

RELATIONAL UNCERTAINTY AND PARTNER INTERFERENCE IN LONG-DISTANCE
AND GEOGRAPHICALLY CLOSE ROMANTIC RELATIONSHIPS

by

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Bachelor of Arts, 2011
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Submitted to the Faculty
Graduate Division
College of Communication
Texas Christian University
in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE

Anticipated May 2013

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ABSTRACT

The purpose of this study was to explore the extent to which geographic distance and RCCUs predict relational turbulence. Specifically, following Knobloch's (2007) relational turbulence model, I examined the extent to which relational uncertainty and partner interference mediate these associations. The sample consisted of 169 participants involved in local ($n = 79$) and long-distance ($n = 90$) romantic relationships. Participants included undergraduate students completing the survey for course or extra credit and users of online romantic relationship forums. Overall, the results suggest that distance and RCCUs do predict relational turbulence, including indirect effects through relational uncertainty (for RCCUs) and partner interference (for geographic distance). The present study extends RCCUs to the experience of relational turbulence and, more practically, may help partners and practitioners mitigate turbulence in romantic relationships.

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Relational Uncertainty and Partner Interference in Long-Distance and Geographically Close
Romantic Relationships

Humans “have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships” (Baumeister & Leary, 1995, p. 497). Given this intrinsic motivation to connect with others, people are often reticent to let their relationships go, regardless of separation by time or space. Long-distance relationships (LDRs) are a perfect example of people’s willingness to endure struggles and sacrifice in order to hold onto deep, meaningful connections, and such romantic relationships are increasingly commonplace. Romantic partners may geographically separate for job relocation, incarceration, military service, university attendance, and numerous other reasons. Scholars have estimated that between 20% and 40% of all college students are currently involved in LDRs, and between 60% and 80% have some past experience with LDRs (Dellmann-Jenkins, Bernard-Paolucci, & Rushing, 1994; Guldner, 1996). Many of these relationships are comprised of partners holding jobs or attending universities in different cities throughout the United States or around the world (Stafford, Merolla, & Castle, 2006).

Romantic partners separated by geographic distance face additional challenges to maintaining their relationships successfully that geographically proximate romantic partners do not. Specifically, as individuals become more committed and reliant upon one another, they experience a time of amplified intensity and drama—a variety of roily experiences that Solomon and Knobloch (2004) defined as relational turbulence and placed at the center of their *relational turbulence model*. Relational turbulence occurs as a result of circumstances that raise questions about the relationship and patterns of behavioral interdependence. In this paper, I proposed that geographic distance is one such circumstance that may produce relational turbulence. Moreover,

I employed the RTM as an overarching theory in which to ground study hypotheses about the extent to which (a) geographic distance and (b) maintenance behaviors known as *relational continuity construction units* (Merolla, 2007) predict relational turbulence. I elaborate the theoretical warrant for this expectation by expanding on two chief contributing factors that give rise to relational turbulence: relational uncertainty and partner interference (Knobloch & Theiss, 2008).

Theoretical Warrant

Relational Uncertainty and Turbulence

Uncertainty occurs when we are unable to predict others' behavior in our everyday interactions. Berger and Calabrese's (1975) uncertainty reduction theory (URT) has suggested that people are motivated to reduce uncertainty due to their desire to discern whether or not they share compatible goals and values with the other person. This helps establish mutual understanding among partners. Although initial URT research addressed relationship initiation (e.g., strangers meeting for the first time) rather than relationship maintenance, subsequent research has discovered that uncertainty and the desire to reduce it continues throughout the course of a relationship (Berger & Calabrese, 1975; Planalp & Honeycutt, 1985; Planalp, Rutherford, & Honeycutt, 1988).

Solomon and Knobloch (2002) applied URT's concepts to conceptualize *relational uncertainty*, or the "degree of confidence people have in their perceptions of involvement" within interpersonal relationships (p. 245). Specifically, relational uncertainty arises from three interrelated sources (Knobloch & Solomon, 1999). *Self uncertainty* refers to individuals' abilities to describe and predict their own behavior and attitudes within a romantic relationship. Individuals experiencing self uncertainty may doubt their commitment to the relationship.

Partner uncertainty results from an individual's perceptions of his or her partner's involvement within the relationship. According to Berger (1987), partner uncertainty often arises in situations characterized by a lack of information about a partner's values and preferences. A third source of uncertainty, *relationship uncertainty*, involves feeling insecure or having doubts about the status of the relationship itself (Berger & Bradac, 1982). Given the global nature of relationship uncertainty and that items from self and partner uncertainty cross-load onto this dimension (Knobloch & Solomon, 1999), Knobloch and Theiss (2010) have argued that it "exists at a higher level of abstraction than either self or partner uncertainty" (p. 598). If individuals want to maintain their relationships with others, they must manage uncertainty by continually renewing their understanding of themselves, their partners, and their relationships (Berger & Bradac, 1982). Knobloch and Carpenter-Theune (2004) contended that relational uncertainty not only has three sources, but that it occurs on two levels: episodic and global (Knobloch & Carpenter-Theune, 2004). In other words, specific events may elicit uncertainty episodically, or partners may generally feel uncertain in their relationship. Without diminishing the potential theoretical/practical importance of episodic uncertainty, this investigation is chiefly concerned with the extent to which geographic distance and maintenance behaviors are associated with global assessments of relational uncertainty.

Uncertainty often produces anxiety and stress, which can lead individuals to doubt their communication competence and ultimately their relational status. Romantic partners often seek to reduce this uncertainty and engage in communication to do so. Levels of uncertainty vary throughout the course of a relationship, and require attention to manage uncertainty successfully (Planalp & Honeycutt, 1985; Planalp, et al., 1988). The level of uncertainty romantic partners experience is generally greater in the beginning of a relationship, and once a relationship

becomes more defined by the commitment of both parties, doubts about relationship status and mutual goals will most likely subside. Empirical research also has indicated that relational uncertainty heightens people's reactivity to relationship circumstances and prompts individuals to return to questions regarding involvement and commitment in the relationship, thus adding to relational turbulence (Solomon & Knobloch, 2004; Steuber & Solomon, 2008). The relational turbulence model situates relational uncertainty as one of the "mechanisms that promote heightened reactivity to events that occur" in personal romantic relationships (Steuber & Solomon, 2008, p. 833). To follow the prediction of the model, then, the hypothesis was advanced for consideration:

H1: Relational uncertainty is positively associated with relational turbulence.

Partner Interference and Turbulence

A second source of relational turbulence is *partner interference*, or the amount of disruption an individual experiences from a romantic partner during everyday activities (Solomon & Knobloch, 2004). Solomon and Knobloch cited Berscheid (1983) as inspiration for a major part of their conceptualization of partner interference in the RTM. Berscheid (1983) describes an individual's habits and behavior as regimented action sequences. Before involvement in a romantic relationship, people are independent and often creatures of habit, having autonomy to act as they please and tending to enact patterns of behavior that become comfortable. However, once a person becomes involved in a romantic relationship, he or she must begin to coordinate activities and behavior with the romantic partner. In other words, individuals begin the process of achieving interdependence. Indeed, people's romantic relationships are rooted in interdependence, or a state in which "two people's behaviors, emotions, and thoughts are mutually and causally interconnected" (Clark & Reis, 1988, p. 611).

When two people are interdependent, their behaviors and cognitions are directly (and indirectly) influenced by their relationship with one another (Agnew, Van Lange, Rusbult, & Langston, 1998). Their initial efforts in integrating two previously separate lives will not be without mistakes and may feel like interruptions in their normal routine. With time, people learn how to resolve involvement from their partner that may be distracting and create action sequences that benefit both partners (Berscheid, 1983). Solomon and Knobloch (2004) stated that partner interference will be highest at low levels of intimacy and decrease at higher levels of intimacy. When couples are still negotiating routines and action sequences they experience more interference, but once they become more intimately engaged with one another, they are able to move closer to interdependence and interference decreases.

However, partner interference may not ever completely disappear, even in the most advanced relationships. Sigman (1991) alludes to partner interference in varying levels of relationship closeness by describing the demands and expectations placed on one's partner, even when the couple is not physically co-present. This also implies that partner interference can occur outside of face-to-face interactions. For instance, a husband can still have daily influence on his wife, even when he is not physically with her (e.g., "I better check with him before doing that"). Repeated interruptions from a romantic partner to our normal behavior may result in relational turbulence (Solomon & Knobloch, 2004; Solomon & Knobloch, 2001). Therefore, consistent with the relational turbulence model, a second hypothesis was advanced for consideration:

H2: Partner interference is positively associated with relational turbulence.

The first two hypotheses replicate the basic predictions of the RTM (Knobloch & Theiss, 2010). In the next section, I argue that these fundamental propositions of the RTM clarify how

geographic distance and relational maintenance behaviors (specifically, relational continuity constructional units) generate relational turbulence. Relational continuity constructional units (RCCUs) are communication behaviors partners use to maintain their relationship before, during, and after times of geographic separation. Specifically, I predicted that relational uncertainty and partner interference mediate the associations between distance and relational turbulence, as well as between RCCUs and relational turbulence.

Geographic Distance

Although distance is the defining characteristic of LDRs, scholars have not yet developed a robust theoretical account of its effect regarding relational outcomes. This is counterintuitive, however, as anecdotal evidence suggests strongly that distance greatly alters the experience of romantic partners. Case in point, Knobloch and Theiss (2012) described the experiences of military families separated by thousands of miles. Separations due to military deployment can result in increased loneliness, uncertainty, and anxiety for military personnel and their partners (Burrell, Adams, Durand, & Castro, 2006).

Beyond the unique circumstance of military deployment, other research suggests distance may exert deleterious effects on a romantic relationship. Holt and Stone (1988) examined uncertainty in long-distance romantic relationships, finding that couples experience less satisfaction and intimacy due to uncertainty when separated for a substantial amount of time (i.e., at least 6 months) and by a long distance (i.e., at least 250 miles apart). Knobloch and Solomon (1999) suggested that one potential source for relational uncertainty is the extrinsic factor of distance. Other research corroborates this claim. For example, Kauffman (2000) interviewed 10 study participants about the impact of geographic separation on their romantic relationship. Strong patterns emerged concerning the fear and uncertainty about how geographic distance

would affect the relationship if it continued for an unknown amount of time without a finite ending point (Kauffman, 2000). Dating relationships are prone to jealousy (Dainton & Aylor, 2001), which may be a result of constant uncertainty about the partner and his or her activities during periods of physical separation. Other respondents in Kauffman's interviews report uncertainty concerning distance and stability within the relationship, with one participant stating, "I am not as secure in our relationship because he is so far away" (Kauffman, 2000, p. 62).

Although this connection between distance and relational uncertainty may not be unfamiliar to people in LDRs, it is less familiar to, and less theorized by, communication scholars. Only a handful of studies have investigated relational uncertainty and distance. For example, Emmers and Canary (1996) conducted a study concerning relationship repair and their results indicated that geographic distance provoked uncertainty. While researching general partner uncertainty, Knobloch and Solomon (1999) identified two possible causes of relational uncertainty: extrinsic determinants like physical distance and intrinsic determinants like differing commitment levels between partners. Ficara and Mongeau (2000) studied maintenance strategies across distance and noted seven specific sources of relational uncertainty: personal distance, physical distance, rival partners, sex, conflict, sexual missteps, and stage uncertainty. Even though all well-established personal relationships likely experience uncertainty at some time, LDRs may be more prone to exhibiting relational uncertainty generated or exacerbated by geographic distance (Dainton & Aylor, 2001).

Whereas this small collection of studies suggests that physical distance is a significant contributor to relational uncertainty in general (Emmers & Canary, 1996; Ficara & Mongeau, 2000; Knobloch & Solomon, 1999), this study proposes a direct comparison between local romantic relationships and LDRs. Consequently, a third hypothesis was advanced:

H3: Geographic distance is positively associated with relational uncertainty.

Generally, when people think about the process of influencing one another and their daily goals, they think about doing so face-to-face and by spending time with their partner. However, LDRs still require partners to integrate their daily activities in order to mesh their lives together and achieve interdependence. Even though LDRs may involve less interference due to a partner's physical absence, it can still occur. For example, partners may need to reschedule appointments or events in order to accommodate communication with their partner on the phone, over the internet, and so forth. Although partner interference can happen on the road to interdependence, it stands to reason that distance generally reduces its frequency. Indeed, theoretical perspectives such as the hyperpersonal model (Walther, 1996) posit that lack of interference from a relational partner generates online interaction that is more satisfying than that which occurs offline. In other words, partners are more likely to enact disruptive activities when face-to-face. Thus, to test this line of reasoning:

H4: Long-distance partners will report less partner interference than local partners.

The majority of studies employing the relational turbulence model liken turbulence to chaotic emotional, cognitive, and communicative experiences (Knobloch, Miller, Bond, et al., 2007; Solomon & Knobloch, 2004; Theiss & Solomon, 2006). Other more recent studies, however, have shed more direct light on the consequences and origins of relational turbulence in romantic relationships. Knobloch (2007) operationalized relational turbulence in three ways: self-report ratings on adjectives (i.e. chaotic, hectic, and stressful), coder ratings of the presence of turbulence, instability, and negativity in people's narrative descriptions of their relationships, and self-reported frequency of relationship-focused thought. The discussion of relational uncertainty and interference from a partner underscores how times of transitions in relationships

can be sources of chaos, instability, and reactivity. Certainly, a relationship that experiences constant cycles of togetherness and separateness would contain more transitions than a relationship that does not include these cycles. The following hypothesis was advanced to test this:

H5: Long-distance partners will report greater relational turbulence than local partners.

Relational Continuity Constructional Units

LDRs require partners to spend significant periods of time apart where distance limits face-to-face interaction (Sahlstein, 2004; Stafford & Reske, 1990). Nearly all LDRs, however, include reunions where partners are once again face-to-face, and even people in geographically close relationships experience at least occasional times of separation. When individuals experience such periods of physical separation, Sigman (1991) emphasized that their relationships do not end. Even without face-to-face communication, people can maintain their relationships with loved ones. Thus, relationships are continuous and can operate before, during, and after times of physical separation (Sigman, 1991). Such continuity is discursively constituted and does not occur automatically in relationships. Relational continuity “only occurs to the extent that members orient to and produce it,” and is consequently accomplished through communication (Sigman, 1991, p. 107). In other words, relational continuity is a dynamic, living process, and is key to keeping a relationship alive (Jorgenson & Bochner, 2004). If partners do not maintain some level of communication and continuity in their relationship, it is likely the relationship will end. People sometimes experience this relationship mortality with college roommates or temporary colleagues. While they are in contact with the other person, generally by convenience or for the sake of a project, the relationship continues. However, once communication lags, and eventually stops, the relationship also ‘fizzles out.’

Sigman (1991) identified relational continuity constructional units (RCCUs) that explain partners' behavior during the cycles before, after, and during times of separation. Relational continuity, or the perception of ongoingness in relationships, has not been as thoroughly researched as other concepts in interpersonal communication despite its critical role in maintaining relationships across space and time (Merolla & Steinberg, 2007). Sigman's RCCUs addressed three temporal periods which occur in a cycle: prospective, introspective, and retrospective. *Prospective units* are behaviors that partners enact before they are physically separated. These behaviors work to "define the meaning and duration" of the upcoming separation and of the probable return (Sigman, 1991, p. 112). These behaviors have four possible functions: signaling to partners that a separation is impending, providing a time line for the next face-to-face interaction, defining the separation in terms of the relationship, and establishing expectations for the nature of the next reunion. Examples of prospective behaviors may serve to mark a partner's territory (e.g., leaving a hairbrush at the partner's home), set an agenda for the separation (e.g., asking for the partner's schedule), signify commitment through material objects (e.g., giving a partner an engagement ring), or reassure a partner that a reunion is upcoming by using non-final farewells (e.g., "I'll see you again soon"). Prospective units also imply a bridge across the separation, and include negotiating activities that are appropriate for each partner while they are apart (Gilbertson, Dindia, & Allen, 1998).

Introspective units are behaviors that build continuity while partners are physically separated (Sigman, 1991). They remind all relevant parties that the two partners are still together, despite the geographic separation. These behaviors are arguably the most crucial to enact, because they sustain the relationship during periods of separation. Introspective units often take the form of collecting and displaying physical evidence of the ongoing relationship

such as photographs, but are not limited to objects. Communication using various media like the telephone or computer is also considered introspective because it occurs during the separation and serves to maintain and advance the relationship.

Retrospective units are executed after times of separation and partners are face-to-face once again. Retrospective units are geared toward the relationship's history and what occurred while partners were not physically co-present (Sigman, 1991). Partners may hug, kiss, have conversations to "catch up," or throw parties to celebrate the reunion and connect the past to the present. Retrospective behaviors also assist in creating a plan for interaction in the relationship's future. Regardless of type, Sigman suggested that partners employ RCCUs as tools to transcend the limitations of long-distance relationships.

Merolla (2007) and Gilbertson et al. (1998) built upon Sigman's RCCUs to help people better understand how they can maintain relationships as partners cycle in and out of face-to-face encounters. The updated relational continuity model intersects Sigman's conceptualization of relational continuity and RCCUs with work in communication research from different areas including interdependence (Kelley et al., 1983), relational maintenance (Stafford & Canary, 1991), and intimacy (Register & Henley, 1992). Merolla also expanded Sigman's RCCUs to include a second level of analysis. The new model includes interactional contexts in addition to periods of time. The three interactional contexts that occur within the aforementioned temporal periods include intrapersonal (i.e., imagined interactions and self-talk), dyadic (i.e., two partners conversing face-to-face or over the phone), and network (i.e., talking to people within one's network) contexts. The integration of these two levels of analysis allows for a more complete understanding of relational continuity and helps individuals paint a clearer picture of the kinds of behaviors long-distance partners enact throughout the various cycles of their continuous

relationship (see Table 1).

Long-distance relationships and their cycles of separation and reunion can generate high levels of uncertainty. All of the RCCUs can be considered types of relational maintenance, in that they help coordinate partner activities, reinforce closeness and commitment, and advance the relationship in spite of geographic distance. When partners feel close and on the same page, even though they are separated, they may experience less relational uncertainty. I advanced the following hypothesis to test this line of reasoning:

H6: RCCUs are inversely associated with relational uncertainty.

The relational turbulence model posits that both relational uncertainty and partner interference foster communicative, emotional, and cognitive reactivity in relationships. Individuals experience negative emotions when their partners interfere with their lives in ways that make it difficult to accomplish their objectives (Berscheid, 1983). When partners feel that their attempts to achieve everyday goals are being interrupted, they are more sensitive to relational stimuli and could feel less motivation to maintain the relationship. This may mean that partners experiencing partner interference will enact fewer RCCUs. In the same way, partners who enact more RCCUs will have better maintained relationships and, through coordination, may experience less partner interference or feel less bothered by interruptions. Therefore, I predicted that:

H7: RCCUs are inversely associated with partner interference.

The RTM characterizes relational turbulence as partners' increased reactivity to relationship circumstances. As long-distance partners cycle in and out of physical co-presence, it is logical to conclude that they experience some degree of relational turbulence due to the changes inherent in distance transitions. Turbulence is often evident in extreme cognitive

Table 1

Nine Relational Continuity Construction Factors

Factor	Description
<i>Prospective</i>	
1. Prospective-Intrapersonal	Individual cognition/tasks prior to non-co-presence.
2. Prospective-Dyadic	Partner talk prior to non-co-presence.
3. Prospective-Network	Network member talk prior to non-co-presence.
<i>Introspective</i>	
4. Introspective-Intrapersonal	Individual cognition/tasks during non-co-presence.
5. Introspective-Dyadic	Mediated partner talk during non-co-presence.
6. Introspective-Network	Network member talk during non-co-presence.
<i>Retrospective</i>	
7. Retrospective-Intrapersonal	Individual cognition/tasks after co-presence resumes.
8. Retrospective-Dyadic	Partner talk after co-presence resumes.
9. Retrospective-Network	Network member talk after co-presence resumes.

evaluations, severe emotional reactions, and fervent behavioral responses (Knobloch & Carpenter-Theune, 2004). Consider how a girlfriend may overreact when her boyfriend changes the date or time of their first post-separation video chat at the last minute. Under “normal” circumstances she would be understanding of her partner’s need to reschedule their call, but perhaps the fact that the couple has just experienced a moment of turbulence due to physical separation has intensified her reaction. However, her reaction may be ameliorated by looking at a happy photo of the couple she has sitting on her desk (an introspective unit). Given that such behavior, or other RCCUs, could counteract volatile experiences that occur as the relationship experiences change, I advanced the following hypothesis:

H8: RCCUs are inversely associated with relational turbulence.

Figure 1 depicts the study hypotheses as a model. Taken as a whole, this model positions relational uncertainty and partner inferences as mediators of the extent to which turbulence is predicted by (a) geographic distance and (b) RCCUs. To the extent that distance alters relational uncertainty or partner interference, relational turbulence also is expected to change. The model displays partial mediation because there is still hypothesized to be a direct relationship between distance and relational turbulence. The same type of associations exists between RCCUs and relational turbulence.

In terms of directionality, the true relationship between distance or RCCUs and relational turbulence may be hidden. Distance increases relational uncertainty but decreases partner interference, so the positive and negative effects may cancel each other out. For example, a man whose girlfriend lives far away may experience greater uncertainty about the relationship but also feel less interference from his partner. Thus, the following hypotheses were advanced for consideration:

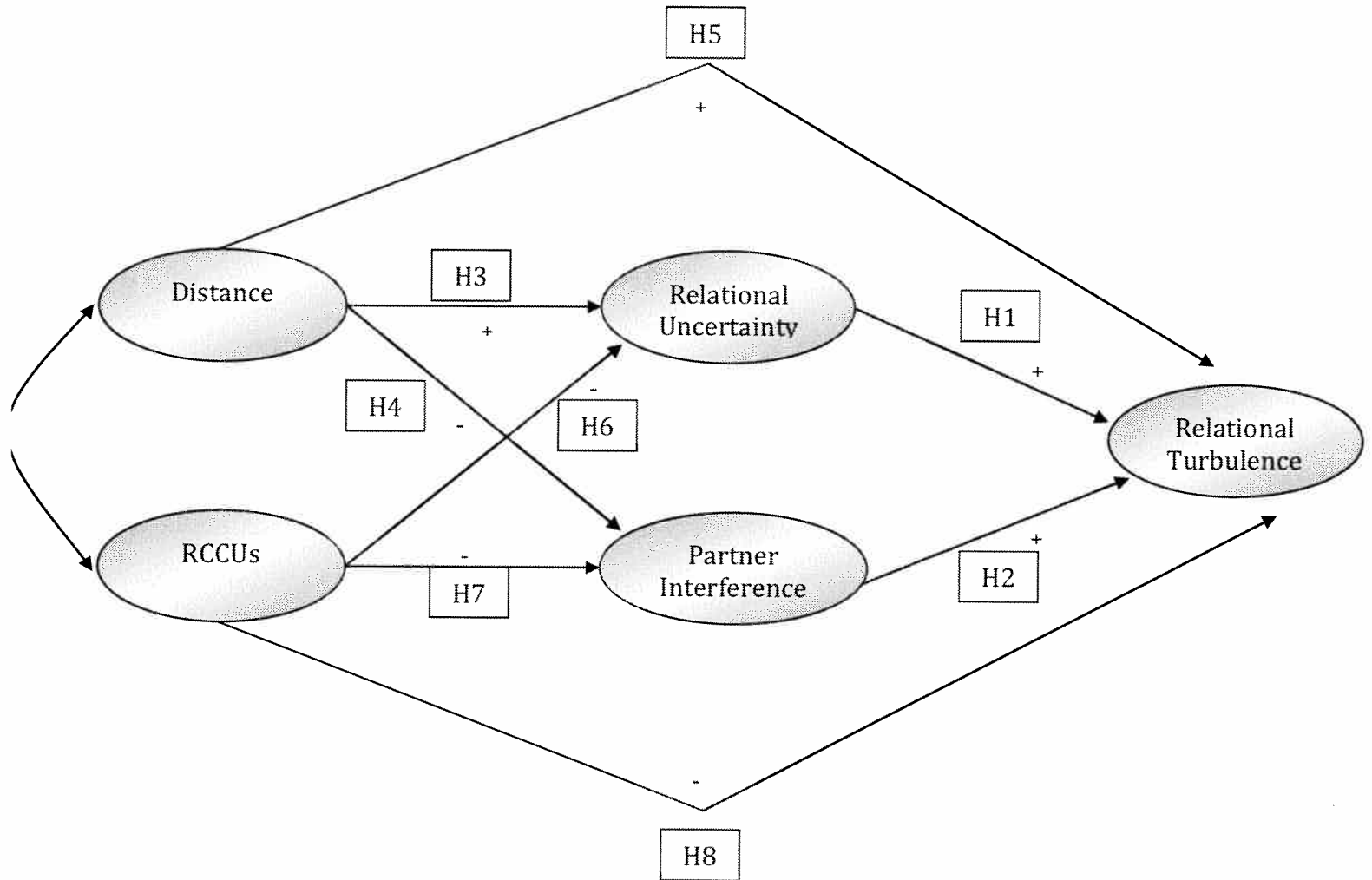


Figure 1. Model of relational uncertainty and partner interference in long-distance and geographically close romantic relationships. This figure illustrates the hypotheses I proposed.

H9: Relational uncertainty and partner interference mediate the association between geographic distance and relational turbulence.

H10: Relational uncertainty and partner interference mediate the association between RCCUs and relational turbulence.

Method

Participants

The sample consisted of 169 participants involved in local ($n = 79$) and long-distance ($n = 90$) romantic relationships. Participants were recruited from two subgroups. The first sample subgroup contained 99 undergraduate students enrolled in a basic communication course at a medium-sized, private liberal arts university in the southwestern United States. The second sample subgroup consisted of 70 internet users who voluntarily visit an online forum for long-distance romantic relationships. Participants included 47 men and 122 women, ranging in age from 18 to 44 ($M = 21.34$, $SD = 4.12$). Most of the participants were Caucasian (82.8%), although 3.0% were African American, 4.7% were Hispanic American, 1.8% were Asian American, and the remaining 7.7% reported "other." The majority of participants were dating seriously (62.1%, $n = 105$) or dating casually (24.3%, $n = 41$) but some participants were married (7.7%, $n = 13$) or engaged to be married (5.9%, $n = 10$). Respondents reported their living arrangements: 13.6% were currently cohabitating, 5.3% have previously cohabitated, and 81.1% have never cohabitated with their current romantic partner.

Procedures

The undergraduate students currently enrolled in an introductory speech communication course were asked to complete an online questionnaire for minimal course credit (less than 2%). No students under the age of 18 were recruited for this project. Other participants were recruited

from long-distance relationship websites that host a blog, chat forum, or discussion board, as well as more general websites that those in romantic relationships might frequent (e.g., social networking sites). I contacted the administrators of these LDR websites and forums, asking them to email the survey to participants or post a link to the survey on the webpage. The survey (identical to the survey distributed to the undergraduate students) was completed in a location chosen by the website participant. Participation in the survey was completely anonymous. The online survey took approximately 30 minutes to finish. After completing the survey, participants were thanked for their participation. Students who did not wish to participate in the survey completed an alternative assignment for equal course credit.

Measures

Relational turbulence. Relational turbulence was measured using Knobloch's (2007) relational turbulence scale. The scale is a six-point Likert-type scale that ranges from (1) *Strongly disagree* to (6) *Strongly agree*. The scale contains eight items pertaining to relational turbulence and includes questions that ask participants to rate how turbulent, chaotic, hectic, and stressful their relationship is. In a previous study, reliability for the relational turbulence measure was reported as .90 (Knobloch, 2007). For this study, Cronbach's alpha was .91.

Partner Interference. Partner interference was measured using Solomon and Knobloch's (2001) partner interference measure. The scale is a six-point Likert-type scale that ranges from (1) *Strongly disagree* to (6) *Strongly agree*. The scale contains five items pertaining to the interference experienced from a romantic partner. It consists of questions about how the partner interferes with social life, work or school, and plans. Past reliability estimates for the scale range from .86 to .91 (Knobloch, Miller, & Carpenter, 2007; Knobloch & Theiss, 2011; McLaren, Solomon, & Priem, 2011). For this study, Cronbach's alpha was .89.

Relationship uncertainty. Relationship uncertainty was measured using Knobloch and Solomon's (1999) relational uncertainty scale. The measure consists of three subscales on a five-point Likert-type scale that ranges from (1) *Completely uncertain* to (5) *Completely certain*. The scale contains items pertaining to self-uncertainty, partner uncertainty, and relationship uncertainty. To reduce survey fatigue, simplify the data analysis, and because it "exists at a higher level of abstraction than either self or partner uncertainty" (Knobloch & Theiss, 2010, p. 598), participants only completed the relationship uncertainty subscale in this study. The subscale consists of 16 items asking respondents to indicate how both they and their partners view the relationship, the future of the relationship, and the definition of the relationship. Previous researchers have reported alpha reliabilities for the relationship uncertainty subscale ranging from .90 to .91 (Knobloch & Solomon, 2002a; Knobloch & Carpenter-Theune, 2004; Knobloch, 2006; Knobloch & Donovan-Kicken, 2006). For this study, Cronbach's alpha was .95.

Relational continuity constructional units. Relational continuity constructional units (RCCUs) were measured using Merolla's (2007) condensed RCCU scale. The scale consists of three subscales on a seven-point Likert-type scale that ranges from (1) *Not at all characteristic of me* to (7) *Very characteristic of me*. The scale contains items pertaining to the period before geographical separation, during geographical separation, and after geographical separation. *Before separation* includes 12 questions about how much the participant will miss the partner, how the participant will communicate when separated, and the participant's feelings about the separation. *During separation* consists of 13 questions about talking to other people about the separation, expressing how much the partner is missed, and how close the participant feels to the partner despite the distance. *After separation* includes 12 questions about how the participant spends your time once reunited, memories and feelings about the relationship, and feelings about

future separations. The subscales' reliability has ranged from .75 to .95, with a majority of the subscales falling between .84 to .95 (Merolla, 2007). Investigation of the correlation matrix among the three dimensions revealed strong correlations among them (average $r = .77$), and given no strong theoretical warrant for different effects of each dimension, all items were combined into a single composite measure of RCCUs ($\alpha = .95$).

Results

Table 2 presents the means, standard deviations, and Pearson product-moment correlations among all study variables. The first eight hypotheses addressed bivariate associations among geographic distance, RCCUs, relational uncertainty, partner interference, and relational turbulence, and were evaluated using Pearson product-moment correlations. The first hypothesis predicted that relational uncertainty would be positively associated with relational turbulence. Results revealed a positive association between relational uncertainty and relational turbulence ($r = .43, p < .01$), supporting H1. The second hypothesis predicted that partner interference would be positively associated with relational turbulence. The Pearson product-moment correlation revealed a non-significant positive association between partner interference and relational turbulence (H2) ($r = .14, p > .05$). The third hypothesis predicted that distance would be positively associated with relational uncertainty. The Pearson product-moment correlation revealed a non-significant association between distance and relational uncertainty ($r = -.02, p > .05$). Thus, results did not support H2 or H3.

The fourth hypothesis predicted that long-distance partners would report less partner interference than local partners. The results supported this hypothesis ($r = -.14, p < .01$). The fifth hypothesis predicted that long distance partners would report greater relational turbulence than local

Table 2

Descriptive Statistics and Pearson Product-Moment Correlations Among Variables^a

Variables	<i>M</i>	SD	1	2	3	4	5
1. Distance	1.53	0.50	1				
2. RCCUs	5.11	0.95	0.14	1			
3. Partner Interference	2.83	0.78	-0.26**	0.02	1		
4. Relational Uncertainty	1.72	0.81	-0.02	-0.51**	-0.13	1	
5. Relational Turbulence	1.77	0.78	0.09	-0.29**	0.14	0.43**	1

* $p < .05$ ** $p < .01$.^aN = 169

partners. Pearson product-moment correlations revealed a non-significant positive association between distance and relational turbulence ($r = .09, p > .05$); thus, results did not support H5. The sixth hypothesis predicted that RCCUs would be inversely associated with relational uncertainty. Results supported the sixth hypothesis, with Pearson product-moment correlations revealing a negative association between RCCUs and relational uncertainty ($r = -.51, p < .01$). The next hypothesis predicted that RCCUs would be inversely associated with partner interference (H7). Results did not support this hypothesis, with a non-significant association between RCCUs and partner interference ($r = .02, p > .05$). Finally, the eighth hypothesis predicted that RCCUs would be inversely associated with relational turbulence, with the obtained correlation supporting this prediction ($r = -.29, p < .01$).

The final two hypotheses predicted that relational uncertainty and partner interference would mediate geographic distance (H9) and RCCUs (H10) as predictors of relational turbulence. These hypotheses were tested using hierarchical regression with relational turbulence as the dependent (criterion) variable. Initially I examined sex, relationship length, and relationship type as potential covariates, but they were not significant predictors, so these covariates were not included in the final analysis. The first block of the regression included distance and RCCUs as the independent variables. The second block added partner interference and relational uncertainty as additional predictors. Indirect effects were tested using the *MEDIATE* macro for SPSS (Hayes, 2012), which conducts nonparametric bootstrapping (Little, Card, Bovaird, Preacher, & Crandall, 2007) to evaluate all possible indirect effects in the regression analysis.

Before addressing the hypotheses regarding the indirect effects, it is worth noting the overall pattern of the regression results. In the first block of the regression analysis, distance was

Table 3

Regression Analysis Predicting Relational Turbulence

Predictors	<i>B</i>	β	SE	<i>t</i>	ΔF	ΔR^2
Step 1					8.98**	0.01**
Distance	0.20	0.13	0.12	1.74		
RCCUs	-0.25	-0.30	0.06	-4.07**		
Step 2					13.14**	0.13**
Distance	0.24	0.15	0.11	2.11**		
RCCUs	-0.10	0.07	0.07	-1.57		
Partner Interference	0.15	0.16	0.07	2.22**		
Relational Uncertainty	0.34	0.35	0.08	4.38**		

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

not a significant predictor, but it became significant when including relational uncertainty and partner interferences in the second block. Conversely, RCCUs were significant in the first block, but were not significant in the second. Clearly the inclusion of additional factors to the regression altered the associations among the variables.

Table 4 presents the results of the bootstrapping tests for indirect effects. The ninth hypothesis predicted that relational uncertainty and partner interference would mediate the association between distance and relational turbulence. Results partially supported this hypothesis, as partner interference significantly mediated the association between distance and turbulence but relational uncertainty did not mediate this association. The tenth hypothesis predicted that relational uncertainty and partner interference would mediate the association between RCCUs and relational turbulence. Again, results partially supported this hypothesis, as relational uncertainty significantly mediated the relationship between RCCUs and relational turbulence (See Table 3) but partner interference did not.

Table 4

Bootstrapped Estimates of Unstandardized Indirect Effects

Indirect Effect	<i>B</i>	<i>SE</i>	95% CI for <i>B</i>
1. Distance → Relational Uncertainty → Relational Turbulence	0.03	0.04	-0.03: 0.15
2. RCCUs → Relational Uncertainty → Relational Turbulence	-0.15**	0.06	-0.28: -0.06
3. Distance → Partner Interference → Relational Turbulence	-0.07**	0.03	-0.16: -0.02
4. RCCUs → Partner Interference → Relational Turbulence	0.01	0.01	-0.01: 0.04

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

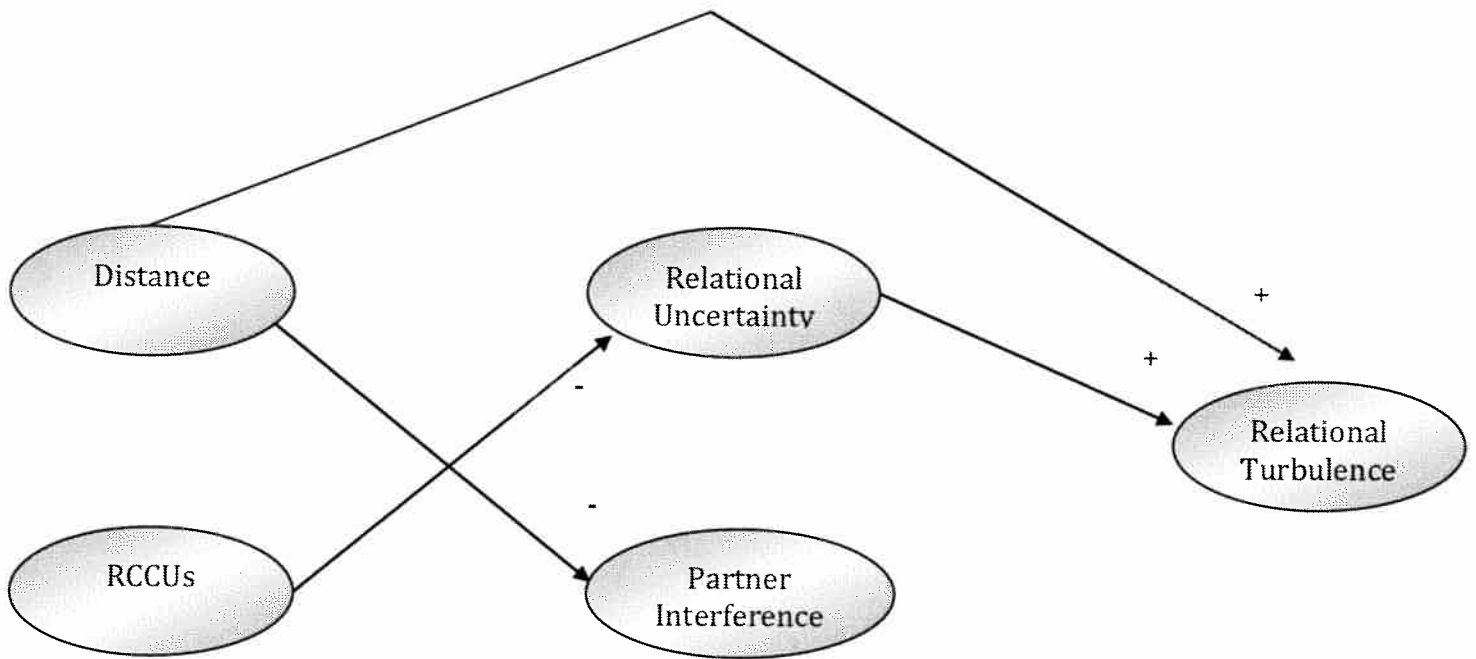


Figure 2. Supported model of relational uncertainty and partner interference in long-distance and geographically close romantic relationships. This figure illustrates the supported findings in this study.

Discussion

The primary purpose of this research project was to investigate the extent to which geographic distance and RCCUs predict relational turbulence. Specifically, following Knobloch's (2007) relational turbulence model, I examined the extent to which relational uncertainty and partner interference mediate these associations. Overall, the results suggest that distance and RCCUs do predict relational turbulence, including indirect effects through relational uncertainty (for RCCUs) and partner interference (for geographic distance). The present study extends RCCUs to the experience of relational turbulence and, more practically, may help partners and practitioners mitigate turbulence in romantic relationships. The first hypothesis examined the association between relational uncertainty and relational turbulence. As predicted by the relational turbulence model, it appears that uncertainty is positively associated with relational turbulence. When romantic partners experience uncertainty in their relationship then they will also have a heightened emotional state and reactivity to events in the relationship. The second hypothesis predicted that partner interference would be positively associated with relational turbulence. Results were consistent with earlier work on the relational turbulence model (Knobloch, 2004; Knobloch, Miller, & Carpenter, 2007). When individuals feel interference from a romantic partner then they will experience more turbulence in their relationship.

Previous research found that geographic distance is a significant contributor to relational uncertainty (Emmers & Canary, 1996; Ficara & Mongeau, 2000; Knobloch & Solomon, 1999). Consistent with the research, I predicted that distance would be positively associated with relational uncertainty (H3), but the hypothesis was not supported. This suggests that when partners are geographically separated, they do not necessarily experience more uncertainty in

their relationship. Holt and Stone (1988) found that geographically separated couples experience less satisfaction and intimacy due to uncertainty, but the couples in their study were separated for at least six months and by at least 250 miles. It may be that, when couples are separated by more extreme amounts of time and long distances, that relational uncertainty becomes more salient. Alternatively, the Holt and Stone study is almost three decades old, and advances in communication technology (as well as travel) may have reduced the experience of relational uncertainty for separated romantic partners. Strong patterns of uncertainty emerged in Kauffman's (2000) research, but related to geographic distance without a definite ending point. Perhaps couples in the current study established a limit for their distance, thus minimizing uncertainty about the distance, although only future research can evaluate this possible moderator.

Hypothesis four, which predicted that distance would be inversely associated with partner interference, was supported. Thus, people in LDRs experience less partner interference. Although it is not impossible for long-distance partners to interfere with each other's daily activities, such as having to rearrange one's schedule to accommodate a phone call with one's partner, greater distance does seem to be associated with reduced partner interference for most couples in this investigation. It is intriguing that distance is significantly associated with partner interference but not with relational uncertainty. Although these data are not longitudinal, it seems reasonable to expect that, in terms of the relational turbulence model, if a local couple is experiencing uncertainty before they become long-distance then they will continue to experience uncertainty, and vice versa. These data suggest that distance may not erase or increase uncertainty.

The fifth hypothesis, which predicted that long-distance partners would report greater relational turbulence than local partners, was not supported. Inherent in the concept of LDRs are times of transition. Partners spend time together and they spend time apart, which thrusts them into cycles where they are either geographically close or distant. Transitions within relationships can serve as sources of chaos, reactivity, and instability (Knobloch, Miller, Bond, et al., 2007; Solomon & Knobloch, 2004; Theiss & Solomon, 2006). Perhaps partners experience these emotions, and in turn turbulence, when they have more recently had a temporary reunion. That is, turbulence may only occur, or be felt strongly enough to be detected on a survey measure, closer to times of transition. Another explanation may be that some other moderator variable is obscuring the true relationship between distance and relational turbulence.

Hypotheses 6-8 investigated possible associations between RCCUs and relational outcomes. Specifically, I predicted that RCCUs would be inversely associated with relational uncertainty (H6). This hypothesis was supported, which means that partners who utilize RCCUs experience less relational uncertainty. This is not surprising, given that all of the RCCUs can be considered types of relational maintenance, in that they help coordinate partner activities, reinforce closeness and commitment, and advance the relationship in spite of geographic distance. Hypothesis seven, which predicted that RCCUs would be inversely associated with partner interference, was not supported. I suspected that partners who are enacting more RCCUs might experience less partner interference, or at least be less bothered by it (Berscheid, 1983). Although RCCUs appear to mitigate the experience of relational uncertainty, it appears they do not function to coordinate partner interdependence or resolve conflicts associated with it.

Hypothesis eight predicted that RCCUs would be inversely associated with relational turbulence. The results found support for the eighth hypothesis, indicating that turbulence, or

increased reactivity, is mollified by RCCUs. RCCUs do not merely create continuity through time, but they also make the relationship more stable and more immune to drastic emotional swings. Of course, there is some emotional variance in every relationship, but RCCUs seem to reduce more severe variations (turbulence). In other words, when couples regularly enact RCCUs, events that could potentially provoke turbulence may not do so. Thus, a dual function of RCCUs emerges: RCCUs serve to maintain the relationship in terms of continuity and also to buffer against negative emotional experiences. RCCUs provide a support structure within the relationship that helps the couple cope. For instance, a girlfriend may overreact when her boyfriend changes the date or time of their first post-separation video chat at the last minute. Under “normal” circumstances she would be understanding of her partner’s need to reschedule their call, but perhaps the fact that the couple has just experienced a moment of turbulence due to an intense family situation has intensified her reaction. However, her reaction may be pacified by looking at a happy photo of the couple she has sitting on her desk (an introspective unit).

The ninth hypothesis predicted that relational uncertainty and partner interference would mediate the association between distance and relational turbulence. Results partially supported this hypothesis, as partner interference significantly mediated the association between distance and turbulence but relational uncertainty did not mediate this association. When couples are long-distance, they experience less partner interference and, in turn, less relational turbulence. For example, Todd’s girlfriend Sarah is really bothering him. When she moves away for college, she is no longer interfering in Todd’s daily routine, thus distance has reduced partner interference. Since their partner interference is lower, it stands to reason that turbulence will decrease as well. The reason Todd and Sarah are experiencing less relational turbulence is due, in part, to their decreased partner interference and increased distance. One possible explanation

for these findings is that long-distance partners are more satisfied and less emotionally taxed when communicating via mediated channels. This fits in with the propositions of social information processing theory (SIP) (Walther, 1992). According to the hyperpersonal model associated with SIP, it is possible for individuals to form more intimate relationships over computer-mediated communication (CMC) than face-to-face communication (Walther, 1992) owing, in part, to the ability to selectively self-present positive information and edit out negative information. The hyperpersonal model does not only apply to purely online relationships, as CMC can facilitate the maintenance of relationships that originated off-line (Rabby & Walther, 2003).

Taken as a whole, the results of this investigation offer a complex picture of the association between geographic distance and relational turbulence. Examined individually, three different findings emerged for the association: a) In the zero-order correlation matrix, distance was not significantly associated with turbulence; b) in the regression model, distance was inversely associated with turbulence through the indirect effect of relational uncertainty and partner interference; and c) after accounting for that indirect effect and the main effect of partner interference, there remains a significantly positive direct association between distance and turbulence. Additionally, this project has ruled out relational uncertainty as a mediator of the positive direct association between distance and turbulence. So, whatever this positive direct path may be, there is likely an unidentified theoretical mechanism that accounts for it. Scholars may conjecture about this intervening theoretical construct, but it also calls for future research.

Alternatively, there may exist other mediators that account for the positive association between distance and turbulence. I will speculate about two such possible mediators here. First, media richness (Daft & Lengel, 1986) may offer at least a partial explanation. There is an

obvious lack of nonverbal communication in LDRs, or at least the kind that occurs in geographically-close romantic relationships. For example, a telephone call cannot replicate visual social cues like gestures or facial expressions, so it is a less rich communication medium than video conferencing, which allows users to communicate these nonverbal behaviors to some extent. Even with current advanced communication technology that can mimic a face-to-face interaction, informally people report a difference between these media and face-to-face meetings (Trevino, Lengel, & Daft, 1987). Second and relatedly, physical affection may mediate the association between distance and turbulence. Often the hallmark of a close relationship is a level of physical affection that is expressed with a limited number of individuals. In a monogamous romantic relationship, there are certain affectionate behaviors that are reserved for one person. Affection fosters physical and emotional health (Floyd, 2001) but is clearly absent in LDRs during times of geographic separation.

The tenth, and final, hypothesis predicted that relational uncertainty and partner interference would mediate the association between RCCUs and relational turbulence. Again, results partially supported this hypothesis, as relational uncertainty significantly mediated the association between RCCUs and relational turbulence but partner interference did not. Partners who do not enact RCCUs experience an increase in relational uncertainty and, in turn, relational turbulence. For example, if a boyfriend stops sending cards or notes to his long-distance girlfriend, his girlfriend likely would experience more uncertainty about the relationship, which increases relational turbulence as well. After accounting for this significant indirect effect, the direct effect of RCCUs on relational turbulence was not statistically significant. Within the limits of a cross-sectional study, this pattern of results suggests that reduced relational uncertainty is the mechanism by which RCCUs reduce relational turbulence.

Limitations, Implications, and Future Directions

As with any study, this project included several limitations. This study is limited by the cross-sectional nature of the research design. The current study uses methods (i.e. bootstrapping and mediation) that imply causation but ultimately the data only permit correlational claims, and thus evidence for causation is weak at best. This study collected data from only one member of the romantic dyad, and dyadic data may provide a fuller picture of how these constructs predict relational turbulence. Finally, the sample collected is fairly homogenous in terms of ethnicity and age. Only future research can determine whether these findings would generalize to other populations.

Beyond the theoretical implications previously discussed, there are a few practical implications for this study. The results of this study suggest that RCCUs seem to be powerful in romantic relationships, whether local or long-distance. Investing time in preparing for a separation, maintaining contact during the separation, and trying to make sense of the separation afterwards is useful and seems to help buffer some negative aspects of romantic relationships. This seems to hold true for both local and long-distance partners, which means that couples in local romantic relationships are not exempt from the task of maintaining relational continuity across time and space. As with any relational maintenance behavior, RCCUs may help predict the future success of romantic partnerships. Couples involved in LDRs may also be reassured on some level, given that distance did not directly contribute to relational uncertainty. Perhaps distance could be seen as less problematic to a relationship, and may not be the major reason for a breakup. Canary and Dainton's (2006) study indicated that relational maintenance behaviors are most effective when performed consistently. Future research could investigate how often partners usually enact RCCUs and how differing frequencies might influence relational

prosperity. Longitudinal research could also be useful in examining RCCUs, given that partners may respond differently to the RCCU measure depending on which cycle they currently reside.

It is possible that one reason distance did not have the predicted associations is due in part how to distance is measured in empirical studies. Distance has been measured and conceptualized in various ways, but, perhaps contrary to the prevailing public opinion, probably is not a binary variable. It may be that distance exists on a continuum in relationships, ranging from very rare face-to-face visits to frequent reunions. This may help illustrate the point that almost no relationship is purely long distance or purely geographically close. Most long-distance relationships experience some times of face-to-face reunion, and even geographically close partners experience times of geographic dislocation (e.g., a business trip out of town). One future aim of research could be to reposition distance as a continuous rather than a dichotomous construct. Each relationship would then reside in a different position on the continuum based on time spent physically together versus apart.

This research project investigated the association between distance and RCCUs and relational outcomes. The results suggest that distance and RCCUs influence relational outcomes, and extends RCCUs to the experience of relational turbulence and may be helpful in identifying and/or mitigating turbulence. Distance is an important consideration in romantic relationships, and continuing to examine the role it plays with regard to relational outcomes can assist in achieving more understanding about both local and long-distance romantic relationships.

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Appendix

ROMANTIC RELATIONSHIPS QUESTIONNAIRE

PLEASE NOTE: Responding to this survey affirms that you have read, understand, and agree to the terms of the consent form.

DEMOGRAPHIC INFORMATION

Directions: In the following spaces, please circle or write the most appropriate response to each question. If there is a separate set of directions, please read those directions carefully and answer each question according to the directions for that section of the questionnaire.

1. What is your sex?
 - 1 Male
 - 2 Female

2. What is your age? _____

3. What is your highest level of education?

1 Have not completed high school	5 Bachelor's degree (B.A., B.S., etc.)
2 High school diploma or equivalent	6 Master's degree (M.A., M.S., M.B.A., etc.)
3 Some college	7 Doctoral degree (Ph.D., M.D., J.D., Ed.D., etc.):
4 Associate's degree (A.A., A.S., etc.)	8 Other (please specify): _____

4. What is your ethnicity or race?

1 Caucasian American	4 Native American
2 African American	5 Asian American
3 Hispanic American	6 Other (please specify): _____

5. Have you ever been divorced?
 - 1 Yes
 - 2 No

INFORMATION ABOUT RELATIONSHIP:

6. Are you currently in a romantic relationship?
 - 1 Yes
 - 2 No

[Note: This question will serve as a branching point for the survey. For participants who are not in a romantic relationship, measures below will replace the word "partner" with "friend" and "relationship" to "friendship."]

If you answered 'yes' to Question #6, **please complete the rest of the questionnaire with your current romantic partner in mind.** If you answered 'no' to Question #6, please complete the questionnaire with your closest (or 'best') friend in mind. In either case, please complete this questionnaire alone, without the help of the friend or romantic partner.

7. How would you best describe your relationship with this person? (Circle one.)

- | | | | |
|---|-----------------------|---|-------------------------------------|
| 1 | Friendship | 5 | Married |
| 2 | Dating casually | 6 | In a long-term domestic partnership |
| 3 | Dating seriously | 7 | Separated |
| 4 | Engaged to be married | 8 | Other (please specify): _____ |

8. Have you currently or previously cohabitated (in other words, lived in the same residence) with this person?

- 1 Yes, currently
2 Yes, previously
3 No, we have never cohabitated

9. What is the sex of this person?

- 1 Male
2 Female

10. How old is this person? _____

11. For how long have you known this person? _____

12. Generally, would you consider this to be a local or long-distance relationship?

- 1 Local
2 Long-distance

13. Thinking about your relationship as a whole, about what percentage of time are you geographically separated from each other?

[The electronic survey will include response options ranging from 0% to 100%, in 5% intervals.]

14. How many miles away does this person live (enter 0 if you share a residence)? _____

15. What are the main reasons you and your partner do not live in the same location (check all that apply)?

- ___ My education
___ My partner's education
___ My job
___ My partner's job
___ My military service
___ My partner's military service
___ We met online
___ Other (please specify): _____

16. What is the longest consecutive span of time (in days, months, and years) that you and your partner have *ever* lived in the same geographic location? _____ [open-ended response]

17. On average, how many days per month do you see your partner face-to-face? _____ [open-ended response]

18. On average, how many days are there *in between* face-to-face visits with your partner per month?
_____ [open-ended response]
19. On the average, how many days does the average face-to-face visit last with your partner? In other words, how long is the typical visit between you and your partner? _____ [open-ended response]
20. In the average MONTH, how many text messages do you send to your partner? _____ [open-ended response]
21. In the average MONTH, how many text messages do you receive from your partner? _____ [open-ended response]
22. In the average WEEK, how many hours do you spend using email related to your partner (that is, how many hours do you spend emailing him/her or reading his/her emails to you)? _____ [open-ended response]
23. In the average WEEK, about how many hours do you spend using instant messaging with your partner? _____ [open-ended response]
24. In the average WEEK, how many hours do you talk to your partner on the telephone? _____ [open-ended response]

RELATIONAL CONTINUITY CONSTRUCTIONAL UNITS (MEROLLA, 2007):

The questions in the next section will focus on your behaviors and thoughts surrounding periods of geographic separation with your partner. Specifically, you will be asked about behaviors you typically engage in BEFORE, DURING, and AFTER periods when you are geographically separated from your partner. Please make sure read the directions very closely in these sections.

BEFORE SEPARATION QUESTIONS: Think about those times when you and your partner are together face-to-face, but are shortly going to be geographically separated. For example, think about the period of time before you leave each other after a visit. Think about all the things you typically do during that time period. Indicate below how characteristic the following types of things are for you.

Not at all characteristic of me			Somewhat characteristic of me			Very characteristic of me
1	2	3	4	5	6	7

Prior to parting...							
1. I think about all the ways I can ensure my partner knows he/she will be missed.	1	2	3	4	5	6	7
2. I think about how this upcoming geographic separation will only be temporary.	1	2	3	4	5	6	7
3. I think to myself that I am going to see my partner face-to-face again in the near future.	1	2	3	4	5	6	7
4. I picture my partner having a safe trip to his/her	1	2	3	4	5	6	7

destination.							
5. I discuss my feelings with my partner about being geographically separated.	1	2	3	4	5	6	7
6. My partner and I figure out the next time we will communicate.	1	2	3	4	5	6	7
7. I talk to my partner about the specific things I plan to do during the period of geographic separation.	1	2	3	4	5	6	7
8. I talk to my partner about how long the separation will last.	1	2	3	4	5	6	7
9. I talk to other people about how my relationship with my partner is strong enough to endure periods of geographic separation.	1	2	3	4	5	6	7
10. I talk to others about my plans to see my partner next.	1	2	3	4	5	6	7
11. I tell people how much I'll miss my partner.	1	2	3	4	5	6	7
12. I talk to people about my partner's positive qualities.	1	2	3	4	5	6	7

DURING SEPARATION QUESTIONS: Now consider the time periods in which you are geographically separated from your partner (i.e., when you're away from one another). We would like you to consider the types of things you typically do during these periods. Indicate below how characteristic the following types of things are of you.

Not at all characteristic of me			Somewhat characteristic of me			Very characteristic of me
1	2	3	4	5	6	7

While geographically separated from my partner...							
13. I think about my partner and how we can always "pick up where we left off" no matter how long we are geographically separated.	1	2	3	4	5	6	7
14. I think about how my partner would always be there for me if I needed him/her.	1	2	3	4	5	6	7
15. I think about how my partner is always "present" in my life no matter how many miles separate us.	1	2	3	4	5	6	7
16. I think about what an important role my partner plays in my life.	1	2	3	4	5	6	7
17. I tell my partner (over the phone) details of how my day went.	1	2	3	4	5	6	7
18. I talk to my partner about fun times we have shared.	1	2	3	4	5	6	7
19. My partner and I talk about plans for our next visit with one another.	1	2	3	4	5	6	7
20. I tell my partner how much I care about him/her.	1	2	3	4	5	6	7
21. I tell my partner how much I miss him/her.	1	2	3	4	5	6	7
22. I tell people all about my partner's good qualities (e.g., his/her personality, accomplishments).	1	2	3	4	5	6	7
23. I tell other people about funny stories involving my partner.	1	2	3	4	5	6	7

24. I talk to other people about fun times my partner and I have shared.	1	2	3	4	5	6	7
25. I tell other people about places I've gone to with my partner.	1	2	3	4	5	6	7

AFTER SEPARATION QUESTIONS: We ask that you now consider the things you do right after you reunite with your partner after periods of geographic separation. In other words, think about the thoughts and actions that you engage in when you see your partner face-to-face after not having seen him/her face-to-face for a while.

Not at all characteristic of me			Somewhat characteristic of me			Very characteristic of me
1	2	3	4	5	6	7

After reuniting with my partner following geographic separation...							
26. I think about important memories I have of my partner and our relationship.	1	2	3	4	5	6	7
27. I think about positive aspects of my relationship with my partner.	1	2	3	4	5	6	7
28. I think about the things that my partner and I talked about during the period of geographic separation.	1	2	3	4	5	6	7
29. I remind myself how much my partner means to me.	1	2	3	4	5	6	7
30. We spend time by ourselves with no one else around.	1	2	3	4	5	6	7
31. We chat about things that happened while we were apart.	1	2	3	4	5	6	7
32. We talk about any interesting stories of things we each experienced lately.	1	2	3	4	5	6	7
33. We talk about how much we missed seeing one another.	1	2	3	4	5	6	7
34. I tell others about the entire period of geographic separation, from beginning to end.	1	2	3	4	5	6	7
35. I talk to others about my feelings during the geographic separation.	1	2	3	4	5	6	7
36. I talk to other people about how I handled the recent period of geographic separation.	1	2	3	4	5	6	7
37. I tell others about how I plan to deal with future geographic separations based on my recent experiences.	1	2	3	4	5	6	7

EQUITY MEASURE (STAFFORD & CANARY, 2006):

Directions: Please answer the following questions:

1. Considering how much you and the other person put into your relationship, and how much you and the other person get out of it: (circle one number below):

I am getting a much better deal than the other							The other person is getting a much better deal.
--	--	--	--	--	--	--	---

person.						
1	2	3	4	5	6	7

2. Consider all the times when your relationship has become unbalanced and one person has contributed more for a time. When this happens, who is more likely to contribute more? (circle one number below):

The other person is much more likely to be the one to contribute more.						I am much more likely to be the one to contribute more.
1	2	3	4	5	6	7

RELATIONAL UNCERTAINTY MEASURE (KNOBLOCH & SOLOMON, 1999):

Directions: We would like you to rate how certain you are about the degree of involvement that you have in your relationship at this time. Please note, we are not asking you to rate how much involvement there is in your relationship, but rather how certain you are about whatever degree of involvement you perceive. It might help if you first consider how much of each form of involvement is present in your relationship, and then evaluate how certain you are about that perception. Please indicate your responses using the scale below.

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

How certain are you about...

1. What you can or cannot say to each other in this relationship?	1	2	3	4	5	6
2. The boundaries for appropriate and/or inappropriate behavior in this relationship?	1	2	3	4	5	6
3. The norms for this relationship?	1	2	3	4	5	6
4. How you can or cannot behave around your partner?	1	2	3	4	5	6
5. Whether or not you and your partner feel the same way about each other?	1	2	3	4	5	6
6. How you and your partner view this relationship?	1	2	3	4	5	6
7. Whether or not your partner likes you as much as you like him or her?	1	2	3	4	5	6
8. The current status of this relationship?	1	2	3	4	5	6
9. The definition of this relationship?	1	2	3	4	5	6
10. How you and your friend would describe this relationship?	1	2	3	4	5	6
11. The state of the relationship at this time?	1	2	3	4	5	6
12. Whether or not this is a romantic or platonic relationship?	1	2	3	4	5	6
13. Whether or not you and your partner will stay together?	1	2	3	4	5	6
14. The future of the relationship?	1	2	3	4	5	6
15. Whether or not this relationship will end soon?	1	2	3	4	5	6

16. Where this relationship is going?	1	2	3	4	5	6
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CLOSENESS MEASURE (VANGELISTI & CAUGHLIN, 1997):

Directions: Please indicate the degree to which you agree with each of the following statements regarding your relationship using the scale below.

Not at all						Very much
1	2	3	4	5	6	7

1. How close are you to this person?	1	2	3	4	5	6	7
2. How often do you talk about personal things with this person?	1	2	3	4	5	6	7
3. How satisfied are you with your relationship with this person?	1	2	3	4	5	6	7
4. How important is your relationship with this person?	1	2	3	4	5	6	7
5. How much do you like this person?	1	2	3	4	5	6	7
6. How important is this person's opinion to you?	1	2	3	4	5	6	7
7. How much do you enjoy spending time with this person?	1	2	3	4	5	6	7

COMMITMENT MEASURE (RUSBULT, MARTZ, & AGNEW, 1998):

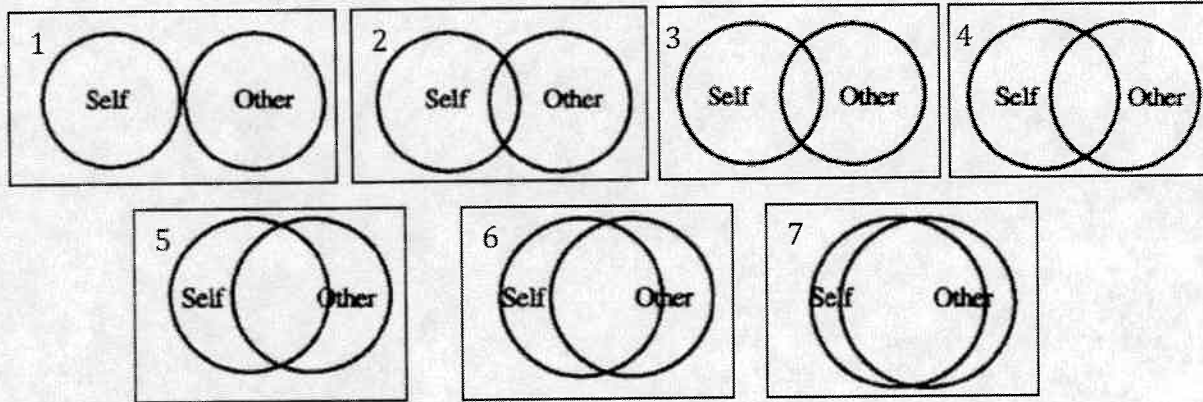
Directions: Please indicate the degree to which you agree with each of the following statements regarding your friendship using the scale below.

Do not agree at all				Agree somewhat				Agree completely
0	1	2	3	4	5	6	7	8

1. I want our relationship to last for a very long time.	0	1	2	3	4	5	6	7	8
2. I am committed to maintaining our relationship.	0	1	2	3	4	5	6	7	8
3. I would not feel very upset if our relationship were to end in the near future.	0	1	2	3	4	5	6	7	8
4. I feel very attached to our relationship---very strongly linked to this person.	0	1	2	3	4	5	6	7	8
5. I want our relationship to last forever.	0	1	2	3	4	5	6	7	8
6. I am oriented toward the long-term future of our relationship.	0	1	2	3	4	5	6	7	8

IOS CLOSENESS SCALE (ARON, ARON, & SMOLLAN, 1992):

Directions: Please select the picture below which best describes your relationship. In the diagrams below, you are "self" and the other person is "other."



STRESS MEASURE (COHEN, KAMARCK, & MERMELSTEIN, 1983):

Directions: The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate *how often* you felt or thought a certain way. For each question, choose from the following alternatives:

Never	Almost Never	Sometimes	Fairly Often	Very Often
1	2	3	4	5

1. In the last month, how often have you felt that you were unable to control the important things in your life?	1	2	3	4	5
2. In the last month, how often have you felt confident about your ability to handle your personal problems?	1	2	3	4	5
3. In the last month, how often have you felt that things were going your way?	1	2	3	4	5
4. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	1	2	3	4	5

PARNTER INFLUENCE MEASURE (SOLOMON & KNOBLOCH, 2001):

Directions: Please mark your response to the questions below.

Strongly Disagree						Strongly agree
1	2	3	4	5	6	

1. My partner influences the amount of time I spend with my friends.	1	2	3	4	5	6
2. My partner influences the amount of time I devote to my school work or work tasks.	1	2	3	4	5	6
3. My partner influences whether I achieve the everyday goals I set for myself (e.g., goals for exercise, diet, studying, entertainment).	1	2	3	4	5	6
4. My partner influences whether I do the things I need to do each day.	1	2	3	4	5	6

PARNTER INTERFERENCE MEASURE (SOLOMON & KNOBLOCH, 2001):

Directions: Please mark your response to the questions below.

Strongly Disagree					Strongly agree						
1	2	3	4	5	6						
1. My partner interferes with the plans I make.						1	2	3	4	5	6
2. My partner interferes with my plans to attend parties and other social events.						1	2	3	4	5	6
3. My partner interferes with the amount of time I spend with my friends.						1	2	3	4	5	6
4. My partner interferes with how much time I devote to my school work or work tasks.						1	2	3	4	5	6
5. My partner interferes with the things I need to do each day.						1	2	3	4	5	6

RELATIONAL TURBULENCE (KNOBLOCH, 2007):

Strongly Disagree					Strongly agree						
1	2	3	4	5	6						
At the present time, this relationship is...											
1. Turbulent						1	2	3	4	5	6
2. Chaotic						1	2	3	4	5	6
3. In turmoil						1	2	3	4	5	6
4. Tumultuous						1	2	3	4	5	6
5. Hectic						1	2	3	4	5	6
6. Frenzied						1	2	3	4	5	6
7. Overwhelming						1	2	3	4	5	6
8. Stressful						1	2	3	4	5	6

Thank you for your participation!