

A Relational Turbulence Model of Communication About Irritations in Romantic Relationships

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The authors examined the impact of intimacy, relational uncertainty, and a partner's interference on the directness of communication about relational irritations. The authors hypothesized that directness has (a) a positive association with the perceived negativity of irritations, intimacy, and self uncertainty; (b) a negative association with relationship uncertainty; (c) a negative association with partner uncertainty that is mediated by relationship uncertainty; and (d) a positive association with a partner's interference that is mediated by the perceived negativity of irritations. The authors conducted a longitudinal Web-based survey in which individuals in romantic associations reported on qualities of their relationships once per week for 6 weeks. A structural equation model of data from the first week was consistent with the authors' hypotheses. Longitudinal analyses of the full data set using hierarchical linear modeling provided mixed support for the authors' predictions. The article discusses the implications of the findings for understanding both communicative directness and turbulence within developing dating relationships.

Keywords: *interpersonal communication, conflict, intimacy, relational uncertainty, interdependence*

A growing body of research indicates that the transition from casual dating to serious commitment is marked by intensified emotions (e.g., Aune, Aune, & Buller, 1994), increased emotional jealousy (Knobloch, Solomon, & Cruz, 2001), greater reactivity to conflict and uncertainty (e.g., Braiker & Kelley, 1979; Christopher & Cate, 1985), and more negative appraisals of irritations (Solomon & Knobloch, 2004). Solomon and Knobloch's (2004) model of relational turbulence attempts to explain this turmoil in terms of the prevalence of relational uncertainty and unrefined efforts at interdependence that characterize this period of relationship development. Relational uncertainty arises as individuals move beyond the scripts for relationship initiation and first dates (e.g., Honeycutt & Cantrill, 2001), but they have yet to clarify the nature of their association. Similarly, as partners increasingly influence each other's actions, they disrupt behavioral sequences until patterns of interdependence

are established (Berscheid, 1983). Previous research has documented associations between uncertainty and interference and a variety of relationship experiences (e.g., Afifi & Burgoon, 2000; Knobloch & Solomon, 2002b). In the present study, we consider how intimacy, relational uncertainty, and interference from partners work in concert to shape communication about irritations in romantic relationships. As a test of our thinking, we report a longitudinal study that examines the associations among relationship characteristics, appraisals of irritations, and the directness of communication about relationship problems.

Factors That Affect the Directness of Communication About Irritations

Previous research has highlighted a myriad of factors to explain variation in communication about irritations. For example, individuals who perceive their partners as having power to leave the relationship have been found to withhold more complaints (Cloven & Roloff, 1993; Roloff & Cloven, 1990). Communication competence is associated with more integrative conflict styles, and a lack of communication competence is associated with more distributive and avoidant conflict styles (Canary & Spitzberg, 1989). Even personality traits such as verbal aggressiveness (Infante & Wigley, 1986) or communication apprehension (McCroskey, 1978) could contribute to tendencies to approach or avoid conflict episodes. In contrast, the model of relational turbulence (Solomon & Knobloch, 2004) sees directness as a product of conditions inherent in romantic relationship development. Conflict management is also a vital component of developing relationships, because effectively communicating about conflicts facilitates relationship development and provides interaction skills necessary for dealing with future encounters (cf. Siegert & Stamp, 1994). Accordingly, we consider how the relational characteristics emphasized by the turbulence model, namely intimacy, relational uncertainty, and interference from partners, correspond with the directness of communication about relational irritations. We begin by reviewing how the perceived negativity of irritations affects the directness of communication about those problems. Then, we advance arguments linking intimacy, relational uncertainty, and interference from partners to the directness of communication about irritations in romantic relationships.

The Perceived Negativity of Irritations

The magnitude of the problem is one factor that guides decisions concerning how to communicate about irritations. Cloven and Roloff (1991) suggested that individuals are unlikely to even devote much thought to trivial relationship problems. Moreover, perceiving relationship problems as insignificant is reported as a motive for withholding complaints from dating partners (Cloven, 1992; Roloff & Solomon,

2002). Conversely, appraising a problem as serious defines the situation as one that warrants a reaction (e.g., Cunningham, Shamblen, Barbee, & Ault, 2005; Fincham, Bradbury, & Grych, 1990; Newell & Stutman, 1988, 1991). Consistent with this reasoning, Solomon and Samp (1998) found an inverse relationship between the perceived severity of hypothetical relational irritations and intentions to avoid confronting partners about those situations. Taken together, these studies suggest that relationship problems that are perceived as severe require direct communication to resolve the issue. Formally stated,

Hypothesis 1 (H1): The perceived negativity of irritations is positively associated with the directness of communication about those irritations.

Intimacy

Although we expect that appraisals of irritations influence the directness of communication about those problems, conflict management behaviors are also shaped by characteristics of the relational context. For example, relationship satisfaction corresponds with more integrative and fewer negative conflict resolution strategies (e.g., Bradbury & Fincham, 1992; Miller & Bradbury, 1995). Likewise, commitment and satisfaction contribute to more accommodative responses to a partner's negative behavior (e.g., Rusbult, Verette, Whitney, & Slovik, 1991). Prior research has also shown that when relationships are threatened, the experience and display of love are associated with more constructive conflict resolution strategies (Gonzaga, Keltner, Londahl, & Smith, 2001). When we turn to the directness of communication about relational irritations, however, the nature of intimacy's effect is less clear.

Research on communication in contexts unrelated to conflict has documented a nonlinear association between intimacy and directness, indicating a preference for indirect communication at moderate levels of intimacy. In particular, Knobloch and Carpenter-Theune (2004) found that topic avoidance peaked at moderate levels of intimacy. People have also been found to employ more indirect strategies when making date requests at moderate levels of intimacy (Solomon, 1997). Similarly, responses to problematic relationship events are more indirect when intimacy is moderate (Samp & Solomon, 1997). Taken together, these studies provide evidence that some forms of communication are more indirect at moderate levels of intimacy.

When we consider research more closely related to interpersonal conflict, we find that moderate levels of intimacy are marked by more direct communication patterns. Partners express negative emotion more openly in relationships of moderate duration (Aune et al., 1994). Individuals at moderate levels of intimacy also withhold fewer complaints from their dating partners (Cloven & Roloff, 1994). Periods of relationship development marked by increasing intimacy are characterized by more arguments (Braiker & Kelley, 1979) and verbal aggression (Billingham & Sack, 1987). In addition, Sanderson and Karetsky (2002) found that people who had a strong

focus on intimacy goals were more likely to engage in open discussion about relationship problems and less likely to deny or ignore relational conflict. Although intimacy and directness are conceptualized in various ways across these studies, this work suggests that the directness of communication about relationship difficulties is greatest at moderate levels of intimacy.

Although the studies reviewed diverge in their conclusions about the direction of nonlinear trends, a closer look reveals similar findings with respect to the linear association between intimacy and communicative directness. Knobloch and Carpenter-Theune (2004), for example, found a negative linear association between intimacy and the number of topics avoided in the relationship, in addition to the curvilinear effect noted previously. Likewise, the nonlinear association between intimacy and withheld complaints reported by Cloven and Roloff (1994) took the form of an asymptote following a negative linear trend. In these studies, it appears that the nonlinear associations, though statistically significant, are deviations from an underlying linear association in which directness increases with intimacy. This conclusion coheres with what scholars have always assumed about communication and intimacy: that increased intimacy corresponds with more open communication (e.g., Altman & Taylor, 1973; Berger & Calabrese, 1975). Based on this logic, we predict a positive linear association between intimacy and directness, and we offer a research question concerning the presence and form of a nonlinear trend.

Hypothesis 2 (H2): Intimacy is positively associated with the directness of communication about relational irritations.

Research Question 1 (RQ1): Does a curvilinear association between intimacy and directness provide a better fit to the data than the linear association posited in H2?

Relational Uncertainty

Relational uncertainty refers to a person's confidence in his or her perceptions of relationship involvement; it encompasses three interrelated sources of ambiguity within relationships (Berger & Bradac, 1982; Knobloch & Solomon, 1999, 2002a). Self uncertainty refers to individuals' questions about their own involvement in a given relationship. Partner uncertainty encompasses doubts about a partner's commitment to the relationship. Not surprisingly, research has shown that doubts about a partner's involvement can raise questions about one's own position on the association (e.g., Knobloch & Solomon, 1999). Relationship uncertainty involves ambiguity about the partner and self as a social unit. Consistent with this conceptualization, studies using structural equation modeling have indicated that self and partner uncertainty both contribute to relationship uncertainty (Solomon & Knobloch, 2004). Although the three facets of relational uncertainty have been found to perform similarly in previous research (e.g., Knobloch & Solomon, 1999, 2002b), we have reason to believe that they diverge with respect to their effects on communication about relational irritations.

Knobloch and Solomon (2002a) reasoned that relational uncertainty, in general, gives rise to more indirect communication, because people are unsure what consequences their actions will produce. Consistent with this view, previous research indicates that people avoid conversations about the nature of their relationship when they doubt the mutuality of commitment (Baxter & Wilmot, 1985). In addition, partners experiencing relational uncertainty have been found to engage in topic avoidance (Afifi & Burgoon, 1998; Knobloch & Carpenter-Theune, 2004), avoid conversations about jealousy (Afifi & Reichert, 1996), and refrain from discussing surprising relationship events (Knobloch & Solomon, 2002b). Prior research has also shown that people often guard private information to prevent harm to the relationship (Afifi & Guerrero, 2000; Rosenfeld, 1979) or to protect a relational partner from distress (Vangelisti, Caughlin, & Timmerman, 2001). Thus, this body of work suggests that relationship uncertainty contributes to more indirect communication in romantic relationships.

Individuals are also less likely to confront relational transgressions directly when they have doubts about a partner's commitment to the relationship. Insecurity about a partner's positive regard and commitment to the relationship corresponds with a general lack of self-esteem (Murray et al., 2005), which could inhibit a person's ability to confront relational problems (e.g., Makoul & Roloff, 1998). Moreover, Roloff and Cloven (1990) found that individuals are more likely to withhold grievances when they question a partner's commitment to the relationship. When a partner's commitment is called into question, doubts about the viability of a successful relationship with this person are also raised (Berger & Bradac, 1982; Solomon & Knobloch, 2004). To the extent that ambiguity about a partner's commitment gives rise to doubts about the relationship, the association between partner uncertainty and communicative directness may reflect the impact of relationship uncertainty on communication that was previously discussed. Accordingly, we predict a negative association between partner uncertainty and communicative directness that is mediated by relationship uncertainty.

Although we expect the general association between relational uncertainty and communicative directness to hold for partner and relationship uncertainty, we propose that self uncertainty gives rise to more direct communication about relational irritations. By definition, people who are uncertain about their own involvement in the relationship have not yet resolved their own commitment to the association. Sprecher and Felmlee (1997) found that partners who are less emotionally invested in a relationship are perceived as having more power. Moreover, people who report uncertainty about their commitment to a relationship may be considering other viable options, which would also contribute to relational power (Roloff & Cloven, 1990). Prior research suggests that individuals who accrue relational power by virtue of a lack of commitment or access to alternative relationships enjoy more latitude to confront irritations in their dating relationships (Cloven & Roloff, 1993; Solomon & Samp, 1998). Indeed, people who are uncertain about their involvement in a relationship may be particularly motivated to address irritating circumstances to resolve their ambivalence. Dunbar and

Burgoon (2005) observed that individuals who perceive themselves as having more power in a relationship are also more dominant during problem-solving interactions. Based on this reasoning, we predict a positive association between self uncertainty and the directness of communication about irritations. Conversely, and following previous research, we expect a negative association between relationship uncertainty and directness and a negative association between partner uncertainty and directness that is mediated by relationship uncertainty. Formally,

Hypothesis 3 (H3): Relationship uncertainty is negatively associated with the directness of communication about relational irritations.

Hypothesis 4 (H4): Partner uncertainty is negatively associated with the directness of communication about relational irritations, and this association is mediated by relationship uncertainty.

Hypothesis 5 (H5): Self uncertainty is positively associated with the directness of communication about relational irritations.

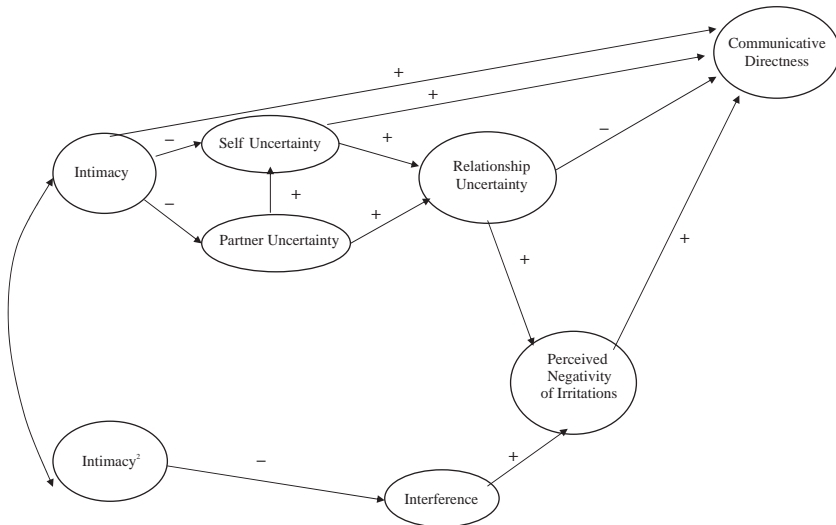
A Partner's Interference

A final parameter identified in Solomon and Knobloch's (2004) model of relational turbulence is the interference from partners that results from the negotiation of interdependence within dating relationships. Interdependence can be defined as the coordination of mutually beneficial systems of behavior between partners, which increases as relationships progress through stages of greater intimacy (Perlman & Fehr, 1987). Berscheid (1983) suggested that relationships develop as each partner's activities become contingent on the other's participation in their action sequences. Initial attempts at coordinating action sequences inevitably involve interruptions to individual routines. As partners negotiate their interdependence, however, they learn to resolve disruptions and facilitate cooperative actions. Thus, the relational turbulence model proposes that interference from partners is heightened during the period of relationship development that corresponds with initial increases in interdependence.

We expect that the effect of a partner's interference on communicative directness stems from its affect on appraisals of relational irritations. Berscheid (1983) argued that interference from a partner contributes to heightened emotional states and increased reactivity to relationship events. Consistent with this view, previous research has linked a partner's interference in everyday activities to increased emotional jealousy (Knobloch et al., 2001) and perceptions of relationship problems as more negative (Solomon & Knobloch, 2004). To the extent that a partner's interference gives rise to appraisals of irritations as more severe, it should promote more direct communication about those irritations.

Hypothesis 6 (H6): A partner's interference in everyday activities is positively associated with the directness of communication about relational irritations, and this association is mediated by the perceived negativity of irritations.

Figure 1
Predicted Associations Among Relationship Characteristics,
Appraisals of Irritations, and Communicative Directness



The model depicted in Figure 1 integrates the six hypotheses we advanced in this article with Solomon and Knobloch's (2004) model of relational turbulence. To construct this model, we first derived the links among intimacy, relational uncertainty, and a partner's interference suggested by the theory and related empirical work. As a starting point, Figure 1 indicates the linear associations between intimacy and relational uncertainty revealed in prior research (e.g., Knobloch & Solomon, 2002b; Solomon & Knobloch, 2004).² Specifically, the model specifies negative associations between intimacy and both self and partner uncertainty, which in turn contribute to the experience of relationship uncertainty (Knobloch & Solomon, 1999). Also, consistent with previous empirical work (e.g., Knobloch & Carpenter-Theune, 2004), a path predicting a positive association between partner and self uncertainty was included in the model. As per Solomon and Knobloch (2004), the effect of relational uncertainty on problem appraisals is represented in a positive path from relationship uncertainty to the perceived negativity of irritations.

Figure 1 also represents the associations among intimacy, a partner's interference, and the perceived negativity of relational irritations that was specified by Solomon and Knobloch (2004). In particular, Solomon and Knobloch's model predicts that a partner's interference peaks at moderate levels of intimacy, which is represented by

a path from the squared intimacy term to interference. Solomon and Knobloch also asserted that the association between intimacy and the perceived negativity of irritations is mediated by a partner's interference.³ Accordingly, Figure 1 includes a path from a partner's interference to the perceived negativity of relational irritations.

We then added the links suggested by our hypotheses to complete Figure 1. To reflect the association predicted in H1, we specified a path from the perceived negativity of irritations to communicative directness. We also included the positive path from intimacy to directness per H2. With respect to our predictions about relational uncertainty, we included a negative path from relationship uncertainty to directness; this link subsumes both the effect of relationship uncertainty articulated in H3 and the mediated effect of partner uncertainty described in H4. We also specified a positive path from self uncertainty to directness as predicted by H5. Because H6 specified that the positive association between a partner's interference and communicative directness is mediated by the perceived negativity of irritations, no additional paths were required to complete the model.

Now that we have articulated our model, the following section reports a study that tests the hypotheses we have advanced. Previous research on the relational turbulence model has consistently called for a longitudinal test of the theory. This study answers that call by replicating previous evaluations of the relational turbulence model cross-sectionally and by subjecting the assumptions of Solomon and Knobloch's (2004) model to a longitudinal test. More generally, the longitudinal design of our study allows us to see how within-person fluctuations in relationship qualities correspond with the directness of communication about relational irritations.

Method

This study employed a longitudinal Web-based survey to assess characteristics of ongoing romantic relationships, the experience of relational irritations, and the directness of communication about those transgressions. Students in communication classes at a large midwestern university were given a small amount of extra credit for their participation in a 6-week longitudinal study in which they completed weekly questionnaires about a current romantic relationship. Individuals who were not in a romantic relationship were provided with a nonresearch alternative for the same amount of extra credit. We recruited individuals who had a romantic interest in another person with whom they had previously interacted and with whom they anticipated future interaction. This strategy produced a sample spanning a wide range of intimacy levels, but for this study we focused only on respondents who characterized their relationship status as dating or engaged in at least one of the weekly questionnaires.⁴ In the following sections, we describe the sample, procedures, and measures that were used in this study.

Sample

Respondents in this study were 215 undergraduate students (55 male, 159 female, 1 provided no response). Participants ranged in age from 18 to 29 with a mean age of 20.71. The majority of the sample was White or Caucasian (90.2%), with an additional 7.9% Asian, 2.3% Hispanic, 0.5% Native American, and 0.5% African American.⁵ Of the current relationship partners, 158 were male, 55 were female, and 2 respondents did not indicate their partner's sex. Partners ranged in age from 17 to 35 with a mean age of 21.70 years. When asked in the first week's survey to characterize the status of their romantic relationship, 3.3% reported that they were acquaintances, 8.4% were friends, 23.3% were casual dating partners, 62.3% were serious dating partners, and 2.8% were engaged partners. The relationships reported on in this study ranged in length from 0 to 93 months, with an average of 16.83 months.

Procedures

Weekly questionnaires were administered through an Internet Web site. Students interested in participating in the study provided contact information and were later e-mailed with an individual username and password to access the first survey. During subsequent weeks, the participants were e-mailed a new password to access the next phase of the study. After completing the questionnaire each week, responses were submitted online and data were stored on a secure server. Participants were instructed to attempt to complete their questionnaires at roughly the same time each week, to ensure that enough time had elapsed to capture changes in relationship characteristics. Across all weeks of the study, 68.7% of the questionnaires were submitted within 5 to 9 days of the submission in the previous week. In addition, 16.6% were submitted within 1 to 4 days of the previous submission, and 14.7% were submitted within 10 to 12 days of the previous submission.

During the first week, participants provided demographic information about themselves and their partners, and they completed closed-ended scales to report their perceptions of intimacy, relational uncertainty, and interference from the partner. They also provided open-ended descriptions of up to five irritations they had experienced with their partner in the past week, and they evaluated the severity of each irritation and the threat it posed to the relationship. Notably, our strategy for soliciting irritations varies from Solomon and Knobloch's (2004) procedures, in which participants selected recently experienced events from a set of 80 exemplars of potential irritating situations. Finally, respondents reported on the directness of their communication about the irritations they reported.

Questionnaires during subsequent weeks began by asking participants to provide an open-ended account of relationship events during the past 7 days. The remainder of the weekly questionnaires included all of the same measures that were included

Table 1
Weekly Descriptive Statistics for All Variables

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Sample size (<i>n</i>)	215	184	149	142	131	106
Intimacy						
Love	5.80 (1.77)	5.41 (1.54)	5.17 (1.71)	5.23 (1.84)	5.14 (1.92)	5.10 (2.01)
Commitment	4.66 (1.26)	4.65 (1.26)	4.50 (1.39)	4.41 (1.50)	4.31 (1.56)	4.35 (1.60)
Chance of lifelong commitment	45.58 (31.56)	44.45 (31.97)	44.14 (32.04)	44.20 (32.01)	41.92 (33.36)	41.95 (33.65)
Self uncertainty	2.34 (1.06)	2.36 (1.10)	2.37 (1.18)	2.40 (1.24)	2.40 (1.26)	2.34 (1.30)
Partner uncertainty	2.69 (1.34)	2.70 (1.39)	2.65 (1.37)	2.59 (1.37)	2.70 (1.48)	2.57 (1.44)
Relationship uncertainty	2.58 (1.16)	2.56 (1.17)	2.50 (1.18)	2.47 (1.25)	2.54 (1.25)	2.47 (1.30)
Interference from partners	2.60 (1.07)	2.61 (1.21)	2.57 (1.24)	2.51 (1.24)	2.54 (1.21)	2.41 (1.26)
Perceived negativity	4.19 (1.53)	4.40 (1.68)	4.57 (1.70)	4.74 (1.63)	4.78 (1.65)	4.80 (1.70)
Communicative directness	3.15 (1.59)	2.91 (1.68)	3.05 (1.72)	3.10 (1.62)	3.12 (1.67)	3.03 (1.70)

Note: Cell entries are means. Values in parentheses are standard deviations.

in the baseline questionnaire. Respondents were instructed to answer questions during Weeks 2 through 6 based on events and characteristics of their relationship over the course of the past week.

Measures

A variety of closed-ended Likert-type scales were used to operationalize variables in the study. Confirmatory factor analyses were conducted on all of the multi-item scales to ensure that they met the criteria of face validity, internal consistency, and parallelism (Hunter & Gerbing, 1982). After confirming the unidimensionality of the scales, we created a composite score by averaging responses to the individual items. The resulting measures are described in the following sections.⁶ See Table 1 for a summary of descriptive statistics for each measure in each week of the study.

Intimacy. Consistent with Solomon and Knobloch’s (2004) previous test of the relational turbulence model, we operationalized intimacy through a composite measure that incorporated indicators of intimacy associated with developmental patterns (cf. Cloven & Roloff, 1994; Solomon, 1997; Solomon & Knobloch, 2004). This strategy

resulted in an inclusive and parsimonious indicator that assessed multiple aspects of intimacy that are implicated in developmental processes.

One component of the composite measure was Rubin's (1970) Love Scale. Although the name of the scale implies a narrow focus on love, this measure actually assesses three important components of intimacy: feelings of affiliative need, willingness to help, and exclusiveness toward a partner. Respondents employed a Likert-type scale (1 = *not at all true*, 9 = *definitely true*) to indicate their responses to the nine items comprising the scale ($\alpha = .92$).

Commitment to continuing the association comprised the second component of the composite intimacy variable. Participants employed a 6-point Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*) to indicate their agreement with three statements: (a) I am very committed to maintaining this relationship, (b) I would make a great effort to maintain my relationship with this person, and (c) I am committed to my relationship ($\alpha = .92$).

A third aspect of the composite intimacy variable was the probability that the relationship would progress toward marriage or a similar serious commitment. Participants were presented with the question "At this point in time, what do you feel the chance is of your relationship leading to marriage or a similar monogamous commitment?" Then, they indicated their perception of the likelihood of marriage by selecting a response from 0% to 100% on a scale that provided 5% increments.

Bivariate correlations indicated sizable overlap between love and commitment ($r = .75, p < .001$), between love and likelihood of marriage and/or serious commitment ($r = .77, p < .001$), and between commitment and likelihood of marriage and/or serious commitment ($r = .75, p < .001$). Thus, we converted the three measures to z-scores and we averaged them to form a composite measure of intimacy. Coefficient α for the composite scale was .90.

Relational uncertainty. We used measures developed by Knobloch and Solomon (1999) to assess relational uncertainty. Respondents were presented with a stem that read "How certain are you about . . ." followed by a series of statements. Participants used a 6-point Likert-type scale (1 = *completely or almost completely uncertain*, 6 = *completely or almost completely certain*) to rate their certainty with each of the statements. Responses to all items were reverse scored to compute measures of relational uncertainty. Consistent with Knobloch and Solomon's (1999) previous operationalization of this scale, we identified unidimensional subscales for self, partner, and relationship uncertainty.

Six items comprised the self uncertainty subscale: (a) whether you want the relationship to work out in the long run, (b) whether you want the relationship to last, (c) how much you like your partner, (d) how important the relationship is to you, (e) how much you are romantically interested in your partner, and (f) whether you are ready to commit to your partner ($\alpha = .92$).

The partner uncertainty scale also consisted of six items: (a) whether your partner is ready to commit to you, (b) how committed your partner is to the relationship, (c) whether your partner wants to be with you in the long run, (d) how important the relationship is to your partner, (e) whether your partner wants the relationship to work out in the long run, and (f) how much your partner is attracted to you ($\alpha = .95$).

Finally, the relationship uncertainty subscale included eight items: (a) whether the relationship will work out in the long run, (b) whether you and your partner feel the same way about each other, (c) whether you and your partner will stay together, (d) whether the relationship is a romantic one, (e) the boundaries for appropriate and/or inappropriate behavior in the relationship, (f) whether your partner likes you as much as you like him or her, (g) whether it is a romantic or a platonic relationship, and (h) how you can or cannot behave around your partner ($\alpha = .94$).

Partner's interference. We employed a measure of partner's interference similar to that used by Solomon and Knobloch (2004). Respondents were asked to indicate on a 6-point Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*) the degree to which their partners interfered with everyday activities. The following three items formed a unidimensional measure of partner's interference: (a) This person interferes with the amount of time I spend with my friends; (b) this person interferes with how much time I devote to my school work; and (c) this person interferes with the things I need to do each day ($\alpha = .81$).

Appraisals of irritations. Participants were given the opportunity to describe up to five irritations they had with their partner. Following each irritation, respondents used a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*) to record their agreement with two statements describing the irritation. The severity of the irritation was assessed using the following statement: This behavior or characteristic is a problem. Another statement assessed the extent to which the irritation threatened the relationship: This behavior or characteristic threatens our relationship. Participants reported from 1 to 5 irritations ($M = 3.94$, $SD = 1.48$). To form a general measure of the perceived negativity of relational irritations, we computed the average score on each item across all of the irritations each participant reported. The scores for the two items were highly correlated ($r = .76$, $p < .001$), so we averaged them to create a composite measure of the perceived negativity of relational irritations ($\alpha = .86$).

Directness of communication. People use a variety of communication strategies to reveal or conceal relational irritations. Although direct communication can take many forms, we were reluctant to include an elaborate measure of communicative directness in what was already a lengthy weekly survey. In an effort to be concise, we asked participants to record their agreement with a series of statements characterizing the directness of their communication about their irritations on a 6-point

Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*). The following two items comprised a unidimensional measure of directness of communication about irritations: (a) I have explicitly told my partner about behaviors that irritate me, and (b) I have had a direct conversation with my partner about my irritations ($\alpha = .86$).

Results

We used two strategies to test our hypotheses. First, we used information from the first week of the study to test the hypotheses cross-sectionally using maximum likelihood structural equation modeling. We selected this method because it was used by Solomon and Knobloch (2004) in their initial test of the relational turbulence model, and it provided the most parsimonious method of testing the relational turbulence model in conjunction with the hypotheses. In addition, this strategy accounted for measurement error in the data and made it possible to assess hypothesized associations, while controlling for the effects of the other independent variables. A second set of analyses employed hierarchical linear modeling (HLM) to test the predicted associations among the variables across the 6 weeks of the study. We used HLM because it is designed to account for issues of nonindependence when dealing with a nested design. In this section, we summarize the cross-sectional and longitudinal results, in turn.

Cross-Sectional Results

As a preliminary step, we conducted independent sample *t* tests to evaluate each of our measures for sex differences. Results indicated no significant differences between males and females for any of the variables. Second, we computed bivariate correlations among all of our variables to provide initial insight to the associations specified in Figure 1 (see Table 2). The correlations reveal that the three facets of relational uncertainty are intercorrelated, and they correspond negatively with intimacy. In addition, a partner's interference is negatively associated with the measures of relational uncertainty. Whereas intimacy corresponds inversely with the perceived negativity of irritations, appraisals of irritations were positively correlated with the three facets of relational uncertainty and a partner's interference. Finally, the correlations involving directness were consistent with our hypotheses, with two exceptions: (a) Self uncertainty was negatively, rather than positively, associated with direct communication; and (b) the perceived negativity of irritations was not significantly associated with communicative directness.

Next, we tested our hypotheses cross-sectionally using structural equation modeling and the data from the first week of the study. As a first step, we transformed the intimacy variable to z-scores to account for the fact that intimacy and intimacy squared were computed from the same items. The reliability of the squared intimacy

Table 2
Bivariate Correlations Among All Variables

	1	2	3	4	5	6
1: Intimacy						
2: Self uncertainty	-.70***					
3: Partner uncertainty	-.60***	.65***				
4: Relationship uncertainty	-.71***	.79***	.81***			
5: Interference	.07	.00	-.09***	-.02**		
6: Perceived negativity	-.28***	.19**	.23***	.25***	.25**	
7: Communicative directness	.44***	-.37***	-.49***	-.37***	.14***	.03

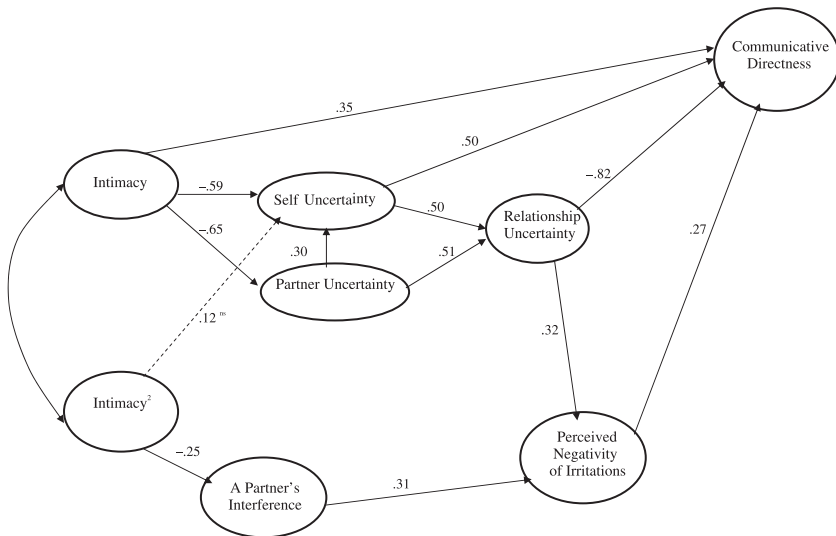
Note: Correlations were calculated using data from the first week of the longitudinal study.
** $p < .01$. *** $p < .001$.

term was determined by computing α for the squares of the z-scores for intimacy. We also fixed the error variance of each variable to $(1 - \alpha)(\sigma^2)$ to account for unreliability within our measures (Bollen, 1989).

Results of the structural equation modeling analysis indicated that our original model (see Figure 1) did not adequately fit the data, $\chi^2(15) = 25.57, p = .04, CFI = .98, RMSEA = .06$, but that all of the paths we included were significant. In an effort to improve the fit of the model, we proceeded to add paths to the model based on the modification indices. Paths were added to the model based on the magnitude of the modification indices, such that suggested paths with the largest values were added before those with smaller values. In this case, the modification indices only identified two potential paths to be added to the model. The stronger of the two paths linked intimacy squared with self uncertainty, so we added this path to the model first.⁷ Although the path connecting curvilinear intimacy with self uncertainty was non-significant in the model, including it resulted in a model that adequately fit the data, $\chi^2(14) = 22.19, p = .08, CFI = .99, RMSEA = .06$.⁸

The final model is presented in Figure 2. The structural equation modeling results are consistent with our hypotheses concerning the factors shaping the directness of communication about relational irritations. The perceived negativity of irritations was positively associated with communicative directness, as hypothesized in H1. Consistent with H2, intimacy had a positive linear effect on directness. With regard to our research question, the model did not specify a curvilinear association between intimacy and directness. Also as predicted, relationship uncertainty was negatively associated with communicative directness (H3), the negative association between partner uncertainty and directness was conveyed via relationship uncertainty (H4), and self uncertainty was positively associated with communicative directness (H5). Finally, the path model indicated that the positive association between a partner’s interference and communicative directness apparent in the bivariate correlations was mediated by the perceived negativity of irritations (H6).

Figure 2
Final Model for Associations Among Relationship Characteristics,
Appraisals of Irritations, and Communicative Directness



Longitudinal Results

We then tested the associations among the perceived negativity of irritations, intimacy, relational uncertainty, a partner's interference, and communicative directness using the full repeated measures design of the study. Compared to the SEM analyses, which assessed between-person differences in relationship characteristics and reactions to relationship events, the longitudinal analyses focused on how within-person changes in relationship characteristics from week to week corresponded with the directness of communication about relational irritations. The data were analyzed using HLM, which is designed to accommodate nonindependent or nested data (Bryk & Raudenbush, 1992; Raudenbush & Bryk, 2002). In this case, HLM treats the multiple observations across weeks as nested within the individual. As such, relationship change in this study is represented through a two-level hierarchical model with time-varying predictors at Level 1 and stable person or relationship characteristics at Level 2. Accordingly, HLM models provide insight to the structure and predictors of individual change.⁹

One advantage of using HLM, as opposed to other types of repeated-measures analysis, is that this treatment of multiple observations as nested counteracts difficulties that

often arise with unbalanced designs. For example, whereas standard repeated-measures analysis requires complete data from all participants collected at the same point in time, HLM can be used in unbalanced designs when the number and spacing of time points vary across cases. This was important in this study because some participants have incomplete data resulting from missing weeks or no reported irritations. Thus, HLM is more flexible than other forms of repeated-measures analyses and is particularly useful in this study for demonstrating how relationship characteristics are associated with relational irritations and directness within persons. In HLM analyses, the investigator constructs the equation for a general linear model using full maximum likelihood. HLM then provides estimates of the intercept, gradients of the predictors, and variance components of the random factors. The analysis uses the general linear model, so many of the concerns that are pertinent in a regression analysis, such as multicollinearity, are also relevant within HLM.

As a starting point, we converted all of the variables to z-scores for use in the HLM analyses; by using standardized scores, we could compare the slopes for the predictors in a common metric. In the HLM, we treated directness of communication as the dependent variable, and the predictor variables were intimacy, sources of relational uncertainty, a partner's interference, and the perceived negativity of irritations. To address multicollinearity among the relational uncertainty variables, the effect of each source of relational uncertainty was tested in separate analyses. All of the models started with intimacy and intimacy squared as predictors, controlling for time and baseline relationship status. Preliminary tests revealed that communicative directness did not have a significant curvilinear association with intimacy, so the squared intimacy term was removed from subsequent analyses. In addition, we tested the interactions between intimacy and baseline relationship status, and between time and baseline relationship status. The interactions were not significant; therefore, they were also excluded from the final models.

Results of the HLM analyses provided mixed support for our hypotheses (see Table 3). As predicted in H1, the perceived negativity of irritations was positively associated with direct communication. Intimacy was positively associated with communicative directness, per H2. Consistent with H3 and H4, direct communication about transgressions was negatively associated with relationship uncertainty and partner uncertainty.¹⁰ In contrast, neither H5 nor H6 was supported. Specifically, the hypothesized positive association between self uncertainty and direct communication about relationship problems was not significant (H5). Finally, although a partner's interference was positively associated with directness, this association was not mediated by the perceived negativity of irritations (H6).¹¹

Discussion

Our goal in this article was to use Solomon and Knobloch's (2004) model of relational turbulence to shed light on how directly people communicate about irritations

Table 3
Associations Between Direct Communication, Appraisals
of Irritations, and Relationship Characteristics

	Communicative Directness
Negativity of irritations	.09*
Intimacy	.39***
Self uncertainty	.04
Partner uncertainty	-.13*
Relationship uncertainty	-.11*
A partner's interference	.14***

Note: Cell entries represent standardized slopes.

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

that arise in their romantic associations. The results of our investigation highlight the variety of factors that influence the directness of communication about potential conflicts. Moreover, this study replicated many of the associations that were observed in Solomon and Knobloch's test of the relational turbulence model and reports a first test of the theory using longitudinal data. In discussing the implications of these findings, we first consider our conclusions concerning the hypothesized predictors of communicative directness. Then, we review how our results inform the body of work on the relational turbulence model and programs of research focused on relationship development and conflict. Finally, we note the strengths and limitations that qualify the generalizability of our results.

Explaining Communication About Relational Irritations

Characteristics of interpersonal relationships are intertwined with communication behavior (Knobloch & Solomon, 2003); however, responses to sources of dissatisfaction in dating relationships are particularly important to developing courtships (e.g., Caughlin & Afifi, 2004; Cunningham et al., 2005; Siegert & Stamp, 1994). Accordingly, we employed Solomon and Knobloch's (2004) model of relational turbulence to clarify how the directness of communication about relational irritations is tied to characteristics associated with developing intimacy. The support we observed for the hypotheses we advanced highlights how communicative directness has many foundations within dating relationships.

We reasoned that situations perceived more negatively would be more likely to elicit direct and problem-focused communication (H1). Consistent with our expectations, results from both the cross-sectional and longitudinal analyses revealed a significant and positive association between the perceived negativity of irritations and communicative directness. Notably, however, the zero-order correlation between these two variables was not statistically significant. In tandem, these findings bring

to light the complexity of communication decisions within close relationships. Prior research has shown that people may prefer to remain uncertain when they suspect that information seeking might have a negative or dissatisfying outcome (e.g., Afifi, Dillow, & Morse, 2004; Brashers, 2001; Brashers, Goldsmith, & Hsieh, 2002; Ickes, Dugosh, Simpson, & Wilson, 2003). By extension, perceiving problems as serious might motivate individuals to communicate more indirectly to avoid unequivocal evidence of relationship difficulties. Although we might expect to see people take action when circumstances are more dire (e.g., Solomon & Samp, 1998), the management of problems in dating relationships requires that parties balance a broader variety of concerns. Thus, communication about relationship difficulties is best conceptualized as behavior that is subject to a diversity of influences, including qualities of the interpersonal association (e.g., Roloff & Cloven, 1990), the severity of the problem (e.g., Solomon & Samp, 1998), and individual skills and proclivities (e.g., Infante & Wigley, 1986; McCroskey, 1978).

Prominent among the forces that shape the directness of communication about relational irritations is the intimacy of the association. As expected (H2), we documented a positive association between intimacy and communicative directness that was apparent in the zero-order correlations, the structural equation model results, and in the HLM. Moreover, this linear association was not qualified by a significant nonlinear trend in either the cross-sectional or longitudinal analyses (RQ1). We noted previously that prior research implies that indirect communication reaches both a high point (Knobloch & Carpenter-Theune, 2004; Solomon, 1997) and a low point (Cloven & Roloff, 1994) at moderate levels of intimacy in dating relationships. How, then, do we make sense of the mixed pattern of results that emerges from this body of work? The results of this study help to clarify inconsistencies in previous research by highlighting the important role of the subject of communication in discerning the effects of intimacy on directness. Whereas people might be more cautious about raising sensitive issues when relationships are in flux (Knobloch & Carpenter-Theune, 2004; Solomon, 1997), they also appear to be more assertive when moderate intimacy is coupled with dissatisfying circumstances (Aune et al., 1994; Cloven & Roloff, 1994; Knobloch et al., 2001). Thus, we note the need to consider the topical domain in efforts to clarify the association between intimacy and communication in romantic relationships.

A second factor linked to the directness of communication with dating partners is the certainty people have about involvement in the relationship. Whereas previous research has documented a positive link between the facets of relational uncertainty and communicative indirectness (e.g., Knobloch & Solomon, 2002b), our results point to the divergent implications of self, partner, and relationship uncertainty in the context of communication about relational irritations. Not surprisingly, the three facets of relational uncertainty are correlated and we observed similar associations between each facet of uncertainty and communicative directness at the bivariate

level. When considered in combination, however, our structural equation modeling results indicated that relationship uncertainty was negatively associated with directness (H3), the negative association between partner uncertainty and directness was mediated by relationship uncertainty (H4), and self uncertainty was positively associated with directness (H5). Results of the longitudinal analyses revealed negative associations between partner and relationship uncertainty and communicative directness, but the association between self uncertainty and directness was not significant. Again, these findings call for attention to the type of communication episode, as well as the nuances in relational doubts, in efforts to understand the ramifications of relational uncertainty in close relationships (see also Knobloch, Carpenter-Theune, & Miller, 2004).

Evidence that self uncertainty is positively associated with communicative directness is consistent with theory and research linking interpersonal power to communication strategies in dating relationships. In particular, Roloff and Cloven (1990) argued that people's dependence power, defined by their lack of commitment and access to relational alternatives, exerts a chilling effect on their partner's expression of relational irritations (but see Roloff & Solomon, 2002). Conversely, because individuals who are not dependent on a relationship are in a better position to weather any negative consequences, they are freer to voice their grievances to partners. Consistent with this reasoning, Dunbar and Burgoon (2005) found that individuals demonstrated more dominant communication behavior with their partners when they perceived themselves as having more power in the relationship. The results of the present study suggest that people who are unclear about their own involvement in a relationship are likewise empowered to confront problematic situations when they arise. Although this conclusion remains tentative until research can link self uncertainty to perceptions of interpersonal power, we consider this as evidence of the interplay of intimacy and power within romantic associations.

A partner's tendency to interfere in everyday activities was identified as a final factor shaping the directness of communication about relational irritations. Previous theorizing about the dynamics of developing interdependence (e.g., Berscheid, 1983; Solomon & Knobloch, 2004) links disruptions in behavioral sequences and everyday routines to heightened emotionality. Moreover, empirical evidence has documented positive associations between interference from partners and both the appraised negativity of potential relational irritations (Solomon & Knobloch, 2004) and emotional jealousy (Knobloch et al., 2001). Consistent with past research, we predicted and found a positive association between a partner's interference and communicative directness in both the bivariate correlations and HLM results; furthermore, the structural equation modeling results indicated that this association was mediated by the perceived negativity of relational irritations (H6). Thus, these results are consistent with the conception of interference from partners as particularly relevant to the intensity of people's reactions to circumstances that arise with relationship partners.

General Implications

Although our primary focus was on illuminating the forces that shape the directness of communication about relational irritations, the theoretical foundation for this study was drawn from Solomon and Knobloch's (2004) model of relational turbulence. Accordingly, this investigation has implications for the development of that theoretical perspective. Our results also contribute to existing research on topic avoidance in personal relationships, interpersonal conflict, and the forces that shape romantic relationship development. In this section, we identify points of consistency and avenues for further refinement in the relational turbulence model, and we situate our findings within the broader literature on romantic relationship development.

This project contributes to our understanding of the relational turbulence model in two ways. As a starting point, it replicates the cross-sectional findings from previous tests of the relational turbulence model. A more substantial contribution of our study, however, is that it examined changes in relationship characteristics, appraisals of relational irritations, and the directness of communication about relationship problems over time. Whereas the cross-sectional data speak to between-person differences in the experience of relational turbulence, the longitudinal results examine the consequences of within-person fluctuations in relationship qualities for appraisals of irritations and the directness of communication about those problems. Because the developmental consequences of experiencing relational uncertainty, interference from partners, and turmoil are a central focus of the relational turbulence model, this study is an important extension of previous tests of the theory.

The relational turbulence model states that moderate levels of intimacy promote relational uncertainty and interference from partners, and in turn, relational uncertainty and interference from partners intensify reactions to relational circumstances. On the first point, this study is one of several that have failed to document a nonlinear association between intimacy and relational uncertainty (Knobloch & Carpenter-Theune, 2004; Solomon & Knobloch, 2001, 2004) or a partner's interference (Solomon & Knobloch, 2004). With regard to the second claim, however, the data have been more favorable. In particular, previous research has documented associations between relational uncertainty and topic avoidance (Afifi & Burgoon, 1998; Knobloch & Carpenter-Theune, 2004), romantic and cognitive jealousy (e.g., Afifi & Reichert, 1996; Knobloch et al., 2001), negative appraisals of relational irritations (Solomon & Knobloch, 2004), and negative affective responses to relationship events (e.g., Planalp & Honeycutt, 1985). Interference from partners has been shown to correspond with greater emotional reactivity to relational circumstances (Berscheid, 1983), more intense responses to irritations (e.g., Lazarus & Smith, 1988; Solomon & Knobloch, 2004), and increased jealousy (Aune & Comstock, 1997). In the present study, we found that relational uncertainty and interference from partners are associated with the perceived negativity of relational irritations, and that these forces are directly and indirectly linked to the directness of communication about those problems. Although our

results call into question the trajectory of turbulence in developing romantic relationships, they support the assumption that relational uncertainty and a partner's interference in everyday routines are important features of involvement in dating relationships.

Although our focus was on the directness of communication about relational irritations, this study also contributes to the growing body of research focused on the motivations underlying topic avoidance in romantic relationships (e.g., Caughlin & Afifi, 2004; Caughlin & Golish, 2002; Knobloch & Carpenter-Theune, 2004). Some of the reasons that are frequently cited for avoiding certain topics in relationships include a desire to maintain privacy (e.g., Golish & Caughlin, 2002; Petronio, 2002), efforts to protect oneself from potentially devastating information (e.g., Afifi et al., 2004; Brashers, 2001), efforts to protect the partner or the relationship (Golish & Caughlin, 2002), and attempts to stifle conflict (e.g., Roloff & Ifert, 2000). Although speculative, the relational turbulence model implies that these motivations may be tied to perceptions of relational uncertainty or a partner's interference. For example, people questioning their own involvement in a relationship might avoid communication until they resolve their own ambivalence. Alternatively, a climate characterized by frequent goal interference might prompt people to avoid topics that highlight the lack of coordination between partners. By identifying relationship characteristics that correspond with communicative directness, this study may point to forces that inform the decision to approach or avoid certain topics in romantic associations.

This study also contributes to efforts to link global characteristics of relationships to perceptions of specific interpersonal problems. Prior research has shown that increased commitment or intimacy is associated with more benign appraisals of relational transgressions (Menziés-Toman, Lydon, & Gaines, 2005; Solomon & Samp, 1998). In the present study, the association between intimacy and the perceived negativity of irritations was mediated by relational uncertainty and interference from partners. We wonder if the mechanisms identified in the relational turbulence model might serve to bridge the distal and proximal contexts highlighted by Bradbury and Fincham's (1988) contextual model. That model describes how interaction behaviors are influenced by both stable perceptions of relationship qualities and more dynamic perceptions and emotions that occur during the episode. Although associations between distal qualities, such as satisfaction, and proximal features such as attributions are well documented (e.g., Bradbury & Fincham, 1989, 1992), the mechanisms that link distal and proximal characteristics remain unclear. Evidence that relational uncertainty and interference from partners mediate the effect of intimacy on appraisals of irritations suggests that specific and dynamic evaluations of relationships may connect global perceptions of relationships to more fleeting cognitive and emotional states.

Finally, this study raises questions about how the consequences of communication about relational irritations might be shaped by relationship characteristics. Research has shown that topic avoidance corresponds with decreased satisfaction in romantic relationships (Golish, 2000; Roloff & Ifert, 1998). On the other hand, Dailey and

Palomares (2004) found that indirect strategies for avoiding topics that were positively valenced, such as using affection, complimenting a partner, or simply agreeing, were directly associated with relational satisfaction. Spitzberg, Canary, and Cupach (1994) articulated a competence-based model of interpersonal conflict, which suggests that assessments of communication competence during conflict episodes explain the link between conflict behavior and perceptions of the relationship. Might the perceived competence of direct communication be framed by the prevalence of relational uncertainty or goal interference? Our results show how week-to-week changes in relationship qualities affect the directness of communication about relational irritations. To the extent that fluctuations in directness over time reflect reasoned assessments of the pros and cons of voicing grievances, relationship characteristics may, in turn, inform evaluations of the competence of those decisions. Although these claims are tentative at best, they highlight how a consideration of the relational context might illuminate the impact of conflict management decisions in romantic relationships.

Strengths and Limitations

The conclusions we draw from this study are contextualized by the strengths and limitations of the method we used. One strength of this study is that we replicated many of Solomon and Knobloch's (2004) findings using different procedures for soliciting appraisals. Whereas Solomon and Knobloch asked respondents to rate exemplars of potential irritations in relationships, participants in our study reported on actual irritations they had recently experienced. In addition, we asked respondents to describe irritations that they experienced in the past week, thereby reducing the memory bias inherent in reflections about relationship events that are more distant (Theiss & Solomon, 2004).

One limitation of our study is that the predicted structural model did not provide an adequate fit to the data. Although all of the paths in our initial model were significant, it did not explain sufficient variance in the data. Notably, only one additional path was required to produce an adequate fit and that path was nonsignificant. As further support for our hypotheses, the bivariate correlations among the variables also supported our conclusions, with only two exceptions. In particular, the relationship between the perceived negativity of irritations and communicative directness was not significant, and we observed a negative association between self uncertainty and directness. Nonetheless, we acknowledge that post hoc additions to the structural model compromise the generalizability of our conclusions.

We were also limited by our measure of communicative directness, which did not examine nuances in the communication process. We used a brief measure of communicative directness in an effort to avoid an overly long questionnaire, but we recognize that this decision ignores the subtleties that characterize communication about relational problems. In general, information seeking can take both active and passive forms (e.g., Berger & Bradac, 1982). Moreover, people use a variety of

nuanced communication strategies to address problems in relationships (e.g., Sillars, Canary, & Tafoya, 2004; Sillars & Wilmot, 1994). Although the present study focused exclusively on the extent to which irritations were expressed to partners, it lays a foundation for linking relational uncertainty and interference from partners to a broader array of communication strategies. Thus, future research should attempt to measure communication behaviors in ways that capture the complexities of conflict interactions.

Our reliance on individual data to examine dyadic relationship processes represents a final limitation to this study. The items in our survey asked respondents to report on their own directness about relational irritations, but such tendencies might be largely dependent on the partner's communication strategies. In addition, senders and receivers of messages about irritations might perceive the directness of an interaction differently. Although a focus on the individual provides insights into how a person's perceptions of a relationship shape his or her communication strategies (e.g., Roloff & Cloven, 1990), dyadic data would reveal how couples communicatively negotiate both relational irritations and intimacy.

Notes

1. This research is a portion of the first author's dissertation conducted under the direction of the second author at the University of Wisconsin–Madison.

2. Although the theory suggests that relational uncertainty peaks during the transition from casual to serious dating, empirical tests suggest that the nonlinear association holds only when considering the amount of uncertainty elicited by particular episodes (Knobloch & Solomon, 2002b). The linear associations in Figure 1 reflect our focus on relational uncertainty as a general relationship quality.

3. In their test of the model, Solomon and Knobloch (2004) found that intimacy exerted a direct nonlinear effect on appraisals that contradicted the assumption of mediation. Because that was only a first test of the theory, however, we did not include a path linking intimacy and perceptions of irritations in Figure 1.

4. Respondents who reported that they were married were excluded from all analyses. In addition, individuals who characterized their relationship as an acquaintanceship or friendship in Week 1 were excluded from the cross-sectional analyses of those data. In the longitudinal analyses, we excluded individuals whose relationship never moved beyond acquaintanceship or friendship over the course of the study. Of respondents, 29.5% reporting on friends or acquaintances in Week 1 described their relationship as dating later in the study; only those weeks in which these individuals characterized their relationship status as casual or serious dating were included in the longitudinal analysis.

5. The distribution of ethnicities sums to more than 100% because respondents were allowed to mark multiple ethnicities in the survey to accommodate individuals of mixed race.

6. Means, standard deviations, and reliability estimates for each factor were derived from the baseline data collected during the first week of the study.

7. The path linking curvilinear intimacy with self uncertainty has been required to produce structural models that fit the data in two previous studies (Knobloch & Carpenter-Theune, 2004; Knobloch et al., 2001). As in those studies, the form of this curvilinear association indicated a floor effect, such that individuals at moderate to high levels of intimacy could not be any less uncertain about their commitment to the relationship. The curvilinear association was nonsignificant.

8. The alternative path suggested by the modification indices linked the linear intimacy term with the perceived negativity of irritations. Given that the path from the squared intimacy term to self uncertainty was nonsignificant, we also tested the predicted model including the path from intimacy to the negativity

of irritations. This path was also nonsignificant and did not improve the fit of the model, so we report the model, including the path from intimacy squared to self uncertainty.

9. The analysis we performed does not reveal over time trends that generalize between participants. Such an analysis would be appropriate if (a) our respondents were at the same level of intimacy at the start of the study and (b) the relationships referenced by our respondents develop at the same rate. Because romantic relationship development can follow a variety of trajectories (Surra, 1985), we did not expect to observe consistent over-time trends between participants. Instead, our analysis examines how within-person changes in relationship circumstances from week to week correspond with reactions to relationship irritations.

10. Although multicollinearity was a concern, we tested an additional model that included all three measures of relational uncertainty. By doing so, we hoped to clarify whether relationship uncertainty mediated the association between partner uncertainty and communicative directness (H4) and whether associations among the relational uncertainty variables were suppressing the association between self uncertainty and directness (H5). When these variables are entered into the model together, the effects are suppressed such that neither variable is significantly associated with communicative indirectness, thereby obscuring our view of whether relationship uncertainty mediates the association between partner uncertainty and communicative directness.

11. As a more direct test of the pattern of mediation predicted by H6, we evaluated the association between a partner's interference and communicative directness in models excluding versus including the perceived negativity of irritations as an independent variable. Results indicated that the direct effect for a partner's interference was $\beta = .14, p < .001$. When the perceived negativity of irritations was also entered in the model, the effect for a partner's interference was $\beta = .13, p < .01$. These findings indicate that the perceived negativity of irritations does not mediate the association between a partner's interference and communicative indirectness.

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