure of *typicality* ( $M = 4.91$ ,  $SD = 1.17$ ,  $\alpha = .65$ ). In addition participants indicated their agreement (1 = *strongly disagree*, 7 = *strongly agree*) with the statement, “This conversation seemed unrealistic” [reverse-coded]. This item was used as a measure of *realism* ( $M = 4.92$ ,  $SD = 1.71$ ).

*Comfort with the interaction.* Participants also rated their comfort with the computed-mediated conversation, which consisted of five items: (a) I felt this conversation was awkward [reverse-coded], (b) this conversation was easy, (b) this conversation was smooth, (c) this conversation was awkward [reverse-coded], and (d) this conversation was difficult [reverse-coded]. These five items formed a reliable measure of *comfort with the interaction* ( $M = 4.75$ ,  $SD = 1.41$ ,  $\alpha = .91$ ).

*Comfort with technology.* Because the participants engaged in a computer-mediated conversation, a final measure was included to assess their *comfort with the technology*, which was comprised of three items: (a) the use of the computer made this conversation difficult [reverse-coded], (b) using the computers to talk felt natural, and (c) the technology was uncomfortable [reverse-coded]. The items formed a sufficiently reliable composite measure ( $M = 4.77$ ,  $SD = 1.46$ ,  $\alpha = .80$ ).

#### *Part 4: Video-assisted Recall Questionnaire*

##### *Procedures*

After the participants completed the post-interaction questionnaire, they watched a video of the typed conversation that just occurred. The computer software recorded exactly what was on the computer screen, so participants were able to see their typed conversation as it unfolded. The participants were not able to see or hear the footage from

the web camera. The researcher stopped the video at two-minute intervals and asked the participants to rate that segment of the conversation (see Appendix H).

### *Measures*

*Intensity of relational judgments.* Participants rated the extent to which they agreed with statements about characteristics of the conversation (1 = *strongly disagree*, 7 = *strongly agree*). There was a single item for a partner's dominating behavior ("My partner was trying to dominate me") and a person's own dominating behavior ("I was trying to dominate my partner"). The single-item measures for each interval were averaged together to form a composite for *partner's dominance* ( $M = 2.34$ ,  $SD = 1.40$ ,  $ICC = .82$ ) and *respondent's dominance* ( $M = 2.79$ ,  $SD = 1.13$ ,  $ICC = .56$ ).

Similarly, a single-item measure assessed a partner's expression of dislike ("My partner made me feel disliked") and a person's own expressing of dislike toward their partner ("I made my partner feel disliked"). The single-item measures for each interval were averaged together to form a composite for *partner's dislike* ( $M = 2.23$ ,  $SD = 1.22$ ,  $ICC = .93$ ) and *respondent's dislike* ( $M = 2.24$ ,  $SD = 1.10$ ,  $ICC = .90$ ).

*Discrepancy in perceptions of relational judgments.* To assess the discrepancy of between people's perceptions of dominance, I subtracted the partner's perception of dominance from the person's self-reported dominance. Because difference scores can be positive or negative, I calculated the absolute value of each discrepancy score so the variable represented the magnitude of the difference in the partners' perceptions, regardless of the direction of the discrepancy. I calculated the discrepancy score in this manner because I predict that relational turbulence will increase the magnitude of discrepancies of dominance and disaffiliation, regardless of whether the discrepancy

represents an overestimation or underestimation of a partner's behavior. Specifically, I calculated *discrepancy in perceptions of the female's dominance* by subtracting the male's perception of the female's dominance from the female's self-reported dominance, and taking the absolute value of that difference ( $M = 1.64$ ,  $SD = 1.04$ , *range* 0 – 3.80). Likewise, I calculated *discrepancy in perceptions of the male's dominance* by taking the absolute value of the difference between the female's perception of the male's dominance and the male's self-reported dominance ( $M = 1.61$ ,  $SD = 1.03$ , *range* = 0 – 3.67).

I calculated the discrepancy in perceptions of disaffiliation in the same manner as the dominance discrepancy scores. Again, I used the absolute value in the analyses to represent the magnitude of the difference in perceptions. I subtracted the male's perception of female's disaffiliation from the female's self-reported disaffiliation, and used the absolute value of that difference for the *discrepancy in perceptions of the female's disaffiliation* variable ( $M = 1.37$ ,  $SD = 0.86$ , *range* 0 – 3.00). The *discrepancy in perceptions of the male's disaffiliation* was calculated by subtracting the female's perception of the male's disaffiliation from the male's self-reported disaffiliation and taking the absolute value of that difference ( $M = 1.41$ ,  $SD = 0.97$ , *range* 0 – 3.00).

*Conversation difficulty.* To assess the difficulty of the conversation, participants noted the extent to which they agreed with two statements about the conversation during each two-minute interval (1 = *strongly disagree*, 7 = *strongly disagree*). The two items were “This interaction was awkward” and “This interaction was difficult.” The two items were averaged together to form a scale of difficulty for each interval ( $\alpha$ 's ranged from .80 to .96). Then, to assess the general difficulty of the conversation, I averaged all of the

interval measures together to form a composite score for the *conversation difficulty* ( $M = 2.65$ ,  $SD = 1.23$ ,  $ICC = .90$ ).

*Understanding*. Finally, participants indicated their level of agreement (1 = *strongly disagree*, 7 = *strongly agree*) with two statements assessing the degree to which the participants understood each other during the conversation, at two-minute intervals. The two items were “My partner and I understood each other” and “My partner and I did not see things the same way” [reverse-coded]. The two items were averaged to form a measure of understanding for each interval ( $\alpha$ 's ranged from .70 to .91). Then, I averaged all of the interval measures together to form a composite score for *understanding* ( $M = 4.76$ ,  $SD = 1.36$ ,  $ICC = .92$ ).

## Results

Given the relatively small sample size in Study 3, I performed a power analysis using G-power (3.0). Results showed that with a sample size of 33 couples, I had 8% power to detect small effects ( $r = .10$ ), 41% power to detect medium effects ( $r = .30$ ), and 89% power to detect large effects ( $r = .50$ ). The following results should be considered in the context of the power analysis. Furthermore, the effect size of associations in the analyses may provide insight into the patterns within the data, even when those associations are not statistically significant.

### *Preliminary Analyses*

Before testing my hypotheses, I completed a number of preliminary analyses for the study. These tests evaluated the comparability of the relationships sampled to those addressed in the previous studies, provided descriptive data on the events that were the topic of the computer-assisted conversations, assessed the interaction procedures, and



evaluated bivariate associations among substantive variables. Thus, they provide background for the tests of the hypotheses that I report subsequently. I describe the results of the preliminary analyses using data from the four phases of the study in turn.

*Part 1: Daily Diaries*

Recall that in the diary portion of the study, participants responded to relationship characteristics measures both before and after the 14 daily diaries. Because measures from the post-diary questionnaire are more proximal predictors to participants' reactions in the lab, I examined the correlations among the relational turbulence model measures from the post-diary questionnaire (see Table **6-2**). The correlations were performed at the level of the individual, so they do not account for the dependence in the data between partners within couples. Self, partner, and relationship uncertainty were positively correlated with one another. As expected, turbulence was positively correlated with the relationship uncertainty measures. Furthermore, interference from a partner and turbulence were also positively associated. These correlations are consistent with results from Studies 1 and 2, as well as previous research (e.g., McLaren et al., 2008).

I also performed a paired-sample *t*-test to examine the relationship characteristics measures for the presence sex differences (see Table **6-3**). There were no significant sex differences between males and females for the relationship uncertainty measures, interference from a partner, or relational turbulence.

Because participants reported their perceptions of hurtful events in their diaries and in the lab, I performed a paired sample *t*-test to determine if there were differences between the two ratings. The ratings in the diary measures was originally on a 7-point scale, so I converted the single-item for hurt and the single-item for intentionality into

their corresponding number on a 5-point scale by dividing by 7 and multiplying by 5. The results of a paired sample  $t$ -test show that intensity of hurt did not differ significantly between the diary ( $M = 2.87$ ,  $SD = 1.12$ ) and lab ratings ( $M = 2.87$ ,  $SD = 0.88$ ),  $t(43) = 0.03$ , *ns*. On the contrary, ratings of perceived intentionality were higher in the diary entries ( $M = 2.69$ ,  $SD = 1.79$ ) than in the lab ( $M = 1.83$ ,  $SD = 0.91$ ),  $t(44) = 3.98$ ,  $p < .001$ . Although the events reported in the diaries occurred during the two weeks before participants came into the lab, the lapse of time seemed to reduce people's perceptions of intentionality of the hurtful message.

#### *Part 2: Pre-interaction Lab Questionnaire*

Recall that there were 18 participants who did not report victim accounts of hurt in their daily diaries. Those individual generated victim accounts of hurt upon arrival to the lab. I performed an independent sample  $t$ -test to determine whether the hurtful events generated in the diaries were different from those generated in the lab. Results showed no significant differences between the two groups in their reports of intensity of hurt or perceived intentionality on the pre-interaction lab questionnaire.

Next, I examined the correlations among the variables for the follow-up accounts of hurtful messages that participants completed in the lab (see Table 6-4). For the victim accounts of hurt, intensity of hurt was positively associated with negative emotions, but not perceived intentionality. In addition, negative emotions and intentionality were positively correlated. In Table 6-4 above the diagonal, the correlations between variables from perpetrator accounts of hurtful messages can be found. There was one difference in the perpetrator accounts: hurt and intentionality were positively correlated in the perpetrator accounts, but were not significantly correlated in the victim accounts.

To examine the role-related differences, I inspected the correlations between victims and perpetrators accounts of the same events (see Table 6-5). Because each couple reported on two events, I separated them into incidents reported by a male victim and incidents reported by a female victim. For the events with the male as a victim, victim ratings of hurt and intentionality had positive correlations with perpetrator ratings of those variables. For the events that female victims reported, only the victim's perception of intentionality was positively correlated with the male perpetrator's self-reported intentionality.

I also compared victim and perpetrator ratings of the same event using a paired sample *t*-test (see Table 6-6). Results showed that female victims reported less intensity of hurt than male perpetrators. Similarly, male victims reported less intensity of hurt compared to the female perpetrators. Taken together, the general pattern shows that male and female victims both rated events as less hurtful than the perpetrators, which is consistent with the findings in Study 2.

### *Part 3: Computer-Assisted Interaction*

I performed a manipulation check of the interaction procedures using measures completed following the computer-assisted conversation. In particular, I checked to see if participants rated the conversation as sufficiently realistic and comfortable. I used a one-sample *t*-test to determine whether realism, typicality, comfort with the interaction, and comfort with technology were significantly above the mid-point (= 4) of the scales. Results showed that all of the variables were significantly above the midpoint, indicating that the conversations were sufficiently realistic and comfortable for the participants (see Table 6-7).

*Part 4: Video-Assisted Recall*

To provide initial insight into the hypothesized associations, I inspected the correlations among the turbulence and the video-assisted recall variables (see Table **6-8**). Turbulence was positively correlated with perceptions of a partner's disaffiliation and negatively associated with understanding. Perceptions of a partner's dominance were positively associated with perceptions of a partner's disaffiliation, self-reported dominance, and self-reported disaffiliation. Similarly, perceptions of a partner's disaffiliation were positively correlated with self-reported dominance and self-reported disaffiliation. Self-reported dominance and self-reported disaffiliation were also positively correlated. Finally, understanding was negatively correlated with perceptions of a partner's dominance and perceptions of a partner's disaffiliation, as well as self-reported disaffiliation.

I also examined the correlations between partners' perceptions of the conversation (see Table **6-9**). Males' and females' ratings of relational turbulence were positively correlated. Perceptions of a partner's dominance were positively correlated between males and females. Finally, males' and females' ratings of conversation difficulty were positively associated, as were their ratings of understanding. With the couple as the unit of analysis, discrepancy in perceptions of females' dominance and discrepancies in perceptions of males' dominance correlated  $.76, p < .001$ . In addition, discrepancy in perceptions of females' disaffiliation and discrepancy in perceptions of males' disaffiliation correlated  $.85, p < .001$ .

Table **6-10** contains the results of a paired sample *t*-tests comparing the variables in the post-interaction measures between males and females. Results showed that males

had higher perceptions of a partner's disaffiliation in the conversations than did females. Furthermore, males had higher levels of self-reported disaffiliation than females. There were not other significant sex differences in the other variables from the post-interaction measures. Discrepancies in perceptions of males and females did not differ for either dominance or disaffiliation.

### *Substantive Analyses*

Because of the small size of the sample, I utilized two methods for testing my hypotheses. First, I examined the correlations for the predicted associations. Then, I used structural equation modeling (AMOS 7.0) to confirm the results of the correlations. The following goodness of fit criteria were used for the structural equation models:  $\chi^2$  test = *ns*, CFI greater than .90, and RMSEA less than .10 (Browne & Cudeck, 1993; Kline, 1998). The criterion of  $\chi^2/df < 3.00$  was used in Study 1 and Study 2 because the  $\chi^2$  test is often too sensitive for large sample sizes; I did not rely on that criterion for the present study because the sample size was small. I used parcels as single-item indicators of the latent variable and set the error variances of the parcels to  $(1 - \alpha)(\sigma^2)$  to account for the measurement error of the scales (Bollen, 1989). The use of parcels to account for measurement error is one advantage of SEM relative to correlational analysis.

Recall that H4 predicted that relational turbulence is positively associated with perceptions of dominance and disaffiliation. As a first test of H4, I examined the within-couple correlations among males' and females' relational turbulence and perceptions of dominance and disaffiliation (see Table **6-11**). Results showed females' relational turbulence had a positive association with their perceptions of males' disaffiliation, but not dominance. On the contrary, males' turbulence was not associated with their

perceptions of females' dominance or their perceptions of females' disaffiliation. Thus, H4 was only partially supported, for females' turbulence and perceptions of disaffiliation

Next, I tested H4 using structural equation modeling. Because the individuals were nested within a couple, I constructed a model with the female's ratings of turbulence, dominance, and disaffiliation in the top portion of the model and the male's ratings on the lower portion of the model (see Figure 6-1). My hypothesized model shows dominance predicting disaffiliation, based on the results of Studies 1 and 2. Because partners were in a conversation with one another, one partner's behavior will likely influence the other person's behavior; consequently, I allowed the error terms for the dependent variable to covary to account for dependence in the data (Kashy & Kenny, 1999; Kenny, 1996a). The predicted model provided a good fit for the data on all criteria except for RMSEA,  $\chi^2 = 12.23$ ,  $df = 9$ ,  $p = .20$ , CFI = .97, RMSEA = .11.

In addition, the path coefficients (see Figure 6-1) confirmed what I found in the correlational analysis. Females' relational turbulence had a positive association with females' perceptions of a partner's dominance, consistent with H4. Contrary to H4, this path was not significant for males. Consistent with my expectations, perceptions of dominance were positively associated with perceptions of disaffiliation, for both males and females.

I tested H5 and H6 using the same combination of bivariate correlations and structural equation modeling. First, I examined the correlations among relational turbulence and discrepancies in partners' perceptions of dominance, discrepancies in partners' perceptions of disaffiliation, understanding, and difficulty (see Table 6-12). Recall that H5 predicts that relational turbulence is positively associated with

discrepancies in perceptions of dominance and disaffiliation. The results from the correlations did not show support for the association between relational turbulence and discrepancies in perceptions of dominance or disaffiliation; these findings are contrary to H5. H6 predicts that discrepancies in perceptions of dominance and disaffiliation are negatively associated with understanding and positively associated with conversation difficulty. There was partial support for H6: discrepancies in perceptions of males' and females' dominance were both negatively correlated with males' and females' ratings of understanding. In contrast and contrary to H6, discrepancies in perceptions of males' and females' disaffiliation were not significantly associated with understanding. Finally, discrepancies in perceptions of dominance and disaffiliation were not significantly correlated with ratings of difficulty, which was also inconsistent with H6. Taken as a set, the correlations provide minimal support for the hypotheses.

In summary, the correlational analysis showed that relational turbulence was not significantly correlated with discrepancies in perceptions of dominance or disaffiliation, contrary to H5. H6 did receive partial support, such that discrepancies in perceptions of males' and females' dominance were negatively associated with ratings of understanding for both males and females.

Next, I constructed structural equation models (AMOS 7.0) to test portions of H5 and H6. Figure 6-2 shows males' and females' relational turbulence predicting discrepancies in perceptions of males' or females' dominance or disaffiliation, with understanding as the dependent variable. I predicted that turbulence increases discrepancies in perceptions of dominance and disaffiliation, which decreases males' and females' ratings of understanding. I tested discrepancies in perceptions of dominance and

disaffiliation in separate models, and separate models were required to test discrepancies in perceptions of males versus females. I constructed parallel models with difficulty as the dependent variable (see Figure **6-3**).

The fit statistics for the four models with understanding as the dependent variable are reported in Table **6-13**. The model with discrepancies in perceptions of males' dominance fit the data. The other three models showed an overall pattern of fit, despite the fact that the RMSEA was larger than my criterion. In addition, the CFI for the model with discrepancies of female's disaffiliation was also lower (.89) than my criterion (> .90). Nonetheless, the models fit relatively well.

The fit statistics for the models with difficulty as the dependent variable also showed relatively good fit for the data (see Table **6-13**). The four models had sufficient fit on all the indices except for RMSEA, which ranged from .10 to .15 instead of meeting the criterion of < .10.

Despite the moderate fit of the models, I examined the path coefficients (see Table **6-14**) and found them to be consistent with the bivariate correlations. First, turbulence was not significantly associated with discrepancies in perceptions dominance or disaffiliation, for males or females. Thus, H5 was not supported by the results of either the SEM or the correlational analysis. Discrepancies in perceptions of males' or females' dominance had negative and significant paths to both males' and females' understanding. For discrepancies in perceptions of males' or females' disaffiliation, only the negative path from discrepancies in perceptions of female's disaffiliation to males' understanding was statistically significant. These findings were consistent with the bivariate



associations. In the model predicting difficulty of the conversation, none of these paths were significant; these findings mirror the bivariate correlations reported previously.

Taken together, the results of the structural equation models show partial support for my hypothesized model and are mostly consistent with my findings in the bivariate correlations. Specifically, the results of the SEM did not show support for H5, but did show partial support for H6, such that discrepancies in perceptions of dominance were negatively associated with males' and females' ratings of understanding.

### Discussion

My goal in Study 3 was to test how relational turbulence influenced people's ability to coordinate relational inferences. Specifically, I predicted that relational turbulence influenced perceptions of dominance and disaffiliation in a conversation between romantic partners about past hurtful events (H4). Results showed that turbulence was significantly associated with dominance for females, but not for males, lending partial support to H4. Perceptions of dominance were positively associated with disaffiliation, which was not explicitly stated in a hypothesis, but was included in my hypothesized model and is consistent with findings in Studies 1 and 2. I also hypothesized that relational turbulence would increase the discrepancy in perceptions of dominance and disaffiliation (H5), but this hypothesis was not supported. Finally, I predicted that the discrepancy in perceptions of dominance and disaffiliation would decrease understanding and increase difficulty of the conversation (H6); this hypothesis was partially supported. Discrepancies in perceptions of males' dominance were negatively associated with males' and females' understanding. Likewise, discrepancies in perceptions of females' dominance were negatively associated with males' and females'

understanding. In addition, discrepancies in perceptions of females' disaffiliation were negatively associated with males' understanding. The models with difficulty as the dependent variable had no significant paths.

The findings in support of H4 mirror the results in Study 2, which showed that females' turbulence predicted their perceptions of dominance in a partner's past hurtful message. In both Studies 2 and 3, the path from turbulence to perceptions of dominance was not significant for males. For females, relational turbulence does seem to increase judgments of dominance, both in a partner's hurtful message and in a conversation about a past hurtful message. The results for relational turbulence predicting discrepancies in perceptions of relational judgments did not support H5. This finding is inconsistent with my reasoning, and suggests that relational turbulence does not influence the discrepancies in perceptions of relational judgments. Perhaps there are other more proximal predictors of the discrepancy in couple's perceptions of each other's dominance and disaffiliation. Although speculative, other characteristics of the conversation may have influenced the discrepancy in perceptions of relational judgments. Future research could compare conversation characteristics to determine the predictors of discrepancies in perceptions of relational judgments.

When comparing the findings of Study 3 to Studies 1 and 2, there are some notable consistencies. In Study 1, relational turbulence influenced perceptions of dominance for males. In Studies 2 and 3, turbulence was positively associated with perceptions of dominance for females. Interestingly, the methods in Studies 2 and 3 were quite different and still showed the same associations for females. In Study 2, participants indicated the dominance present in a partner's past hurtful message. In Study 3,

participants rated their perceptions of dominance based on video-assisted recall of a computer-mediated conversation about a past hurtful event. Although the results should not be overstated, the consistency in the association between turbulence and perceptions of dominance for females across two studies is noteworthy.

Study 3 also contributes to an understanding of the nature of relational inferences. First, perceptions of dominance were positively associated with perceptions of disaffiliation, which was found in Studies 1 and 2, as well. Second, discrepancies in relational judgments influenced people's ratings of mutual understanding and conversation difficulty. Based on these results, it seems that dominance and disaffiliation are relevant to understanding people's reactions to hurtful interactions, as well as their conversations about those events.

Another contribution of Study 3 was the finding that discrepancies in perceptions of dominance were negatively associated with understanding. When people have differing views of the implications of an interaction, it seems to reduce each of their perceptions of understanding. The discrepancy score was calculated post-hoc, by subtracting a partner's perception of dominance from a person's self-reported dominance. Thus, participants may not have been aware that there were discrepancies in their perceptions of each other's dominance; nonetheless the variable reflecting this difference was associated with ratings of mutual understanding in the conversation. This finding suggests that even if people are not aware that their relational inferences are misaligned, discrepancies may affect their ability to reach a mutual understanding with one another.

Although the results of this study are important, the small sample size constitutes a major limitation in Study 3. Because participants were involved in such lengthy

procedures, which included both an online diary portion and a lab portion, this study took time and resources that limited the number of people who were able to participate. The sample size also meant that power to detect statistical significance was low. More data needs to be collected before firm conclusions are made about the associations examined in this study.

In conclusion, the hypotheses for Study 3 were largely unsupported. Relational turbulence was only associated with perceptions of dominance for females; the remaining predictions involving relational turbulence were not supported. Despite the limited findings for relational turbulence, the predictions involving relational messages received some support. More specifically, perceptions of dominance were positively associated with perceptions of disaffiliation. Furthermore, discrepancies in perceptions of dominance were negatively associated with understanding for both males and females. Finally, discrepancies in perceptions of females' disaffiliation were negatively associated with males' understanding. Taken together, this study lays the groundwork for future research investigating how relational characteristics and relational judgments influence people's ability to achieve mutual understanding.

Table 6-1. *Descriptive Statistics for Victim Accounts of Hurtful Episodes*

	Victim Events	Victim Hurt	Victim Intent	Perpetrator Events	Perpetrator Hurt	Perpetrator Intent
Day 1 ( <i>N</i> = 75)	28% ( <i>n</i> = 25)	4.05 (1.72)	2.90 (1.79)	37.33% ( <i>n</i> = 28)	3.75 (1.43)	2.43 (1.83)
Day 2 ( <i>N</i> = 76)	17.1% ( <i>n</i> = 13)	3.62 (1.81)	3.00 (1.73)	11.84% ( <i>n</i> = 9)	3.89 (1.62)	3.00 (2.00)
Day 3 ( <i>N</i> = 70)	21.43% ( <i>n</i> = 15)	3.14 (1.56)	2.40 (1.72)	7.14% ( <i>n</i> = 5)	4.20 (1.92)	3.00 (2.35)
Day 4 ( <i>N</i> = 75)	12.16% ( <i>n</i> = 9)	4.56 (1.94)	2.78 (2.49)	8.10% ( <i>n</i> = 6)	4.33 (1.75)	2.33 (1.75)
Day 5 ( <i>N</i> = 22)	18.18% ( <i>n</i> = 4)	4.75 (1.26)	3.00 (2.71)	13.64% ( <i>n</i> = 3)	4.33 (2.08)	2.67 (2.89)
Day 6 ( <i>N</i> = 59)	11.86% ( <i>n</i> = 7)	3.29 (1.80)	2.14 (0.69)	8.45% ( <i>n</i> = 5)	3.80 (1.64)	2.40 (1.95)
Day 7 ( <i>N</i> = 71)	7.04% ( <i>n</i> = 5)	2.00 (1.23)	1.20 (0.45)	8.45% ( <i>n</i> = 6)	3.17 (2.23)	1.33 (0.52)
Day 8 ( <i>N</i> = 69)	13.04% ( <i>n</i> = 9)	2.22 (1.72)	1.89 (1.05)	5.80% ( <i>n</i> = 4)	2.75 (2.22)	3.00 (1.50)
Day 9 ( <i>N</i> = 71)	8.45% ( <i>n</i> = 6)	3.83 (1.47)	2.67 (1.75)	9.86% ( <i>n</i> = 7)	3.28 (1.25)	2.57 (2.37)
Day 10 ( <i>N</i> = 69)	2.90% ( <i>n</i> = 2)	4.75 (1.89)	2.75 (2.87)	5.80% ( <i>n</i> = 4)	4.40 (1.52)	3.20 (1.10)
Day 11 ( <i>N</i> = 67)	5.97% ( <i>n</i> = 4)	3.75 (2.06)	2.75 (2.36)	2.99% ( <i>n</i> = 2)	4.00 (0.00)	1.00 (0.00)
Day 12 ( <i>N</i> = 69)	10.14% ( <i>n</i> = 7)	5.57 (1.72)	4.00 (2.31)	8.70% ( <i>n</i> = 6)	4.50 (2.26)	3.33 (2.58)
Day 13 ( <i>N</i> = 69)	4.35% ( <i>n</i> = 3)	5.33 (1.53)	4.33 (2.89)	2.90% ( <i>n</i> = 2)	4.50 (0.71)	1.00 (0.00)
Day 14 ( <i>N</i> = 70)	1.43% ( <i>n</i> = 1)	7.00 (0.00)	4.33 (3.00)	2.86% ( <i>n</i> = 2)	5.00 (1.41)	2.00 (1.41)
Averages	11.58% ( <i>n</i> = 7.57)	3.83 (1.74)	2.60 (1.77)	9.56% ( <i>n</i> = 6.36)	3.91 (1.53)	2.43 (1.82)

*Note.* *N* = number of people who submitted a diary that day. Values in columns for hurt and intentionality are means and values in parentheses are standard deviations. The scale for hurt and intentionality ranged from 1-7, such that higher values indicate greater hurt or perceived intentionality. All of the participants who completed diary entries are included in the table. There were 4 people who dropped out of the diary portion and 6 people who were not able to schedule a time in the lab.

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 Table 6-2. *Correlations among Relationship Characteristic Variables*

Variable	V1	V2	V3	V4	V5
V1: Self uncertainty	---				
V2: Partner uncertainty	.77**	---			
V3: Relationship uncertainty	.89**	.86**	---		
V4: Interference from partners	-.12	-.07	-.05	---	
V5: Turbulence	.32*	.38*	.46*	.27*	---

---

Note.  $N = 66$ .

\*  $p < .05$ . \*\*  $p < .001$

---

Table 6-3. *Paired Sample t-tests Comparing Relational Characteristics for Males and Females*

	Males ( <i>n</i> = 33)	Females ( <i>n</i> = 33)	<i>t</i>
Self-Uncertainty	1.92 (1.01)	1.63 (1.04)	-1.82
Partner Uncertainty	2.11 (1.13)	2.13 (1.31)	0.08
Relationship Uncertainty	2.10 (0.89)	1.98 (1.14)	-0.92
Interference	3.02 (1.29)	2.76 (0.99)	-0.83
Turbulence	2.62 (1.30)	2.48 (1.34)	-0.97

---

*Note.* *N* = 33. Cell entries for males and females are means; parenthetical values are standard deviations.  
 \**p* < .05. \*\**p* < .001.

---

Table 6-4. *Correlations among Reactions to Hurtful Messages Measured in the Pre-Interaction Lab Questionnaire*

	V1	V2	V3
V1: Hurt	---	.62**	.32**
V2: Negative Emotions	.57**	---	.33*
V3: Intent	.20	.43**	---

---

*Note.*  $N = 64$ . Values below the diagonal represent correlations among the variables for the victim accounts of hurt.

Values above the diagonal represent correlations among the variables for the perpetrator accounts of hurt.

\*  $p < .05$ . \*\*  $p < .001$ .



---

Table 6-5. *Correlations Between Victim and Perpetrator Reactions to Hurtful Messages*

	Male Victim; Female Perpetrator	Female Victim; Male Perpetrator
V1: Hurt	.40*	.14
V3: Intent	.38*	.36*

---

*Note.*  $N = 31$ . Values represent correlations between variables reported by the victim and the perpetrator.

\*  $p < .05$ . \*\*  $p < .001$ .

---

Table 6-6. *Paired Sample t-tests Comparing Perceptions of Hurtful Events Between Victims and Perpetrators*

	Female Victim ( <i>n</i> =32)	Male Perpetrator ( <i>n</i> =32)	<i>t</i>
Hurt	2.97 (0.92)	3.40 (0.68)	-2.27*
Intentionality	1.48 (0.63)	1.53 (0.81)	-0.29
	Male Victim ( <i>n</i> =32)	Female Perpetrator ( <i>n</i> =32)	<i>t</i>
Hurt	2.57 (0.91)	3.16 (1.21)	-2.76*
Intentionality	2.20 (1.11)	1.90 (1.22)	1.29

---

\*  $p < .05$ . \*\*  $p < .001$ .

---

Table 6-7. *One-Sample t-tests Comparing Post-Interaction Measures of Realism and Comfort to the Mid-Point (= 4) of the Scale*

Variable	Mean	Standard Deviation	<i>t</i>
Realism	4.92	1.71	4.39**
Typicality	4.91	1.17	6.30**
Comfort with Interaction	4.75	1.41	4.34**
Comfort with Technology	4.77	1.46	4.29**

---

*Note.*  $N = 66$ . All of the scales had a mid-point of 4.

\*  $p < .05$ . \*\*  $p < .001$ .

---

 Table 6-8: Correlations among Turbulence and Video-Assisted Recall Variables

	V1	V2	V3	V4	V5	V6	V7
V1: Turbulence	---						
V2: Perceptions of Partner's Dominance	.20	---					
V3: Perceptions of Partner's Disaffiliation	.31*	.73**	---				
V4: Self-reported Dominance	.07	.58**	.35**	---			
V5: Self-reported Disaffiliation	.23	.71**	.87**	.47**	---		
V6: Conversation Difficulty	.02	.13	.13	-.06	.11	---	
V7: Understanding	-.40*	-.35*	-.56**	-.01	-.48**	-.01	---

---

*Note.*  $N = 66$ . Variable 2 through Variable 7 are aggregate variables that were computed by averaging together each participant's responses on those items for the two-minute intervals.

\*  $p < .05$ . \*\* $p < .001$ .

---

Table 6-9: *Correlations Between Males and Females Perceptions of the Conversation*

V1: Relational Turbulence	.82**
V2: Perceptions of a Partner's Dominance	.37*
V3: Perceptions of a Partner's Disaffiliation	.34
V4: Self-reported Dominance	-.01
V5: Self-reported Disaffiliation	.20
V6: Conversation Difficulty	.40*
V7: Understanding	.56*

---

*Note.*  $N = 33$ . Ratings of the conversations are composite measures that were computed by averaging together each participant's responses on those items for the two-minute intervals.

\*  $p < .05$ . \*\*  $p < .001$ .

Table 6-10. Paired Sample *t*-tests Comparing Post-Interaction Questionnaires for Males and Females

	Males ( <i>N</i> = 33)	Females ( <i>N</i> = 33)	<i>t</i>
V1: Turbulence	2.62 (1.30)	2.48 (1.34)	-0.97
V2: Self-reported Dominance	2.66 (1.32)	2.35 (1.37)	-1.07
V3: Self-reported Disaffiliation	2.49 (1.08)	1.98 (1.08)	-2.14*
V4: Perceptions of a Partner's Dominance	2.42 (1.33)	2.25 (1.48)	-0.61
V5: Perceptions of a Partner's Disaffiliation	2.51 (1.19)	1.95 (1.20)	-2.37*
V6: Difficulty	2.73 (1.23)	2.57 (1.23)	-0.70
V7: Understanding	4.58 (1.32)	4.94 (1.39)	1.60

*Note.* Cell entries for males and females are means; parenthetical values are standard deviations.

\*  $p < .05$ . \*\*  $p < .001$ .

Table 6-11. *Correlations Among Turbulence, Dominance, Disaffiliation, Understanding, and Difficulty of Males and Females*

	V1	V2	V3	V4	V5	V6
V1: Female Turbulence	---					
V2: Male Turbulence	.82**	---				
V3: Female Perception of Male Dominance	.31	.36*	---			
V4: Male's Perception of Female Dominance	.17	.07	.37*	---		
V5: Female Perception of Male Disaffiliation	.42*	.42*	.81**	.13	---	
V6: Male's Perception of Female Disaffiliation	.25	.19	.30	.66*	.34	---

Note.  $N = 33$ . Correlations were performed with the dyad as the unit of analysis.

\* $p < .05$ . \*\* $p < .001$ .

Table 6-12. *Correlations Among Turbulence, Discrepancy of Dominance, Discrepancy of Disaffiliation, Understanding, and Difficulty*

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
V1: Female Turbulence	---									
V2: Male Turbulence	.82**	---								
V3: Discrepancy in Perceptions of Males' Dominance	.26	.24	---							
V4: Discrepancy in Perceptions of Females' Dominance	.06	.16	.76**	---						
V5: Discrepancy in Perceptions of Males' Disaffiliation	.14	.21	.50*	.53*	---					
V6: Discrepancy in Perceptions of Females' Disaffiliation	-.06	.08	.44*	.53*	.85**	---				
V7: Female Understanding	-.37*	-.26	-.42*	-.38*	-.29	-.15	---			
V8: Male Understanding	-.34	-.37*	-.46*	-.51*	-.27	-.29	.56**	---		
V9: Female Difficulty	.12	-.06	-.09	-.07	-.14	-.11	-.14	.13	---	
V10: Male Difficulty	.09	-.12	.15	.26	.09	.05	.11	.15	.42*	---

Note. N = 33. Correlations were performed with the dyad as the unit of analysis.

\* $p < .05$ . \*\* $p < .001$ .



Table 6-13. *Fit Statistics for Predicted Models*

<u>DV: Understanding</u>	$\chi^2$	<i>p</i>	CFI	RMSEA
Discrepancies in Perceptions of Males' Dominance	5.60	.35	.99	.06
Discrepancies in Perceptions of Males' Disaffiliation	7.70	.17	.95	.13
Discrepancies in Perceptions of Females' Dominance	8.60	.13	.94	.15
Discrepancies in Perceptions of Females' Disaffiliation	10.48	.06	.89	.19
<u>DV: Difficulty</u>				
Discrepancies in Perceptions of Males' Dominance	5.43	.25	.97	.11
Discrepancies in Perceptions of Males' Disaffiliation	5.43	.25	.96	.11
Discrepancies in Perceptions of Females' Dominance	7.03	.13	.93	.15
Discrepancies in Perceptions of Females' Disaffiliation	5.36	.25	.97	.10

*Note.*  $N = 33$ . Values in italics fall below my a priori standards for the fit statistic.

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 Table 6-14. *Path Coefficients for Structural Equation Models*

	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
<u>DV: Understanding</u>				
Discrepancies in Perceptions of Males' Dominance	.23	.07	-.54*	-.58**
Discrepancies in Perceptions of Males' Disaffiliation	-.25	.44	-.34	-.32
Discrepancies in Perceptions of Females' Dominance	-.25	.45	-.50*	-.67**
Discrepancies in Perceptions of Females' Disaffiliation	-.49	.50	-.18	-.35*
<u>DV: Difficulty</u>				
Discrepancies in Perceptions of Males' Dominance	.36	-.06	-.10	.18
Discrepancies in Perceptions of Males' Disaffiliation	-.44	.64	-.15	.09
Discrepancies in Perceptions of Females' Dominance	-.58	.71	-.10	.29
Discrepancies in Perceptions of Females' Disaffiliation	-.94	.95	-.12	.05

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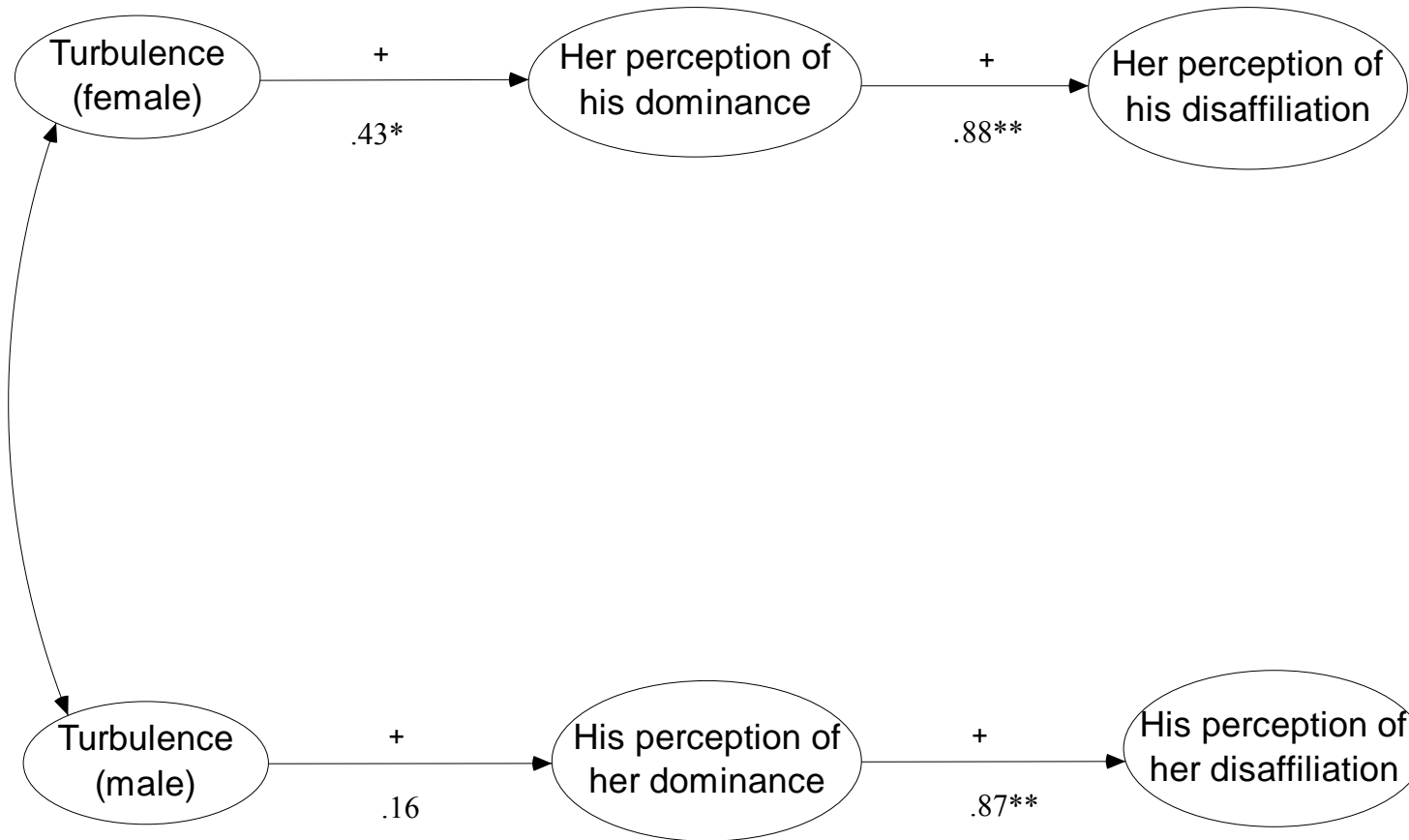


Figure 6-1. *The Predicted Model for Associations Among Relational Turbulence, Dominance, Disaffiliation Understanding, and Difficulty.*

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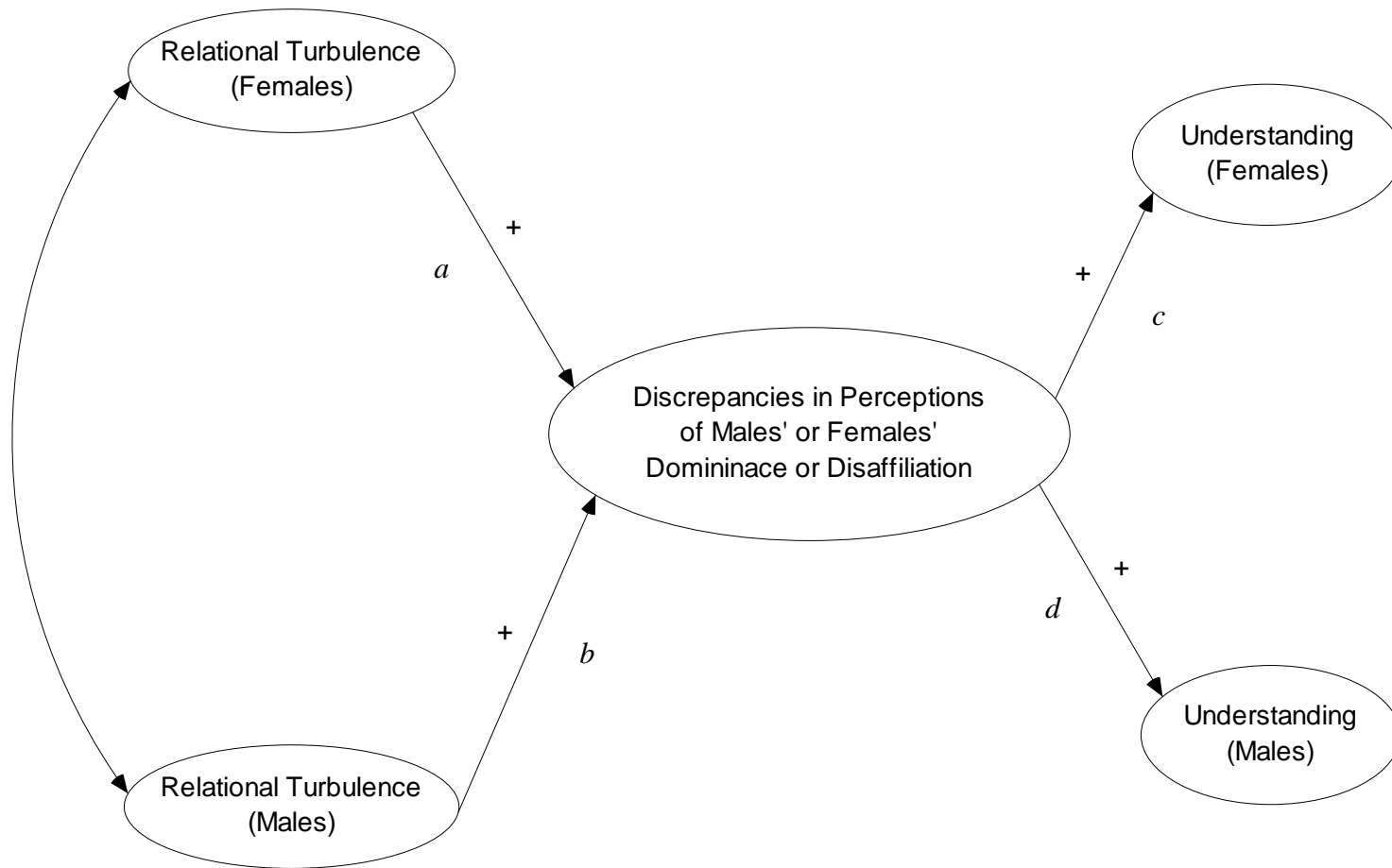


Figure 6-2. Structural Equation Model for the Associations Among Turbulence, Discrepancies in Perceptions of Males' of Females' Dominance or Disaffiliation, and Difficulty

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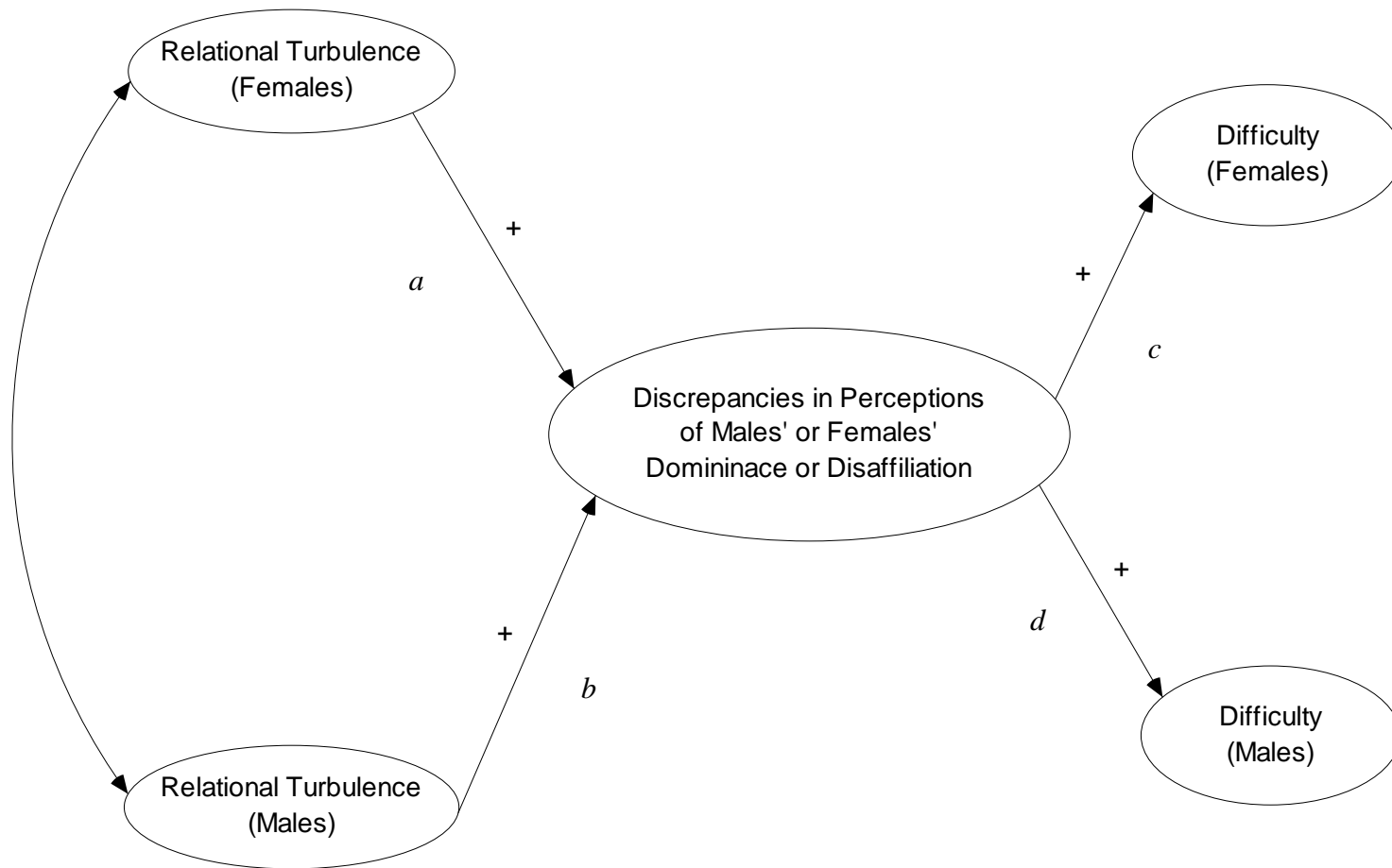


Figure 6-3. Structural Equation Model for the Associations Among Turbulence, Discrepancies in Perceptions of Males' or Females' Dominance or Disaffiliation, and Difficulty

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## **Chapter 7**

### **Discussion**

People in romantic relationships face an array of challenges, from irritations (Solomon & Knobloch, 2004) to jealousy-provoking events (Knobloch, Solomon, & Cruz, 2001), to serial arguments (Roloff & Johnson, 2002). The experience of being in a relationship also comes with uncertainties, such as doubts about the future of the association. Moreover, relationships require the negotiation of interdependence, which often results in missteps and frustrations. In the face of these challenges, people react in different ways. Sometimes a misunderstanding is easily resolved; other times it might become the topic of a lengthy argument. In the context of hurt, painful words are sometimes brushed aside, whereas other times, people dwell on a hurtful comment for many months, or even years (e.g., Vangelisti & Young, 2000). The main focus of this dissertation was to understand the factors that contribute to people's varied reactions to relational events.

I drew from the relational turbulence model (Solomon & Knobloch, 2001, 2004) as my theoretical perspective, because it nominates two mechanisms that contribute to reactivity in relationships. Specifically, the theory identifies interference from a partner and relational uncertainty as features of relationships that promote turbulence. In turn, relational turbulence is thought to result in more extreme or polarized communicative, cognitive, and emotional reactions to relationship events. Extant research has shown that relational uncertainty and interference from a partner influence people's reactions to a number of events, such as experiences of sexual intimacy (e.g., Theiss, 2007), the

diagnosis of breast cancer (Weber & Solomon, 2007), and perceptions of network interference (Knobloch & Donovan-Kicken, 2006).

I chose to focus on hurt feelings as the context for this dissertation, because people react in varied ways to hurtful messages. Sometimes careless words cause intense emotional pain and other times they evoke only minimal amounts of hurt (e.g., Vangelisti, 2001). In addition to various emotional reactions, hurt elicits different cognitive reactions as well. For example, perceived intentionality has been an important variable for understanding people's reactions to hurt because it is positively associated with intensity of hurt and relational distancing (Vangelisti & Young, 2000). People also respond to hurtful messages with various types of communication, such as crying, yelling, or laughing (Vangelisti & Crumley, 1998). Thus, hurtful messages are an appropriate context for this dissertation because they elicit varied emotional, cognitive, and communicative responses.

In addition to using the relational turbulence model to predict reactions to hurtful messages, I also sought to expand the theory by specifying the mechanism linking relational turbulence and reactivity. First, I reviewed literature on uncertainty and interdependence, the two main research traditions that contributed to the relational turbulence model. I highlighted the need for further inquiry into the influence of relational uncertainty on message processing. Furthermore, I suggested a broader conception of interdependence, which includes both behavioral and cognitive aspects, and suggested ways in which difficulty coordinating interdependence might influence people's relational inferences. The review of these literatures illustrated the utility of

incorporating relational communication into the theoretical architecture of the relational turbulence model.

I turned to the literature on relational communication and surveyed its history. This body of work consistently points to two substantive dimensions of human interaction: dominance-submission and affiliation-disaffiliation. A recent theory of relational communication, relational framing theory (Dillard et al., 1996), explains the process by which people make relational inferences. Relational inferences are precisely the type of communication that people experiencing relational turbulence have difficulty coordinating. Consequently, I concluded that relational communication was a fitting addition to the relational turbulence model.

By integrating relational communication and the relational turbulence model, I developed specific predictions about the associations among relational turbulence, dominance, disaffiliation, and reactions to hurtful events. Specifically, I hypothesized that relational turbulence would be positively associated with perceptions of dominance and disaffiliation in a hurtful interaction with a romantic partner (H1). I also predicted that perceptions of dominance and disaffiliation would result in more intense reactions to hurt, as indexed by intensity of hurt, negative emotions, and perceptions of intentionality (H2). In an effort to bring a dyadic approach to these predictions, I posited that the associations specified in H1 and H2 remain significant after controlling for the perpetrator's perceptions of the victim's reactions to hurt (H3).

I also considered the effects of relational turbulence on conversation partners have about a past hurtful message. In a fourth hypothesis, I predicted that relational turbulence is positively associated with people's perceptions of dominance and disaffiliation in a



conversation about a past hurtful event (H4). To the extent that partners are experiencing turbulence, they might have difficulty drawing similar relational inferences. Consequently, I also predicted that relational turbulence increases partner's discrepancies in perceptions of dominance and disaffiliation in a conversation about past hurtful events (H5). In turn, I hypothesized that discrepancies in partners' perceptions of dominance and disaffiliation decrease their mutual understanding and increase their perceptions of the difficulty of the conversation (H6). In other words, misaligned relational inferences obstruct people's ability to achieve mutual understanding and increase feelings of difficulty during a conversation focused on resolving a past hurtful event.

To review, the overarching focus of this dissertation was to understand why people's reactions to relationship events varied. I used the relational turbulence as my theoretical perspective and focused on hurtful events as the context. Finally, I added the concept of relational communication to make specific predictions about the associations among relational turbulence, perceptions of dominance and disaffiliation, responses to hurtful events, and perceptions of conversations. In the following sections, I discuss the findings and limitations for the studies.

### Summary of Methodology and Findings

I conducted three studies that shared a focus on relational turbulence, dominance, disaffiliation, and hurtful messages, but they differed in their specific procedures for examining the association among those variables. The samples in the three studies all involved college students in non-marital romantic associations; most reported that their relationships were high in quality, with minimal turbulence and uncertainty. I review the methods and results for each study, in turn.

*Study 1*

In Study 1, participants and their dating partners reported to a campus location to complete questionnaires and engage in two conversations about two of the participant's core traits or values. The dating partner was a confederate and coached to be supportive in the first conversation and unsupportive in the second conversation with the participant about his or her core traits or values. Following the interaction, participants responded a questionnaire about their perceptions of dominance, disaffiliation, intensity of hurt, negative emotions, and intentionality with regard to the hurtful interaction. Thus, Study 1 captured participants' responses to hurtful interactions that were a result of an experimental manipulation. Although this study was limited in external validity, the methodology allowed me to capture people's contemporaneous reactions to hurtful conversations.

I found that relational turbulence was positively associated with perceptions of dominance for male participants, but not female participants, which provided partial support for H1. The results of the structural equation model showed that both males' and females' perceptions of dominance were positively associated with perceptions of disaffiliation. Perceptions of disaffiliation were positively associated with intensity of hurt, negative emotions, and perceptions of intentionality, which supported H2.

The results of Study 1 provided the first test of the integration of the relational turbulence model with relational judgments. It also provided the foundation for my thinking in the following two studies, because the results showed that turbulence was associated with perceptions of dominance, which was positively related to disaffiliation. Although I did not test the order of the relational inferences, the results of Study 1

informed the sequence of dominance and disaffiliation in my models for the subsequent studies.

### *Study 2*

Study 2 differed in a few substantive ways compared to Study 1. Instead of having a hurtful interaction in the lab, participants in Study 2 recalled instances of hurt that occurred in the previous two weeks in their relationship. Specifically, they responded to questions about two matched events: one event when the female was a victim of hurt and the male was a perpetrator of hurt, and another when the male was victim and the female was a perpetrator. This research design allowed me to assess the effect of an individual's turbulence, as well as their partner's turbulence, on reactions to hurt. Furthermore, the design in Study 2 allowed me to replicate the associations among turbulence, relational judgments, and reactions to hurt documented in Study 1.

I found partial support for H1 and H2 in Study 2. The association between relational turbulence and dominance was not significant for males in Study 2, as it was in Study 1. Instead, the path from turbulence to dominance was significant for females in Study 2. It seems that there are sex differences in turbulence's effect on relational judgments, but the exact nature of these sex differences is yet to be determined. The findings for the associations among dominance, disaffiliation, and reactions to hurt were mostly consistent with Study 1; dominance was positively associated with disaffiliation, and disaffiliation was positively related to intensity of hurt and negative emotions. Although, disaffiliation had a positive path to perceived intentionality, the overall structural equation model did not fit the data adequately.

Study 2 also included dyadic data because both the victim and perpetrator of a hurtful incident provided their perceptions of the event. I constructed an additional structural equation model that incorporated the perpetrator's perceptions of the victims' intensity of hurt, negative emotions, and the perpetrator's self-reported intentionality. Results showed that the associations among the variables described above remained significant after the addition of the perpetrator variables, which supported H3. Just as in the results for H1 and H2, the model for intentionality did not fit the data, but the path coefficients were significant and in the predicted directions.

The results of Study 2 provided a replication of the findings in Study 1, demonstrating that the incorporation of relational communication into the relational turbulence model is a fruitful expansion of the theory. Study 2 also added a dyadic test of the associations among relational turbulence, dominance, disaffiliation, and reactions to hurt, with the addition of the perpetrator's perceptions of the victim's experience of hurt.

### *Study 3*

In Study 3, participants kept diaries about past hurtful events for two weeks, and then they came into the lab to engage in a computer-mediated conversation about two past incidents of hurt in their relationship. My predictions for Study 3 were focused on understanding how turbulence influenced relational inferences and people's ability to achieve intersubjectivity. Specifically, I predicted that both partners' turbulence would shape perceptions of dominance and disaffiliation in a conversation focused on resolving past incidents of hurt. Moreover, the design allowed me to assess the effect of turbulence on the similarity of a couple's relational inferences. Because I had data from both members of the couple, I was able to inspect the discrepancies between people's

perceptions of each other's dominance and disaffiliation and how those discrepancies influenced mutual understanding and perceptions of the conversation as difficult.

With regard to relational turbulence, results for Study 3 were consistent with Study 2. Specifically, relational turbulence and perceptions of dominance were significantly associated for females, but not for males. Furthermore, perceptions of dominance were positively related to perceptions of disaffiliation in a conversation about a past hurtful event, for both males and females. Thus, H4 was supported for females, but only partially supported for males because males' turbulence was not significantly associated with perceptions of dominance.

Results for the associations among turbulence and discrepancies in perceptions of dominance and disaffiliation showed no support for H5. In particular, I observed no significant paths from turbulence to discrepancies in relational messages for either males or females. Furthermore, the findings for H6 were only minimally consistent with the predictions. As expected, discrepancies in perceptions of males' and females' dominance were negatively associated with males' and females' perceptions of mutual understanding during the conversation. Moreover, discrepancies in perceptions of females' disaffiliation were negatively associated with males' ratings of understanding. Contrary to H6, none of the remaining paths were significant. Consequently, H5 was not supported and H6 was only minimally supported by the findings of Study 3.

The methodologies of the three studies allowed me assess my hypotheses using different types of data. Specifically, I was able to examine reactions to hurtful messages that were naturally occurring, as well as hurtful interactions that occurred as a result of an experimental manipulation. Second, I assessed both contemporaneous responses to

hurtful conversations and conversations about past offenses of hurt. This dissertation also included individuals' self-reported responses to hurtful incidents, as well as discrepancies between partners within a relationship. Consequently, I was able to test my hypotheses with three studies that yielded a variety of data.

### Review of the Hypotheses

Taken together, this dissertation highlights the utility in the addition of relational communication to the relational turbulence model. Although not all of the hypotheses were completely supported, the results represent a theoretical contribution to the relational turbulence model. In the following paragraphs, I summarize my conclusions with respect to each hypothesis.

H1 predicted that relational turbulence is positively associated with perceptions of dominance and disaffiliation associated with hurtful messages. H4 had the same prediction, but was focused on relational turbulence predicting dominance and disaffiliation in response to a conversation focused on resolving a past hurtful incident. Based on the results of Study 1, relational turbulence was positively associated with perceptions of dominance. This association held for either males or females in all 3 studies, which is largely supportive of H1 and H4. Despite the unexpected sex differences, the fact that relational turbulence was relevant for predicting perceptions of relational communication demonstrates the importance of taking into account both relationship characteristics, as well as specific perceptions of an interaction, for predicting people's reactions to relationship events.

In addition, my predictions about relational communication were largely supported. H2 predicted that dominance and disaffiliation are positively associated with

intensity of hurt, negative emotions, and perceived intentionality. The results from Study 1 indicated a slight change in the order of the variables, such that perceptions of dominance predicted perceptions of disaffiliation, which in turn were positively associated with intensity of hurt, negative emotions, and perceived intentionality. Results from Studies 1 and 2 supported H2, such that dominance was positively associated with disaffiliation, which positively predicted reactions to hurt. Furthermore, Study 3 further corroborated this finding, as perceptions of dominance positively predicted perceptions of disaffiliation with regard to a conversation focused on resolving a past hurtful event. Again, the consistency of these associations across the three studies illustrates their importance.

H3 predicted that the associations specified in H1 and H2 remain significant after controlling for the perpetrator's perceptions of the victim's intensity of hurt and negative emotions and the perpetrator's self-reported perceptions of intentionality. The results of Study 2 provided support for H3, such that the associations in H1 and H2 remained significant after the addition of the perpetrator's variables. The only small exception was that the model for perceived intentionality did not provide a good fit for the data, although the associations were significant and in the predicted directions.

H5 predicted that relational turbulence is positively associated with the magnitude of the discrepancy between romantic partners' perceptions of dominance and disaffiliation. The results of Study 3 showed no support for H5; there were no significant paths between relational turbulence and the discrepancy between partners' perceptions of dominance and disaffiliation. Despite the nonsignificant findings, the size of the path

coefficients suggests that those associations may be significant in a sample that provides more statistical power.

Finally, H6 predicted that the magnitude of discrepancy between romantic partners' perceptions of dominance and disaffiliation is negatively associated with perceived understanding and positively associated with the perceived difficulty of the conversation. The results from Study 3 were supportive of H6 in terms of discrepancies in perceptions of dominance, which negatively influenced people's ability to achieve mutual understanding. There were no significant paths from discrepancies in partners' perceptions of dominance and disaffiliation on ratings of conversation difficulty. Extant research has not examined people's divergent perceptions of relational communication, so this dissertation is a first test of the predictors and outcomes associated with discrepancies of relational messages.

Overall, this dissertation is a successful first test of integrating the theoretical constructs in the relational turbulence model and relational communication. The results were largely supportive of the predictions. Relational turbulence was positively associated with perceptions of dominance, for either males or females, in the 3 studies. Furthermore, perceptions of dominance had a positive association with perceptions of disaffiliation across all the studies. Disaffiliation positively predicted reactions to hurtful messages that occurred both in the lab and in retrospective accounts. The aforementioned predictions remained significant after the addition of perpetrator variables. Finally, discrepancies in perceptions of dominance were negatively associated with ratings of understanding in a conversation focused on resolving a past hurt. In the next section, I discuss the implications of this dissertation in more detail.



## Implications

This dissertation drew from three literatures: the relational turbulence model, relational communication, and hurtful communication. In the sections that follow, I consider the implications of this investigation for those three domains of inquiry.

### *Relational Turbulence Model*

One of the main goals of this dissertation was to understand why people's reactions to relational events vary. I integrated the relational turbulence model (Solomon & Knobloch, 2002, 2004) with dimensions of relational communication to predict people's reactions to hurt. Thus far, the relational turbulence model has not explained why turbulence leads to polarized reactions to relational events. Based on the results of this dissertation, perceptions of relational communication seem to be relevant mechanisms for linking relational turbulence and reactivity. Although the results of the association between turbulence and dominance were inconsistent across the studies, they were positively related for either males or females in each of the three studies I conducted. In the context of hurt, the more turbulence individuals experienced, the more they perceived their partner's hurtful message as dominant and, in turn, disaffiliative. These findings highlight the potential utility of specifying relational judgments as part of the relational turbulence model, as well as the need for further research on this issue.

Although this dissertation focused on experiences of hurt, future research could test the associations among turbulence and relational judgments in other contexts. Two studies have found that relational uncertainty affects message processing when discussing positive, negative, and surprising events that have occurred in a romantic relationship (Knobloch & Solomon, 2005; Knobloch et al., 2007). More generally, parameters in the

relational turbulence model have been associated with indirect communication about relational irritations (Theiss & Solomon, 2006a), negative emotions, such as anger, fear, and sadness (Knobloch et al., 2007), and topic avoidance (Knobloch & Carpenter-Theune, 2004). Perceptions of dominance and disaffiliation might be especially relevant in discussions about conflicts or relationship transgressions, where people attempt to influence each other to see the conflict or transgression in a particular light. Thus, I am hopeful that research on relational events can replicate and extend this dissertation.

This dissertation adds to the body of work showing that relational turbulence occurs in relatively well-established and intimate samples (e.g., Weber & Solomon, 2007). Originally, the relational turbulence model focused on explaining why people were more reactive to relational events at moderate levels of intimacy. Recent research on the relational turbulence model has expanded the scope of the theory to include other transitions in relationships, such as the diagnosis of breast cancer or experiences of infertility (Solomon, Weber, & Steuber, in press). This dissertation gives further support for the expansion of the scope conditions of the relational turbulence model. Despite relatively restricted variance in the measures of relational uncertainty and relational turbulence, there were still significant effects of turbulence on relational judgments. Thus, it seems that the level of turmoil in a relationship is an important predictor for understanding reactivity, regardless of the level of intimacy. Furthermore, the sample of participants in this dissertation reported high levels of partner interference, despite reporting low levels of relational uncertainty and turbulence. This pattern has been documented in other research (e.g., Solomon & Theiss, in press) and provides further

evidence that as relationships become more interdependent, partners experience increasing levels of interference from one another

### *Relational Communication*

This dissertation was not an explicit test of any single relational communication theory, but the results indicate that relational judgments are relevant for understanding people's reactions to hurtful messages. In addition, the consistent effects associated with dominance and disaffiliation across the three studies demonstrate the robustness of these associations. Although I did not test the order of relational judgments, future research could examine which relational inferences occur first in the context of hurtful messages. According to relational framing theory (Dillard et al., 1996), the two substantive dimensions of dominance-submission and affiliation-disaffiliation are cognitive frames that operate most efficiently when one displaces the other. Although speculative, the results of Study 1 suggested that dominance is the more relevant frame for understanding hurtful messages and perceptions of disaffiliation are secondary. Future research could examine the displacement of relational frames to determine if one judgment precedes and helps inform the other.

Future research could also examine other factors that influence relational inferences. In this dissertation, relational turbulence was associated with perceptions of dominance inconsistently, which suggests that other variables may influence the relational inferences associated with hurt. Relational framing theory specifies that there are a variety of factors that influence the activation of frames, such as the content of the utterance, the function of the social episode, dispositional tendencies, and cultural norms (Solomon et al., 2002). A more in depth analysis of the characteristics of hurtful

interactions might provide insight into which factors contribute to perceptions of dominance and disaffiliation. Perhaps the relational inferences associated with hurtful messages are explained by a combination of distal factors, such as relational turbulence, and more proximal factors, such as the function of the social episode or the particular words used in an utterance.

This dissertation contributed to existing knowledge on relational communication by examining discrepancies in perceptions of relational judgments based on a conversation about past incidents of hurt. To date, no empirical studies have assessed the consequences of discrepancies of relational inferences. In Study 3, I found that discrepancies in perceptions of males' and females' dominance were negatively associated with each person's rating of mutual understanding during the interaction. In other words, misaligned relational inferences resulted in lower rating of mutual understanding in a conversation focused on resolving a past hurtful event. It seems that when partners disagree in their perceptions of each other's dominance, they have a more difficult time understanding each other and achieving intersubjectivity. Furthermore, discrepancies in perceptions of females' disaffiliation had a positive association with males' ratings of conversation difficulty. Most extant research on relational communication has focused on the individual, without examining how the inferences of conversation partners might align. Although the findings in this dissertation should not be overstated, they suggest the importance of examining relational inferences dyadically.

### *Hurtful Messages*

The findings of this dissertation also have implications for research on hurtful messages. In particular, I focused on intensity of hurt, negative emotions, and perceived

intentionality as relevant indicators of people's reactions to hurtful encounters. The results showed that intensity of hurt and negative emotions behaved in similar ways, but that perceptions of intentionality operated somewhat differently.

Previous research has focused extensively on the variables associated with intensity of hurt, such as perceived intentionality, relational distancing, and relational quality (e.g., McLaren & Solomon, 2008; Vangelisti, 2001; Vangelisti & Young, 2000). This dissertation identified other relevant constructs for understanding people's experiences of hurt. In particular, results from Studies 1 and 2 showed that relational turbulence, perceptions of dominance, and perceptions of disaffiliation influenced how intensely people felt hurt. Although the influence of turbulence was inconsistent, the positive association between perceptions of dominance, disaffiliation, and intensity of hurt were documented in both Studies 1 and 2. This finding suggests that certain messages hurt more than others because of the relational implications that people draw from the interaction. In other words, a seemingly innocuous message might be extremely hurtful if the victim judges the interaction to be dominant. This dissertation lays the foundation for future inquiry into the associations among relational communication and intensity of hurt.

Studies 1 and 2 also included a measure of negative emotions, comprised of worthless, hopeless, and sad, in response to hurtful interactions. The findings in Studies 1 and 2 corroborate previous research indicating that people experience a variety of emotions in response to hurtful encounters, such general distress, feeling upset, ashamed, and scared (Leary et al., 1998). Furthermore, they illustrate that relational implications influence general negative feelings, in addition to feelings of hurt.

Included in my assessment of reactions to hurt was a measure of intentionality, a relevant construct for understanding people's reactions to hurt. In Study 1, perceived intentionality behaved in ways that were consistent with the other two dependent variables, intensity of hurt and negative emotions. Specifically, in Study 1, relational turbulence, dominance, and disaffiliation predicted perceived intentionality with regard to a hurtful interaction that occurred in lab. In Study 2, on the other hand, perceptions of disaffiliation were positively associated with intentionality, but the overall model did not fit, which suggests that there may be other variables that predict the perceived intentionality of past hurtful events.

The findings in this dissertation also suggest that there may be differences between contemporaneous and retrospective ratings of intentionality. In Study 1, people rated their immediate reactions to hurtful conversations with their dating partner. In Study 2, participants reported retrospective perceptions of intentionality for a hurtful event. Study 3, however, included both contemporaneous and retrospective ratings of intentionality for the same event. Results from the preliminary analyses showed that ratings of intentionality were higher in the diary entries than when participants rated the intentionality of those same events in the lab, up to two weeks later. Interestingly, the ratings of intensity of hurt did not change, which suggests that the differences in contemporaneous versus retrospective reports of intentionality are unique. There are many factors that may have resulted in lower ratings of intentionality in the retrospective accounts. Perhaps some people discussed the hurtful incident and perpetrators offered a convincing reason or excuse for the offense, resulting in lower ratings of intentionality later. Future research could examine the differences between contemporaneous and

retrospective ratings of intentionality to uncover the reasons for these differences and their relevance for understanding experiences of hurt.

Another contribution of Study 2 was the inclusion of both the victims' and perpetrators' perspectives on the same hurtful event. The results from a paired sample *t*-test in Study 2 showed that victims perceived hurtful messages as more intentional than the perpetrators did. Interestingly, perpetrators rated the victim's intensity of hurt and negative emotions more highly than the victims did, suggesting that perpetrators perceived the hurtful events as more severe, despite their self-reported lack of intentionality. Previous research suggests that relationship satisfaction affects perspective-related differences between victims and perpetrators (Mikula, Athenstaedt, Heschgl, & Heimgartner, 1998). In fact a number of reasons could account for the divergent view of victims and perpetrators of hurt. For example, the patterns I observed could reflect attribution biases wherein targets of behavior over attributed responsibility to the actor; conversely, actors tend to attribute their own negative behavior to causes beyond their control. Another possibility is that perpetrators' and victims ratings are differently affected by social desirability; in particular, perpetrators may be less willing to admit that they intentionally hurt their partners because they might appear callous or mean-spirited.

A final contribution of this dissertation to the literature on hurtful communication stems from evidence linking relationship characteristics to experiences of hurt and conversations people have about them later. In Studies 1 and 2, I examined how relational turbulence influenced people's contemporaneous and retrospective accounts of hurt. In Study 3, I assessed how relational turbulence affects people's conversations about past

hurtful events. Examining hurt as it unfolds, as well as dialog about a past hurtful event, are both unique methodologies that contribute to the existing literature on hurtful communication.

### Strengths and Limitations

This dissertation had a few major strengths and limitations that merit highlighting. The results of the three studies illustrate the importance of relational turbulence and relational communication. Furthermore, the integration of these theoretical constructs is unique and represents a contribution to communication theory and research. The theoretical reasoning was a common thread throughout the dissertation, as relational turbulence, dominance, and disaffiliation were tested in all three studies, based on both experiences of hurt and perceptions of conversations focused on resolving past experiences of hurt feelings. In addition, the three studies showcased a variety of methodologies, including a unique experimental manipulation where participants experienced hurtful messages from their dating partners in the laboratory. The relative consistency of the findings in the face of such diverse studies demonstrates the importance of these constructs for understanding experiences of hurt.

One potential limitation in this dissertation resulted from the sample of participants. In all three studies the participants were mostly college-aged students in non-marital romantic relationships. Because this dissertation focused only a small segment of the general population, the results are limited in their generalizability. Future research should examine these associations in a more random of sample of participants, including people spanning various age groups and in different types of romantic relationships. For example, future research could examine different types of romantic



relationships, marital and non-marital, in varying age groups. Or, if future research continued to examine dating relationships, perhaps research could look at differences between post-divorce individuals who are in dating again and pre-marital dating relationships.

Although the college-aged population presents limitations, there are some advantages to studying this age group. Many of the previous tests of the relational turbulence model focused on non-marital romantic relationships of college-aged students. Having a similar sample in this dissertation allowed me to compare my findings to previous research on the relational turbulence model. Furthermore, college-aged students are considered to be in emerging adulthood, a period in development where people are experiencing significant identity changes and exploring many possible directions of their life (Arnett, 2000). Emerging adulthood represents an important developmental period to study because of these significant individual and social changes that are occurring. Nonetheless, this tumultuous time might also mean that emerging adults are uniquely susceptible to find particular kinds of messages hurtful. The sample of this dissertation, then, presents both advantages and challenges.

Relatively high-quality relationships were another characteristic of the sample in this dissertation. All three studies had participants who reported being in high-quality relationships and reported experiencing minimal relational uncertainty, which limited the variance in the measures of the relational turbulence model. This restricted variance may have affected my statistical inferences in unseen ways; thus, future research should examine these associations in a more diverse sample. Studying romantic partners and their dyads poses a unique challenge for relationship researchers. Though dyadic data is

preferable in that it provides information from both partners' points of view, the variance in relationship characteristics is sacrificed. In this dissertation, participants in my studies reported higher relational quality, less relational uncertainty, and less relational turbulence compared to previous research on the relational turbulence model that did not require participants to bring their dating partners to the lab (McLaren et al., 2008). Although research needs to be conducted with a more diverse sample, collecting dyadic data from less established relationships poses unique challenges that have not yet been resolved.

Another limitation in this dissertation was the measurement of relational judgments. Although self-reported perceptions of dominance and disaffiliation are an acceptable method for collecting data, they do not reveal the cognitive processes at work as people make judgments. In other words, this dissertation treated the process of drawing relational inferences in a rather superficial manner. Future research should examine the cognitive processes associated with making relational judgments in a more nuanced way. Moreover, a focused examination of the process by which people draw relational inferences could also clarify which dimension, dominance-submission or affiliation-disaffiliation, is the more relevant frame in the context of hurtful messages.

### Conclusion

The aim of this dissertation was to explain why people have varied reactions to relational events. I addressed this issue by integrating relational communication into the relational turbulence model. Although the findings for the associations among relational turbulence, dominance, and disaffiliation were inconsistent across the three studies, the results provide a foundation for future research in this area and represent an important

contribution to communication theory. Furthermore, this dissertation contributed to the existing literature on hurtful communication, by identifying relational inferences that influence hurt, as well as illustrating how relational judgments influence people's ability to discuss a past hurtful event. Although people's moods might change more often than their fortune, this dissertation demonstrates that a combination of relational characteristics and relational implications explain people's varied reactions to relational events.

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## Appendix A

### Study 1: Pre-Interaction Questionnaire

1. Which of the following best characterizes the status of your relationship with this person?

*Please mark one:*

- Strangers  
 Acquaintances  
 Casual dating partners  
 Serious dating partners  
 Engaged to be married  
 Married

2. How long have you been romantically involved with or interested in your current partner? *Fill in numbers on the lines below.*

\_\_\_\_\_ days    \_\_\_\_\_ weeks    \_\_\_\_\_ months    \_\_\_\_\_ years

3. What is the sex of this person? *Please mark one:*    Male                      Female

4. What was the age of this person on his/her last birthday in years? *Fill in the number or circle Don't know.*

\_\_\_\_\_                                      Don't Know

5. Would you consider this a long-distance relationship? (circle one)            Yes    No  
*If no, please continue on to the next section.*

- a. If yes, when you and your partner visit each other, how do you travel and how long does it take? \_\_\_\_\_
- b. How often do you see each other in a typical month? \_\_\_\_\_
- c. How long ago was the last time you saw this person? \_\_\_\_\_
- d. How much time do you spend communicating with this person in each of the following ways in a typical week? *Please fill in the amount of time on the lines.*  
 \_\_\_\_\_ Phone    \_\_\_\_\_ Instant Messenger    \_\_\_\_\_ E-mail    \_\_\_\_\_ Face-to-face

In the following section, we have listed a number of statements addressing different facets of involvement in dating relationships. We would like you to rate how CERTAIN you are about the degree of involvement that you have in your romantic relationship. **Please note: We are not asking you to rate how much involvement there is in your dating relationship, but rather how certain you are about whatever degree of involvement you perceive. It might help you first consider how much each form of involvement is present in your dating relationship, and then evaluate how certain you are about that perception.**

For these judgments you should use the following scale:

1	2	3	4	5	6
Completely or almost completely uncertain	Mostly Uncertain	Slightly more uncertain than certain	Slightly more certain than uncertain	Mostly certain	Completely or almost completely certain

*We would like to know how certain you are about YOUR OWN INVOLVEMENT in your relationship.*  
HOW CERTAIN ARE YOU ABOUT..... Uncertain  $\leftrightarrow$  Certain

1. Whether or not you want the relationship to work out in the long run?
2. Whether or not 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?
6. Whether or not you are ready to commit to your partner?

*Next, we would like to know how certain you are about YOUR PARTNER'S INVOLVEMENT in your relationship.*  
HOW CERTAIN ARE YOU ABOUT.....

7. Whether or not your partner is ready to commit to you?
8. How committed your partner is to the relationship?
9. Whether or not your partner wants to be with you in the long run?
10. How important the relationship is to your partner?
11. Whether or not your partner wants the relationship to work out in the long run?
12. How much your partner is attracted to you?

*Next, we would like to know how certain you are about facets of YOUR RELATIONSHIP, in general.*  
HOW CERTAIN ARE YOU ABOUT.....

1. Whether or not the relationship will work out in the long run?
2. Whether or not you and your partner feel the same way about each other?
3. Whether or not you and your partner will stay together?
4. Whether or not the relationship is a romantic one?
5. The boundaries for appropriate and/or inappropriate behavior in the relationship?

6. Whether or not your partner likes you as much as you like him/her?
7. Whether or not it is a romantic or a platonic relationship?
8. How you can or cannot behave around your partner?

*Please mark the number that best indicates your agreement with each statement.*

1	2	3	4	5	6
STRONGLY DISAGREE					STRONGLY AGREE

1. This person influences the amount of time I spend with other people.
2. I am very committed to maintaining this relationship.
3. This person interferes with whether I achieve the everyday goals I set for myself.
4. This person helps me in my efforts to make plans.
5. This relationship is very important to me.
6. I would make a great effort to maintain my relationship with this person.
7. This person influences how much time I devote to my school work.
8. This person interferes with the amount of time I spend with my friends.
9. This person helps me to do the things I need to do each day.
10. I do not expect this relationship to last very long.
11. This person influences whether I achieve the everyday goals I set for myself.
12. This person interferes with my ability to use my time well.
13. This person helps me in my efforts to spend time with my friends.
14. I would like this relationship to last a lifetime.
15. I am attached to this person.
16. I am committed to my relationship.
17. This person influences my ability to use my time well.
18. This person interferes with how much time I devote to my school work.
19. This person helps me to achieve the everyday goals I set for myself.
20. I am likely to end my relationship in the near future.
21. This person influences whether I do the things I need to do each day.
22. This person interferes with the things I need to do each day.
23. This person helps me to use my time well.
24. It is typical of him/her to hurt my feelings.
25. This person often hurts my feelings.

26. This person frequently hurts my feelings.
27. I expect this person to hurt my feelings.
28. It doesn't surprise me when this person hurts my feelings.

*For the next set of questions, we would like you to think about your current relationship with this person, and use the following words and phrases to describe it. For example, if you think that your relationship during the last two weeks has been very exciting, put an X in the space right next to the word "exciting." If you think it has been very boring, put an X in the space right next to "boring." If you think it has been somewhere in between, put an X where you think it belongs.*

**AT THE PRESENT TIME, THIS RELATIONSHIP IS . . .**

1. exciting \_\_\_\_\_ boring
2. chaotic \_\_\_\_\_ stable
3. calm \_\_\_\_\_ turbulent
4. exhilarating \_\_\_\_\_ mundane
5. tumultuous \_\_\_\_\_ running smoothly
6. dull \_\_\_\_\_ stimulating
7. uneventful \_\_\_\_\_ thrilling
8. unpredictable \_\_\_\_\_ predictable
9. peaceful \_\_\_\_\_ stressful

For the next set of questions, we would like you to think about your relationship with this person, and use the following words and phrases to describe it. For example, if you think that your relationship during the last two months has been very miserable, put an X in the space right next to the word "miserable." If you think it has been very enjoyable, put an X in the space right next to "enjoyable." If you think it has been somewhere in between, put an X where you think it belongs.

**Please put an X on every line, between each pair of words.**

1. miserable \_\_\_\_\_ enjoyable
2. hopeful \_\_\_\_\_ discouraging
3. free \_\_\_\_\_ tied down
4. empty \_\_\_\_\_ full
5. interesting \_\_\_\_\_ boring

- 6. rewarding \_\_\_\_\_ disappointing
- 7. doesn't give me much chance \_\_\_\_\_ brings out the best in me
- 8. lonely \_\_\_\_\_ friendly
- 9. hard \_\_\_\_\_ easy
- 10. worthwhile \_\_\_\_\_ useless

All things considered, how satisfied or dissatisfied have you been with your relationship with this person over the last two months? (Place an X in the space that best describes how satisfied you have been.)

completely satisfied                      neutral                      completely dissatisfied  
 \_\_\_\_\_

*Please mark the number that indicates how you feel about each statement.*

1            2            3            4            5            6            7            8            9  
 Not at all true                                      Moderately true                                      Definitely true

- 1. I feel that I could confide in this person about virtually everything.
- 2. I would do anything for this person.
- 3. If I couldn't be with this person, I would feel miserable.
- 4. If I am lonely, my first thought is to seek this person out.
- 5. One of my primary concerns is this person's welfare.
- 6. I would forgive this person for practically anything.
- 7. I feel responsible for this person's well being.
- 8. I would enjoy being confided in by this person.
- 9. It would be hard for me to get along without this person.
- 10. At this point in time, what do you feel the chance is of your relationship leading to marriage or a similar lifelong commitment?

0%      10      20      30      40      50      60      70      80      90      100%

## Appendix B

### Study 1: Post-Interaction Questionnaire

1. Describe in your own words how it felt to discuss core values or traits with your romantic partner.
2. During the conversations, were there things you wish your partner had done or said differently? If so, what do you wish your partner had done or said?

*Sometimes conversations with a romantic partner can be very positive and sometimes less positive. Please rate your discussion of each value/trait on the following scales. Use the following words and phrases to describe each conversation. For example, if you think that the conversation was satisfying, put an X in the space right next to the word "satisfying." If you think it was very dissatisfying, put an X in the space right next to "dissatisfying." If you think it has been somewhere in between, put an X where you think it belongs.*

The first conversation was...

1. Negative \_\_\_\_\_ Positive
2. Hurtful \_\_\_\_\_ Supportive
3. Satisfying \_\_\_\_\_ Dissatisfying
4. Frustrating \_\_\_\_\_ Calming

The second conversation was...

1. Negative \_\_\_\_\_ Positive
2. Hurtful \_\_\_\_\_ Supportive
3. Satisfying \_\_\_\_\_ Dissatisfying
4. Frustrating \_\_\_\_\_ Calming

*Now we would like to ask you some more questions about the conversation that you found most negative, hurtful, or dissatisfying. Reflecting on your scores to the previous questions, which conversation was the LEAST positive, supportive, or satisfying? Circle One.*

The first conversation

The second conversation

Please answer the remaining questions by focusing on the conversation that you reported was the least positive, support, or satisfying.

1. How hurtful was this conversation?

Not at all Hurtful 1 2 3 4 5 6 7 Extremely Hurtful

2. How much emotional pain did this conversation cause you?

No emotional pain 1 2 3 4 5 6 7 Intense Emotional Pain

3. How hurt did you feel overall while discussing the trait/value with your partner?

Not at all hurt 1 2 3 4 5 6 7 Extremely Hurt

4. When your partner discussed the trait/value with you, to what extent did you think he/she intended to hurt you?

Not Intentional 1 2 3 4 5 6 7 Extremely Intentional

*Please respond to the following questions using this scale:*

1	2	3	4	5
Strongly Disagree				Strongly Agree

During the conversation, my partner made me feel...

- 1. Hurt
- 2. Dominated
- 3. Negative Regard
- 4. Angry
- 5. Submissive
- 6. Engaged
- 7. Sad
- 8. Withdrawn
- 9. Persuaded
- 10. Worthless
- 11. Interested
- 12. Concession
- 13. Happy
- 14. Influenced
- 15. Hopeless
- 16. Positive regard
- 17. Compliant
- 18. Surprised
- 19. Controlled

- 20. Fearful
- 21. Yielding
- 22. Jealous
- 23. Affectionate
- 24. Confused
- 25. Disaffectionate
- 26. Liked
- 27. Attractive
- 28. Uncertain about our relationship
- 29. Disliked
- 30. Aversion

*Please circle the number that reflects how much you agree or disagree with each statement. The scale ranges from complete disagreement to complete agreement.*

1	2	3	4	5	6	7
strongly disagree	moderately disagree	disagree	undecided	agree	moderately agree	strongly agree

disagree ←-----→ agree

My partner.....

- |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| 1. Was intensely involved in our conversation.....        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Did not want a deeper relationship.....                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Was not attracted to me.....                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Seemed to find the conversation stimulating.....       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Communicated coldness rather than warmth.....          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Created a sense of distance between us.....            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Acted bored by our conversation.....                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Was interested in talking to me.....                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Made me feel similar to him/her.....                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. Tried to move the conversation to a deeper level..... | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. Desired further communication.....                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. Seemed to care if I liked him/her.....                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. Was sincere.....                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. Was interested in talking.....                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. Wanted me to trust him/her.....                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. Was willing to listen.....                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. Was open to my ideas.....                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. Was honest in communicating with me.....              | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. Felt very tense talking to me.....                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. Was calm and poised.....                              | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21. Was relaxed talking to me.....                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22. Was nervous in my presence.....                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |



23. Was comfortable interacting with me..... 1 2 3 4 5 6 7  
 24. Made interaction informal..... 1 2 3 4 5 6 7  
 25. Wanted the discussion to be casual..... 1 2 3 4 5 6 7  
 26. Wanted the discussion to be informal..... 1 2 3 4 5 6 7

For the following questions, please rate the extent to which you feel each term was characteristic of your conversation.

No Dominance	1	2	3	4	5	6	7	Extreme Dominance
No Submission	1	2	3	4	5	6	7	Extreme Submission
No Persuasion	1	2	3	4	5	6	7	Extreme Persuasion
No Concession	1	2	3	4	5	6	7	Extreme Concession
No Influence	1	2	3	4	5	6	7	Extreme Influence
No Compliance	1	2	3	4	5	6	7	Extreme Compliance
No Controlling	1	2	3	4	5	6	7	Extreme Controlling
No Yielding	1	2	3	4	5	6	7	Extreme Yielding
No Affection	1	2	3	4	5	6	7	Extreme Affection
No Disaffection	1	2	3	4	5	6	7	Extreme Disaffection
No Liking	1	2	3	4	5	6	7	Extreme Liking
No Disliking	1	2	3	4	5	6	7	Extreme Disliking
No Attraction	1	2	3	4	5	6	7	Extreme Attraction
No Aversion	1	2	3	4	5	6	7	Extreme Aversion
No Positive regard	1	2	3	4	5	6	7	Extreme Positive regard
No Negative regard	1	2	3	4	5	6	7	Extreme Negative regard
No Engagement	1	2	3	4	5	6	7	Extreme Engagement
No Withdrawl	1	2	3	4	5	6	7	Extreme Withdrawl
No Interest	1	2	3	4	5	6	7	Extreme Interest
No Disinterest	1	2	3	4	5	6	7	Extreme Disinterest

For the following questions please **circle** the number that reflects how much you agree or disagree with each statement. The scale ranges from complete disagreement to complete agreement.

1	2	3	4	5	6	7
strongly disagree	moderately disagree	disagree	undecided	agree	moderately agree	strongly agree

This conversation...

1. Was similar to others I've had with this person..... 1 2 3 4 5 6 7  
 2. Felt natural ..... 1 2 3 4 5 6 7  
 3. Wasn't typical for my partner and I..... 1 2 3 4 5 6 7  
 4. Seemed unrealistic..... 1 2 3 4 5 6 7  
 5. Happens often in our relationship..... 1 2 3 4 5 6 7  
 6. Made me think about my relationship with him/her..... 1 2 3 4 5 6 7  
 7. Was relevant to our relationship..... 1 2 3 4 5 6 7

8. Was about our relationship..... 1 2 3 4 5 6 7  
 9. Included information about our relationship..... 1 2 3 4 5 6 7

Please respond to the next four items using this scale:

1    2    3    4    5  
 Strongly Disagree    Strongly Agree

During the conversation, I thought that...

1. My partner was trying to hurt me.
2. My partner intended to hurt my feelings.
3. It was an accident; my partner did not mean to hurt my feelings.

## Appendix C

### Study 2: Questionnaire

1. Please type the ID number on the top of your informed consent form in the space below.
  
2. What is your ethnicity? Please mark all that apply.
  - African American
  - Caucasian
  - Native American
  - Asian
  - Hispanic
  - Other
  
3. What is your sex?      Male              Female              Transgender
  
4. What is your age?
  
5. What is your year in college?
  
6. Which of the following best characterizes the status of your relationship with the person you came with to the lab today?
  - Strangers
  - Acquaintances
  - Friends
  - Casual dating partners
  - Serious dating partners
  - Engaged to be married
  - Married
  
7. How long have you been involved with your current partner?
  
8. What is the sex of your partner?      Male    Female

*The following pages will ask you questions about your relationship with your partner.*

*Please mark the number that indicates how you feel about each statement.*

1            2            3            4            5            6            7            8            9

Not at all true

Moderately true

Definitely true

11. I feel that I could confide in this person about virtually everything.
12. I would do anything for this person.



## HOW CERTAIN ARE YOU ABOUT.....

18. Whether or not your partner is ready to commit to you?
19. How committed your partner is to the relationship?
20. Whether or not your partner wants to be with you in the long run?
21. How important the relationship is to your partner?
22. Whether or not your partner wants the relationship to work out in the long run?
12. How much your partner is attracted to you?

*Next, we would like to know how certain you are about facets of YOUR RELATIONSHIP, in general.*

## HOW CERTAIN ARE YOU ABOUT....

9. Whether or not the relationship will work out in the long run?
10. Whether or not you and your partner feel the same way about each other?
11. Whether or not you and your partner will stay together?
12. Whether or not the relationship is a romantic one?
13. The boundaries for appropriate and/or inappropriate behavior in the relationship?
14. Whether or not your partner likes you as much as you like him/her?
15. Whether or not it is a romantic or a platonic relationship?
16. How you can or cannot behave around your partner?

*Please mark the number that best indicates your agreement with each statement.*

1	2	3	4	5	6
STRONGLY DISAGREE					STRONGLY AGREE

29. This person influences the amount of time I spend with other people.
30. I am very committed to maintaining this relationship.
31. This person interferes with whether I achieve the everyday goals I set for myself.
32. This person helps me in my efforts to make plans.
33. This relationship is very important to me.
34. I would make a great effort to maintain my relationship with this person.
35. This person influences how much time I devote to my school work.
36. This person interferes with the amount of time I spend with my friends.
37. This person helps me to do the things I need to do each day.
38. I do not expect this relationship to last very long.
39. This person influences whether I achieve the everyday goals I set for myself.

40. This person interferes with my ability to use my time well.
41. This person helps me in my efforts to spend time with my friends.
42. I would like this relationship to last a lifetime.
43. I am attached to this person.
44. I am committed to my relationship.
45. This person influences my ability to use my time well.
46. This person interferes with how much time I devote to my school work.
47. This person helps me to achieve the everyday goals I set for myself.
48. I am likely to end my relationship in the near future.
49. This person influences whether I do the things I need to do each day.
50. This person interferes with the things I need to do each day.
51. This person helps me to use my time well.

*For the next set of questions, we would like you to think about your current relationship with this person, and use the following words and phrases to describe it. For example, if you think that your relationship during the last two weeks has been very exciting, put an X in the space right next to the word "exciting." If you think it has been very boring, put an X in the space right next to "boring." If you think it has been somewhere in between, put an X where you think it belongs.*

*AT THE PRESENT TIME, THIS RELATIONSHIP IS . . .*

1. exciting \_\_\_\_\_ boring
2. chaotic \_\_\_\_\_ stable
3. calm \_\_\_\_\_ turbulent
4. exhilarating \_\_\_\_\_ mundane
5. tumultuous \_\_\_\_\_ running smoothly
6. dull \_\_\_\_\_ stimulating
7. uneventful \_\_\_\_\_ thrilling
8. unpredictable \_\_\_\_\_ predictable
9. peaceful \_\_\_\_\_ stressful

For the next set of questions, we would like you to think about your relationship with this person, and use the following words and phrases to describe it. For example, if you think that your relationship during the last two months has been very miserable, put an X in the space right next to the word "miserable." If you think it has been very enjoyable, put an X in the space right next to "enjoyable." If you think it has been somewhere in between, put an X where you think it belongs.

**Please put an X on every line, between each pair of words.**

- |                                |       |       |       |       |       |       |       |                           |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| 1. miserable                   | _____ | _____ | _____ | _____ | _____ | _____ | _____ | enjoyable                 |
| 2. hopeful                     | _____ | _____ | _____ | _____ | _____ | _____ | _____ | discouraging              |
| 3. free                        | _____ | _____ | _____ | _____ | _____ | _____ | _____ | tied down                 |
| 4. empty                       | _____ | _____ | _____ | _____ | _____ | _____ | _____ | full                      |
| 5. interesting                 | _____ | _____ | _____ | _____ | _____ | _____ | _____ | boring                    |
| 6. rewarding                   | _____ | _____ | _____ | _____ | _____ | _____ | _____ | disappointing             |
| 7. doesn't give me much chance | _____ | _____ | _____ | _____ | _____ | _____ | _____ | brings out the best in me |
| 8. lonely                      | _____ | _____ | _____ | _____ | _____ | _____ | _____ | friendly                  |
| 9. hard                        | _____ | _____ | _____ | _____ | _____ | _____ | _____ | easy                      |
| 10. worthwhile                 | _____ | _____ | _____ | _____ | _____ | _____ | _____ | useless                   |

All things considered, how satisfied or dissatisfied have you been with your relationship with this person over the last two months? (Place an X in the space that best describes how satisfied you have been.)

completely satisfied	neutral	completely dissatisfied
_____	_____	_____

Now that you have completed the first portion of this survey, please alert the researcher. The researcher will tell you which of the hurtful events that you wrote on the note cards will be the focus of the next set of your questions.

You should now know which of the hurtful events you described will be the focus of the next set of questions. Please try to think about that hurtful episode (the one researcher chose for you) and answer the following questions.

Please write down a description of the interaction where your partner said something that hurt your feelings. Please write out the interaction as if it were a script, including the following.

1. What was said right before the hurtful comment or what happened right before the hurtful comment?
2. What was the hurtful thing your partner said? Please include exact words if possible.
3. Where did the interaction take place?
  - a. In public, face-to-face
  - b. In private, face-to-face
  - c. Over the phone
  - d. E-mail
  - e. Instant Messenger
  - f. Other (please specify)

4. How did you react after the hurtful comment? What did you do or say?
  5. How long ago did this hurtful event happen?
  6. Thinking back on this interaction, please rate how hurtful it was to you.  

1	2	3	4	5	6	7
Not at all hurtful						Extremely hurtful
  7. To what extent did it cause you emotional pain?  

1	2	3	4	5	6	7
No emotional pain						Intense emotional pain
  8. How hurt did you feel overall?  

1	2	3	4	5	6	7
Not at all hurt						Extremely hurt
  9. Please rate the extent to which you believe your partner intentionally hurt your feelings.  

1	2	3	4	5
Not intentional				Extremely intentional
- Please rate the extent to which you agree or disagree with the following statements.
- |                   |   |   |   |                |
|-------------------|---|---|---|----------------|
| 1                 | 2 | 3 | 4 | 5              |
| Strongly Disagree |   |   |   | Strongly Agree |
10. My partner was trying to hurt me.
  11. My partner intended to hurt my feelings.
  12. It was an accident; my partner did not mean to hurt my feelings.

*Now we would like to know about the impact the hurtful episode had on your relationship, using the following pair of words. If the hurtful episode did not change your relationship at all, you will mark a '4'. If it made your relationship more distant than close, than circle a number closer to the word 'distant'. Do the same for each of the following pairs of words.*

Please note the extent to which this interaction made your relationship MORE:

- |         |       |       |       |       |       |       |       |          |
|---------|-------|-------|-------|-------|-------|-------|-------|----------|
| distant | _____ | _____ | _____ | _____ | _____ | _____ | _____ | close    |
| tense   | _____ | _____ | _____ | _____ | _____ | _____ | _____ | relaxed  |
| hostile | _____ | _____ | _____ | _____ | _____ | _____ | _____ | friendly |
| remote  | _____ | _____ | _____ | _____ | _____ | _____ | _____ | intimate |
| closed  | _____ | _____ | _____ | _____ | _____ | _____ | _____ | open     |

*Please respond to the following questions using this scale:*

- |                   |   |   |   |                |
|-------------------|---|---|---|----------------|
| 1                 | 2 | 3 | 4 | 5              |
| Strongly Disagree |   |   |   | Strongly Agree |





Disagree

Agree

1. My partner was trying to dominate me.
2. My partner expressed dislike toward me.
3. My partner was being submissive toward me.
4. My partner expressed affection toward me.
5. My partner was trying to influence me.
6. My partner was giving in to me.
7. My partner expressed negative regard toward me.
8. My partner expressed liking toward me.

***Remembered Hurt***

*Just as you wrote down a time your partner hurt your feelings, we have requested that your partner recall a time that you hurt his/her feelings. Please let the researcher know you are ready to read your partner's index card. On the index card is a description of the event in which your partner said you hurt his/her feelings.*

*From your perspective, please write down a description of the interaction when you said something to hurt your partner's feelings. Please include write the interaction out as if it were a script, including the following.*

1. What was said right before the hurtful comment or what happened right before the hurtful comment?
2. What was the hurtful thing you said to your partner? Please write down exact words if possible.
3. Where did the interaction take place?
  - a. In public, face-to-face
  - b. In private, face-to-face
  - c. Over the phone
  - d. E-mail
  - e. Instant Messenger
  - f. Other (please specify)
4. How did your partner react to the hurtful comment? What did he/she do or say?
5. How long ago did this hurtful event happen?
6. Thinking back on this interaction, please rate how hurtful it was to your partner.
 

1	2	3	4	5	6	7
Not at all hurtful						Extremely hurtful
7. To what extent did it cause your partner emotional pain?
 

1	2	3	4	5	6	7
No emotional pain						Intense emotional pain
8. How hurt do you think your partner feel overall?
 

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not at all hurt Extremely hurt

9. Please rate the extent to which you intentionally hurt your partner's feelings.

1                      2                      3                      4                      5

Not intentional Extremely intentional

Please rate the extent to which you agree or disagree with the following statements.

1                      2                      3                      4                      5

Strongly Disagree Strongly Agree

- 10. I was trying to hurt my partner.
- 11. I intended to hurt my partner's feelings.
- 12. It was an accident; I did not mean to hurt my partner's feelings.

*Now we would like to know about the impact the hurtful episode had on your relationship, using the following pair of words. If the hurtful episode did not change your relationship at all, you will mark a '4'. If it made your relationship more distant than close, than circle a number closer to the word 'distant'. Do the same for each of the following pairs of words.*

Please note the extent to which this interaction made your relationship MORE:

distant \_\_\_\_\_ close

tense \_\_\_\_\_ relaxed

hostile \_\_\_\_\_ friendly

remote \_\_\_\_\_ intimate

closed \_\_\_\_\_ open

*Please respond to the following questions using this scale:*

1    2    3    4    5

Strongly Disagree Strongly Agree

During the episode, I think my partner felt...

- 12. Hurt
- 13. Angry
- 14. Sad
- 15. Worthless
- 16. Happy
- 17. Hopeless
- 18. Surprised
- 19. Fearful
- 20. Jealous
- 21. Confused
- 22. Uncertain about our relationship

*Please think back on what happened after you hurt your partner's feelings. Please rate the extent to which the following statements reflect what happened after you were hurt.*

*The hurtful episode...*

1 2 3 4 5 6 7  
Not at all true Absolutely true

11. Weakened my relationship permanently.
12. Weakened my relationship temporarily.
13. Made me trust my partner less.
14. Made me dislike my partner.
15. Made me worry my partner would hurt me again.
16. Strengthened my relationship.
17. Helped us get to know each other better.
18. Helped us resolve a misunderstanding.
19. Taught us how to manage events like this.
20. Brought us closer.

*Please indicate the level of difficulty you think your partner had forgiving you for the hurtful message.*

1 2 3 4 5  
Impossible Very Easy

1. Has easy was it for your partner to get over feeling negative or resentful after the episode?
2. How difficult was it for your partner to think of you in a positive way again after this happened?
3. How easy was it for your partner to feel warmly again towards you?
4. To what extent was your partner able to forgive you?
5. As far as you know, has this been resolved to your partner's satisfaction?

1 2 3 4 5  
Definitely not Definitely

## Appendix D

### Study 3: Relationship Characteristics

9. What is your ethnicity? Please mark all that apply.
- African American
  - Caucasian
  - Native American
  - Asian
  - Hispanic
  - Other
10. What is your sex?      Male                  Female                  Transgender
11. What is your age?
12. What is your year in college?
13. Which of the following best characterizes the status of your relationship with the person you came with to the lab today?
- Strangers
  - Acquaintances
  - Friends
  - Casual dating partners
  - Serious dating partners
  - Engaged to be married
  - Married
14. How long have you been involved with your current partner?
15. What is the sex of your partner?      Male    Female

*The following pages will ask you questions about your relationship with your partner.*

*Please mark the number that indicates how you feel about each statement.*

1                  2                  3                  4                  5                  6                  7                  8                  9

Not at all true                                  Moderately true                                  Definitely true

22. I feel that I could confide in this person about virtually everything.
23. I would do anything for this person.
24. If I couldn't be with this person, I would feel miserable.
25. If I am lonely, my first thought is to seek this person out.

26. One of my primary concerns is this person's welfare.
27. I would forgive this person for practically anything.
28. I feel responsible for this person's well being.
29. I would enjoy being confided in by this person.
30. It would be hard for me to get along without this person.
31. At this point in time, what do you feel the chance is of your relationship leading to marriage or a similar lifelong commitment?
32. How certain are you about your response to #10 (the chance of lifelong commitment)?
  - Completely or mostly uncertain
  - Mostly uncertain
  - Slightly more uncertain than certain
  - Slightly more certain than uncertain
  - Mostly certain
  - Completely or mostly certain

In the following section, we have listed a number of statements addressing different facets of involvement in dating relationships. We would like you to rate how CERTAIN you are about the degree of involvement that you have in your romantic relationship. ***Please note: We are not asking you to rate how much involvement there is in your dating relationship, but rather how certain you are about whatever degree of involvement you perceive. It might help you first consider how much each form of involvement is present in your dating relationship, and then evaluate how certain you are about that perception.***

For these judgments you should use the following scale:

1	2	3	4	5	6
Completely or almost completely uncertain	Mostly Uncertain	Slightly more uncertain than certain	Slightly more certain than uncertain	Mostly certain	Completely or almost completely certain

*We would like to know how certain you are about YOUR OWN INVOLVEMENT in your relationship.*  
HOW CERTAIN ARE YOU ABOUT..... Uncertain  $\leftrightarrow$  Certain

23. Whether or not you want the relationship to work out in the long run?
24. Whether or not you want the relationship to last?
25. How much you like your partner?
26. How important the relationship is to you?
27. How much you are romantically interested in your partner?
28. Whether or not you are ready to commit to your partner?

*Next, we would like to know how certain you are about YOUR PARTNER'S INVOLVEMENT in your relationship.*

HOW CERTAIN ARE YOU ABOUT.....

29. Whether or not your partner is ready to commit to you?

30. How committed your partner is to the relationship?
31. Whether or not your partner wants to be with you in the long run?
32. How important the relationship is to your partner?
33. Whether or not your partner wants the relationship to work out in the long run?
12. How much your partner is attracted to you?

*Next, we would like to know how certain you are about facets of YOUR RELATIONSHIP, in general.*  
HOW CERTAIN ARE YOU ABOUT....

17. Whether or not the relationship will work out in the long run?
18. Whether or not you and your partner feel the same way about each other?
19. Whether or not you and your partner will stay together?
20. Whether or not the relationship is a romantic one?
21. The boundaries for appropriate and/or inappropriate behavior in the relationship?
22. Whether or not your partner likes you as much as you like him/her?
23. Whether or not it is a romantic or a platonic relationship?
24. How you can or cannot behave around your partner?

*Please mark the number that best indicates your agreement with each statement.*

1	2	3	4	5	6
STRONGLY DISAGREE					STRONGLY AGREE

52. This person influences the amount of time I spend with other people.
53. I am very committed to maintaining this relationship.
54. This person interferes with whether I achieve the everyday goals I set for myself.
55. This person helps me in my efforts to make plans.
56. This relationship is very important to me.
57. I would make a great effort to maintain my relationship with this person.
58. This person influences how much time I devote to my school work.
59. This person interferes with the amount of time I spend with my friends.
60. This person helps me to do the things I need to do each day.
61. I do not expect this relationship to last very long.
62. This person influences whether I achieve the everyday goals I set for myself.
63. This person interferes with my ability to use my time well.
64. This person helps me in my efforts to spend time with my friends.

65. I would like this relationship to last a lifetime.
66. I am attached to this person.
67. I am committed to my relationship.
68. This person influences my ability to use my time well.
69. This person interferes with how much time I devote to my school work.
70. This person helps me to achieve the everyday goals I set for myself.
71. I am likely to end my relationship in the near future.
72. This person influences whether I do the things I need to do each day.
73. This person interferes with the things I need to do each day.
74. This person helps me to use my time well.

*For the next set of questions, we would like you to think about your current relationship with this person, and use the following words and phrases to describe it. For example, if you think that your relationship during the last two weeks has been very exciting, put an X in the space right next to the word "exciting." If you think it has been very boring, put an X in the space right next to "boring." If you think it has been somewhere in between, put an X where you think it belongs.*

**AT THE PRESENT TIME, THIS RELATIONSHIP IS . . .**

1. exciting \_\_\_\_\_ boring
2. chaotic \_\_\_\_\_ stable
3. calm \_\_\_\_\_ turbulent
4. exhilarating \_\_\_\_\_ mundane
5. tumultuous \_\_\_\_\_ running smoothly
6. dull \_\_\_\_\_ stimulating
7. uneventful \_\_\_\_\_ thrilling
8. unpredictable \_\_\_\_\_ predictable
9. peaceful \_\_\_\_\_ stressful

For the next set of questions, we would like you to think about your relationship with this person, and use the following words and phrases to describe it. For example, if you think that your relationship during the last two months has been very miserable, put an X in the space right next to the word "miserable." If you think it has been very enjoyable, put an X in the space right next to "enjoyable." If you think it has been somewhere in between, put an X where you think it belongs.

**Please put an X on every line, between each pair of words.**

1. miserable \_\_\_\_\_ enjoyable



- 2. hopeful \_\_\_\_\_ discouraging
- 3. free \_\_\_\_\_ tied down
- 4. empty \_\_\_\_\_ full
- 5. interesting \_\_\_\_\_ boring
- 6. rewarding \_\_\_\_\_ disappointing
- 7. doesn't give me much chance \_\_\_\_\_ brings out the best in me
- 8. lonely \_\_\_\_\_ friendly
- 9. hard \_\_\_\_\_ easy
- 10. worthwhile \_\_\_\_\_ useless

All things considered, how satisfied or dissatisfied have you been with your relationship with this person over the last two months? (Place an X in the space that best describes how satisfied you have been.)

completely satisfied                      neutral                      completely dissatisfied  
 \_\_\_\_\_

Thank you for your responses! Over the coming 14 days, you will be receiving an email each day with a link to a survey.

This survey will ask you if your partner said anything to hurt your feelings that day. If so, then you will answer a few questions about that event. If not, you will simply indicate that no hurtful event occurred that day.

The second portion of the daily survey will ask if you think you said anything hurt your partner's feelings that day. If so, you will answer a few questions about that event. If not, you will simply indicate that you did not hurt your partner's feelings that day.

We really appreciate your participation. If you have questions, please email the researcher, Rachel McLaren at [rmm301@psu.edu](mailto:rmm301@psu.edu).

Thank you!

## Appendix E

### Study 3: Daily Diaries

1. Sometimes people say things that hurt another person's feelings. In this study, we are interested in knowing more about hurt feelings.

Please think back on your day. Has your romantic partner said anything to hurt your feelings today, no matter how big or small? It could be something that caused you a great deal of emotional pain or something that was relatively minor.

Yes

No

*You have indicated that your partner said something that hurt your feelings today. Please write down a description of what happened, by following the prompts below.*

1. First, what happened before the hurtful comment was said?

2. What did you say or do after the hurtful comment?

3. Thinking back on this interaction, please rate how hurtful it was to you.

1      2      3      4      5      6      7

Not at all hurtful

Extremely Hurtful

4. Please rate the extent to which you believe your partner hurt your feelings intentionally.

1      2      3      4      5      6      7

Not at all intentional

Extremely intentional

5. Is your partner aware that he or she hurt your feelings?

*Please think back on your day. Have you said anything that hurt your partner's feelings, no matter how big or small? It could be something that caused them a great deal of emotional pain or something that was relatively minor.*

*You have indicated that you said something that hurt your partner's feelings today. Please write down a description of what happened, by following the prompts below.*

1. First, what happened before the hurtful comment was said?

2. What was the hurtful thing that was said?

3. What did your partner do or say after the hurtful comment?

4. Thinking back on this interaction, please rate how hurtful it was to your partner.

1      2      3      4      5      6      7

Not at all hurtful

Extremely Hurtful

5. Please rate the extent to which you intentionally hurt your partner's feelings.

1	2	3	4	5	6	7
Not at all intentional						Extremely intentional

6. How did you become aware that you hurt your partner's feelings?

## Appendix F

### Study 3: Follow-up Questions on Hurt Diaries

*Please read over your diary that the researcher has given you. In the next section, you will be asked more specific questions about this episode.*

You should now know which of the hurtful events you described will be the focus of the next set of questions. Please try to think about that hurtful episode (the one researcher chose for you) and answer the following questions.

1. After reading back on what you wrote, have any of your perceptions changed about the event? Is there any new information you learned about what happened?
2. Where did the interaction take place?
  - a. In public, face-to-face
  - b. In private, face-to-face
  - c. Over the phone
  - d. E-mail
  - e. Instant Messenger
  - f. Other (please specify)

3. How did you react after the hurtful comment? What did you do or say?

4. Thinking back on this interaction, please rate how hurtful it was to you.

1	2	3	4	5	6	7
Not at all hurtful						Extremely hurtful

5. To what extent did it cause you emotional pain?

1	2	3	4	5	6	7
No emotional pain						Intense emotional pain

6. How hurt did you feel overall?

1	2	3	4	5	6	7
Not at all hurt						Extremely hurt

7. Please rate the extent to which you believe your partner intentionally hurt your feelings.

1	2	3	4	5
Not intentional				Extremely intentional

Please rate the extent to which you agree or disagree with the following statements.

1	2	3	4	5
Strongly Disagree				Strongly Agree

8. My partner was trying to hurt me.
9. My partner intended to hurt my feelings.
10. It was an accident; my partner did not mean to hurt my feelings.

*Now we would like to know about the impact the hurtful episode had on your relationship, using the following pair of words. If the hurtful episode did not change your relationship at all, you will mark a '4'. If it made your relationship more distant than close, than circle a number closer to the word 'distant'. Do the same for each of the following pairs of words.*

Please note the extent to which this interaction made your relationship MORE:

distant \_\_\_\_\_ close

tense \_\_\_\_\_ relaxed

hostile \_\_\_\_\_ friendly

remote \_\_\_\_\_ intimate

closed \_\_\_\_\_ open

*Please respond to the following questions using this scale:*

1	2	3	4	5
Strongly Disagree				Strongly Agree

During this episode, my partner made me feel...

- 23. Hurt
- 24. Angry
- 25. Sad
- 26. Worthless
- 27. Happy
- 28. Hopeless
- 29. Surprised
- 30. Fearful
- 31. Jealous
- 32. Confused
- 33. Uncertain about our relationship

*Please think back on what happened after you felt hurt. Please rate the extent to which the following statements reflect what happened after you were hurt.*

*The hurtful episode...*

1	2	3	4	5	6	7
Not at all true						Absolutely true

- 21. Weakened my relationship permanently.
- 22. Weakened my relationship temporarily.
- 23. Made me trust my partner less.
- 24. Made me dislike my partner.
- 25. Made me worry my partner would hurt me again.
- 26. Strengthened my relationship.



15. Where did the interaction take place?

- a. In public, face-to-face
- b. In private, face-to-face
- c. Over the phone
- d. E-mail
- e. Instant Messenger
- f. Other (please specify)

16. How did your partner react to the hurtful comment? What did he/she do or say?

17. Thinking back on this interaction, please rate how hurtful it was to your partner.

1	2	3	4	5	6	7
Not at all hurtful						Extremely hurtful

18. To what extent did it cause your partner emotional pain?

1	2	3	4	5	6	7
No emotional pain						Intense emotional pain

19. How hurt do you think your partner feel overall?

1	2	3	4	5	6	7
Not at all hurt						Extremely hurt

20. Please rate the extent to which you intentionally hurt your partner's feelings.

1	2	3	4	5
Not intentional				Extremely intentional

Please rate the extent to which you agree or disagree with the following statements.

1	2	3	4	5
Strongly Disagree				Strongly Agree

- a. I was trying to hurt my partner.
- b. I intended to hurt my partner's feelings.
- c. It was an accident; I did not mean to hurt my partner's feelings.

*Now we would like to know about the impact the hurtful episode had on your relationship, using the following pair of words. If the hurtful episode did not change your relationship at all, you will mark a '4'. If it made your relationship more distant than close, than circle a number closer to the word 'distant'. Do the same for each of the following pairs of words.*

Please note the extent to which this interaction made your relationship MORE:

distant \_\_\_\_\_ close

tense \_\_\_\_\_ relaxed

hostile \_\_\_\_\_ friendly

remote \_\_\_\_\_ intimate

closed \_\_\_\_\_ open





## Appendix G

### Study 3: Post-interaction Questionnaire

Now that you have completed the interaction, we would like to have you think back on the conversation as a whole and answer the following questions.

*For the following questions please **circle** the number that reflects how much you agree or disagree with each statement. The scale ranges from complete disagreement to complete agreement.*

1	2	3	4	5	6	7
strongly disagree	moderately disagree	disagree	undecided	agree	moderately agree	strongly agree

This conversation...

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| 1. Was similar to others I've had with this person.....      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Felt natural .....  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Wasn't typical for my partner and I.....                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Seemed unrealistic.....                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Happens often in our relationship.....                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Made me think about my relationship with him/her.....     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Was relevant to our relationship.....                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Was about our relationship.....                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. Included information about our relationship.....          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. I felt this conversation was awkward.....                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. The use of the computer made this conversation difficult | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. This conversation was easy.....                          | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. This conversation was smooth.....                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. This conversation was awkward.....                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. This conversation was difficult.....                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. Using the computers to talk felt natural.....            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. The technology was uncomfortable .....                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

## Appendix H

### Study 3: Video-Assisted Recall Questionnaire

In the next portion of the study, you will be watching a video of your typed conversation as it unfolds. We will be stopping the tape every minute so that you can rate the conversation. Please rate only the previous minute of the conversation.

We will be asking you to make relevance judgments. Relevance judgments concern the relevance of different dimensions to understanding the behavior of your partner. They are a bit complicated, so we have provided an explanation to facilitate in your understanding. The dimensions will be presented as word-pairs, such as “cold/warm” or “happy/sad” and for this judgment you will use this scale:

1	2	3	4	5
Irrelevant				Relevant

Let us clarify what is involved in the judgment: Sometimes when people evaluate situations, certain dimensions are more relevant than others. A situation might be high, average, or low in particular qualities; either way, you see the dimension as relevant. In contrast, it might be hard to see how a dimension is relevant at all to understanding a situation. To get some practice with making relevance judgments, please read the following scenario and then rate the relevance of the dimensions defined by the word pairs that follow:

You have been given several different kinds of materials: wax paper, sand paper, velvet, a rubber eraser, and a brick. You are asked to feel the surface of each of the different materials. How relevant is each of the following word pairs to judging the surface of the different materials?

1. Rough/Smooth.....	1	2	3	4	5
2. Loud/Quiet.....	1	2	3	4	5
3. Hard/Soft.....	1	2	3	4	5
4. High-pitched/Low-pitched.....	1	2	3	4	5

Most people would say that the rough/smooth and hard/soft dimensions were relevant to the task and the loud/quiet and high-pitched/low-pitched dimensions were irrelevant. Note that you are NOT evaluating how rough, smooth, loud, quiet, hard, soft, high-pitched, or low-pitched the surfaces are. Instead, you are indicated whether the dimension defined by the word pair is relevant to evaluating those surfaces. Of course, your judgments might be reversed if the task were to judge sounds rather than surfaces in this example. In that case, the rough/smooth and the hard/soft dimensions would be irrelevant and you would probably rate the loud/quiet and high-pitched/low-pitched dimensions as relevant.

### *Questionnaire*

*Please let the researcher know you are ready to watch the first segment of your interaction.*

Just as in the practice, the first six questions ask you to make relevance judgments. Please note that each of the following word-pairs represents a dimension. We would like you to consider the extent to which the following word-pairs are relevant to the behavior of your partner in the interaction you just watched. Remember, we are not asking you how much of these qualities are present, but rather we want to know the extent to which you see the dimensions as relevant to understanding the other person's behavior in the situation. Please use the following scale.

#### **Relevance Judgments**

	1	2	3	4	5
	Irrelevant				Relevant
1. Dominance/submission	1	2	3	4	5
2. Affection/disaffection	1	2	3	4	5
3. Influence/comply	1	2	3	4	5
4. Liking/disliking	1	2	3	4	5
5. Persuade/concede	1	2	3	4	5
6. Attraction/aversion	1	2	3	4	5

#### **Intensity Judgments**

	1	2	3	4	5	6	7
	strongly disagree	moderately disagree	disagree	undecided	agree	moderately agree	strongly agree
1. My partner was trying to dominate me	1	2	3	4	5	6	7
2. I was trying to dominate my partner	1	2	3	4	5	6	7
3. My partner made me feel liked	1	2	3	4	5	6	7
4. I expressed liking for my partner	1	2	3	4	5	6	7
5. My partner made me feel dislike	1	2	3	4	5	6	7
6. I made my partner feel disliked	1	2	3	4	5	6	7
7. My partner and I understood each other	1	2	3	4	5	6	7
8. My partner and I did not see things the same way	1	2	3	4	5	6	7
9. This part of the interaction was awkward	1	2	3	4	5	6	7
10. This part of the interaction was difficult	1	2	3	4	5	6	7

## VITA

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Solomon, D. H., & McLaren, R. M. (2008). Relational framing theory. In L. A. Baxter & D. O. Braithwaite's *Engaging Theories in Interpersonal Communication*. Sage Publications.

McLaren, R. M., & Solomon, D. H. (2008) Appraisal and distancing responses in response to hurtful messages. *Communication Research*, 35, 339-357.