

Doubt Begets Doubt: Causal Uncertainty as a Predictor of Relational Uncertainty in Romantic Relationships

Eliane M. Boucher

The current study explored whether causal uncertainty (CU), or doubts about one's ability to understand causes of social events, predicts relational uncertainty (RU) and, in turn, negative relational outcomes in romantic relationships. Seventy-nine couples completed measures of RU, perceived relationship quality, CU, depression, and attachment style. As predicted, higher levels of CU were associated with more partner and relationship uncertainty, and lower relationship quality, even when controlling for depression and attachment. Mediation analyses further demonstrated that causally uncertain participants' negative perceptions of relationship quality stemmed primarily from doubts about their partner's involvement in the relationship.

Keywords: Causal Uncertainty; Relational Uncertainty; Romantic Relationships

Knobloch and Solomon (1999, 2002a) proposed that people can experience doubts about the level of involvement in their romantic relationship. Such *relational uncertainty* (RU) can stem from three separate, but related, sources: (1) the self, which generates doubts about your own involvement in the relationship; (2) the partner, which generates doubts about your partner's level of involvement; and (3) the relationship, which generates doubts about the nature of the relationship itself. Although RU is not inherently detrimental in romantic relationships (see Knobloch, 2007), research suggests that RU tends to have negative, rather than positive

Eliane M. Boucher is an Assistant Professor in the Department of Psychology at Providence College. This research was supported in part by a Faculty Development Grant from the University of Texas of the Permian Basin. Correspondence to: Eliane M. Boucher, Department of Psychology, Providence College, 1 Cunningham Square, Providence, RI 02918, USA. E-mail: ebouche1@providence.edu

consequences. For example, higher levels of RU are associated with lower perceived relationship quality (Knobloch, 2008), and less relationship (Dainton, 2003) and sexual satisfaction (Theiss & Nagy, 2010). Similarly, people with more RU tend to report more negative emotions in reference to their relationship (Knobloch & Theiss, 2010; Theiss & Nagy, 2010), more negative reactions to uncertainty-arousing events (Knobloch & Solomon, 2002b), more frequent jealous thoughts (Knobloch, Solomon, & Cruz, 2001; Theiss & Solomon, 2006), and more extreme reactions to partner irritations (Theiss & Knobloch, 2009).

Given these negative consequences, understanding the antecedents of RU is important in order to identify relationships that may be especially problematic as a result of heightened RU. Unfortunately, although Knobloch (2007) called for research on three categories of such antecedents, namely individual characteristics, qualities of relationships, and features of situations, little research has focused on these ‘foundations’ of RU, most of which has focused on the latter two categories (see Knobloch, 2007, for a review). Consequently, the individual characteristics that might predispose someone to have doubts about their romantic relationship and, in turn, the challenges associated with such doubts, still remain unclear (see Knobloch, 2007, for a more detailed discussion).

Individual Differences and RU

To date, only two individual differences associated with RU have been identified. Specifically, both depressive symptoms (Knobloch, Knobloch-Fedders, & Durbin, 2011) and an insecure attachment style (Knobloch et al., 2001) are associated with higher levels of RU. However, Knobloch (2007) also suggested that “people’s doubts about themselves may lead them to feel more insecure about their relationships” (p. 42), suggesting that people who experience other types of chronic uncertainty might be more likely to experience RU. Although researchers have examined how various types of uncertainty might be related to cognitive and behavioral uncertainty (i.e., doubts about thoughts/feelings, and about how to act/react during social interactions, respectively) during initial interactions (e.g., Boucher & Jacobson, 2012; Douglas, 1994), research has yet to examine the relationship between these dispositional forms of uncertainty and RU.

Causal Uncertainty

One such dispositional form of uncertainty is *causal uncertainty* (CU), which refers to doubts people have about their ability to understand causes of social events (see Weary & Edwards, 1994). While everyone can experience these doubts, often following negative, extreme, and unpredictable events such as school shootings or terrorist attacks (see Weary, Tobin, & Edwards, 2010), some people experience more chronically accessible CU that can be activated even by relatively mundane events (Edwards, Wichman, & Weary, 2009). In turn, these doubts elicit associated feelings of confusion, doubt, and anxiety (Weary et al., 2010).

Although most CU research has been in the realm of social cognition, exploring the effects of activating CU on information-seeking and processing (see Weary et al.,

2010, for a review), causally uncertain people appear to experience interpersonal difficulties (see Weary et al., 2010) and previous CU research offers little explanation for these difficulties. However, more recent research suggests that causally uncertain people experience difficulties reducing their cognitive and behavioral uncertainty during actual social exchanges. For example, Boucher and Jacobson (2012) found that high CU participants reported more doubts about their own thoughts and feelings, as well as about their conversational partner's thoughts and feelings, following a brief interaction with a same-sex stranger. In turn, these doubts led to more negative appraisals of the conversation and conversational partner. Similarly, Boucher and Bassett (2013) found that causally uncertain people reported less attributional confidence within their closest friendships, which then contributed to more negative appraisals of the friendship.

While research on the effects of CU within close relationships is limited, these findings suggest that causally uncertain people's interpersonal difficulties might extend to their romantic relationships. Moreover, CU is positively related to insecure attachment (Passey, Jacobson, Edwards, & Hickey, 2008) and depressive symptoms (e.g., Boucher & Jacobson, 2012), both of which predict RU (Knobloch et al., 2011; Knobloch et al., 2001), so it seems plausible that these difficulties might stem from difficulties managing their RU. That is, causally uncertain people may be more likely to question the level of involvement in their relationship, making them more vulnerable to the challenges associated with such heightened levels of RU.

The Current Study

The purpose of the current study was to determine if causally uncertain people report higher levels of RU in their romantic relationships, and to explore how their RU might subsequently influence their perceptions of that relationship. Both members of a romantic couple were recruited to complete an online survey assessing the three sources of RU, their perceptions of relationship quality, CU, depression, and attachment. Given that high CU participants report higher levels of uncertainty in other relationships (Boucher & Bassett, 2013; Boucher & Jacobson, 2012), I predicted that higher levels of CU would be associated with higher levels of RU (H1). These higher levels of RU should then reduce perceived relationship quality (Knobloch, 2008), so I further predicted that higher levels of CU would be associated with more negative perceptions of relationship quality (H2), and that RU would mediate the relationship between CU and relationship quality (H3). Finally, I predicted that while CU would be positively related to depressive symptoms and insecure attachment, these variables would not account for the relationship between CU, RU, and perceived relationship quality.

Method

Participants

Both members from 79 romantic couples (78 men, 80 women) were recruited to participate by posting to social networking sites and e-mail lists. Participants had a

mean age of 27.47 years ($SD=7.97$), ranging from 17 to 59, and were primarily European American (67.70%) or Hispanic/Latino (25.30%). The majority of participants identified as heterosexual (93%); however, 6 couples reported on same-sex relationships. Twenty-one couples were involved in a monogamous dating relationship, 18 were cohabitating, 8 were engaged to be married, and 32 were married; 2 of the relationships also were long-distance at the time of the study. The average relationship length was 64.13 months ($SD=72.35$), ranging from 1 month to 41 years.

Measures and Procedure

Couples who responded to the recruitment advertisements were sent instructions to complete an online survey hosted by Survey Monkey, and instructed to complete the survey separate from their partner. Upon providing informed consent, participants completed the measures described below. Participants first completed measures of relational outcomes (i.e., RU and relationship quality) followed by the predictor measures. The latter were presented in randomized order with the exception of the *Beck Depression Inventory* (Beck, 1967), which always appeared last to control for potential mood priming effects.

Causal Uncertainty Scale (CUS; Weary & Edwards, 1994)

A modified version of the CUS was used to measure chronic individual differences in CU beliefs. Specifically, three items pertaining to uncertainty about grades (e.g., “When I receive good grades, I usually do not understand why I did so well”) were omitted because participants were recruited from the community, so these items may not have been relevant. The modified CUS consisted of 11 items rated on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*), and participants’ ratings were averaged so that higher scores indicated greater CU. The 11-item CUS achieved excellent internal consistency ($\alpha = .92$), and participants had a mean CUS score of 1.98 ($SD = 0.88$), ranging from 1 to 5.

Beck Depression Inventory (BDI; Beck, 1967)

The BDI consists of 21 items assessing the severity of depressive symptoms over the course of 2 weeks using a scale from 0 to 3. Responses are summed so that higher scores indicate more severe depressive symptomology ($\alpha = .92$); participants in the current study had a mean BDI score of 3.36 ($SD = 5.75$), ranging from 0 to 37.

Experiences in Close Relationships–Relationship Structures Questionnaire (ECR-RS; Fraley, Heffernan, Vicary, & Brumbaugh, 2011)

The partner version of the ECR-RS was used to measure attachment style. This scale consists of nine items rated on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*); six items assess *avoidant attachment* (e.g., “I don’t feel comfortable opening up to my

partner;" $\alpha = .79$) while three items assess *anxious attachment* (e.g., "I often worry that my partner doesn't really care for me;" $\alpha = .92$). Responses on each subscale are averaged so that higher scores indicate more insecure attachment. Participants in the current study had a mean avoidance score of 1.76 ($SD = 0.92$), ranging from 1 to 6.83, and a mean anxiety score of 2.10 ($SD = 1.68$), ranging from 1 to 7.

Relational Uncertainty Scales (RUS; Knobloch & Solomon, 1999)

Three separate scales were used to assess participants' RU: The RUS-Self assessed participants' doubts about their own involvement in the relationship (19 items; e.g., "How certain are you about how committed you are to this relationship;" $\alpha = .98$); the RUS-Partner assessed participants' doubts about their *partner's* involvement in the relationship (19 items; e.g., "How certain are you about how committed your partner is to this relationship?;" $\alpha = .98$); and the RUS-Relationship assessed participants' doubts about the definition and nature of the relationship itself (16 items; e.g., "How certain are you about the future of this relationship?;" $\alpha = .96$). All items are rated on a scale from 1 (*completely or almost completely uncertain*) to 6 (*completely or almost completely certain*), and responses on each scale are reverse-scored and then averaged so that higher scores indicate greater RU. In the current study, participants reported a mean RUS-Self score of 1.33 ($SD = 0.59$), ranging from 1 to 4.58, a mean RUS-Partner score of 1.47 ($SD = 0.81$), ranging from 1 to 6, and a mean RUS-Relationship score of 1.59 ($SD = 0.79$), ranging from 1 to 5.69.

Perceived Relationship Quality Components Inventory (PRQC; Fletcher, Simpson, & Thomas, 2000)

The brief version of the PRQC was used to assess participants' perceptions of the quality of their romantic relationships. This brief-PRQC includes the first item from each of six subscales from the full PRQC (i.e., relationship satisfaction, commitment, intimacy, trust, passion, and love) to calculate a global relationship quality index ($\alpha = .84$). Items are rated on a scale from 1 (*not at all*) to 7 (*extremely*), and ratings are summed so that higher scores indicate greater perceived relationship quality. Participants reported a mean global PRQC score of 37.60 ($SD = 4.71$), ranging from 10 to 42.

Results

To account for the interdependence in romantic partner's responses, I analyzed the data using Kashy and Kenny's (2000) Actor-Partner Interdependence Model (APIM). These analyses were conducted using the mixed model approach where the dyad was treated as the unit of analysis, and each partner was treated as a repeated measure within the dyad. The APIM yields two separate effects: an *actor effect*, estimating the degree to which a participant's own CU predicted their level of RU and perceived relationship quality, and a *partner effect*, estimating the degree to which the romantic partner's level of CU predicted the participant's RU and perceived relationship

quality. Participants' centered CUS scores were included as a predictor in the model to estimate the actor effect, while the partner's centered CUS score was included as a separate predictor to estimate the partner effect.

Consistent with previous research, CU was positively correlated with depressive symptoms ($r = .18, p = .022$), avoidant attachment ($r = .40, p < .001$), and anxious attachment ($r = .40, p < .001$). Therefore, separate analyses were conducted controlling for participants' BDI and two ECR-RS scores; unless noted otherwise, all CU effects remained significant or marginal when controlling for these variables.

As predicted in Hypothesis 1, participants with higher levels of CU reported more RU in all three domains: self, $B = 0.18, t(151.49) = 3.53, p = .001$, partner, $B = 0.29, t(143.94) = 4.34, p < .001$, and relationship, $B = 0.28, t(150.85) = 4.12, p < .001$. However, the effect of participant CU on self RU was not significant when controlling for avoidant attachment ($p = .144$). Thus, while higher levels of CU were related to more doubts about the partner's involvement in the relationship and about the nature of the relationship itself, participants' doubts about their own involvement in the relationship appeared to be driven more by their avoidant attachment than by CU alone. Similarly, as predicted in Hypothesis 2, higher levels of CU were associated with more negative perceptions of relationship quality, $B = -1.64, t(148.41) = -4.13, p < .001$. However, none of the corresponding partner effects were significant (RUS-Self: $B = 0.04, t(151.30) = 0.71, p = .475$; RUS-Partner: $B = 0.07, t(144.09) = 1.11, p = .268$; RUS-Relationship: $B = -0.01, t(150.85) = -0.09, p = .926$; PRQC: $B = -0.33, t(148.41) = -0.83, p = .410$), suggesting that high CU participants' romantic partners did not appear to share their negative views of the relationship.

Mediation Analyses

Next, I conducted mediational analyses to test Hypothesis 3 (i.e., RU mediates the relationship between CU and perceived relationship quality) for the two RU sources that were significantly related to CU (i.e., partner and relationship RU). This was done using Amos 21.0 to estimate the APIM effects with mediation (see Ledermann, Macho, & Kenny, 2011; and West, Popp, & Kenny, 2008, for more information on mediation using the APIM). To examine the actor effect, I estimated the direct effect of each participant's CU on their own scores on the mediator (i.e., partner/relationship RU) and outcome (i.e., PRQC scores) variables. Then, to examine the partner effect, I estimated the direct effect of each participant's CU on their partner's scores on these variables. Finally, I also estimated the direct actor and partner effects from the mediator variables to the outcome variable. Therefore, following Baron and Kenny's (1986) recommendations, this model tested whether the mediator (RU) was significantly related to the outcome (PRQC scores), and if the predictor (CU) was still significantly related to the outcome when the mediator was included in the model; separate analyses were conducted for partner and relationship RU.

When partner RU was included as the mediator (see Figure 1), the direct effect of participant CU on perceived relationship quality (i.e., the actor effect) was only marginal, $\beta = -.11, p = .056$ (bootstrap CI: $-.21$ to $-.02$), whereas the actor effect

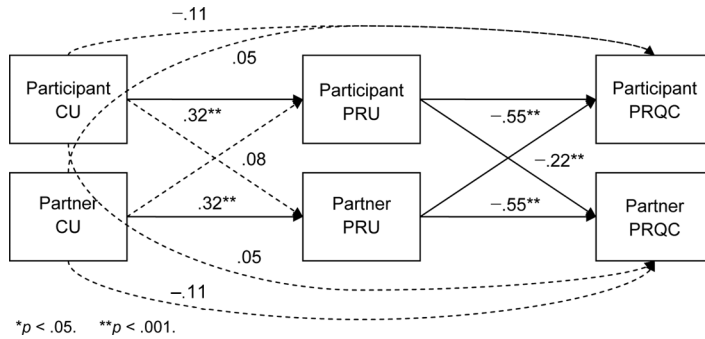


Figure 1 Participant and partner Causal Uncertainty (CU) effects on Perceived Relationship Quality (PRQC) as mediated by Participants' Partner Uncertainty (PRU).

of partner RU on perceived relationship quality was significant, $\beta = -.55$, $p < .001$ (bootstrap CI: $-.72$ to $-.37$). Conversely, when relationship RU was included as the mediator (see Figure 2), the actor effect of CU on perceived relationship quality remained significant, $\beta = -.16$, $p = .011$ (bootstrap CI: $-.26$ to $-.05$), as was the actor effect of relationship RU, $\beta = -.47$, $p < .001$ (bootstrap CI: $-.66$ to $-.31$). The indirect effect of participant CU on perceived relationship quality via the mediator was significant for both partner ($p < .001$; bootstrap CI: $-.29$ to $-.10$) and relationship RU ($p < .001$; bootstrap CI: $-.25$ to $-.06$).

To further test for partial versus full mediation, a full mediation model, in which I constrained the direct effect of participant CU on perceived relationship quality to zero, was compared to the original model. Consequently, if this model fit the data significantly better than the original model, the direct effect from the predictor to the outcome variable would be equivalent to zero, supporting full mediation. The chi-square test of comparison between the original model and this nested full mediation model was not significant for partner RU ($p = .155$), but was significant for relationship RU ($p = .047$). Therefore, removing the direct effect of participant CU did not affect model fit when partner RU was the mediator, but would reduce

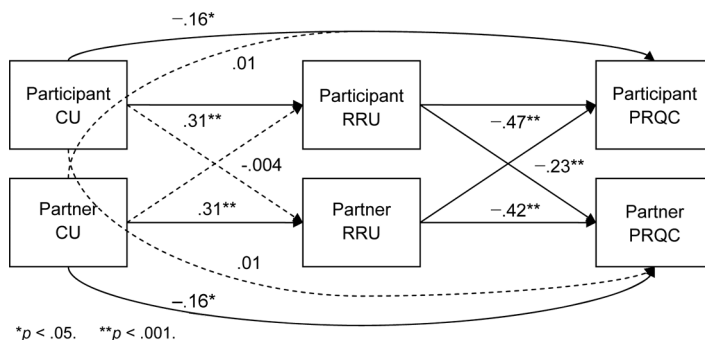


Figure 2 Participant and partner Causal Uncertainty (CU) effects on Perceived Relationship Quality (PRQC) as mediated by Participants' Relationship Uncertainty (RRU).

model fit when relationship RU was the mediator. This suggests the original model is the best representation of the data when relationship RU was the proposed mediator, supporting partial mediation, whereas a full mediation model improved model fit when partner RU was the proposed mediator.

Ancillary Analyses

Given previous research findings that women report higher levels of RU (e.g., Knobloch et al., 2011) and that RU is higher during earlier stages of a relationship (Solomon & Theiss, 2008), I conducted additional analyses treating gender and relationship length as moderators in the APIM analyses described earlier. Gender did moderate the effect of participant CU on perceived relationship satisfaction ($p = .022$) in that the CU effect was limited to women ($B = -1.03, p < .002$); although the effect was in the same direction for men, it was not significant ($B = -.07, p = .249$). No other moderating effects of gender were significant ($ps > .070$).

Relationship length also moderated the effect of participant CU on partner RU ($p = .007$) in that the CU effect was limited to longer relationships ($B = 0.47, p < .001$); while the effect was in the same direction for shorter relationships, it was not significant ($B = 0.07, p = .503$). No other moderating effects of relationship length were significant ($ps > .085$).

Discussion

The purpose of the current study was to determine whether causally uncertain people experience more RU and, in turn, more negative relational outcomes in their romantic relationships. As predicted, higher levels of CU were related to doubts about the level of a partner's involvement in the relationship and about the nature of the relationship itself. Although higher levels of CU also were associated with more doubts about one's own involvement in the relationship, this effect appeared to be driven primarily by avoidant attachment than by CU. Also as predicted, RU, particularly doubts about the partner's involvement, mediated the relationship between CU and perceptions of relationship quality. That is, participants with higher levels of CU appeared to perceive their relationship more negatively because of their doubts about their partner's level of involvement in that relationship.

Consistent with Boucher and Jacobson's (2012) research with unacquainted dyads, a participant's CU was not significantly related to his or her partner's RU or perceptions of the relationship. That is, participants with causally uncertain partners did not appear to share their doubts about the relationship, or their negative views of the relationship. Conversely, as shown in Figures 1 and 2, participants whose romantic partners expressed more partner and relationship RU reported more negative perceptions of relationship quality themselves. While the latter effects were not of central interest here, they complement recent findings demonstrating that a partner's RU is related to one's appraisals of threat during relationship talk (Knobloch & Theiss, 2011) and to perceived partner irritations (Theiss & Knobloch, 2009). Given that

CU and RU were positively related, it is unclear why a partner's RU, but not CU, negatively affected participants' views of the relationship.

One potential explanation is that causally uncertain people do not necessarily engage in some of the negative behaviors associated with RU and, consequently, their CU has less of an impact on their partner's views of the relationship. For example, people with higher levels of RU tend to engage in fewer relationship maintenance behaviors (Dainton, 2003), less relationship talk (Knobloch & Theiss, 2011), and more topic avoidance (Knobloch & Theiss, 2011). Such behaviors are problematic in that they increase, rather than decrease, the person's RU, while also increasing their partner's RU (Knobloch & Theiss, 2011). In fact, Theiss and Knobloch (2009) suggest that it is these behaviors that might increase the partner's perceived irritations. Conceivably, then, if causally uncertain people engage in other behaviors to cope with their RU, their CU may not lead to the same negative partner effects.

People are more likely to engage in information-seeking as an effort to reduce uncertainty when their tolerance for uncertainty is low (Kellermann & Reynolds, 1990). Consequently, because causally uncertain people are less tolerant of and more uncomfortable with ambiguity (Weary & Edwards, 1996), they may be especially motivated to reduce their uncertainty, even when the potential outcomes are negative. For example, while CU is related to greater reassurance-seeking (Jacobson, 2007), RU is not (Knobloch et al., 2011), suggesting that high CU people might engage in more active information-seeking strategies as a response to their heightened RU than low CU people. Therefore, future research exploring how causally uncertain people respond to RU in their romantic relationships might help to clarify why RU, but not CU, is related to negative partner responses.

Another potential explanation is that most studies demonstrating partner effects associated with RU have been longitudinal (e.g., Knobloch & Theiss, 2011; Theiss & Knobloch, 2009). Perhaps, then, partner effects associated with CU may emerge over time. Indeed, previous research suggests that people with high CU friends experience an increase in their uncertainty about their friend's feelings toward them over the course of 6 weeks (Boucher & Jacobson, 2010). Therefore, the concurrent relationships assessed here may not have been sufficient to detect the partner's negative reactions.

Ancillary analyses also suggested that the relationship between CU and RU may change as relationships progress. Although research suggests that people experience more RU during the early stages of relationship development (Solomon & Theiss, 2008), the effect of participant CU on partner RU actually was stronger in longer relationships. That is, high CU people reported having more doubts about their partner's involvement than did low CU people at later, but not earlier, stages of the relationship. Given that most people, regardless of CU, experience these doubts during the early stages of a relationship, these findings suggest that causally uncertain people may find it difficult to reduce partner RU as their relationship progresses. If these doubts then contribute to causally uncertain people's negative perceptions of relationship quality, their inability to resolve their doubts may have long-term

implications for the relationship. While I did not find a corresponding effect of relationship length for perceived relationship quality, this was the first study to examine CU in romantic relationships and, as mentioned earlier, these relationships only were assessed concurrently. Therefore, longitudinal research exploring the effects of CU on these outcomes, particularly as relationships develop, is needed to better understand the relationship between CU, RU, and relationship quality.

Another limitation of the current study was the potential for floor effects due to the relatively low levels of RU reported by participants. Arguably, given the recruitment methods and that both members of the couple needed to participate in the study, couples who were less well adjusted may not have elected to participate in the study (see Knobloch & Theiss, 2010, for a discussion). In fact, mean levels of perceived relationship quality also were rather high, whereas levels of depressive symptoms were quite low, suggesting that participants in the current study may have been particularly well adjusted and involved in relationships characterized by low levels of distress. Consequently, the current findings may be limited to satisfied couples with relatively low levels of RU. Other studies have dealt with this issue by explicitly sampling couples who were identified as having relationship distress (e.g., Knobloch et al., 2011); therefore, in future research it may be advantageous to recruit couples based on their level of relational distress to further explore the relationship between CU, RU, and perceived relationship quality in less stable relationships.

Furthermore, several couples in the current study were married, and previous research has shown that RU tends to be lower in marital relationships (Knobloch, 2008). More importantly, Knobloch (2008) demonstrated that the sources of RU may be different in these relationships. Therefore, in future research it may be advantageous to consider marital and nonmarital relationships separately. This would permit assessing RU in marital relationships using measures developed explicitly for such relationships and, in turn, provide more insight into the relationship between CU, RU, and perceived relationship quality specifically within marital relationships.

Conclusions

In summary, then, the current study builds upon the limited work exploring what individual characteristics predict the extent to which people experience RU in their romantic relationships. These data suggest that CU, or doubts people have about their ability to understand causes of social events, may be another viable predictor of RU along with depressive symptoms (Knobloch et al., 2011) and insecure attachment (Knobloch et al., 2001). Therefore, as Knobloch (2007) suggested, dispositional forms of uncertainty, like CU, may predispose people to experience doubts about the level of involvement in romantic relationships. However, these data are preliminary and additional research is required to better understand the relationship between CU, RU, and perceived relationship quality, particularly in relationships characterized by more RU or distress, and over time as relationships progress.

References

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182. doi:10.1037/0022-3514.51.6.1173
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York, NY: Hoeber.
- Boucher, E. M., & Bassett, T. (2013, January). *Causal uncertainty effects in close friendships*. Poster presented at the 14th annual meeting the Society for Personality and Social Psychology, New Orleans, LA.
- Boucher, E. M., & Jacobson, J. A. (2010, January). *Longitudinal effects of causal uncertainty and importance of causal understanding on uncertainty reduction in same-sex friendships*. Poster presented at the 11th annual meeting of the Society for Personality and Social Psychology, Las Vegas, NV.
- Boucher, E. M., & Jacobson, J. A. (2012). Causal uncertainty during initial interactions. *European Journal of Social Psychology*, *42*, 652–663. doi:10.1002/ejsp.1876
- Dainton, M. (2003). Equity and uncertainty in relational maintenance. *Western Journal of Communication*, *67*, 164–186. doi:10.1080/10570310309374765
- Douglas, W. (1994). The acquaintanceship process: An examination of uncertainty, information-seeking, and social attraction during initial conversation. *Communication Research*, *21*, 154–176. doi:10.1177/009365094021002002
- Edwards, J. A., Wichman, A. L., & Weary, G. (2009). Causal uncertainty as a chronically accessible construct. *European Journal of Social Psychology*, *39*, 694–706. doi:10.1002/ejsp.567
- Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, *26*, 340–354. doi:10.1177/0146167200265007
- Fraley, R. C., Heffernan, M. E., Vicary, A. M., & Brumbaugh, C. C. (2011). The experiences in close relationships—relationship structures questionnaire: A method for assessing attachment orientations across relationships. *Psychological Assessment*, *23*, 615–625. doi:10.1037/a0022898
- Jacobson, J. A. (2007). The relationship among causal uncertainty, reassurance seeking, and dysphoria. *Journal of Social and Clinical Psychology*, *26*, 922–939. doi:10.1521/jscp.2007.26.8.922
- Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 451–477). New York, NY: Cambridge University Press.
- Kellermann, K., & Reynolds, R. (1990). When ignorance is bliss: The role of motivation to reduce uncertainty in uncertainty reduction theory. *Human Communication Research*, *17*, 5–75. doi:10.1111/j.1468-2958.1990.tb00226.x
- Knobloch, L. K. (2007). The dark side of relational uncertainty: Obstacle or opportunity. In B. H. Spitzberg & W. R. Cupach (Eds.), *The dark side of interpersonal communication* (2nd ed., pp. 31–60). Mahwah, NJ: Lawrence Erlbaum.
- Knobloch, L. K. (2008). The content of relational uncertainty within marriage. *Journal of Social and Personal Relationships*, *25*, 467–495. doi:10.1177/0265407508090869
- Knobloch, L. K., Knobloch-Fedders, L. M., & Durbin, C. E. (2011). Depressive symptoms and relational uncertainty as predictors of reassurance-seeking and negative feedback-seeking in conversation. *Communication Monographs*, *78*, 437–462. doi:10.1080/03637751.2011.618137
- Knobloch, L. K., & Solomon, D. H. (1999). Measuring the sources and content of relational uncertainty. *Communication Studies*, *50*, 261–278. doi:10.1080/10510979909388499

- Knobloch, L. K., & Solomon, D. H. (2002a). Information seeking beyond initial interaction: Negotiating relational uncertainty within close relationships. *Human Communication Research, 28*, 243–257. doi:10.1093/hcr/28.2.243
- Knobloch, L. K., & Solomon, D. H. (2002b). Intimacy and the magnitude and experience of episodic relational uncertainty within romantic relationships. *Personal Relationships, 9*, 457–478. doi:10.1111/1475-6811.09406
- Knobloch, L. K., Solomon, D. H., & Cruz, M. G. (2001). The role of relationship development and attachment in the experience of romantic jealousy. *Personal Relationships, 8*, 205–224. doi:10.1111/j.1475-6811.2001.tb00036.x
- Knobloch, L. K., & Theiss, J. A. (2010). An actor-partner interdependence model of relational turbulence: Cognitions and emotions. *Journal of Social and Personal Relationships, 27*, 595–619. doi:10.1177/0265407510368967
- Knobloch, L. K., & Theiss, J. A. (2011). Relational uncertainty and relationship talk within courtship: A longitudinal actor-partner interdependence model. *Communication Monographs, 78*, 3–26. doi:10.1080/03637751.2010.542471
- Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. *Structural Equation Modeling: A Multidisciplinary Journal, 18*, 595–612. doi:10.1080/10705511.2011.607099
- Passey, J., Jacobson, J. A., Edwards, K., & Hickey, A. J. (2008, February). *The relationship of causal uncertainty to adult attachment qualities and rejection sensitivity*. Poster presented at the 9th annual meeting of the Society for Personality and Social Psychology, Albuquerque, NM.
- Solomon, D. H., & Theiss, J. A. (2008). A longitudinal test of the relational turbulence model of romantic relationship development. *Personal Relationships, 15*, 339–357. doi:10.1111/j.1475-6811.2008.00202.x
- Theiss, J. A., & Knobloch, L. K. (2009). An actor-partner interdependence model of irritations in romantic relationships. *Communication Research, 36*, 510–537. doi:10.1177/0093650209333033
- Theiss, J. A., & Nagy, M. E. (2010). Actor-partner effects in the associations between relationship characteristics and reactions to marital sexual intimacy. *Journal of Social and Personal Relationships, 27*, 1089–1109. doi:10.1177/0265407510381254
- Theiss, J. A., & Solomon, D. H. (2006). Coupling longitudinal data and multilevel modeling to examine the antecedents and consequences of jealousy experiences in romantic relationships: A test of the relational turbulence model. *Human Communication Research, 32*, 469–503. doi:10.1111/j.1468-2958.2006.00284.x
- Weary, G., & Edwards, J. A. (1994). Individual differences in causal uncertainty. *Journal of Personality and Social Psychology, 67*, 308–318. doi:10.1037/0022-3514.67.2.308
- Weary, G., & Edwards, J. A. (1996). Causal uncertainty beliefs and related goal structures. In R. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: The interpersonal context* (Vol. 3, pp. 148–181). New York, NY: Guilford Press.
- Weary, G., Tobin, S. J., & Edwards, J. A. (2010). The causal uncertainty model revisited. In R. M. Arkin, K. C. Oleson & P. J. Carroll (Eds.), *Handbook of the uncertain self* (pp. 78–100). New York, NY: Psychology Press.
- West, T. V., Popp, D., & Kenny, D. A. (2008). A guide for the estimation of gender and sexual orientation effects in dyadic data: An actor-partner interdependence model approach. *Personality and Social Psychology Bulletin, 34*, 321–336. doi:10.1177/0146167207311199

Copyright of Communication Reports is the property of Western States Communication Association and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.