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**ANTECEDENTS AND CONSEQUENCES OF COMMUNICATION ABOUT SERIAL  
ARGUMENTS: A LONGITUDINAL STUDY OF ASSOCIATIONS WITHIN AND  
BETWEEN CONFLICT EPISODES**

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## ABSTRACT

This dissertation examines communication in serial arguments in romantic relationships longitudinally. Prior research on serial arguments has been relatively homogenous in three primary ways: in the topics of inquiry, in the cross-sectional design, and in the use of college aged dating relationships. Given the general homogeneity of this area of research, the primary goal of this dissertation was to explore the validity of previously understood associations in serial arguments outside of a college-aged dating context and at two levels of abstraction (episodic and overtime).

There are two categories of hypotheses in this study, within episode relationships and over time relationships. First, I posit within-episode associations between the antecedent conditions of communication valence and communication engagement and the outcomes of relationship quality, rumination, and stress. I also posit the moderation of perceived resolvability and the additional moderation of lifespan on these within episode associations. Finally, I posit reciprocal, overtime associations between the antecedents and outcomes.

To examine these hypotheses, 1,047 participants in romantic relationships, varying in relationship length and stage (e.g. dating, married), were surveyed about their serial argument experiences. Participants were prompted to complete three surveys over the course of six weeks. Analyses of these data incorporates hierarchical linear modeling to understand the within episode associations and random intercept cross-lagged panel modeling to understand the overtime associations.

The findings of this study provided partial support for the hypotheses. Specifically, there is some support for the moderation of perceived resolvability, particularly on associations including communication valence. When the additional moderation of lifespan was accounted

for, the moderation of perceived resolvability was illuminated for associations including communication engagement; This means that people respond differently to decisions to engage or avoid communication as they get older and their relationship progresses. Overtime associations both confirmed within episode understandings of particular associations (i.e. rumination and communication engagement), and also illuminated new associations that were nonsignificant in the within episode analyses (i.e. stress and communication engagement).

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**DEDICATION**

For my daughter, Charlotte—may you always complete the things you start to your satisfaction, may you never be discouraged by adversity, may you always pursue your passions. I love you.

## CHAPTER 1

Conflict is defined as, “a struggle between two or more interdependent parties who have or perceive incompatible goals” (Sillars, 2010). Conflict is a common occurrence in close relationships, and it increases in frequency as relationship partners become more interdependent (Sillars et al., 2004). Colloquially, conflict is associated with negative relationship outcomes and feelings; however, it serves several important purposes in a relationship. For example, conflict serves a maintenance role whereby partners discuss issues that may disrupt relationship functioning. In addition, an individual may attempt to influence a partner’s behaviors, attitudes, or beliefs through engaging in conflict. Also, conflict may offer a person an opportunity to indicate to a partner that they are behaving in a problematic way. Because conflict is both common and consequential in romantic relationships, it has been the subject of considerable scholarly attention.

One major line of inquiry in prior research on conflict has focused on explicating the characteristics of communication about conflict. Some scholars have focused on the fundamental decision to engage in versus avoid communication about conflicts (e.g., Cloven & Roloff, 1993). In a study examining conflict behaviors between roommates, Sillars (1980) distinguished three strategies people used during conflict: (a) integrative, or cooperative behaviors; (b) distributive, or competitive behaviors; and (c) avoidant, or passive/indirect behaviors. Similarly, Rusbult et al. (1982) identified four responses to dissatisfaction in romantic relationships: (a) exit, or ending the relationship; (b) voice, or actively and constructively expressing dissatisfaction with a situation or the relationship; (c) loyalty, or passively but optimistically waiting for the issue to resolve itself; and (d) neglect, or passively allowing the relationship to decline. Sillars, Pike, Jones, and Murphy (1984) later expanded upon their typology to include three subcategories of

avoidant acts (denial, noncontinuity, and shifting levels), two subcategories of distributive acts (direct and indirect), and two subcategories of integrative tactics (informational and supportiveness). Similarly, Canary, Cody, and Cunningham (1988) developed a scale that distinguished seven categories of behavior one might implement during a conflict episode: integrative tactics, topic shifting, personal criticism, anger, sarcasm, semantic focus, and denial.

A second considerable body of research suggests the way in which conflict manifests between partners is indicative of the health of a relationship. In longer married relationships, conflict frequency is a significant predictor of marital disruption (McGonagle et al., 1993). After engaging in a conflict episode with their partner, individuals are less likely to ruminate about the issue when they are satisfied with their relationship, whereas dissatisfied couples are more likely to ruminate after experiencing a conflict episode (Paleari et al., 2005). In addition, when people are satisfied with their relationship, they tend to engage in more positive communication strategies (Zacchilli, Hendrick, & Hendrick, 2009). Alternatively, couples who are dissatisfied, or whose relationship is in disrepair, are more likely to use more distributive communication strategies when engaging with their partner (Zacchilli et al., 2009). Dissatisfied partners are more likely to criticize their partner (Chambless & Blake, 2008) and to engage in demand/withdraw patterns of communication during conflict (Caughlin & Huston, 2002; Stanley et al., 2002), which are both associated with negative relational outcomes (i.e. divorce; Carrere et al., 2000). Thus, conflict and relationship well-being have a reciprocal influence such that couples in dissatisfied, unhealthy relationships are more likely to engage in poor-quality conflict, which in turn leads to worse relational outcomes.

Another, less extensive, body of work has revealed differences in conflict experiences across the lifespan of relationships. In early stage relationships, such as dating relationships, the



purpose of conflict is to manage the process of becoming behaviorally interdependent (Kelley & Thibaut, 1978). Thus, requests for change in response to perceived incompatibilities are more explicit and direct in young relationships (Sillars & Zietlow, 1988). As relationships progress, the topics of disagreement become more significant (i.e. regarding finances or children; Mirecki et al., 2013), and an inability to engage in important conflicts becomes indicative of larger structural problems in a relationship (Heavey et al., 1995). In older adult romantic relationships, conflict reflects the increased reliance of partners on each other to accomplish day to day necessities (Sillars & Zietlow, 1988). In total, these studies illustrate that conflict serves different functions across the lifespan.

A relatively recent addition to the literature is research on serial conflict. Serial arguments are conflict interactions that occur within ongoing personal relationships in response to persistent or recurrent experiences of goal interference or incompatible activity (Bevan et al., 2008; Trapp & Hoff, 1985; Worley & Samp, 2016). Notably, most research examining couples engaging in conflict interactions focuses on partners communicating about issues that have been previous sources of disagreement (e.g., Johnson & Roloff, 1998). Research on serial conflict emphasizes features of these disagreements that are especially related to their repeated, serial nature. In particular, researchers examine how perceived resolvability, or the perception that one is making progress towards reaching a resolution, plays a distinct and important role in the serial nature of these conflicts (Johnson & Roloff, 1998; 2000a; 2000b). Research highlights the particularly deleterious influences of serial conflicts on individual well-being (Bevan & Sparks, 2014; Liu & Roloff, 2015; Malis & Roloff, 2006). Studies also underscore that serial conflicts impart detrimental effects on the relationship in which they occur (Johnson et al., 2011; Johnson & Roloff, 1998; Johnson & Roloff, 2000b; Morrison & Schrodt, 2017; Zhang, 2014). This body

of work suggests that the inability to resolve a conflict satisfactorily and the continuance of an unresolved conflict imparts uniquely harmful effects on both individual and relational well-being.

Previous research on serial arguments has been relatively homogenous, with topics of study primarily emphasizing serial argument processes (e.g. Johnson & Roloff, 1998), goals (e.g. Bevan et al., 2008; Worley & Samp, 2016), and argumentation (e.g. Hample et al., 2012). Methodologically, research in this area has been predominantly cross-sectional, and usually emphasizes college-aged dating relationships (both intact and terminated). This dissertation seeks to systematically examine serial argument processes in both dating and marital relationships longitudinally to see if previous findings are restricted to episodic understandings of serial conflict episodes in college-aged dating relationships.

Like many before me, I focus on illuminating the association between conflict communication and relational and individual well-being. In doing so, I draw from insights offered by research on conflict across the lifespan and serial arguments. In particular, I emphasize serial conflict in romantic relationships as subject to developmental dynamics in two ways. In one way, people's experience of conflict evolves as they and their relationship mature over time. In addition, conflict issues themselves change as disagreements emerge, are the subject of communication and/or rumination, and re-occur over time. Thus, my overall aim is to offer new insights about the association between relationship quality and conflict communication by adopting a doubly developmental perspective. The remainder of this chapter explicates the dimensions of conflict communication, features of serial arguments, and the personal and relational outcomes of both. By doing so, I provide a broad introduction to the concepts that are central to this dissertation.

## **Dimensions of Conflict Communication**

This dissertation focuses on how conflict communication relates to relationship quality; therefore, I begin by clarifying how conflict communication varies. This section examines existing conceptualizations of conflict communication and advances arguments for focusing on two underlying dimensions that distinguish communication about conflict.

### **Conflict Tactics, Strategies, and Styles**

In research on conflict, the decision to engage or avoid discussion of an issue is a predominant theme. Avoidance of communicating about conflict topics is generally indicative of relationship distress (Cloven & Roloff, 1993; Gottman & Krokoff, 1989; Sargent, 2002). This dimension of engagement has been measured through global assessments of avoiding versus actively discussing relationship issues (e.g., Knobloch & Theiss, 2011) and through assessments of whether couples discussed particular issues in a given time period (e.g., jealousy, hurt, irritations; e.g., Solomon & Brisini, 2018). Once conflict has been initiated, partners' conflict communication is an embodiment of particular tactics, strategies, and styles.

Research on conflict tactics has illuminated three main categories of behavior that occur during a conflict interaction: integrative, distributive, and avoidant. Integrative tactics tend to be characterized as cooperative in nature or utilizing prosocial behaviors to try and find a middle ground (Sillars, 1980). These tactics encompass a sharing of information, disclosing, listening, problem solving, supporting a partner and their disclosures, emphasizing commonalities, and accepting responsibility (Sillars et al., 1984). Alternatively, distributive tactics include direct behaviors such as criticizing, placing blame, demanding, antagonizing, or using indirect behaviors such as asking hostile questions or making hostile jokes, making attributions about a partner's intentions or motivations, and minimizing personal responsibility (Canary et al., 1988;

Sillars et al., 1984). Some characterizations of distributive tactics include indices of physical violence and pressuring a partner during conflict episodes (CPQ; Crenshaw et al., 2017). Finally, avoidant behaviors refer to moves within an interaction through which a partner attempts to circumvent discussing the issue. Sillars (1980) and Canary et al. (1988) identified avoidant behaviors within an episode as changing the topic, focusing on the meaning of words rather than the issue, or denial of the existence of a problem. In addition, a large body of work has emphasized the tactic of withdrawal in response to a partner's demand as a common avoidance strategy employed in the face of emotional overload or an inability to engage with a demand to change (Christensen & Heavey, 1990; Malis & Roloff, 2006).

Other perspectives on conflict communication emphasize overarching strategies used during conflict episodes (Rusbult et al., 1982). One typology, termed exit-voice-loyalty-neglect (EVLN), categorizes behaviors on two dimensions: constructive-destructive and active-passive (Rusbult et al., 1982). Within the exit category, behaviors are both active and destructive and indicate a lack of commitment to continuing the relationship (e.g., breaking up with a partner). The voice category includes behavior that are both active and constructive and reflect a commitment to the relationship (e.g., discussing problems and compromising). Loyalty encompasses behaviors that are passive but constructive, and which reflect a commitment to the relationship (e.g., giving things some time). Finally, the neglect category contains behaviors that are both passive and destructive and reflect a lack of commitment to the relationship (e.g., ignoring a partner).

Conflict communication has also been examined by focusing on a person's style preference during conflict, in general. This work outlines five styles of handling conflict: (a) integrating, (b) avoiding, (c) dominating, (d) obliging, and (e) compromising (Rahim, 1983).

These styles are reflective of two dimensions that, researchers posit, guide how people manage conflict. The first dimension reflects a proclivity to satisfy a person's own needs and concerns. The second dimension reflects a desire to satisfy other's concerns and needs. Each style reflects high and low ratings on both of these dimensions, with one additional style representing a moderate amount of both dimensions (compromise; Canary et al., 1995).

As this brief review illustrates, characterizations of conflict tactics, strategies, and styles are largely complementary. Indeed, the typologies discussed vary primarily in their degree of abstraction. These similarities open the door to conceptualizing conflict communication in terms of underlying dimensions.

### **Dimensions Distinguishing Conflict Communication**

Canary (2003) identified two pervasive dimensions that underlie conflict communication: directness-indirectness and cooperation-competition. The dimension of directness-indirectness is defined as, "the extent to which a person explicitly (vs. implicitly) engages the other person" (p. 528). The second dimension is cooperation-competition, which refers to the extent to which one person is willing to work with a conflict partner to reach a desired outcome through their enacted behaviors. The following paragraphs elaborate on these two dimensions as they relate to from work on conflict avoidance, tactics, strategies, and styles.

The directness-indirectness dimension encompasses two subcomponents of conflict communication behavior. The first component refers to a person's initial decision to engage in communication about an issue or to avoid initiating communication about an issue. Previous work has elaborated on the idea that people do not always discuss relational irritations they are experiencing (Cloven & Roloff, 1993), and people sometimes declare topics taboo when they become too relationally damaging (Roloff & Ifert, 1998). After a decision is made to

communicate about an issue, the second component of engagement becomes relevant: directness or indirectness of issue-focused communication. Directness of talk is included in previous research on conflict tactics, strategies, and styles. For example, avoidant conflict tactics refer to a person changing the topic, focusing on the meaning of words rather than the issue, denying the existence of a problem, or withdrawing from engagement at all (Canary et al., 1988; Sillars, 1980). The use of integrative or distributive conflict tactics involve more active engagement and explicit communication during conflict (Sillars, 1980). Rusbult and colleagues (1982) articulate that individuals can actively or passively engage in communication about an issue with their partner, and this communication can be constructive or destructive. These behaviors manifest within an avoidant conflict style, in which an individual has little regard for both their own and their partner's goals in the interaction (Gross & Guerrero, 2000).

The cooperation-competition dimension refers to the behaviors in a conflict episode as being more or less conducive to solving the problem together. This may be reflected in the behaviors enacted within the communication, as explained through work on tactics and strategies, or in the overall approach to conflict within a given relationship, as explained through work on conflict styles. Typically, conflict is perceived as positively-valenced when partners use integrative tactics, which are cooperative and considerate of both partner's goals and points of view (Bevan et al., 2008). Positively-valenced conflict styles involve people being conscientious of the needs of their communication partner, as is the case in the obliging, integrating, or compromising styles (Gross & Guerrero, 2000). Negatively-valenced conflict perceptions stem from behaviors that are self-serving or lack consideration for a partner. Distributive tactics are often categorized as being experienced more negatively than using integrative tactics, and they also lead to greater relational dissatisfaction (Bevan et al., 2008). In addition, having a dominant

conflict style, in which one person would like to “win” the conflict at all costs, also is perceived negatively in conflict interactions (Gross & Guerrero, 2000). Avoidance as a conflict tactic can be characterized as being either positively- or negatively-valenced depending on the motivation a person has for their actions (i.e., loyalty versus neglect; Rusbult et al., 1982).

Similar to the model outlined by Canary (2003), relational turbulence theory identifies two dimensions as communication in high stakes episodes: communication engagement and communication valence (Solomon et al., 2016). Communication engagement includes both a person’s decision to discuss or avoid discussion of an issue, as well as the directness or indirectness of communication once an episode has been initiated. Communication valence refers to the overall tone within a conversation as positive or negative. In contrast to the cooperation-competition dimension posited by Canary (2003), valence is not defined by the specific enacted behaviors in the conflict episode, but rather the perception that the overall interaction was constructive or destructive. In asking participants about their experience of their previous conflict episode, it may be less reliable to inquire about their actual enacted behaviors. Rather, reflecting on how they perceived the interaction as a whole might be more effective at capturing this dimension of conflict communication.

The adoption of this two-dimensional framework allows for a more parsimonious conceptualization of communication in conflict interaction. Moreover, these dimensions not only underlie communication in conflict, but are also present across communication research broadly. Thus, this conceptualization has heuristic value for future work that compares conflict experiences to other types of communication episodes. Whereas an explication of conflict communication focuses on a central behavioral component of serial arguments, ample research suggests that cognitive appraisals of conflict are fundamental to their experiences, management,

and consequences in close relationships (e.g., Spitzberg et al., 1994). In the next section, I draw from research on prototypes and cognitive schemas to help determine what seriality is and how an argument might be perceived as serial.

### **Seriality of Serial Arguments**

Serial arguments have traditionally referred to when, “individuals argue or engage in conflict about the same topic over time, during which they participate in several (at least two) arguments about the topic” (Johnson & Roloff, 1998; p. 333). This definition is often what is presented to research participants to aid in them selecting an argument that meets the study requirements (e.g., Worley & Samp, 2016). Seriality is, therefore, defined by the irresolvability of a particular issue in a relationship (Johnson & Roloff, 2000a). Although a serial argument might refer to a series of episodes about the same topic, this definition does not allow for alternative possibilities. In this section, I elaborate on research regarding prototypes and cognitive schemas to make a case for a somewhat different definition of serial arguments.

A substantial body of research in the field of linguistics has found support for the idea that humans notice patterns in the world around them and, in turn, develop mental categories in which they situate language into groupings of similar or like terms (e.g. Rosch, 1973; Rosch et al., 1976). Each category is comprised of “core examples,” or those words which most exemplify the identity of that category, as well as other terms which exemplify that category to a lesser extent (Rosch, 1973). These examples can be organized by the extent to which they exemplify the category, which Rosch et al. (1976) refer to as the level of abstraction. The more concrete the example, the lower its level of abstraction is, and the more readily it is identified as belonging to that category. The perfect exemplification of a category, or that object that becomes perceptually salient upon referring to a category, is labelled a prototype (Gabora et al., 2008; Rosch, 1973).



Categories can be formed into vertical hierarchies, or graded structures, in which the categories can be structured according to abstraction level, or the extent to which something is a better or worse exemplar of an overarching concept (Gabora et al., 2008). Hierarchies are composed of superordinate constructs, or more abstract instances of a category, at the highest level of abstraction. A basic level object is a more useful instantiation of an object, but still relatively abstract. A more distinguished category of objects would be at the subordinate level, in that they are more tangible, concrete examples of an object. People tend to reach for the most concrete example of an object, which is perceived as more useful, before reaching for a more abstract instance of that object when both are available to them (Rosch, 1973).

Stemming from Rosch's work on prototypes and mental schemas, researchers tried to explain how we categorize human behaviors and how those behaviors influence cognitions. Fehr (1988, 1993, 1994) attempted to categorize and structure emotion related concepts into a nomological network to understand how people distinguish between different emotions (i.e., committed, passionate, and infatuation as words associated with romantic love). She also conducted studies seeking to understand how individuals categorize nonverbal facial expressions into emotional categories, merging research on prototypes and nonverbal communication.

Evidence has also been found for the notion that we cognitively create relational schema (Andersen, 1993). Relational schema are mental categories that encompass appropriate behavior in light of a relational label (Planalp, 1985). Knapp, Ellis, and Williams (1990) explained that when we label a relationship as being a friendship rather than another type of relationship, it provides us with expectations for how we ought to, or ought not to, behave. As we interact with people over time, we begin to develop expectations for how our partner will behave in future interactions given their past interactions (Planalp, 1985). In essence, our expectations for

behavior are coded by the labels we give to our relationships with the person we are communicating with (Hinde, 1997). Similarly, we enact behaviors in interactions according to the expectations of our relationships, through which we perform our relationships in our communication (Duck, 1994; Goldsmith & Baxter, 1996)

In considering these bodies of research, it is possible that seriality should not be defined simply by the topics of each conflict. Rather, a serial argument might refer to a series of episodes are cognitively connected, rather than topically connected. For example, a person may start an argument about their partner leaving their shoes in the middle of the floor one day, then another argument several days later about leaving the gas tank near empty, and a subsequent argument about being unwilling to spend quality time together a few days after that. On the face, these are topically distinct arguments, however, a person may connect these episodes together as stemming from a perceived lack of respect from their partner. Thus, one aim of this dissertation is to better understand how people categorize their conflict episodes as belonging to one larger serial argument process. In the next section, I focus on the role of perceived resolvability, which is an attribution of central importance to serial conflicts.

### **The Perceived Resolvability of Serial Arguments**

Perceived resolvability is the extent to which an individual feels they can make progress toward conflict resolution (Johnson & Roloff, 1998). This construct has clearly emerged as integral to serial argument experiences; however, prior theorizing and research has offered somewhat conflicting accounts of this construct. One perspective suggests that individuals consider the resolvability of a conflict as a motivating factor for engaging in an argument (Bevan et al., 2008; Johnson & Roloff, 1998). Perceived resolvability has also been described as an outcome of serial arguing (Hample & Cionea, 2012; Johnson & Roloff, 1998; Trapp & Hoff,

1985), such that people's argument episodes influence their projections about the future potential for resolving conflicts (Carr et al., 2012). Finally, perceived resolvability has been theorized to moderate the relationships among argument goals, conflict tactics, and relational outcomes (Carr et al., 2012). As a whole, this body of work invites further inquiry into the role of perceived resolvability in serial arguments and further explication of the construct itself.

One reason that the role of perceived resolvability might be ambiguous is the lack of diversity in samples utilized in the research on serial arguments. Most research in this area utilizes a college student sample, which predominantly consists of people in young dating relationships. Moreover, scholars often include individuals who broke up with their romantic partner. In these cases, it is possible that the inability to resolve the conflict was a contributing factor to the dissolution of the relationship, inflating the influence of perceived resolvability in the experience of a serial argument. In studies that have samples of community members or Mechanical Turkers, researchers tend to refer to the relationship type broadly as romantic in nature without statistically accounting for differences in relationship stage. Thus, the discipline's empirical understanding of the role of perceived resolvability in serial arguments is limited to predominantly college-aged dating relationships.

Scholars have theorized about the role of conflict frequency in serial arguments, positing that the more a couple argues about an issue, the less they will perceive their conflict to be resolvable (Johnson & Roloff, 1998). Some studies have examined the role of conflict tactics in serial arguments and have found that the manner in which the issue is discussed has a significant impact on people's perception that their argument is resolvable (Bevan et al., 2008; Bevan et al., 2007; Johnson & Roloff, 1998). Some research has emphasized the role of goal orientation in serial arguments and, in particular, the role of the goals that are unique to serial arguments

(Bevan et al., 2004; Bevan et al., 2008). This line of research asserts that the more positively oriented a person's conflict goals are, the more they perceive their argument will be resolved, and alternatively, the more negatively oriented their conflict goals are, the less likely they are to perceive their conflict is resolvable. A small body of research has examined how goal changes over the course of a serial argument episode influence perceived resolvability (Worley & Samp, 2016), and found a curvilinear association between self and relationship goal variability and the perception that an argument is progressing toward resolution.

In total, this body of research illustrates that multiple features of conflict communication impact, and are influenced by, the perceived resolvability of a serial argument. An important limitation in past research, however, is reliance on samples of participants in college-aged dating relationships. As a result, conclusions about the role of perceived resolvability in serial arguments are fairly limited to that moment in the lifespan. To address this limitation, this dissertation explores the role of perceived resolvability during serial conflict for people of different ages in relationships at different stages of development.

### **Antecedents and Outcomes of Conflict Communication and Serial Arguments**

Several parameters that affect and/or are affected by communication in conflict are central to research on serial arguments and, accordingly, are the focus of this dissertation. The first phenomenon of interest is rumination, which refers to repeated intrusive thoughts about a past issue or event (Gold & Wegner, 1995). A second factor of importance is stress, because several studies have found that engaging in an ongoing serial conflict corresponds with physiological well-being (see Malis & Roloff, 2006). A final construct of interest is relationship quality, which refers to the perceived healthiness of a person's romantic relationship (Norton,

1983). The following paragraphs address each of these as they have been studied in research on serial conflicts.

Serial arguments are linked to a couple's relational well-being. The inability to resolve an issue that is present in the relationship can be difficult to cope with, leading to dissatisfaction with the state of the relationship (Johnson & Roloff, 1998). Studies have shown that conflict avoidance has a much smaller correlation with relational dissatisfaction than does unresolved or poorly resolved conflict (Cramer, 2002). When partners have a serial argument, at least one partner is dissatisfied with the outcome of previous episodes stemming from a particular issue, which compels them to want to revisit the issue. This dissatisfaction with the resolution is, therefore, potentially harming the perceived state of the relationship for that partner and, in turn, compelling further conflict. In essence, the inability to resolve an issue, particularly a severe issue, may have impact the influence of relationship quality on conflict processes.

In addition to relationship quality, rumination is also a commonly studied phenomenon in conflict research because it both perpetuates ongoing arguments (Johnson & Roloff, 1998) and has been shown to increase the perceived severity of an issue (Cloven & Roloff, 1991). This increase in perceived severity leads to a greater sense of urgency to resolve a conflict (Carr et al., 2012), as well as a greater likelihood of utilizing negative conflict tactics within an episode (Cloven & Roloff, 1991). In serial argument research, rumination after an episode has been predicted by the tactics utilized in the previous episode (Bevan et al., 2008). Thus, rumination is an important factor in conflicts that recur over time without resolution.

Physiological and psychological stress are also widely studied correlates of conflict. In general, conflict in romantic relationships has been linked to increased cortisol recovery times (Aloia & Solomon, 2015; Gunlicks-Stoessel & Powers, 2009), decreased immunological

responses (Kiecolt-Glaser et al., 1993), and increased blood pressure (Kiecolt-Glaser et al., 1993). Subjective perceptions of stress have also been linked to experiences during conflict episodes, such as perceived hyperarousal (e.g. Malis & Roloff, 2006), anxiety (e.g. Merrill & Afifi, 2017), and distress (Baucom et al., 2018). Experiences of stress are an unavoidable part of conflict, in general, and they may be particularly exacerbated by serial conflict.

Taken together, these three phenomena are integral to understanding the scope of influence serial arguments have on a person and their relationship. First, relationship quality impacts perceptions of conflicts such that people in better quality relationships may perceive their conflicts as more resolvable. Next, rumination is an antecedent of conflict, such that when people experience repeated, intrusive thoughts about the issue, they will also perceive their conflict to be less resolvable. Finally, experiences of stress external to the relationship may compound negative experiences in conflict such that increases in stress will correspond with perceptions that an argument is less resolvable. In total, then, this dissertation examines over time changes in rumination, stress, and relationship quality as they relate to serial argument processes.

### **Overview of the Current Project**

The goal of this dissertation is to understand the antecedents and consequences of communication about conflicts, and how those associations change as a function of perceived resolvability and lifespan indices within and between serial argument episodes. More specifically, I examine how communication about conflicts related to relationship quality, rumination, and stress both within and between episodes in an individual's pursuit to resolve their perceived recurrent argument. As described previously, I focus on the two communication dimensions of engagement and valence during these episodes. I also examine the role of

perceived resolvability and lifespan indices in the perpetuation of these arguments and in understanding how these conflict episodes are connected. Further, I aim to understand how perceived resolvability contributes to rumination, psychological stress, and relational well-being in of the context of an ongoing serial argument.

In the next chapter, I review prior research on conflict differences in dating and married couples across the lifespan. In particular, this chapter examines the influence of both relational and individual development on how individuals experience their serial arguments. In chapter three, I review the research on serial arguments and discuss developmental changes in these processes. Based on this analysis, I propose the hypotheses that guide this dissertation. In chapter four, I provide the methods for a study designed to examine both developmental processes in serial arguments. Chapter five presents the results of my analyses. I conclude this project by discussing the results of my study and its implications for the study of serial arguments and conflict communication.

## Chapter 2

As a romantic relationship progresses, both in terms of the length of the relationship and relationship stage, it is possible that the function of conflict changes. Unfortunately, research that examines conflict does not fully acknowledge this change (Canary et al., 1995), such that conflict is often treated as a type of communication behavior primarily influenced by individual differences. Consequentially, research tends to utilize relatively homogenous samples that fail to capture differences as a function of relationship development. Most research on conflict, and communication more broadly, focuses on one timepoint in the lifespan (Noller & Feeney, 1998), which limits the extent to which changes in conflict behaviors are captured in the data. Moreover, researchers tend to focus on traditional definitions of lifespan moments, such that there is a large corpus of research on college-aged dating relationships, and fewer studies examining dating relationships later in life. When researchers craft rationales for their studies, often they cross-pollinate research from different points in the lifespan, which may be particularly problematic if conflict and partner expectations for conflict change as people age and progress in their relationships.

In this chapter, I review the state of research on conflict in dating relationships and marital relationships across the lifespan. In doing so, I emphasize studies that intentionally address a particular lifespan moment or change across lifespan moments in my review. Finally, I elaborate on how understanding and acknowledging these differences allows for more robust research on interpersonal conflict.

### **Conflict in Dating Relationships**

There are two primary time periods of interest evident in research on conflict in dating relationships: conflict between adolescent dating partners and conflict in emerging adult



relationships. Very little research has been dedicated to understanding conflict in dating relationships later in life, even though scholars note that dating relationships occur during later life stages (Brown & Shinohara, 2013), and that interpersonal phenomena vary as a function of age (Sillars & Zietlow, 1993). In this section, the literature on conflict in adolescent, emerging adult, and older adult dating relationships is overviewed.

### **Conflict in Adolescent Dating Relationships**

Adolescence has traditionally been defined by three main periods: early adolescence (ages 10-13), middle adolescence (ages 14-17), and late adolescence (ages 18-21) (Smetana et al., 2006). Middle adolescence marks a time period in which young people enter high school and begin to encounter developmental milestones, such as their first romantic relationship, with nearly 70% of 17-year olds reporting having been in at least one romantic relationship (Carver et al., 2003). Through these experiences, adolescents begin to set their expectations for what these relationships ought to be like, in that they develop their own roles as practice for more mature relationships (Sarantakos, 1992), and determine what is socially appropriate or expected. As adolescents progress through high school, they report romantic relationships as a more interdependent relationship than the relationship they have with their parents (Laursen & Williams, 1997). Thus, these relationships have dramatic implications for future relationships that people will encounter in adulthood.

Conflict in adolescence reflects a growing imperative to find oneself as an autonomous being beyond the scope of one's parents (Collins & Steinberg, 2008; Laursen & Williams, 1997). Disagreements that result in conflict occur more in adolescent's romantic relationships than in their friendships (Furman & Shomaker, 2008). Typical topics of conflict often involve a negotiation about time dedication to the relationship, commitment, and jealousy (Noller et al.,

2001). Although these relationships may mirror those of adult relationships in what features of conflict behaviors are relevant, teenagers struggle to communicate effectively because of an inability to regulate their emotions and insufficiently developed interpersonal skills (Bonache et al., 2017). Thus, many features of conflict look different in adolescent relationships, compared to adult counterparts.

Methods adolescents use for resolving conflict are different in their romantic relationships than in their relationships with their parents and their non-romantic peers. Adolescents report resolving conflicts with their romantic partners using negotiation (cooperative strategies) most often, followed by coercion (submission), and least often with disengagement (withdrawal) (Laursen et al., 2001). The use of more positive conflict strategies tends to increase with age (Hokoda et al., 2012; Laursen et al., 2001), such that as youths enter college, they report greater amounts of perspective taking than those still in high school (Courtain & Glowacz, 2018). In addition, adolescents report avoiding expressions of anger and the use of coercive strategies to minimize perceptions that there was a winner and a loser in the fight (Laursen & Koplas, 1995). In one study, adolescents reported that conflict with their romantic partner made the situation better just as often as it had no effect on the relationship (Laursen, 1993); therefore, conflict tended to have extremely high benefits with very few costs (Laursen, 1996).

In adolescent relationships in which dating violence is present, the use of negative conflict strategies is present to a greater extent. Compared to non-violent dating partners, violent dating partners report higher engagement (self-defense) and withdrawal (remaining silent) during conflict (Bonache et al., 2016). Anxiously attached adolescents are more likely to engage in both psychological and physical violence as a means of conflict resolution than are adolescents of other attachment orientations (Bonache et al., 2017). Researchers stress the need for promoting

constructive communication behaviors during conflict for adolescents in order to reduce instances of dating violence (Bonache et al., 2017).

### **Conflicts in Emerging Adult Dating Relationships**

The term *emerging adulthood* refers to the period of development that typically spans the ages of 18-25 (Arnett, 2000). This phase usually encompasses the transition to college, whereby a person is not yet wholly independent from their parents but is living on their own. This term was coined in response to a shift in expectations for this span of ages, in which individuals are no longer expected to get married and have children in their early twenties. Rather, these activities have shifted to, on average, people's mid to late twenties. Thus, this time period is distinct from other lifespan moments for researchers in that it is difficult to predict what an average 18-25-year-old person is doing with their life based on age alone (Arnett, 2000).

Chen et al. (2006) conducted a study to see if there were distinct predictors of conflict during emerging adulthood. They found that during this time period, young adults reported experiencing an increase in conflict with romantic partners, up until the age of 25, after which they report a decline. In addition, they found that women report experiencing conflict to a greater extent than men do during this time period. Several familial predictors emerged, such that a history of parental divorce, personal divorce, being an only child, or having biological children negatively influenced the frequency of conflict in emerging adulthood. A reduction in partner conflict was reported in young adults from higher socioeconomic backgrounds. Finally, there was a distinction between cohabiters and non-cohabiters, as well as married and unmarried, participants in the extent to which intimacy and commitment affected conflict, such that higher levels of partner conflict were reported at higher levels of intimacy and commitment.

Chen et al.'s (2006) conclusion that familial predictors play a significant role in reported conflict for emerging adults resonates with other research findings. Crockett and Randall (2006) found that emerging adults' relationship with their parents in adolescence influenced the quality of their young adult romantic relationships, while their adolescent peer relationships did not. They found that better quality family relationships were associated with less discord in an emerging adult's romantic relationship. Furthermore, behaviors utilized in family conflicts during adolescence were significant predictors of conflict tactic usage in young adult romantic relationships (Crockett & Randall, 2006; Kogan et al., 2013). In particular, the family background of young adult males has a greater impact on their partners perceptions of their use of negative conflict behaviors in their romantic relationships than does the family background of young adult females (Maleck & Papp, 2013).

### **Conflict in Older Adult Dating Relationships**

Research on older adult dating relationships is relatively limited, despite this being an important population to study. According to research by Brown and Shinohara (2013), approximately 14% of unmarried adults ages 57-85 were in dating relationships. Decisions to date later in life may lead to greater experiences of conflict with adult children (Carr & Boerner, 2013). Other research suggests that previous marital experiences influence decisions to date in widowhood differently for men and women (Carr, 2004). Specifically, as older women's experience of conflict in a previous marriage increased, their desire to date also increased (Carr, 2004). Although this research examined the influence of conflict on post-marital outcomes, to my knowledge, there is no research that explicitly examines conflict dynamics in older adult dating relationships.

Some studies have suggested that as individuals age, they experience fewer irritations, fewer demands, and less criticism from their relational partners (Birditt, Fingerman, & Almeida, 2005). This, however, is not true of romantic partners in older adulthood. Whereas negative interactions with parents, children, and friends are less likely to occur as people get older, there is no change in the frequency of reported negative interactions with a romantic partner (Akiyama et al., 2003; Birditt et al., 2005). Although this work may have some bearing on dating relationships in older adulthood, those implications are limited because studies are unclear about the relationship status (i.e. dating vs. married) of the romantic relationships examined.

As this review illustrates, conflict behaviors and perceptions change in dating relationships as people age. In adolescent dating relationships, conflict with a romantic partner is new and difficult to traverse. The inability to regulate emotions at this stage leads to an increase in destructive communication behaviors (Laursen et al., 2001). As people get older, they tend to utilize more positive strategies, such as perspective taking, during conflict with their dating partner (Courtain & Glawacz, 2018). At older ages, conflict behaviors from previous romantic relationships influence expectations for current relationships (Carr, 2004). Although conflict differs in dating relationships across the lifespan, this is often unaccounted for in research on this subject.

### **Conflict in Marriage**

Considerable attention has been dedicated to studying conflict in the early years of marriage. Research on conflict during this time period has largely been focused on predicting early divorce outcomes from communication during interaction (i.e. Carrère & Gottman, 1999). Other research in this area has focused on premarital predictors of behavior and relationship outcomes during early stages of marriage. Some research has emphasized the role of conflict

during specific turning points in the lifespan of a marriage, such as the introduction of children (Newkirk et al., 2017; Rholes et al., 2014), transitioning to an empty nest (i.e. King & Theiss, 2016), and the transition to retirement for one or both partners (Dew & Yorgason, 2010; Szinovacz & Schaffer, 2000). The following section overviews each of these lines of research.

### **Influences on Conflict in Early Marriage**

Scholars have sought to understand how certain behaviors pre-marriage might influence conflict after marriage. For example, there is some evidence to support the idea that receiving premarital counseling is associated with a reduction in marital conflict (Stanley et al., 2006). Alternatively, premarital cohabitation is similarly predictive of an increase in marital conflict (Stanley et al., 2006). Some research also finds evidence of intergenerational transmission, such that parental conflict exposure in childhood will influence the quality of children's future marital relationships; in particular, future marriages for children exposed to parental conflict are at risk for increased conflict and instability (Amato & Booth, 2001).

Some scholars have examined how communication pre-marriage influences communication and relational outcomes in marriage. Couples who engaged in conflict interactions that are rated as more positive pre-marriage were significantly more satisfied 5½ years into marriage (Markman, 1981). Negative conflict behaviors, such as coercion and threatening behaviors, tend to predict extreme dissatisfaction, particularly for wives, in the short term (Noller et al., 1994), but other negative behaviors, such as defensiveness and withdrawal, maybe related to longer-term satisfaction (Gottman & Krokoff, 1989). In addition, the intensity of conflicts pre-marriage may have no long-term impact on satisfaction several years into marriage (Markman, 1981). Disengagement behaviors or avoiding conflict pre-marriage was a strong predictor of dissatisfaction for both partners 1-year post-marriage, and for husbands 2

years post-marriage (Noller et al., 1994). Although conflicts may have deleterious effects if they are handled poorly, conflict in marriage serves a functional purpose, and avoiding conflict may have even worse effects over time (Gottman & Krokoff, 1989).

A significant research trajectory has attempted to understand how premarital cohabitation influences marital dynamics. Initial research found support for the idea that premarital cohabitation is predictive of divorce (i.e., Stanley et al., 2006). This effect of premarital cohabitation can likely be mitigated by premarital counseling (Rhoades et al., 2015). It is possible that the finding of deleterious effects of premarital cohabitation is largely a function of deviance, such that when most of this research was conducted, cohabitation was not normative. Thus, these effects may be less dramatic now that cohabitation prior to marriage is more commonplace (Reymann, 2016).

Negative interaction has a more substantial influence on relationship health than positive interaction, particularly for men in heterosexual marriage (Stanley et al., 2002). The more negative interactions are perceived to be, the greater a couple will rate their potential to divorce (Stanley et al., 2002). In particular, the reported use of withdrawal during conflict by either partner tends to result in perceiving interactions as more negative, as well as lower in satisfaction (Stanley et al., 2002). This experience of negative interaction primes future interactions such that when partners engage in negative communication behaviors, like emotional invalidation, prior to marriage and in early marriage, they are more likely to continue experiencing that in marriage, and are more likely to divorce (Clements et al., 2004).

Some research has examined the role of stress in marriage. Research has shown the extent to which external stress impacts communication during conflict in marriage is mediated by perceptions of stress internal to the relationship (Ledermann et al., 2010). As stress external to

a relationship increases, and spills over into the relationship, perceptions of new marital problems increase (Neff & Karney, 2004), and satisfaction with their relationship decreases (Neff & Karney, 2007). With the rise in new perceived marital problems, some couples will be able to effectively manage stress, while others will not. For couples with poor conflict resolution behaviors, wives' experiences of stress external to the relationship significantly impacts husbands' marital satisfaction (Neff & Karney, 2007). In one study, couples who experienced a higher hormonal stress response during conflict in their first year of marriage were more likely to be divorced 10 years later than those whose hormonal response was lower (Kiecolt-Glaser et al., 2003).

Over the course of an interaction, the rate at which negative affect is expressed offers insight into divorce likelihood. Within the first three minutes of an interaction, for both men and women, communication in stable relationships is exemplified by the use of more positive affect than negative affect (Carrere & Gottman, 1999). Over the course of the remainder of the interaction, husbands who wind up getting divorced will become more negative and dramatically less positive more quickly than will husbands who stay married (Carrere & Gottman, 1999).

### **Conflicts associated with Transitions over the Marital Lifespan**

One of the most transformative marital experiences for couples can be the transition to parenthood. For those who have children, there is a need for partners to redefine their relational and familial roles (Endendijk et al., 2018). This transition tends to incite an increase in conflict encounters that is not present in childless marriages (Cowan et al., 1985). In particular, partners may start to resent one another and feel a sense of injustice about household responsibilities and perceived inequalities (Belsky, 1985). At the same time, this transition is marked by an inability to spend quality time together, a decrease in intimacy, and potentially an increase in workload



outside of the home (Kluwer, 2010). With an increase in conflict, and an inability to spend quality or intimate time together, couples may experience significant tension and dissatisfaction in their relationships.

While children are a significant source of tension and conflict in marital relationships, they also redefine the relationship. They tend to cause a re-evaluation of roles in the home and become a central part of the family experience and a source of bonding within the marital dyad. Therefore, when the children leave the home, there can be significant strain placed on the relationship. Indeed, the transition to an empty nest is a time period marked by increased uncertainty and interference from a partner (King & Theiss, 2016). As uncertainty increases during this transition, individuals tend to avoid conflict more. When conflict does happen, individuals will increase indirectness, withdrawal, and criticism (King & Theiss, 2016). Thus, the home becoming an empty nest changes the way conflict is approached and engaged in within the marital dyad.

Another transition that occurs for some relationships is the decision to marry again. In second marriages, partners are significantly more likely to report avoidant conflict behaviors and withholding complaints than are individuals in their first marriage (Mirecki et al., 2013). In addition, the most significant conflict for those in subsequent marriages tends to revolve around children, in contrast to those in their first marriage who indicate their most significant conflict tends to be about money, followed by children.

### **Conflicts in Later-stage Marriages**

Research on conflict in marriages later in life is relatively limited compared to research on younger marriages, however, studies that do examine conflict outside of a younger adult context tend to compare middle adulthood to older adulthood (i.e. Smith, Uchino et al., 2009).

Still, research during this time period is relatively limited to specific questions of interest, primarily around health and conflict. Middle adulthood, which has been characterized as a relatively stable time in a marriage (Sillars & Wilmot, 1989), is an understudied time in the lifespan. This section overviews the research on marriages later in life.

Distinctions between middle aged and older adults has been a significant source of scholarly insight in understanding the interplay of conflict and relationship quality. Scholars note that marital satisfaction tends to be higher in older adult relationships than their middle adult counter parts (Smith, Berg et al., 2009). Middle-aged couples tend to express more emotions in their conflicts than their older adult counterparts (Carstensen et al., 1995). Older adults tend to limit their experiences of negative affect and tend to attenuate any negative expression through the use of more affectionate communication (Carstensen et al., 1995). In support of this, research has found that older adults tend to report less anger during conflict than did middle aged adults (Smith, Berg, et al., 2009). For couples who scored higher on connectedness in middle marriage, they reported more warmth and less depression 25 years later compared to those who started to individuate during this time period (Bell & Harsin, 2018). Successful long-term marriages are not conflict free, but rather, they have learned to determine which conflicts are worth pursuing and which are not prior to engagement to avoid unnecessary emotional escalation (Carstensen et al., 1995).

Older adult marriages are also characterized by a decline in health. Whereas some research has examined the impact of relationship quality on health, few studies have examined how health concerns impact the quality of one's relationship. Husbands' reports of their own positivity and physical health in older age were predictive of wives' perceptions of marital quality (Iveniuk et al., 2014). In addition, perceptions of a partner's health in older adult

marriages were associated with increased conflict perceptions for wives (Iveniuk et al., 2014). In older adulthood, one's own mental health issues were associated with an increase in conflict, but perceptions of their partner's mental health status were not associated with changes in conflict engagement (Iveniuk et al., 2014).

In sum, this section illustrates that conflict in marriage changes as people age and their relationships mature. In addition, the inability to adequately address and resolve conflict becomes riskier in marriage because of the need to divvy up physical resources and traverse emotional hurdles stemming from divorce. In early marriage, the introduction of children opens the door for new conflict experiences to emerge. Having children forces partners to challenge their relationship roles that may have been comfortable for them when it was just a partnership. In midlife, children create increased exposure to familial conflict outside of the marital dyad, which can be particularly difficult to traverse. For couples whose children become central to their identity, transitioning to an empty-nest also spurs the need for role re-evaluation. Moments of role re-evaluation can be particularly conflict inducing and may be differently difficult. Furthermore, married partners later in life tend to express less negativity, and experience greater role stabilization; however, the introduction of declining health creates the conditions for conflict to be less productive and more draining.

### **Conclusion**

Overall, this review stresses the importance of carefully theorizing about lifespan differences when conducting research, specifically on interpersonal processes such as conflict. Within dating relationships and marriages, conflict changes as people age and as the relationship reaches particular milestones. Having a thorough understanding of conflict across the lifespan is necessary to more effective theorizing about this process. In particular, this dissertation addresses

a gap in research on conflict by examining how conflict processes unfold within an understudied population, particularly older adults in committed dating relationships, and comparing those experiences to relationships at different stages for people of different ages. Thus, I hope to underscore the need for inquiry into serial arguments in non-convenience samples by illustrating distinctions in this process over the lifespan.

## Chapter 3

Thus far, chapter one introduced dimensions of conflict communication, including communication engagement and valence, established the role of perceived resolvability as a condition that frames experiences of serial arguments, and reviewed relationship quality, rumination, and stress and factors that affect and are affected by serial argument experiences.. Chapter two detailed previous research on differences in conflict across the relational lifespan, underscoring the need to investigate these differences in future research. In this chapter, I discuss the interplay of communication and relationship quality, rumination, and stress in the context of serial arguments, I elaborate on specific factors that are associated with communication during serial conflict episodes, and I deduce specific hypotheses regarding these relationships.

### **Cycles of Communication in Serial Arguments**

The initial serial argument process model was posited by Trapp and Hoff (1985) after they interviewed dyads in close relationships about the relational implications of conflicts they experienced. Participants in their study indicated that they had a tendency to cognitively connect conflict episodes over time, creating a more prolonged conflict experience. This model defines four main phases of a serial argument episode: antecedent conditions, primary processes, secondary processes, and consequent conditions. As a whole, this model provides a foundation for explaining how and why serial conflict occurs and is perpetuated in close relationships.

The first stage of the model is termed the antecedent condition. In this stage, an individual in the relationship perceives some incompatibility with their partner (Trapp & Hoff, 1985). This incompatibility might stem from a small difference of opinion, or from something more significant such as a violation of one's fundamental understanding of the expectations or rules that guide the relationship (Trapp & Hoff, 1985). In addition, this stage does not delineate

the length of time that exists between discovering an incompatibility and deciding to confront a partner about the issue (Johnson & Roloff, 1998; Trapp & Hoff, 1985). This allows for the possibility that an individual may process this incompatibility for a while before deciding to discuss it with their partner.

The second phase, primary processes, includes both the decision to confront the other person about the incompatibility and the initial argument itself. In deciding to confront a partner, a person weighs the pros and cons of engaging in the argument to determine whether conflict engagement or avoidance includes less risk. Trapp and Hoff (1985) explained that both the decision to engage in conflict and the decision to avoid discussion are potentially risky. Conflict interactions may threaten the continuation of the relationship or the current state of the relationship. Avoiding the issue presents a challenge to resolving the problem and people will continue to experience bothersome or unacceptable conduct until they communicate that there is a problem. Once a decision has been made to engage in communication about the issue, partners begin a process of expressing disagreement and reason-giving. Reason-giving can either be effective or ineffective, with the most effective reason-giving resulting in resolution of the argument. To the extent that this process is ineffective, partners move into the next phase of the model.

Secondary processes refer to the subsequent series of conflict episodes that arise from ineffective reason-giving and argumentation during the initial episode (Trapp & Hoff, 1985). These episodes are depicted as a cyclical process of heating up and simmering down in which the partners engage in conflict and then cool off in between episodes. Arguments heat up when reason-giving moves from “ideational disagreement to highly personal disagreement” (p. 7) where partners stop discussing the issue and instead attack their partner and their character,

During the cooling off period, individuals might ruminate about the conflict, which then leads to the next heated episode (Bevan et al., 2008; Johnson & Roloff, 1998; Trapp & Hoff, 1985).

Finally, the argument concludes, and consequent conditions follow. The argument either ends because a partner decided to avoid the issue altogether, or because the argument resulted in some resolution occurring. Trapp and Hoff (1985) outlined three potential resolutions types: capitulation, compromise, and consensus. Capitulation refers to a type of resolution wherein one partner gives in to the wishes of their partner. Compromise refers to a type of resolution wherein the suggestions of both partners are combined to form a hybrid resolution, with each partner giving up something they wanted, but also getting something they wanted. Consensus refers to a resolution that both partners completely agree to. After coming to a resolution, partners' commitment to upholding that resolution decides whether or not the argument may continue in the future.

### **Factors that Correspond with Conflict Communication**

Trapp and Hoff's (1985) model identifies several factors that influence communication in conflict, and in particular, serial conflict. First, a person's perception regarding the quality of their romantic relationship influences communication processes prior to and within a conflict episode. Second, the extent to which a person ruminates about an issue influences decision to engage in conflict and communication within that episode. Third, the perception that an argument is resolvable influences the relationships between relationship quality, rumination, and communication during conflict. Finally, both a person's and a relationship's maturity will influence the extent to which perceived resolvability has an influence on these processes. The following sections outline each of these factors, review how they are discussed in the original serial argument model, and summarize empirical work illuminating these relationships.

## **Relationship quality**

Relationship quality refers to the “general goodness” of a relationship (Norton, 1983; p. 143). A good relationship is one that can be defined as strong, stable, happy, and satisfying, and in which partners feel like a team (Norton, 1983). People in good quality relationships generally hold positive attitudes toward their partner, and they report engaging in low levels of hostile and negative communication with one another (Bradbury et al., 2000). In sum, relationship quality is a global perception of a person’s relationship as being in good health or not.

According to the serial argument process model (Trapp & Hoff, 1985), relationship quality is both an antecedent and a consequent condition to an argument episode. The quality of a person’s relationship influences the decision to approach a partner about an issue. The logic of this model posits that people in high quality relationships feel more comfortable discussing a perceived incompatibility with their partner, whereas people in a poor-quality relationship are more likely to perceive engagement in conflict as too risky. People’s perceptions of relationship quality also influence their communication within a conflict episode, such that people in poor quality relationships are less likely to engage in productive reason-giving within an interaction. Consequently, the manner in which individuals communicate in a conflict episode influences their subsequent perceptions of relationship quality. In addition, the manner in which an episode resolves or simply ends has an impact on perceptions of relationship quality, such that when an episode is unsatisfactorily resolved there are deleterious effects on the quality of the relationship.

The empirical literature supports these proposed relationships within Trapp and Hoff’s (1985) model. Dissatisfaction in a romantic relationship is a strong predictor of conflict avoidance (Afifi et al., 2009), meaning that the more dissatisfied a person is in their romantic relationship, the less likely they are to engage in potentially conflict inducing discussions with



their partner. In addition, when a relationship is of poor quality, partners are more likely to resort to using distributive conflict tactics (Noller et al., 1994), and engage in mutual hostility within an argument (Gottman et al., 1977) than are couples in higher quality relationships. These communication behaviors within an episode also have implications for perceptions of relationship quality after the interaction. Increased perceptions of hostility in a serial argument episode are predictive of experiencing relational harm (Johnson & Roloff, 2000a). In addition, integrative conflict tactics within a given episode are predictive of subsequent relationship satisfaction (Bevan et al., 2008).

Relationship quality is an integral part of the serial argument process. It influences decisions to engage in communication about an issue, as well as communication valence within a conflict episode. In addition, the manner in which an episode unfolds impacts subsequent relationship quality, which in turn, shapes future episodes within a serial conflict. My first two hypotheses reflect the association between relationship quality and communication engagement and communication valence; the second pair of hypotheses specify the anticipated association between these variables over time:

H1: Communication engagement is positively associated with relationship quality, such that when individuals engage in conflict, they perceive their relationship to be of higher quality.

H2: Communication valence is positively related to relationship quality, such that when communication about an issue is perceived to be more positively-valenced, relationship quality is perceived to be greater.

H3: Communication engagement and relationship quality have a positive reciprocal influence over time, such that, (a) as individuals engage in communication about issues,

relationship quality is perceived more positively, and (b) as relationship quality is perceived more positively, individuals will engage in communication about issues.

H4: Communication valence and relationship quality have a positive reciprocal influence over time, such that, (a) as individuals engage in more positively-valenced communication about an issue, relationship quality is perceived more positively, and (b) as relationship quality is perceived more positively, individuals will engage in more positively-valenced communication about an issue.

### **Rumination**

Rumination refers to obsessive, intrusive thoughts about an object that occur over time (Gold & Wegner, 1995). Typically, rumination centers around past events, and is associated with a sense of urgency or anxiety (Gold & Wegner, 1995). Because these intrusive thoughts are about past events, mulling allows for people to engage in sense-making about relational problems; however, when ruminating about conflict, this repeated thought may actually serve to worsen the problem rather than make it better (Cloven & Roloff, 1991). When rumination occurs after a conflict, minor problems can be exacerbated to seem more severe (Cloven & Roloff, 1991).

According to Trapp and Hoff's (1985) model, rumination occurs within the secondary processes of heating up and cooling down, and also as a consequence of unsatisfactorily resolving the conflict (Johnson & Roloff, 1998). When an argument becomes unproductive, as determined by moving to poor reason-giving within an episode, partners will separate and end the episode. As they cool down, each person will ruminate on the last episode, which serves as a motivator to begin discussions of the issue again. After the conflict concludes in resolution, partners will individually see the conclusion as being satisfactory or unsatisfactory and will

subsequently be committed or uncommitted to maintaining the resolution. The more unsatisfactory the resolution is perceived to be, the more rumination will occur about the issue, and the more likely a person will be to approach their partner about the issue again.

The empirical literature supports the claim that rumination is a prominent factor in both the secondary processes and consequent conditions of a serial argument. Johnson and Roloff (1998) found that the more people feel they are making progress towards resolving an issue, the less likely they are to ruminate about the issue between episodes. In addition, Cloven and Roloff (1991) found that the use of integrative communication during conflict attenuated the negative influence of mulling on perceptions of conflict seriousness between episodes, whereas the use of distributive communication amplified the influence of mulling. Alternatively, Bevan et al. (2008) observed a positive relationship between both integrative and distributive communication and rumination after conflict. Researchers have also found that rumination is a product of partners having incompatible goals for the interaction (Carr et al., 2014). In particular, when one partner desires a particular outcome and the other desires a different outcome, a resolution that favors one partner's desired outcome over the other might lead to more intense mulling behaviors between episodes.

Rumination is a behavior that assists in the perpetuation of an ongoing conflict. The communication valence of a previous episode has been linked to experiences of rumination prior to a new episode. My first two hypotheses reflect the association between rumination and communication engagement and communication valence; the second pair of hypotheses specify the anticipated association between these variables over time:

H5: Conflict engagement is negatively associated with rumination, such that decisions to engage rather than avoid conflict corresponds with less rumination about the issue.

H6: Communication valence is negatively associated with rumination, such that less positively-valenced communication corresponds with more rumination about the issue.

H7: Rumination is inconsistently associated with communication engagement over time, such that, (a) increased rumination coincides with an increase in communication engagement, and (b) increased communication engagement coincides with less rumination about the issue.

H8: Rumination is negatively associated with communication valence over time, such that (a) increased rumination coincides with less positively-valenced communication and (b) less positively-valenced communication coincides with more rumination about the issue.

## **Stress**

Stress refers to a perceived challenge to a person's physical resources due to an increase in difficult life events or a greater than normal quantity of demands (DeLongis et al., 1988).

Stress has been measured as the body's physiological response to these demands, such as increased heart rate (e.g. Baucom et al., 2018), increased cortisol reactivity (e.g. Aloia & Solomon, 2015), and decreased immunological functioning (Kiecolt-Glaser et al., 1998). Distress refers to the psychological response to stress, which inhibits a person's ability to effectively respond to further stressors (Kessler, 1979). Distress may take the form of anxiety, restlessness, and depression (Kessler et al., 2003).

Although it is not explicit within Trapp and Hoff's (1985) model, stress has typically been considered an outcome of the serial argument process. As people experience repeated, unresolved conflict, and ineffective arguing, more stress is incurred. As people cool down between episodes, experiences of negative emotions and psychological distress occur. The more

unsatisfactory a resolution is perceived to be, the more distress will be perceived, and the more likely a person will be to approach their partner about the issue again in a negative manner.

Researchers examining the stress implications of serial arguments have predominantly emphasized self-reported, psychological measures of stress. For example, serial arguments have been linked to hyperarousal (Malis & Roloff, 2006). The extent to which a person perceives their partner has been hostile during a serial conflict episode positively predicts self-reported hyperarousal after the episode (Liu & Roloff, 2015). In addition, demand/withdraw patterns within serial arguments episodes are predictive of experiencing disruption of daily activities, which is moderated by the self-reported experiences of hyperarousal (Reznik et al., 2015).

Stress has been shown to be a motivator of conflict for romantic partners. In addition, the use of poor conflict strategies has been linked to stress after a conflict has ended. My first two hypotheses reflect the association between stress and communication engagement and communication valence; the second pair of hypotheses specify the anticipated association between these variables over time:

H9: Conflict engagement is positively associated with stress, such that decisions to engage rather than avoid conflict within each episode is associated with increased perceptions of stress.

H10: Communication valence is negatively associated with stress, such that more positively-valenced communication corresponds with lower levels of stress.

H11: Stress is positively associated with communication engagement over time, such that (a) increased stress coincides with an increase in communication engagement, and (b) increased communication engagement coincides with an increase in stress.

H12: Stress is negatively associated with communication valence over time, such that (a) increased stress coincides with less positively-valenced communication and (b) less positively-valenced communication coincides with an increase in stress.

### **Perceived Resolvability**

Perceived resolvability is the extent to which an individual feels they are making progress toward conflict resolution through communicating about the issue (Johnson & Roloff, 1998). Perceived resolvability was identified early in this line of research as distinguishing a nonserial argument from a serial argument (Trapp & Hoff, 1985), and subsequent examinations of this construct have focused variously on the relational implications of perceived resolvability, the association between perceived resolvability and conflict goals, and how perceived resolvability shapes and/or reflects conflict tactics.

Although Trapp and Hoff's (1985) model did not explicitly identify perceived resolvability as a variable of interest, its role in the serial argument process was articulated in early empirical tests of the model (see Johnson & Roloff, 1998). Johnson and Roloff (1998) discussed that the frequency with which a couple engages in conflict about an issue has less of an impact on serial argument outcomes than was originally suggested. Instead, they offer the idea that the perception that this issue may at some point get resolved, or that the conflict is not a fruitless endeavor, has the greatest impact on the argument and subsequent outcomes.

Johnson and Roloff's (1998) study encouraged researchers to further theorize about the role of perceived resolvability in the serial argument process. One perspective suggests that perceived resolvability ought to be considered an antecedent condition, such that it is a motivating factor for engaging in an argument (Bevan et al., 2008; Johnson & Roloff, 1998). Perceived resolvability has also been described as a consequent condition of serial arguing

(Hample & Cionea, 2012; Johnson & Roloff, 1998; Trapp & Hoff, 1985), such that people's argument episodes influence their projections about the future potential for resolving conflicts (Carr et al., 2014). Finally, perceived resolvability has been theorized to moderate the relationships among argument goals, conflict tactics, and relational outcomes (Carr et al., 2014).

As discussed in chapter one, I suggest that perceived resolvability is a relatively stable characteristic of the conflict issue, such that it shapes all processes that occur in a serial argument over time. Prior work claims perceived resolvability is an antecedent and a consequent condition of conflict episodes, however, evidence supports its role on both ends of the episode. Thus, a possibility exists that perceived resolvability may serve a broader role in conflict episodes. In particular, I posit that perceived resolvability is a moderator of each of the serial argument processes I have outlined in the previous sections of this chapter.

H13: As perceived resolvability increases, the relationships between the communication indices (engagement and valence) and antecedent/outcome variables (relationship quality, rumination, and stress) are attenuated.

## **Lifespan**

Lifespan refers to developmental changes in both a person and their relationship. This can be defined by a person's age, how long they have been with their current romantic partner, and the stage of relationship that they are in. Although each of these lifespan variables are correlated, they can be combined in a variety of ways, with distinct implications for experiencing conflict. For example, couples who get married at a young age after a relatively short period of dating are at increased risk for violent conflict behaviors and early divorce (Lehrer, 2008; Rotz, 2016). Alternatively, couples who get married later in life tend to have more stable expectations for their relationship, engage in less negative conflict behaviors (e.g. violence), and subsequently

experience higher quality relationships (Rotz, 2016). Accounting for the influence of each of these factors offers a more complete account of lifespan differences in communication in conflict.

During emerging adulthood, couples may decide to live together or get engaged to be married. Experiencing these transitions with a partner opens the door for particular types of conflict experiences stemming from increased commitment, intimacy, and interdependence. This stage in a relationship is fraught with uncertainty, and rapid transitions which increase the availability of triggers for conflict to emerge. In middle age, adults may have already experienced marriage, or may have children, both of which have been accounted for in the research on second marriages. Although conflict in subsequent marriage is studied sometimes, the process of getting to a subsequent marriage is largely ignored. Dating after having been married or dating as a single-parent offers unique perspectives on conflict in dating relationships. First, maturity potentially changes how one experiences conflict with a dating partner. Second, prior conflict experiences, whether good or bad, lend themselves to experiencing conflict differently with future dating partners. Research on retirement communities and assisted living facilities show that older singles have an active personal life. Older adults report engaging in dating relationships fairly frequently (Brown & Shinohara, 2013). Although some older adults may be looking for serious companionship, it is possible that some are dating casually, thus, not unlike relationships in early adulthood, conflicts about relationship expectations and commitment may be prominent.

Conflict in marriage, while informed by premarital experiences, is distinct from that in dating relationships. Concerns affecting married partners are typically higher stakes than those impacting dating couples, with couples reporting arguing about money, children, and family



more when they are married (Mirecki et al., 2013). The risks of being unable to navigate significant tensions in relationships are also greatly increased because of the consequences of divorce. In younger marriages, there is a period of rapid transitions in which navigating conflict becomes more complex and emotionally intense. For couples who did not live together prior to marriage, anticipating the changes that marriage brings might be more difficult than for those who did. The introduction of children to the household creates the need for restructuring partner roles. Explicit conversations about household tasks might also create the conditions for conflict.

In midlife, children become a significant focal point in the relationship. Navigating expectations for adolescent children and increased exposure to familial conflict outside of the marital dyad create new sources of tension during this time period. During conflict, middle aged adults tend to express more warmth towards their partner and report feeling less anger than their older adult counterparts (Smith, Uchino, et al., 2009).

For older couples, reliance on one another greatly increases, as do reports of marital satisfaction (Smith, Uchino, et al., 2009). This age period is marked by retirement by one or both partners, with this transition correlating strongly with an increase in marital conflict (Dew & Yorgason, 2010). For couples who could retire, or were of age to retire, but continued working, conflict due to economic stress is more likely to occur (Dew & Yorgason, 2010). Older age also coincides with a decrease in physical and mental well-being, which has been shown to create the conditions for increased conflict to occur, particularly for wives (Iveniuk et al., 2014).

Although lifespan differences are not explicitly articulated in the serial argument model outlined by Trapp and Hoff (1985), they impact the entire subjective experience of a serial conflict from beginning to end. Perceiving incompatibilities and being tolerant to those perceived incompatibilities change as people and their relationships mature. That maturity influences risk

assessments for deciding to engage in conflict about the issue or avoid it, as well as the time horizon for seeking that change. Processes within and between episodes of a serial argument change over time. The influence of perceived resolvability on the perpetuation of conflict over multiple episodes may be attenuated over the lifespan. Based on these pervasive effects, I posit that personal and relational development moderate the influence of perceived resolvability on serial argument processes.

H14: Lifespan moderates the moderation of perceived resolvability on the relationships between the communication indices (engagement and valence) and antecedent/outcome variables (relationship quality, rumination, and stress), such that at later lifespan moments (older age, more progressed relationship status, longer relationship lengths), the moderating effects of perceived resolvability are attenuated.

### **Within and Between Serial Arguments**

Within episode, I proposed that communication engagement and valence correspond with relationship quality (H1 and H2), rumination (H5 and H6), and stress (H9 and H10). Between episodes, I detailed how communication engagement and valence and relationship quality (H3 and H4), rumination (H7 and H8), and stress (H11 and H12) affect each other over time. Finally, this dissertation sheds new light on the role of perceived resolvability serial arguments by proposing that perceived resolvability moderates the associations specified in H1 through H12 (H13). In addition, I consider how the moderating role of perceived resolvability changes across the lifespan of romantic relationships (H14). The next chapter reports the methods I employed to test these predictions, which are summarized in Table 3.1

## Chapter 3 Tables

Table 3.1 *Hypotheses*

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H1: Communication engagement is positively associated with relationship quality, such that when individuals engage in conflict, they perceive their relationship to be of higher quality.

H2: Communication valence is positively related to relationship quality, such that when communication about an issue is perceived to be more positively valenced, relationship quality is perceived to be greater.

H3: Communication engagement and relationship quality have a positive reciprocal influence over time, such that, (a) as individuals engage in communication about issues, relationship quality is perceived more positively, and (b) as relationship quality is perceived more positively, individuals will engage in communication about issues.

H4: Communication valence and relationship quality have a positive reciprocal influence over time, such that, (a) as individuals engage in more positively-valenced communication about an issue, relationship quality is perceived more positively, and (b) as relationship quality is perceived more positively, individuals will engage in more positively-valenced communication about an issue.

H5: Conflict engagement is negatively associated with rumination, such that decisions to engage rather than avoid conflict corresponds with less rumination about the issue.

H6: Communication valence is negatively associated with rumination, such that less positively-valenced communication corresponds with more rumination about the issue.

H7: Rumination is inconsistently associated with communication engagement over time, such that, (a) increased rumination coincides with an increase in communication engagement, and (b) increased communication engagement coincides with less rumination about the issue.

H8: Rumination is negatively associated with communication valence over time, such that (a) increased rumination coincides with less positively-valenced communication and (b) less positively-valenced communication coincides with more rumination about the issue.

H9: Conflict engagement is positively associated with stress, such that decisions to engage rather than avoid conflict within each episode is associated with increased perceptions of stress.

H10: Communication valence is negatively associated with stress, such that more positively-valenced communication corresponds with lower levels of stress.

H11: Stress is positively associated with communication engagement over time, such that (a) increased stress coincides with an increase in communication engagement, and (b) increased communication engagement coincides with an increase in stress.

H12: Stress is negatively associated with communication valence over time, such that (a) increased stress coincides with less positively-valenced communication and (b) less positively-valenced communication coincides with an increase in stress.

H13: As perceived resolvability increases, the relationships between the communication indices (engagement and valence) and antecedent/outcome variables (relationship quality, rumination, and stress) are attenuated.

H14: Lifespan moderates the moderation of perceived resolvability on the relationships between the communication indices (engagement and valence) and antecedent/outcome variables (relationship quality, rumination, and stress), such that at later lifespan moments (older age, more progressed relationship status, longer relationship lengths), the moderating effects of perceived resolvability are attenuated.

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## Chapter 4

### Method

To test hypotheses 1 – 14, participants ( $N = 1,047$ ) were recruited through the use of a Qualtrics panel between August and October of 2019. To obtain an adequate variance in lifespan, I collected data from six equal sample groups comprised of individuals in dating relationships who were ages 18-29, 30-45, and 46-65, and married individuals who were ages 18-29, 30-45, and 46-65. Participants were asked to complete three surveys over the course of six weeks, approximately one survey every three weeks (see Appendix A for the complete surveys). The resulting sample, after data cleaning procedures outlined in this chapter, was 963.

### Participants

Participants were people in a current romantic relationship. Approximately half of the initial sample identified as Female ( $n = 490$ ), White ( $n = 582$ ), and educated beyond high school ( $n = 727$ ). Participants reported being in a relationship they characterized as either dating ( $n = 479$ ;  $M = 6.05$  years;  $SD = 6.66$  years), engaged ( $n = 98$ ;  $M = 6.94$  years;  $SD = 7.18$  years), or married ( $n = 393$ ;  $M = 16.75$  years;  $SD = 13.15$  years) for between 1 – 50 years ( $M = 10.44$ ;  $SD = 13.15$ ); the summing of these values do not add up to the complete sample due to missing demographic data in several cases. Within this sample, 187 participants had been married previously (dating,  $n = 83$ ; engaged,  $n = 25$ ; married,  $n = 79$ ), and 727 cohabited with their partner at the time of the first survey (dating,  $n = 284$ ; engaged,  $n = 76$ ; married,  $n = 363$ ). The majority of participants reported having children in their immediate family, with 183 having children with a previous partner and 244 having children together; 374 participants indicated that neither partner has children; 246 participants did not respond to this question.

Given the longitudinal design, some participants were omitted from the final sample because of missing data. First, any participants who took the second two surveys without participating in the first were removed from the dataset. Specifically, 36 participants who completed both survey two and three, 18 who completed only survey two, and 24 who completed only survey three were removed for this reason (a total of 70 participants). In addition, any individuals who were missing more than 75% of the scale data needed for substantive analysis were deleted. In total, 7 additional participants were removed for this reason. An additional 7 participants were removed for poor quality qualitative data. After all data cleaning procedures, there was a resulting total sample of 963 participants.

In the final sample ( $N = 963$ ), approximately half of the sample reported identifying as Female ( $n = 485$ ), White ( $n = 582$ ), and educated beyond high school ( $n = 723$ ). Participants reported being in a relationship they characterized as either dating ( $n = 475$ ;  $M = 6.06$  years;  $SD = 6.66$  years), engaged ( $n = 94$ ;  $M = 6.95$  years;  $SD = 7.222$  years), or married ( $n = 388$ ;  $M = 16.78$  years;  $SD = 13.18$  years) for between 1 – 50 years ( $M = 10.45$ ;  $SD = 11.13$ ) with 6 people not providing details on their relationship status. Within this sample, 187 participants had been married previously (dating,  $n = 83$ ; engaged,  $n = 25$ ; married,  $n = 79$ ), and 720 cohabited with their partner at the time of the first survey (dating,  $n = 283$ ; engaged,  $n = 76$ ; married,  $n = 361$ ). The majority of participants reported having children in their immediate family: 94 participants reported having children from a prior relationships, 75 participants reported that they and their partner had children from prior relationships, 19 participants reported that they and their partner had children from prior relationships and also had children together, 24 reported that they had children from a prior relationship and also have children in their current relationship, 87 reported that their partner had children from a prior relationship, 32 reported their partner had children

from another relationship and they also have children together, 231 participants reported that they and their partner only have children together, 373 participants indicated that neither partner has children, and 16 participants did not respond.

Figure 4.1 summarizes the completion rate of surveys within each wave. Within this sample, 399 participants completed only survey 1, 145 participants completed survey 1 and survey 2, 93 participants completed survey 1 and survey 3, and 326 completed all three surveys.

### **Procedures**

In the first survey, participants were asked to identify a serial argument that was ongoing in their relationship. To choose an argument, participants were asked to list up to five arguments they felt met the definition of serial or ongoing, and they were asked to focus on issues they had discussed with their spouse at least one time in the last month. For each topic, they indicated on a five-point scale how serious they perceived the issue to be. They were then asked to complete the survey about the most serious conflict issue they chose. An open-ended question asked them to report how long ago they last discussed this issue. A second open-ended question asked them to describe the conflict (e.g., how long the argument has persisted, an estimate of how many conflicts have happened since the first episode, and who tends to bring this issue up [the respondent, their partner, or both]). Next, participants were asked to respond to demographic information about themselves, their partner, and their relationship. The remainder of the first survey included the measures required to test the hypotheses.

Although participants were asked to report on a conflict that had happened in the last month, with the aim of collecting recent, salient conflicts, some participants selected conflicts that occurred sometime prior to that timeframe. Based on open-ended responses to the question “When was the last time you discussed this issue,” I determined that 151 participants in the first

survey were describing a conflict that last occurred more than one month ago. Of these participants, 37 engaged in a conflict about their chosen issue in the three weeks prior to taking the second survey, and 30 engaged in a conflict about their chosen issue in the three weeks prior to taking the third survey. I retained these individuals in the sample, if their surveys were otherwise complete.

Participants were instructed to reflect on the argument they identified in their first survey as they responded to questions in the second and third surveys. They were first asked if they engaged in conflict about this issue over the course of the previous three weeks. If they indicated having engaged in conflict about their previously identified issue, they were asked to how severe they perceived the problem to be. In thinking about that episode, they reported the directness of communication about the issue, the valence of their own communication during the argument, and their perception that they are making progress toward resolving the issue. Then, they were asked to respond to questions about their rumination behaviors prior to that episode. Finally, participants responded to measures of their perceived relationship quality, and experienced stress since the previous survey. If a participant reported not engaging in a conflict episode, they only responded to measures of rumination, perceived resolvability, relationship quality, and stress.

## **Measures**

With the exception of demographic measures, variables were assessed using self-reported multi-item Likert-type scales. Thus, I assessed the measurement properties of the multi-item scales before averaging items to form a composite measure. To facilitate reporting the specific items that operationalized these variables, I first report the assessment of the measurement model, and then I describe the specific measures obtained from the research procedures.

Measures were then assessed for indicators of skewness, kurtosis, and outliers, and means and standard deviations were reported (see Table 4.1).

**Measurement model.** A confirmatory factor analysis was conducted using longitudinal structural equation modelling to assess measure fit across time. First, the factor analysis was conducted using the full wave 1 data to assess initial measurement fit, because that analysis afforded the most statistical power based on independent observations. The measures included in the model were perceived resolvability, rumination, relationship quality, stress, distress, communication directness, and communication valence. Several items loaded on their associated factors at less than .4 and were removed from the model. In particular, PR4, PR5, and PR9 were removed from the perceived resolvability scale, and Stress 4, 5, 7, and 8 were removed from the stress scale (see Appendix). This resulted in a model with acceptable fit to the data:  $X^2(1300) = 4490.20$ ,  $p < .001$ ,  $X^2/df = 3.45$ , RMSEA = .051, 90% CI: .049-.052, CFI = .910.

After conducting the CFA, the missing data patterns were analyzed within each scale. For participants who did not complete 75% of scale items, the whole scale was treated as missing for that individual. For those who were missing fewer than 25% of scale items, within-person, within scale mean imputations were calculated. The scales were then calculated using the results of the CFA. The resulting scale means, standard deviations, and alphas for variables computed based on the final measurement model can be found in Table 4.1. Where applicable, the following measures reflect the final scales after conducting a measurement analysis.

**Personal demographics.** Participants were asked to report the following information about both themselves and their partners: (a) age; (b) ethnicity; (c) gender; (d) education level; and (e) prior marital history.



**Relationship demographics.** Participants were asked to report the following information about their relationship: (a) relationship length (in years); (b) relationship status (serious dating, engaged, married; separated; divorced); and (c) current cohabiting status. They were also asked if they have children together or with other people, and whether those children currently live with them.

**Relationship quality.** To measure how satisfied participants were with their current relationship, they were asked to respond to the Marriage Quality Index (Norton, 1983). This is a 5-item measure through which participants indicated how accurately the statements reflect their current feelings regarding the state of their relationship (1 = *strongly agree* to 6 = *strongly disagree*). Items include, “we have a good relationship,” “our relationship is very stable,” and, “this relationship makes me happy.”

**Conflict engagement.** Conflict engagement was measured with a dichotomous single item, “did you engage in a conflict about this issue in the previous three weeks?” If they indicated having engaged in the conflict, they were also asked how many times in the previous three weeks they engaged in this conflict.

**Directness of communication.** To measure participants’ directness of communication about the topic of the conflict, I used a two-item measure from Theiss and Solomon (2006): “I explicitly told my partner about the behaviors that irritate me,” and “I have had a direct conversation with my partner about my irritations”. This scale was augmented through the inclusion of several new items, for example, “I discussed my concerns with my partner,” and, “during the conversation, I tried to explain my point of view to my partner.” Participants indicated on a 6-point Likert-type scale the extent to which they agreed with the statements (1 = *strongly disagree*, to 6 = *strongly agree*).

**Rumination.** To measure the extent to which participants ruminated about this issue between conflict episodes, I used the 5-item semantic-differential scale developed by Cloven and Roloff (1991) to assess mulling. Participants rated their cognitions on a 7-point scale. Items included: “I do not worry about the problem-I worry very much about the problem,” “no time is spent reflecting on this problem-a lot of time is spent reflecting on this problem,” and, “never think about this problem-think about this problem all the time.” Responses to these scales were averaged to create a single measure.

**Communication valence.** To measure communication valence, several new items were created to assess participant’s overall perception of the tone of the argument as being relatively positive or relatively negative in comparison to past conflict they have experienced in their life. Participants indicated on a 5-point Likert-type scale the extent to which they agree with the statements from 1 = *strongly disagree*, to 5 = *strongly agree*. Participants were asked to indicate the extent to which they agree that, compared to previous conflict they had experienced with their partner, the most recent discussion of this issue was: (a) difficult, (b) overwhelming, (c) hurtful, (d) aggressive, (e) unfair, (f) rational, (g) cooperative, (h) calm, (i) helpful, and (j) encouraging. Items that were negatively-valenced were recoded so that a higher score on the compositive variables corresponded with a more positively-valenced conversation.

**Perceived resolvability.** To measure the extent to which participants feel like they had made progress toward reaching a resolution with their partner regarding this issue, they were asked to respond to the perceived resolvability scale (Johnson & Roloff, 1998). This is a 4-item measure on which participants rate the extent to which they agree with the statements about their identified serial argument on a 6-point Likert-type scale from 1 = *not at all*, to 6 = *to a great extent*. Items included: “I believe that it will never be resolved,” “I anticipate that this issue will

always be a problem,” and “I don’t think that my partner will ever agree on this issue.” In light of the range in the reliability of the scale in prior research (highest reliability,  $\alpha = .93$ , Johnson et al., 2011; lowest reliability,  $\alpha = .81$ , Morrison & Schrodt, 2017), I added several items to the measure of perceived resolvability: “Since the first discussion of this issue, I feel we have made progress on resolving the issue,” “I think that the next discussion of this issue will move us towards a resolution,” “I think we will eventually come to a resolution that will be satisfactory to both me and my partner,” “I believe that each discussion of this issue brings us closer to a solution,” “I think we will fight about this issue for the foreseeable future,” and, “the end of this argument is near.” Two items from the original scale were recoded, “I believe that it will never be resolved” and “I don’t think that my partner will ever agree on this issue” and one item from the new item set was recoded, “I think we will fight about this issue for the foreseeable future.” As noted previously, three items were removed from the measure based on the measurement model, leaving 8 items assessing perceived resolvability.

**Stress.** To measure perceived stress, participants were asked to complete the perceived stress scale (PSS; Cohen et al., 1983). This is a 10-item measure in which participants indicated the extent to which they experienced stress in the previous three weeks on a 5-point Likert-type scale from 0 = *never* to 4 = *very often*. Items included, “In the previous three weeks, how often have you been upset because of something that happened unexpectedly,” and “in the last month, how often have you felt difficulties were piling up so high that you could not overcome them.” Based on the measurement analysis, four items were removed from this scale, leaving a 6-item measure of perceived stress.

**Distress.** To measure perceived distress, participants were asked to complete the Kessler Psychological Distress Scale (K10; Kessler et al., 2003). This is a 11-item measure. For the first

10 items, participants indicated how often they experienced symptoms of distress in the previous three weeks on a 5-point Likert-type scale from 1 = *all of the time* to 5 = *none of the time*. Items include, “In the previous three weeks, how often did you feel nervous,” “hopeless,” and “restless or fidgety.” One item asks whether these feelings occurred more or less often than usual on a 7-point Likert-type scale from 1 = *a lot more often than usual* to 7 = *a lot less often than usual*. This additional measure was included as a reference variable for the measurement analysis. In the test of hypotheses, I used the measure of stress to be consistent with prior research on serial arguments.

### **Data Analysis**

The aim of this study was to understand serial argument processes within and between individual episodes. In the following sections, I outline my approach to data analysis for evaluating these two groups of hypotheses.

#### **Within Episode Analyses**

The first set of analyses focuses on associations within each argument episode. Hypotheses 1, 2, 5, 6, 9, and 10 posit the relationships between the communication variables, valence and engagement and relationship quality, rumination, and stress. Hypothesis 13 proposes perceived resolvability as a moderator in those relationships. Hypothesis 14 indicates that the moderation of perceived resolvability is further moderated by lifespan, which is operationalized as age, relationship length, and relationship stage.

Although the within-episode hypotheses focus on correlations between variables, and causal order cannot be assessed cross-sectionally, my analysis required distinguishing antecedent and outcome variables. To do so, I considered the reporting task completed by participants in each survey. When completing a survey, participants recalled a recent episode of a serial

argument, and indicated their perceptions of communication during that episode. Other reports provided at the time of the survey, i.e. descriptions of relationship quality, rumination, and stress, while reported at the same time, are perhaps more likely to reflect experiences since the argument episode. For this reason, I modelled communication variables as predictors and relationship quality, rumination, and stress as outcomes in the subsequent analysis.

To test these hypotheses, six hierarchical linear models were used, one for each outcome (relationship quality, rumination, and stress) by each predictor (communication engagement and communication valence). More specifically, I used random-coefficients regression modeling to allow the level-1 predictors' slopes and intercepts to vary randomly. For this model building approach, I use the protocol outlined in Raudenbush and Bryk (2002) and Shiverdecker and LeBreton (2002). Each level one equation encompasses the random effects of the repeated measures (communication engagement and communication valence) and perceived resolvability, while each level two equation encompasses the individual level fixed effects for lifespan (subject, age, relationship length, and relationship stage). Model 1 accounted for the relationship between relationship quality and communication engagement (H1), the moderation of perceived resolvability (H13), and the moderated moderation of lifespan differences (H14). Model 2 accounted for the relationship between relationship quality and communication valence (H2), the moderation of perceived resolvability (H13), and the moderated moderation of lifespan differences (H14). Model 3 accounted for the relationship between rumination and communication engagement (H5), the moderation of perceived resolvability (H13), and the moderated moderation of lifespan differences (H14). Model 4 accounted for the relationship between rumination and communication valence (H6), the moderation of perceived resolvability (H13), and the moderated moderation of lifespan differences (H14). Model 5 accounted for the

relationship between stress and communication engagement (H9), the moderation of perceived resolvability (H13), and the moderated moderation of lifespan differences (H14). Finally, model 6 accounted for the relationship between stress and communication valence (H10), the moderation of perceived resolvability (H13), and the moderated moderation of lifespan differences (H14). The specific models that I evaluated are reported in Tables 4.2, 4.3, and 4.4.

### **Over Time Effects**

The second set of analyses addressed the over time effects of the relationships assessed in the within-episode analyses. In particular, I predicted over time reciprocal effects between the communication variables (communication valence and communication engagement) and relationship quality, rumination, and stress from one episode to the next. Thus, these analyses evaluated H3 and H4, H7 and H8, and H11 and H12.

To test the over-time effects, I used random intercept cross-lagged panel models (RI-CLPM) (Hamaker et al., 2015). The use of these models allowed me to test whether my variables affect each other over time controlling for their own autoregressive influence over time and for within-person, over-time means for each variable. The introduction of a random intercept allows for my results to account for both the within and between-person level influences of time-invariant, or trait-like, individual differences. This is important when considering my data is reflecting psychological constructs (rumination, in particular), which may be relatively stable within-persons, but variable between-persons, across time. These models, where are presented in Tables 4.5 and 4.6 and depicted in Figures 4.2 through 4.7, were run using the lavaan package in R, using the steps and code outlined by Flournoy (2017).

## **Conclusion**

The design of this study allowed me to gain insight into serial arguments over a period of six weeks. The use of the multi-level methods I have outlined in this chapter allows me to better understand communication within an episode and effects between episodes. Finally, I was able to examine the moderating roles of perceived resolvability and three indexes of relational and individual lifespan differences (age, relationship length, and relationship stage) within conflict episodes. In the next chapter, I present the results of my data analysis.

## Chapter 4 Tables

Table 4.1 *Means and Standard Deviations for Variables across the Samples*

Measure	Wave 1 ( <i>N</i> = 963)		Wave 2 ( <i>N</i> = 473)		Wave 3 ( <i>N</i> = 420)		<i>α</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Perceived Resolvability Scale: 1 - 7	3.66	1.61	4.18	1.79	4.19	1.82	.97
Relationship Quality Scale: 1-6	5.28	1.14	5.27	1.27	5.16	1.39	.97
Rumination Scale: 1 - 5	4.60	1.43	3.48	0.88	4.11	1.62	.92
Communication Valence Scale: 1 - 5	3.21	0.85	3.48	0.88	3.47	0.91	.93
Stress Scale: 0 - 4	3.31	0.94	3.55	0.90	3.57	0.94	.94

*Note:* Alphas reflect multilevel reliabilities for each scale, accounting for each participant's scale reliability over time. Computed in R using the `multilevel.reliability` function in the `psych` package.



Table 4.2 *Within Episode Equations for Relationship Quality*

---

Model 1:

$$\text{Level 1: } RQ_{ij} = \pi_{0i} + \pi_{1i}(\text{Engage})_{ti} + \pi_{2i}(\text{PR})_{ti} + \pi_{3i}(\text{PR*Engage})_{ti} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Subject}) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + r_{1i}$$

$$\pi_{2i} = \beta_{20} + r_{2i}$$

$$\pi_{3i} = \beta_{30} + \beta_{31}(\text{AGE}) + \beta_{32}(\text{RStage}) + \beta_{33}(\text{RLength}) + r_{3i}$$

$$\text{Model 2: } RQ_{ij} = \pi_{0i} + \pi_{1i}(\text{CVal})_{ti} + \pi_{2i}(\text{PR})_{ti} + \pi_{3i}(\text{PR*CVal})_{ti} + e_{ti}$$

$$\text{Level 1: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Subject}) + r_{0i}$$

$$\text{Level 2: } \pi_{1i} = \beta_{10} + r_{1i}$$

$$\pi_{2i} = \beta_{20} + r_{2i}$$

$$\pi_{3i} = \beta_{30} + \beta_{31}(\text{AGE}) + \beta_{32}(\text{RStage}) + \beta_{33}(\text{RLength}) + r_{3i}$$

---

*Note.* RQ = Relationship Quality, CVal = Communication Valence, PR = Perceived Resolvability, RStage = Relationship Stage, and RLength = Relationship Length.

Table 4.3 *Within Episode Equations for Rumination*

---

Model 1:

$$\text{Level 1: } \text{Rum}_{ij} = \pi_{0i} + \pi_{1i}(\text{Engage})_{ti} + \pi_{2i}(\text{PR})_{ti} + \pi_{3i}(\text{PR} * \text{Engage})_{ti} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Subject}) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + r_{1i}$$

$$\pi_{2i} = \beta_{20} + r_{2i}$$

$$\pi_{3i} = \beta_{30} + \beta_{31}(\text{AGE}) + \beta_{32}(\text{RStage}) + \beta_{33}(\text{RLength}) + r_{3i}$$

$$\text{Model 2: } \text{Rum}_{ij} = \pi_{0i} + \pi_{1i}(\text{CVal})_{ti} + \pi_{2i}(\text{PR})_{ti} + \pi_{3i}(\text{PR} * \text{CVal})_{ti} + e_{ti}$$

$$\text{Level 1: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Subject}) + r_{0i}$$

$$\text{Level 2: } \pi_{1i} = \beta_{10} + r_{1i}$$

$$\pi_{2i} = \beta_{20} + r_{2i}$$

$$\pi_{3i} = \beta_{30} + \beta_{31}(\text{AGE}) + \beta_{32}(\text{RStage}) + \beta_{33}(\text{RLength}) + r_{3i}$$

---

*Note.* Rum = Rumination, CVal = Communication Valence, PR = Perceived Resolvability, RStage = Relationship Stage, and RLength = Relationship Length.

Table 4.4 *Within Episode Equations for Stress*

---

Model 1:

$$\text{Level 1: } \text{Stress}_{ij} = \pi_{0i} + \pi_{1i}(\text{Engage})_{ti} + \pi_{2i}(\text{PR})_{ti} + \pi_{3i}(\text{PR} * \text{Engage})_{ti} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Subject}) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + r_{1i}$$

$$\pi_{2i} = \beta_{20} + r_{2i}$$

$$\pi_{3i} = \beta_{30} + \beta_{31}(\text{AGE}) + \beta_{32}(\text{RStage}) + \beta_{33}(\text{RLength}) + r_{3i}$$

$$\text{Model 2: } \text{Stress}_{ij} = \pi_{0i} + \pi_{1i}(\text{CVal})_{ti} + \pi_{2i}(\text{PR})_{ti} + \pi_{3i}(\text{PR} * \text{CVal})_{ti} + e_{ti}$$

$$\text{Level 1: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Subject}) + r_{0i}$$

$$\text{Level 2: } \pi_{1i} = \beta_{10} + r_{1i}$$

$$\pi_{2i} = \beta_{20} + r_{2i}$$

$$\pi_{3i} = \beta_{30} + \beta_{31}(\text{AGE}) + \beta_{32}(\text{RStage}) + \beta_{33}(\text{RLength}) + r_{3i}$$

---

*Note.* CVal = Communication Valence, PR = Perceived Resolvability, RStage = Relationship Stage, and RLength = Relationship Length.

Table 4.5 *Between Episode Equations for Reciprocal Cross-Lagged Effects of Communication Valence with Relationship Quality, Rumination, and Stress*

---

<u>Model 1:</u>	
Level 1:	$RQual_{tj} = \pi_{0i} + \pi_{1i}(CVAL)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
Level 1:	$CVAL_{tj} = \pi_{0i} + \pi_{1i}(RQual)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
<u>Model 2:</u>	
Level 1:	$RUM_{tj} = \pi_{0i} + \pi_{1i}(CVAL)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
Level 1:	$CVAL_{tj} = \pi_{0i} + \pi_{1i}(RUM)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
<u>Model 3:</u>	
Level 1:	$Stress_{tj} = \pi_{0i} + \pi_{1i}(CVAL)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
Level 1:	$CVAL_{tj} = \pi_{0i} + \pi_{1i}(Stress)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$

---

*Note.* RQ = Relationship Quality, Rum = Rumination, CVal = Communication Valence, PR = Perceived Resolvability, RStage = Relationship Stage, and RLength = Relationship Length.

Table 4.6 *Between Episode Equations for Reciprocal Cross-Lagged Effects of Communication Engagement with Relationship Quality, Rumination, and Stress*

---

<u>Model 1:</u>	
Level 1:	$RQual_{ij} = \pi_{0i} + \pi_{1i}(CENG)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
Level 1:	$CENG_{tj} = \pi_{0i} + \pi_{1i}(RQual)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
<u>Model 2:</u>	
Level 1:	$RUM_{tj} = \pi_{0i} + \pi_{1i}(CENG)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
Level 1:	$CENG_{tj} = \pi_{0i} + \pi_{1i}(RUM)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
<u>Model 3:</u>	
Level 1:	$Stress_{tj} = \pi_{0i} + \pi_{1i}(CENG)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$
Level 1:	$CENG_{tj} = \pi_{0i} + \pi_{1i}(Stress)_{t-1i} + e_{ti}$
Level 2:	$\pi_{0i} = \beta_{00} + \beta_{01}(SUBJECT) + r_{0i}$
	$\pi_{1i} = \beta_{10} + r_{1i}$

---

*Note.* RQ = Relationship Quality, Rum = Rumination, CVal = Communication Valence, PR = Perceived Resolvability, RStage = Relationship Stage, and RLength = Relationship Length.

Figure 4.1 *Number of Participants Who Completed Each Survey Wave.*

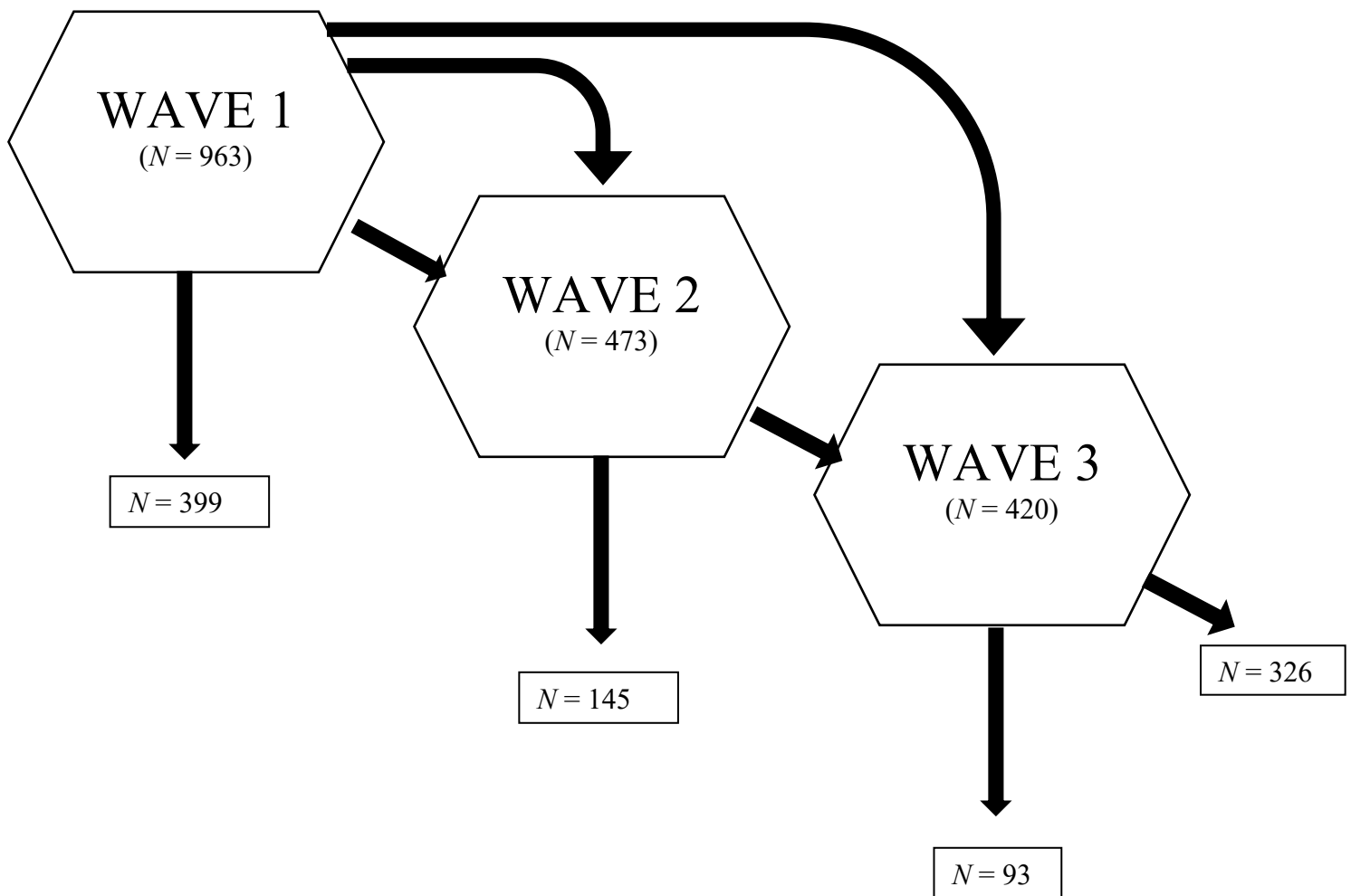
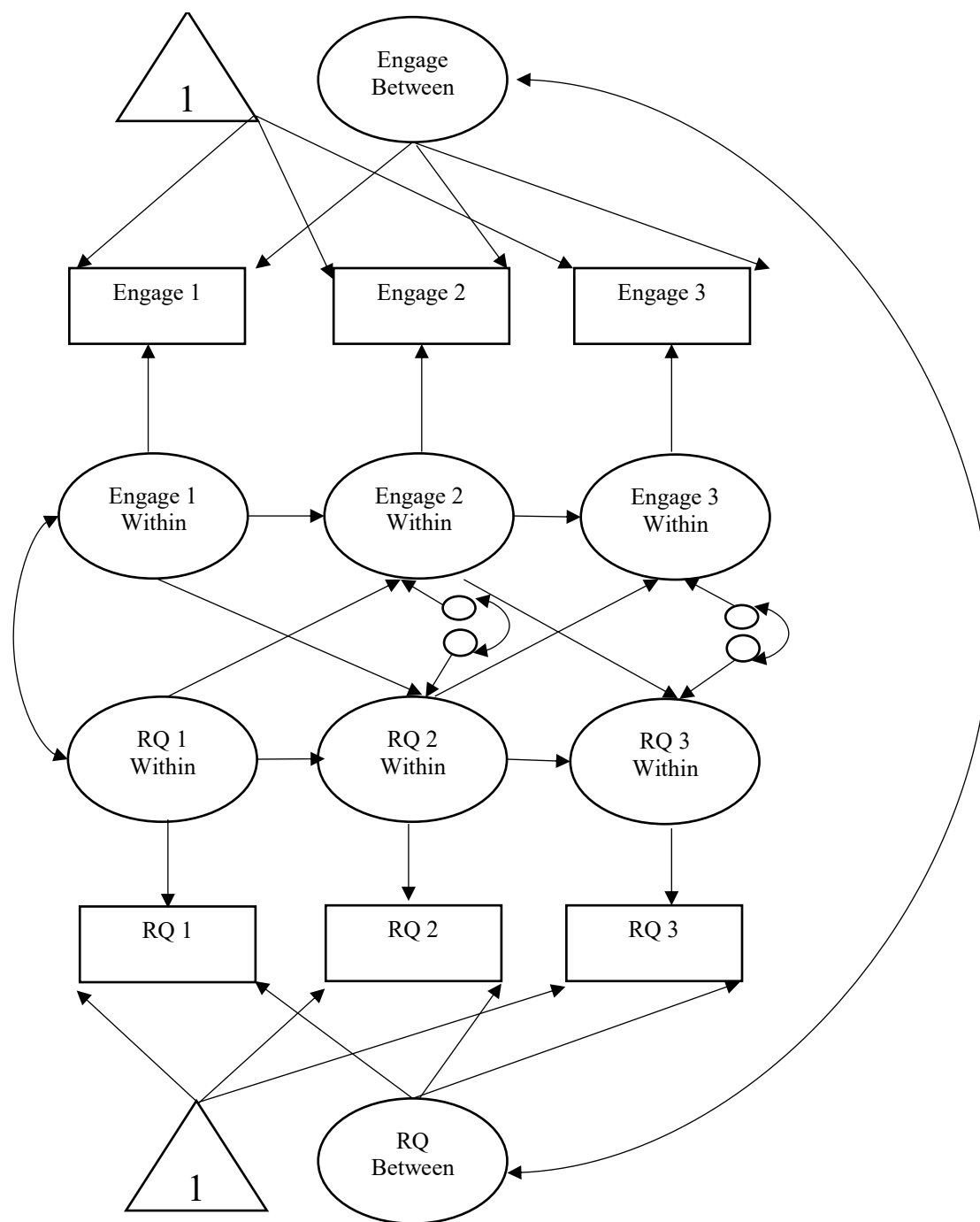
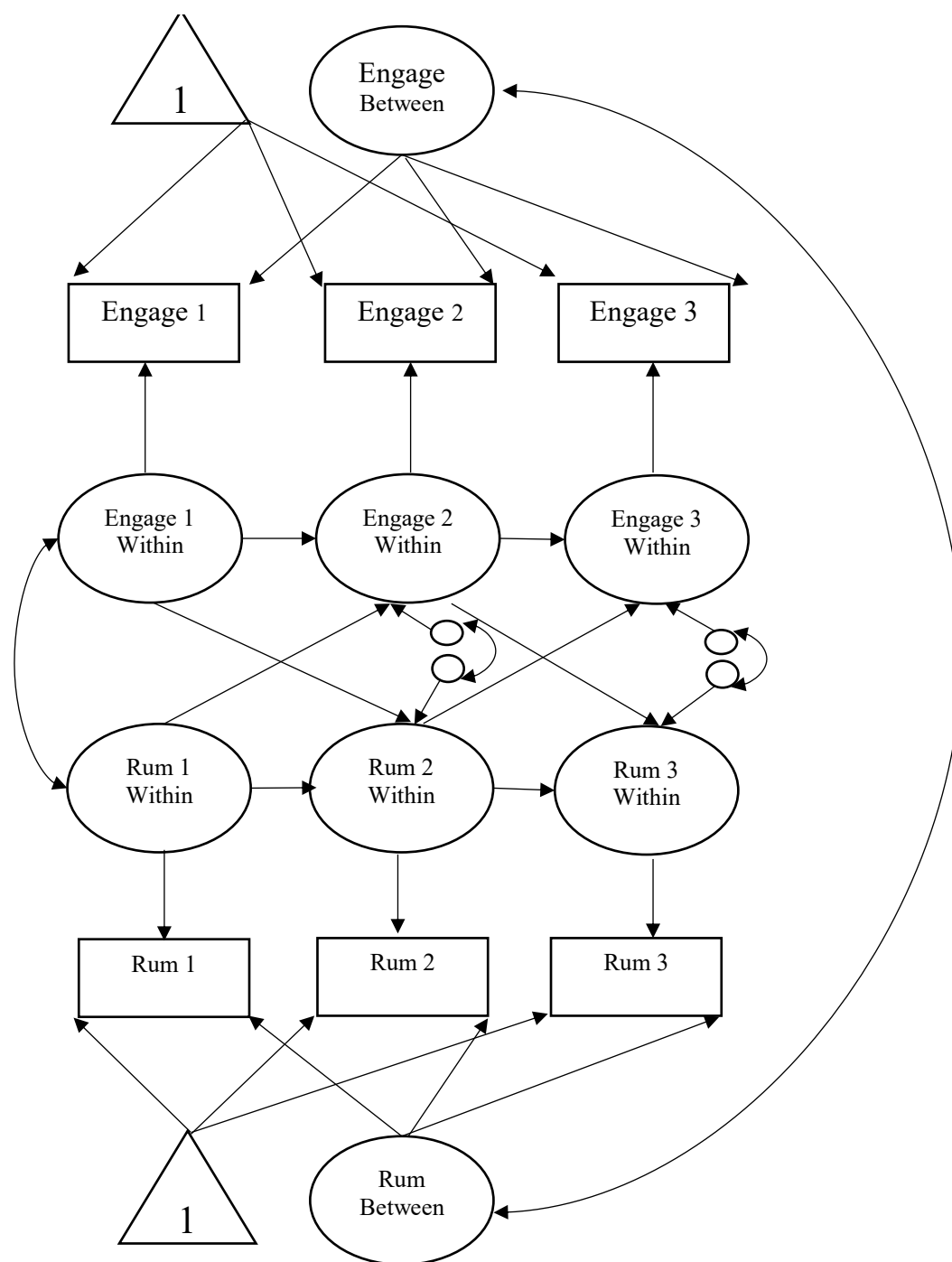


Figure 4.2 *Random Intercept Cross-Lagged Panel Model between Communication Engagement and Relationship Quality across Three Waves*



*Note.* Random intercept cross-lagged panel model (RI-CLPM; Hamaker et al., 2015) of the relationship between communication engagement (Engage) and relationship quality (RQ) across three waves, with three-week time lags. There are two random intercepts (Engage between and RQ between) that represent between-person differences. The within-person processes are represented by the autoregressive paths between the latent factors of Engage across waves and RQ across waves, the cross lagged paths between the latent factors represent the reciprocal over time relationship between Engage and RQ, the correlation between latent factors at time 1, and the correlation between residuals in waves two and three.

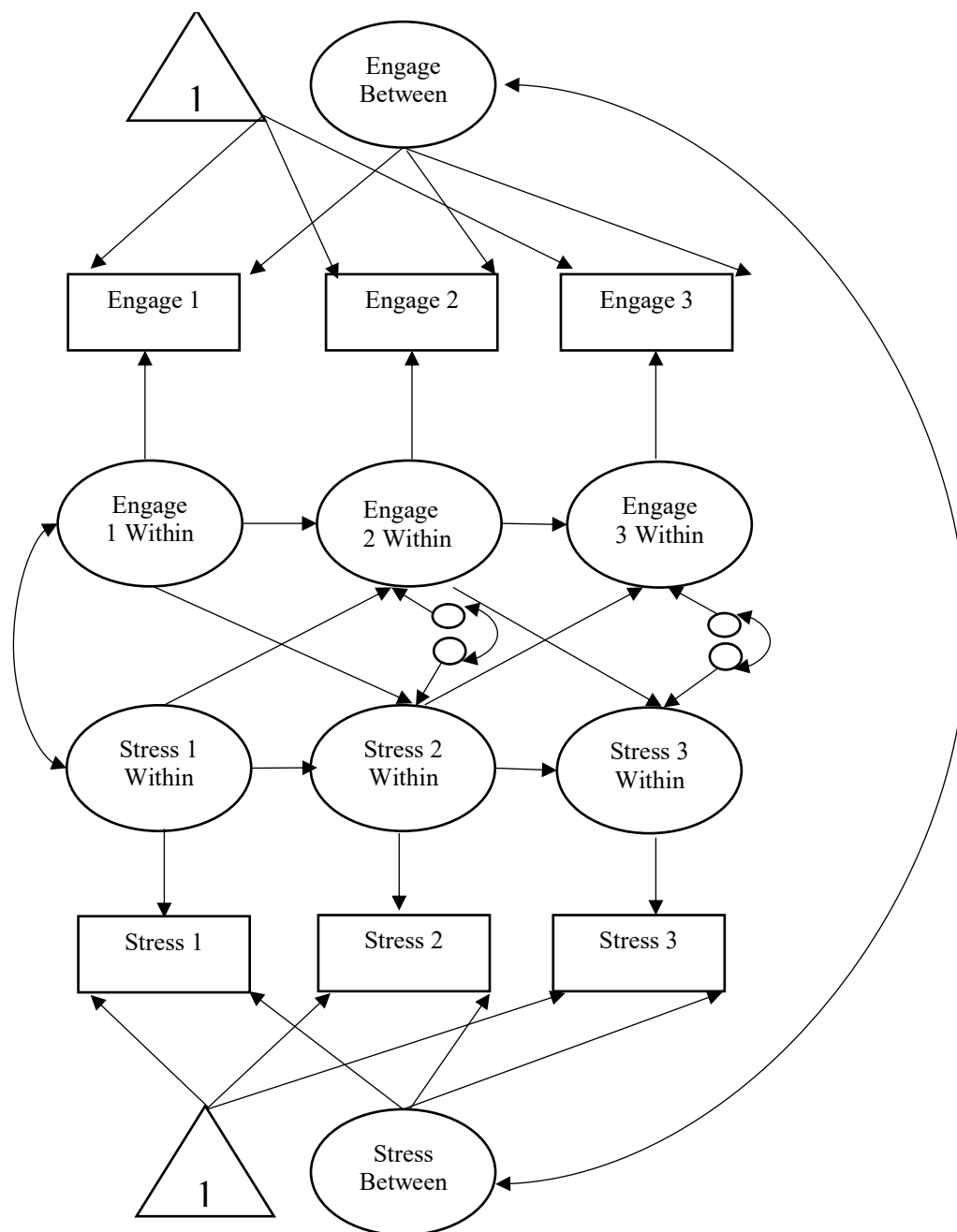
Figure 4.3 *Random Intercept Cross-Lagged Panel Model between Communication Engagement and Rumination across Three Waves*



*Note.* Random intercept cross-lagged panel model (RI-CLPM; Hamaker et al., 2015) of the relationship between communication engagement (Engage) and rumination (Rum) across three waves, with three-week time lags. There are two random intercepts (Engage between and Rum between) that represent between-person differences. The within-person processes are represented by the autoregressive paths between the latent factors of Engage across waves and Rum across waves, the cross lagged paths between the latent factors represent the reciprocal over time relationship between Engage and Rum, the correlation between latent factors at time 1, and the correlation between residuals in waves two and three.

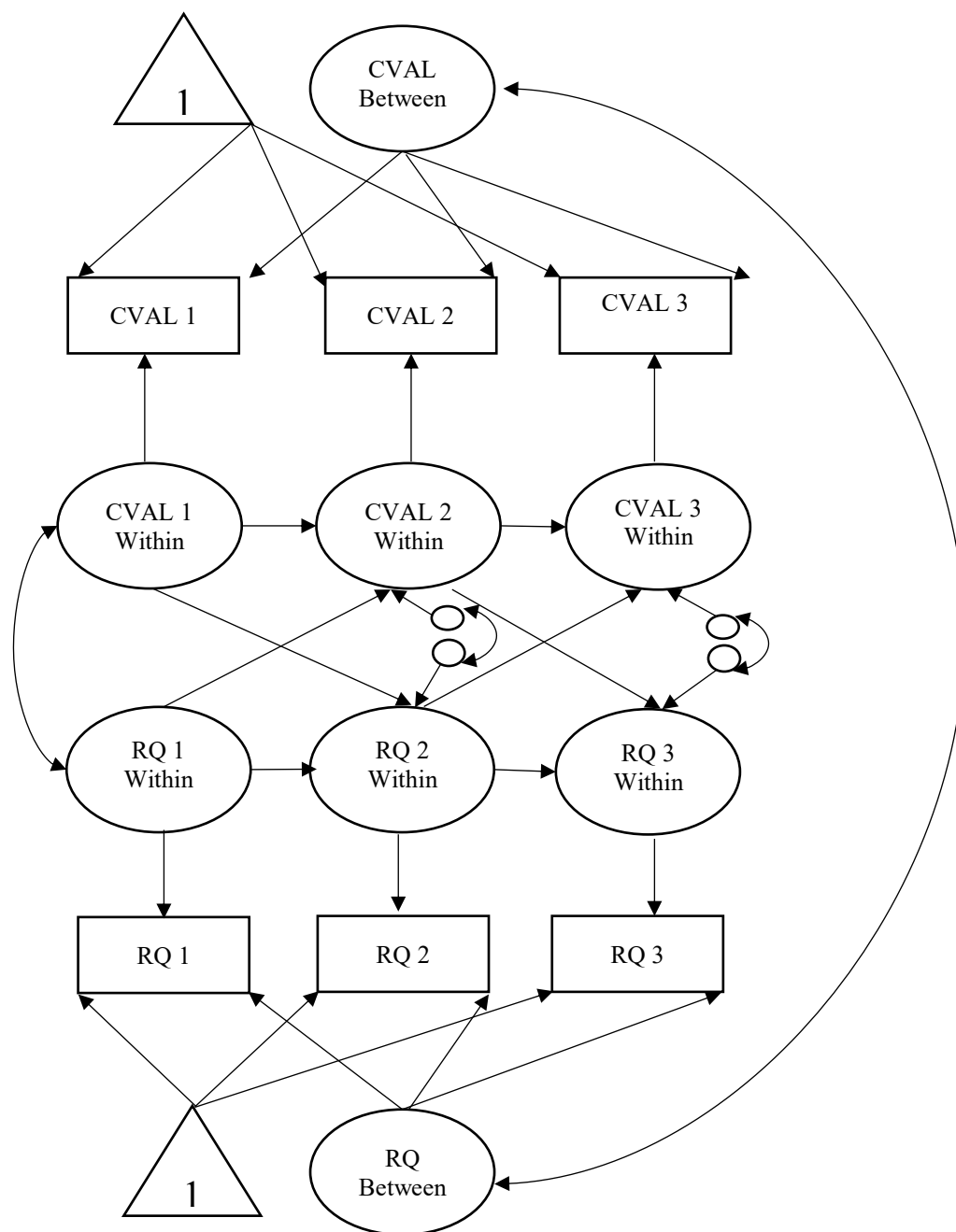


Figure 4.4 *Random Intercept Cross-Lagged Panel Model between Communication Engagement and Stress across Three Waves*



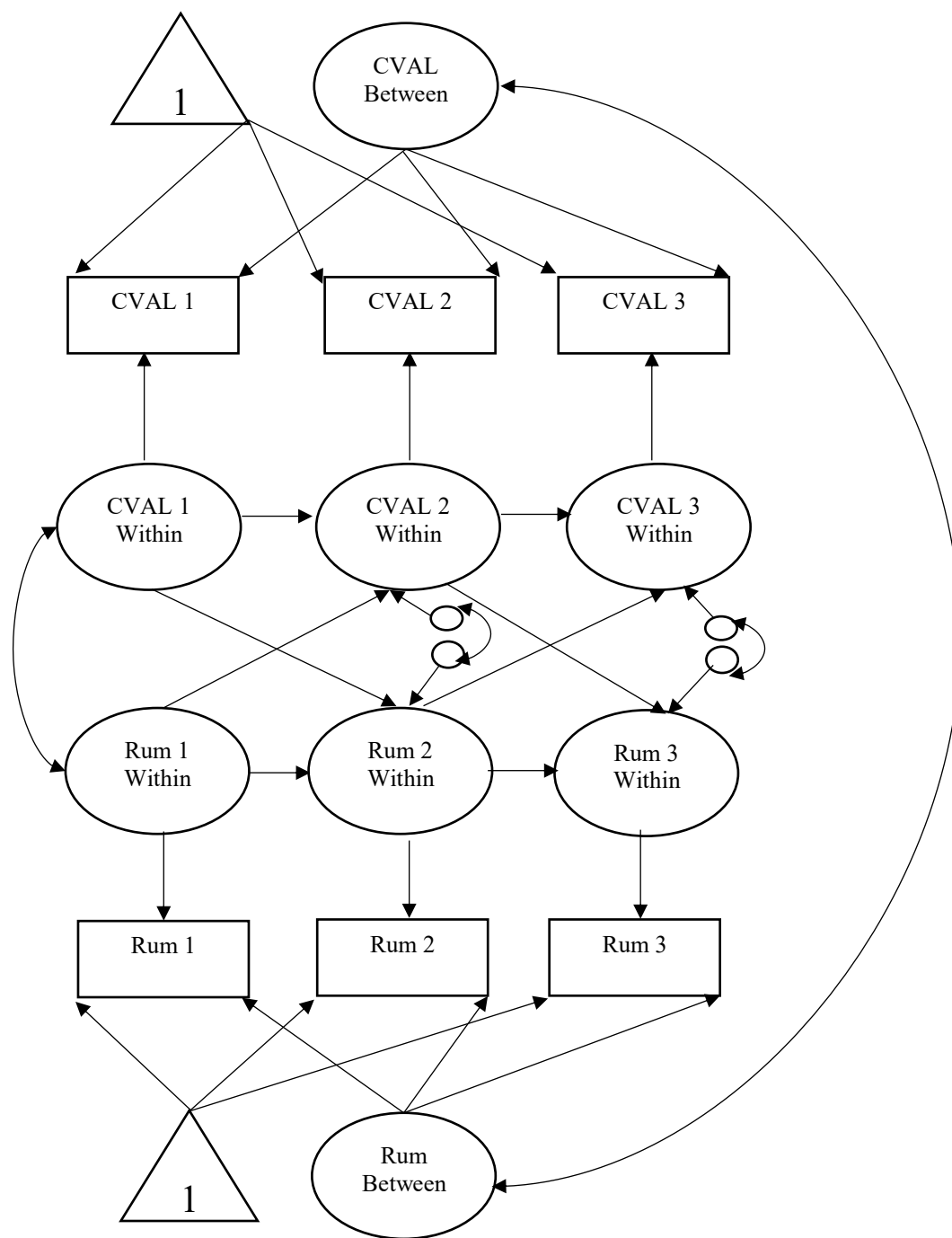
*Note.* Random intercept cross-lagged panel model (RI-CLPM; Hamaker et al., 2015) of the relationship between communication engagement (engage) and stress across three waves, with three-week time lags. There are two random intercepts (engage between and stress between) that represent between-person differences. The within-person processes are represented by the autoregressive paths between the latent factors of Engage across waves and stress across waves, the cross lagged paths between the latent factors represent the reciprocal over time relationship between engage and stress, the correlation between latent factors at time 1, and the correlation between residuals in waves two and three.

Figure 4.5 *Random Intercept Cross-Lagged Panel Model between Communication Valence and Relationship Quality across Three Waves*



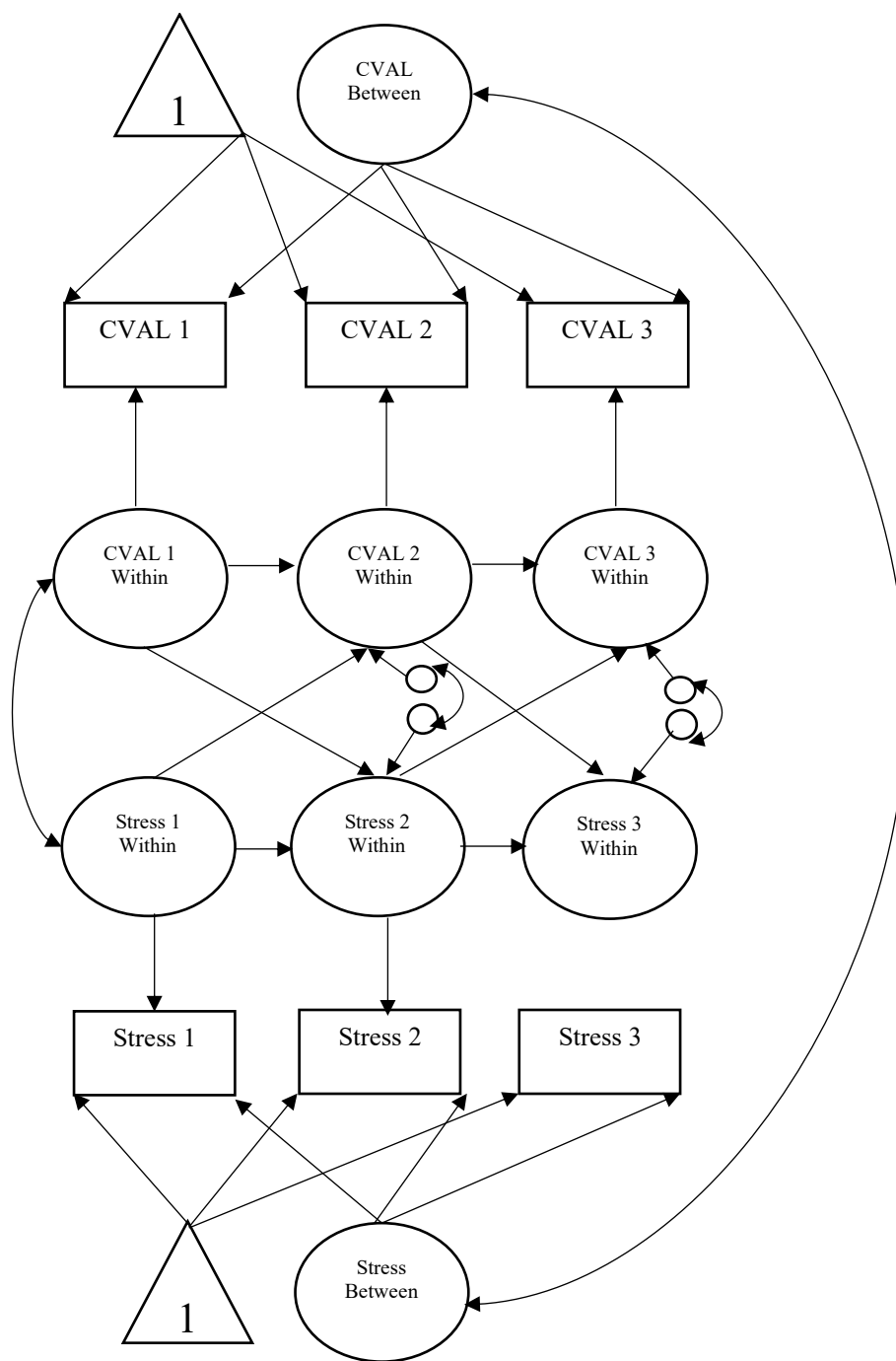
*Note.* Random intercept cross-lagged panel model (RI-CLPM; Hamaker et al., 2015) of the relationship between communication valence (CVAL) and relationship quality (RQ) across three waves, with three-week time lags. There are two random intercepts (CVAL between and RQ between) that represent between-person differences. The within-person processes are represented by the autoregressive paths between the latent factors of CVAL across waves and RQ across waves, the cross lagged paths between the latent factors represent the reciprocal over time relationship between CVAL and RQ, the correlation between latent factors at time 1, and the correlation between residuals in waves two and three.

Figure 4.6 *Random Intercept Cross-Lagged Panel Model between Communication Valence and Rumination across Three Waves*



*Note.* Random intercept cross-lagged panel model (RI-CLPM; Hamaker et al., 2015) of the relationship between communication valence (CVAL) and relationship quality (RUM) across three waves, with three-week time lags. There are two random intercepts (CVAL between and RUM between) that represent between-person differences. The within-person processes are represented by the autoregressive paths between the latent factors of CVAL across waves and RUM across waves, the cross lagged paths between the latent factors represent the reciprocal over time relationship between CVAL and RUM, the correlation between latent factors at time 1, and the correlation between residuals in waves two and three.

Figure 4.7 *Random Intercept Cross-Lagged Panel Model between Communication Valence and Stress across Three Waves*



*Note.* Random intercept cross-lagged panel model (RI-CLPM; Hamaker et al., 2015) of the relationship between communication valence (CVAL) and stress (Stress) across three waves, with three-week time lags. There are two random intercepts (CVAL between and Stress between) that represent between-person differences. The within-person processes are represented by the autoregressive paths between the latent factors of CVAL across waves and Stress across waves, the cross lagged paths between the latent factors represent the reciprocal over time relationship between CVAL and Stress, the correlation between latent factors at time 1, and the correlation between residuals in waves two and three.

## Chapter 5

In the previous chapter, I described my procedures and my study participants, and I laid out an analytical plan for determining support or lack of support for the hypotheses. In this chapter, I report the results of my study. First, I describe the preliminary analysis of my data. Then, I discuss the conflicts my participants chose to describe. Finally, I report the results of my substantive analysis.

### Preliminary Analyses

#### Evaluation of Demographic Differences

Prior to conducting substantive analyses, I explored the differences in my substantive measures based on the demographic variables of gender and relationship status using linear mixed effects models. This approach allowed me to examine the influence of gender and relationship status as fixed effects on each dependent variable per participant. Participant's slopes were allowed to randomly vary.

Perceptions of relationship quality differed depending on relationship status. Married participants reported greater perceptions of relationship quality than did daters,  $\beta = 0.31, p < .01$ ; Engaged participants did not significantly differ from daters or married people in their perceptions of relationship quality. Stress perceptions difference depending on both relationship status and on gender, but not the interaction of both. Engaged participants reported experiencing less stress than either daters,  $\beta = -0.53, p < .01$ , or married people,  $\beta = -0.58, p < .01$ . Moreover, female participants reported experiencing less stress than did male participants,  $\beta = -0.33, p < .001$ . Severity perceptions differed depending on relationship status. Participants who were engaged perceived their argument to be more severe than did daters,  $\beta = 0.51, p < .05$ , and

those who were married,  $\beta = 0.62, p < .05$ . Perceptions of rumination, communication valence, and perceived resolvability did not differ by gender or relationship status.

### **Correlations between Variables in the Study and Differences between Waves**

Next, I reviewed the correlations between the variables in the data set within each wave (see Table 5.3). The lifespan variables (age, relationship length, and relationship stage), which were measured in wave 1, were positively correlated with one another. In addition, age and relationship length were negatively associated with rumination and were positively associated with stress across all three waves. Age was also positively correlated with communication valence, while relationship length was positively correlated with relationship quality. Other correlations for the lifespan indicators showed more progressed (e.g., engaged or married) relationships were associated with increased experiences of stress.

I then examined the relationships between perceived resolvability and the substantive study variables. Perceived resolvability was positively related to communication valence and relationship quality across all three timepoints and was positively associated with stress at times two and three. Perceived resolvability was negatively associated with stress.

Next, I examined the relationships between the substantive variables of interest in this dissertation. Communication valence was positively associated with relationship quality and stress and was negatively associated with rumination. Relationship quality was positively associated with stress and was negatively associated with rumination. Rumination was negatively associated with stress.

Finally, I compared variables measured in each wave, and compared measures across waves using the subset of participants who completed all three waves (see Table 5.4). Significant differences among waves were indicated for six of the eight variables. In particular, waves 2 and

3 showed higher levels of perceived resolvability, positive communication valence, rumination, stress, compared to the data collected in the first wave.

### **Characteristics of Arguments**

Participants in this study ( $n = 963$ ) were asked to reflect on a recurring argument in their relationship. To examine the argument topics selected in this study, I used the R packages *tm* (text mining package; Feinerer et al., 2008) and *SnowballC* (Bouchet-Valat, 2020) to transform the raw qualitative data and analyze the frequency of each topic. Data was input as a TXT file, and using the *tm* package, all letters were transformed into lower case, all non-alphanumeric characters were removed, and all white space was removed. Then, using the *SnowballC* package, frequency list of topics was generated from most prevalent to least prevalent. I then thematized the topics into broader categories; for example, money, finances, bills, and budget would fall under the category of finances. Total counts were established after thematizing.

The argument topic that was chosen most frequently by study participants was about money or finances with approximately 265 responses citing money, finances, spending, or bills as their most frequent, serious serial argument. The next most argued about topic was about children, with around 50 participants indicating this was their most frequently occurring and serious serial argument. The third most argued about issue was about intimacy, with approximately 46 participants indicating that sex, affection, love, or intimacy was the source of the serial argument they selected. Other topics people chose to report on were about family (non-child specific), communication, work, health, chores/housework, cheating, substance abuse, jealousy, politics, and important life decisions (e.g. retirement).

Participants reported responding to conflicts that occurred at varying frequency rates. The majority of participants reported engaging in conflict about this issue weekly ( $n = 297$ ), with

others reporting on conflict that occurred every other week ( $n = 189$ ), once a month ( $n = 173$ ), several times a year ( $n = 143$ ), daily ( $n = 118$ ), or less than once a year ( $n = 41$ ). Arguments that were reported to occur daily were perceived as being the most serious,  $M = 4.14$ , particularly compared to arguments that occurred every other week,  $M = 3.72$ ,  $p < .05$ , once a month,  $M = 3.46$ ,  $p < .001$ , several times a year,  $M = 3.25$ ,  $p < .001$ , or less than once a year,  $M = 3.28$ ,  $p < .01$ .

Severity perceptions also differed based on who the participant indicated was usually the conflict instigator,  $F(1, 893) = 8.22$ ,  $p < .001$ . People who indicated the conflict was instigated by both partners some of the time,  $M = 3.47$ , reported on significantly less serious arguments than did people who indicated they were the conflict instigator most of the time,  $M = 3.83$ ,  $p < .001$ ; Neither of these groups reported on conflicts with statistically different severity perceptions from partner instigated issues,  $M = 3.63$ . Thus, people perceive their own issues to be more serious than issues that were brought up by both partners some of the time.

## **Substantive Analyses**

### **Within Episode Analysis**

To explore the within episode experience of serial arguments, I used hierarchical linear modelling using a model building approach to determine the best model fit to my data. In striving for a parsimonious model, this approach also determines whether adding more complexity through the addition of more model terms is worth the potential loss of parsimony regarding model fit. I used the NLME package in R (Pinheiro & Bates, 2000) using the linear mixed-effects (lme) function using the steps outlined in Bliese and Ployhart (2002) and Shiverdecker and LeBretton (2019). I did this for two outcome variables: communication valence and communication engagement. Multilevel modelling allows for analysis to be



conducted in the case that a wave is missing for a participant, therefore, I was able to use the complete sample for these analyses ( $n = 963$ ).

## **Relationship Quality**

### ***Specifying the Model***

For the relationship quality model series, I first specified a null model with no random effects included. Using the lme function, I assessed the fit of relationship quality, using a fixed effect of 1 to estimate an intercept. In the random component of the model, I identified the subject ID as the grouping variable. This model served as a basis for determining whether allowing random intercepts or slopes was necessary. In addition, I determined the intraclass correlation coefficient (ICC) to assess the variance of relationship quality that can be attributed to people. The ICC for communication engagement was 68.01%, meaning 61.08% of the variance in relationship quality could be attributed to within-person effects.

I added a random intercept to the null model and ran a chi-squared difference test to compare the model fits of the null model to the model with the random intercept. The model with the random intercept was a better fit to my data with a likelihood ratio of 6.76,  $\Delta df = 1, p < .01$ . I then added a random slope to the model by adding time as a random effect. I compared the model with a random intercept to the model with a random slope and determined that the model with a random slope was a significantly better fit to the data with a likelihood ratio of 67.85,  $\Delta df = 3, p < .001$ .

Next, I tested restrictions on the error structure of these data to determine whether issues of autocorrelation or homoscedasticity needed to be accounted for. The addition of an autocorrelated error structure was added to the random intercept model and was compared to the unaltered random-intercept model. The random-intercept model was a statistically better fit to

the data than the random-intercept model with the autocorrelated error structure with a likelihood ratio of 0.07,  $\Delta df = 1, p = .79$ . In addition, modeled heteroscedasticity onto the random intercept model and compared it to the unaltered random intercept model. The unaltered random intercept model was a better fit to the data with a likelihood ratio of 2.53,  $\Delta df = 1, p = .11$ , therefore, I assumed homoscedasticity of the error structure for all subsequent models with relationship quality as an outcome variable.

### ***Main Effects of Moderators on Rumination***

After assessing the error structure, I determined whether my moderators independently impacted relationship quality by individually adding them as fixed factors in the random intercept model. First, I assessed whether perceived resolvability independently influenced relationship quality by adding it as a fixed effect. Perceived resolvability significantly predicted relationship quality,  $\beta = 0.26, p < .001$ ; the more resolvable the conflict was perceived to be, the higher quality they perceived their relationship to be. I next assessed a model with each lifespan variable as a fixed effect and found that relationship length independently predicted relationship quality,  $\beta = 0.01, p < .05$ , and relationship stage predicted relationship quality,  $\beta = 0.10, p < .01$ ; I also assessed a model in which all of the lifespan predictors were added as fixed effects to the model together and found that none of the lifespan predictors independently predicted relationship quality.

### ***Testing Communication Engagement Effects (H1, H13, H14)***

After examining the independent effects of my moderators on my outcome, I then began the modeling of the effect of communication engagement on relationship quality. As a fixed effect, which are summarized in the Level 1 Model column in Table 5.5, communication engagement was not a significant predictor of relationship quality,  $\beta = 0.02, p = .65$ , which does

not support H1. I next added perceived resolvability as a moderator to examine whether the extent to which an individual's communication engagement influenced their perception of relationship quality would be further influenced by their perception that the argument is resolvable (H13). Per the results in the second column in Table 5.5, the interaction term was not significant,  $\beta = -0.03$ ,  $p = .15$ . Thus, H13 was not supported.

Each lifespan variable was then added as a moderator to this model independently to assess whether lifespan differences would moderate the extent to which perceived resolvability moderated the relationship between communication engagement and relationship quality (H14). These results are in the last three columns in Table 5.5. For the model with communication engagement, perceived resolvability, and age, the three-way interaction was significant,  $\beta = 0.004$ ,  $p < .01$ . For the model with communication engagement, perceived resolvability, and relationship length, the three-way interaction was significant,  $\beta = 0.003$ ,  $p < .05$ . For the model with communication engagement, perceived resolvability, and relationship stage, the three-way interaction was not significant,  $\beta = 0.03$ ,  $p = .22$ . From these findings, I found partial support for the moderating moderation of lifespan on the relationship between perceived resolvability, communication engagement, and relationship quality (H14).

To explore the interaction between communication engagement, perceived resolvability, and age in predicting relationship quality, I created a set of plots (see Figure 5.1). There are nine plot windows, each looking at individual's relationship quality perceptions when they engaged in conflict and when they did not engage in conflict. Dots in the top half of a plot window reflect engagement, or a value of 1, and dots in the bottom half of a plot window reflect non-engagement, or a value of 0. The first column of plot windows reflects the engagement and relationship quality associations for arguments that are rated as less resolvable (a scale rating

between 1-3), and the last column reflects the engagement and relationship quality associations for arguments that are rated as highly resolvable (a scale rating between 4.75-6). The first row looks at the association between communication engagement and relationship quality across three levels of resolvability for the youngest portion of the sample (< 31 years old), the middle row the middle-aged portion of the sample (32 – 49 years old), and the bottom row the older portion of the sample (50 – 75 years old).

When looking at the plot density of these windows, it appears that older people were more likely to reflect on a low resolvability conflict than were younger people, and that younger people were more likely to report on a highly resolvable rather than a less resolvable conflict. For low resolvability conflicts, engagement corresponded with increased relationship quality perceptions for younger people, while there were a greater proportion of older people who perceived their relationship quality to be lower when they engaged in communication about their low resolvability issue. For high resolvability conflicts, people reported their relationship quality to be high, regardless of whether they engaged or did not engage in conflict about the issue. For younger people, there is slightly more dispersion in dots across relationship quality, whereas for older people, there is a much greater bunching of data at the highest relationship quality perceptions. This does not support H14, in that there is not an attenuation of the effect of perceived resolvability as people get older; rather, there seems to be a strengthening of that moderation at older ages.

To explore the interaction between communication engagement, perceived resolvability, and relationship length in predicting relationship quality, I created a set of plots (see Figure 5.2). There are nine plot windows, each looking at individual's relationship quality perceptions when they engaged in conflict and when they did not engage in conflict. Dots in the top half of a plot

window reflect engagement, or a value of 1, and dots in the bottom half of a plot window reflect non-engagement, or a value of 0. The first column of plot windows reflects the engagement and relationship quality associations for arguments that are rated as less resolvable (a scale rating between 1-3), and the last column reflects the engagement and relationship quality associations for arguments that are rated as highly resolvable (a scale rating between 4.75-6). The first row looks at the association between communication engagement and relationship quality across three levels of resolvability for the newest relationships in the sample (1-3 years long), the middle row the middle-length relationships in the sample (4 – 14 years long), and the bottom row the longest relationships in the sample (15+ years long).

When looking at the plot density of these windows, it appears that people in longer term relationships were more likely to reflect on a low resolvability conflict than were people in newer relationships, and that people in newer relationships were more likely to report on a highly resolvable rather than a less resolvable conflict. People were more likely to report engaging in communication about lower resolvability conflicts, than to report not engaging in low resolvability conflicts across all relationship lengths. A similar bunching pattern is occurring in this series of plots as occurred in the age plots across levels of resolvability, whereby as the resolvability of the conflict increased, people were more likely to indicate their relationship was of higher quality, regardless of engagement or relationship length.

Of note in these plots is the apparent strength of people in longer-term relationships when reporting on an issue that is highly resolvable and engaging in communication about it. It is clear that discussing a highly resolvable conflict corresponds with perceptions that a relationship is of high quality, whereas non-engagement in communication about the issue only moderately impacts relationship quality assessments for people in long-term relationships. In opposition, the

volatility of newer relationships is exemplified in the top right plot window, where engagement in communication about a highly resolvable issue corresponds with more people rating their relationship as being of lower quality than people in new relationships who did not engage in discussion of the issue. This does not support H14, in that there is not an attenuation of the effect of perceived resolvability as people's relationships progress in length, but rather, there seems to be a strengthening of that moderation at longer relationship lengths.

### ***Assessing Communication Valence Effects (H2, H13, H14)***

Next, I modelled the effect of communication valence on relationship quality (see Table 5.6). As a fixed effect, summarized in the first column in Table 5.6, communication valence was a significant predictor of relationship quality,  $\beta = 0.54, p < .001$ . The more a person perceived their communication about their issue with their partner was positively valenced, the more they perceived their relationship to be of better quality, which supports H2. I next added perceived resolvability as a moderator to examine whether the extent to which an individual's communication valence influenced their perception of relationship quality would be further influenced by their perception that the argument is resolvable (H13). These results, presented in the second column in Table 5.6, showed that the interaction term was significant,  $\beta = -0.04, p < .01$ .

To determine whether perceived resolvability attenuated or amplified the association between communication valence and relationship quality, I plotted the relationship (see Figure 5.3). Each datapoint indicated a person's assessment of communication valence and relationship quality at any time point in the study. Each plot window reflects this association at three levels of perceived resolvability. The first plot window shows the datapoints for arguments that are rated as less resolvable (a scale rating between 1-3), and the last window shows the data points for

arguments that are rated as highly resolvable (a scale rating between 4.75-6). For low resolvability conflicts, the relationship between communication valence and relationship quality is less clear. People report engaging in negative and positive communication, though it is mostly negative, and both levels of communication valence are associated with all levels of relationship quality. In the highly resolvable conflict panel, people nearly exclusively report engaging in neutral to positively valenced communication, and report moderate to high levels of relationship quality. These plots indicate that perceived resolvability amplifies, rather than attenuates, the association between communication valence and relationship quality, counter to the proposition of H13.

Each lifespan variable was then added as a moderator to this model independently to assess whether lifespan differences would moderate the extent to which perceived resolvability moderated the relationship between communication valence and relationship quality (H14). These results are summarized in the last three columns in Table 5.6. For the model with communication valence, perceived resolvability, and age, the three-way interaction was non-significant,  $\beta = -0.00$ ,  $p = .63$ . For the model with communication valence, perceived resolvability, and relationship length, the three-way interaction was non-significant,  $\beta = -0.00$ ,  $p = .31$ . For the model with communication valence, perceived resolvability, and relationship stage, the three-way interaction was also non-significant,  $\beta = -0.02$ ,  $p = .16$ . From these findings, I did not find support for the moderating moderation of lifespan on the relationship between perceived resolvability, communication valence, and relationship quality (H14).

### **Rumination**

For the rumination model series, I follow similar steps to the prior model series. I first specified the model, then assessed the effects of communication engagement or communication

valence on rumination within the conflict episode. I then assessed the moderating influence of perceived resolvability. I finally assessed each lifespan variables' moderating influence on the moderation of perceived resolvability.

### ***Specifying the Model***

I first specified a null model with no random effects included. Using the lme function, I assessed the fit of rumination, using a fixed effect of 1 to estimate an intercept. In the random component of the model, I identified the subject ID as the grouping variable. This model served as a basis for determining whether allowing random intercepts or slopes was necessary. In addition, I determined the intraclass correlation coefficient (ICC) to assess the variance of rumination that can be attributed to people. The ICC for rumination was 51.2%, meaning 51.2% of the variance in rumination could be attributed to within-person effects.

Next, I added a random intercept to the null model and ran a chi-squared difference test to compare the model fits of the null model to the model with the random intercept. The model with the random intercept was a better fit to my data with a likelihood ratio of 45.24,  $\Delta df = 1$ ,  $p < .001$ . I then added a random slope to the model by adding time as a random effect. I compared the model with a random intercept to the model with a random slope and determined that the model with a random slope was a significantly better fit to the data with a likelihood ratio of 28.70,  $\Delta df = 2$ ,  $p < .001$ .

Next, I tested restrictions on the error structure of these data to determine whether issues of autocorrelation or homoscedasticity needed to be accounted for. The addition of an autocorrelated error structure was added to the random intercept model and was compared to the unaltered random-intercept model. The random-intercept model with the autocorrelated error structure was a statistically better fit to the data than the random-intercept model with a



likelihood ratio of 4.70,  $\Delta df = 1, p < .03$ . In addition, modeled heteroscedasticity onto the random intercept model and compared it to the random intercept model with the autocorrelated error structure. The random intercept model with the autocorrelated error structure was a better fit to the data with a likelihood ratio of 1.52,  $\Delta df = 1, p = .21$ , therefore, I assumed homoscedasticity of the error structure for all subsequent models.

### ***Main Effects of Moderators on Rumination***

After assessing the error structure, I determined whether my moderators independently impacted rumination by individually adding them as fixed factors in the random intercept model. First, I assessed whether perceived resolvability independently influenced rumination by adding it as a fixed effect. Perceived resolvability significantly predicted rumination,  $\beta = -0.14, p < .001$ ; the more resolvable the conflict was perceived to be, the less a person ruminated about the issue. I next assessed a model with each lifespan variable as a fixed effect and found that age,  $\beta = -0.02, p < .001$ , and relationship length,  $\beta = -0.02, p < .001$ , were significant predictors of rumination; however, I also assessed a model in which all of the lifespan predictors were added as fixed effects to the model, and only age remained significant,  $\beta = -0.02, p < .001$ .

### ***Testing Communication Engagement Effects (H5, H13, H14)***

After examining the independent effects of my moderators on my outcome, I then began modeling the effect of communication engagement on rumination (see Table 5.7). As a fixed effect, summarized in the first column in Table 5.7, communication engagement was a significant predictor of rumination,  $\beta = -0.21, p < .01$ . As anticipated by H5, if a person did not engage in communication about their issue with their partner, they were more likely to ruminate about it. I next added perceived resolvability as a moderator to examine whether the extent to which an individual's communication engagement influenced their perception of rumination

would be further influenced by their perception that the argument is resolvable (H13). The interaction term, detailed in the second column of Table 5.7, was not significant,  $\beta = -0.03$ ,  $p = .40$ , therefore, H13 was not supported.

Each lifespan variable was then added as a moderator to this model independently to assess whether lifespan differences would moderate the extent to which perceived resolvability moderated the relationship between communication engagement and rumination (H14). These results are presented in the last three columns in Table 5.7. For the model with communication engagement, perceived resolvability, and age, the three-way interaction was significant,  $\beta = 0.004$ ,  $p < .05$ . For the model with communication engagement, perceived resolvability, and relationship length, the three-way interaction was not significant,  $\beta = 0.004$ ,  $p = .19$ . For the model with communication engagement, perceived resolvability, and relationship stage, the three-way interaction was not significant,  $\beta = -0.02$ ,  $p = .51$ . From these findings, I found partial support for the moderating moderation of lifespan on the relationship between perceived resolvability, communication engagement, and rumination (H14).

To explore the interaction between communication engagement, perceived resolvability, and age in predicting rumination, I created a set of plots (see Figure 5.4). There are nine plot windows, each looking at individual's rumination behaviors when they engaged in conflict and when they did not engage in conflict. Dots in the top half of a plot window reflect engagement, or a value of 1, and dots in the bottom half of a plot window reflect non-engagement, or a value of 0. The first column of plot windows reflects the engagement and relationship quality associations for arguments that are rated as less resolvable (a scale rating between 1-3), and the last column reflects the engagement and relationship quality associations for arguments that are rated as highly resolvable (a scale rating between 4.75-6). The first row looks at the association

between communication engagement and relationship quality across three levels of resolvability for the youngest portion of the sample (< 31 years old), the middle row the middle-aged portion of the sample (32 – 49 years old), and the bottom row the older portion of the sample (50 – 75 years old).

When looking at the plot density of these windows, it appears that older people were more likely to reflect on a low resolvability conflict than were younger people, and that younger people were more likely to report on a highly resolvable rather than a less resolvable conflict. For low resolvability conflicts, younger people indicated they ruminated a moderate to great amount about their issue regardless of engagement. Older individuals were more likely to engage then not engage in a conflict episode in a low resolvability conflict, and those that engaged experienced a moderate amount of rumination about their issue. There was much more variability in experience for older people reporting on low resolvability conflict than for younger individuals. For highly resolvable conflicts, younger people still indicated a moderate to high amount of rumination about their issue. Alternatively, older people reported low to moderate amounts of rumination about their highly resolvable conflict. A trend across levels of resolvability is that younger people tend to ruminate more about their issue regardless of engagement in their issue, with lack of engagement trending toward more rumination than when a person engages in communication about their issue. For middle-aged to older people in this study, people who engage in conflict seem to experience less rumination about their issue, whereas people who do not engage in conflict about their issue seem to experience slightly more rumination about their issue. This does not support H14, in that there is not an attenuation of the effect of perceived resolvability as people get older; rather there seems to be a strengthening of that moderation at older ages.

### *Assessing Communication Valence Effects (H6, H13, H14)*

Next, I modelled the effect of communication valence on rumination (see Table 5.8). As reported in the first column in Table 5.8, as a fixed effect, communication valence was a significant predictor of rumination,  $\beta = -0.53$ ,  $p < .001$ . The more a person perceived their communication about their issue with their partner was positively valenced, the less they ruminated about the issue, which supports H6. I next added perceived resolvability as a moderator to examine whether the extent to which an individual's communication valence influenced their perception of rumination would be further influenced by their perception that the argument is resolvable (H13). These results, presented in the second column of Table 5.8, showed that the interaction term was not significant,  $\beta = -0.02$ ,  $p = .39$ . Thus, H13 was not supported.

As detailed in the final three columns in Table 5.8, each lifespan variable was then added as a moderator to this model independently to assess whether lifespan differences would moderate the extent to which perceived resolvability moderated the relationship between communication valence and rumination (H14). For the model with communication valence, perceived resolvability, and age, the three-way interaction was non-significant,  $\beta = -0.00$ ,  $p = .67$ . For the model with communication valence, perceived resolvability, and relationship length, the three-way interaction was non-significant,  $\beta = -0.00$ ,  $p = .20$ . For the model with communication valence, perceived resolvability, and relationship stage, the three-way interaction was also non-significant,  $\beta = -0.03$ ,  $p = .21$ . From these findings, I did not find support for the moderating moderation of lifespan on the relationship between perceived resolvability, communication valence, and rumination (H14).

### **Stress**

For the stress model series, I followed similar steps to the prior model series. I first specified the model, then assessed the effects of communication engagement or communication valence on stress within the conflict episode. I then assessed the moderating influence of perceived resolvability. I finally assessed each lifespan variables' moderating influence on the moderation of perceived resolvability.

### *Specifying the Model*

I first specified a null model with no random effects included. Using the `lme` function, I assessed the fit of stress, using a fixed effect of 1 to estimate an intercept. In the random component of the model, I identified the subject ID as the grouping variable. This model served as a basis for determining whether allowing random intercepts or slopes was necessary. In addition, I determined the intraclass correlation coefficient (ICC) to assess the variance of stress that can be attributed to people. The ICC for stress was 64.1%, meaning 64.1% of the variance in stress could be attributed to within-person effects.

Next, I added a random intercept to the null model and ran a chi-squared difference test to compare the model fits of the null model to the model with the random intercept. The model with the random intercept was a better fit to my data with a likelihood ratio of 27.43,  $\Delta df = 1, p < .001$ . I then added a random slope to the model by adding time as a random effect. I compared the model with a random intercept to the model with a random slope and determined that the model without a random slope was a significantly better fit to the data with a likelihood ratio of 6.47,  $\Delta df = 2, p < .05$ .

Next, I tested restrictions on the error structure of these data to determine whether issues of autocorrelation or homoscedasticity needed to be accounted for. The addition of an autocorrelated error structure was added to the random intercept model and was compared to the

unaltered random-intercept model. The random-intercept model with the autocorrelated error structure was a statistically better fit to the data than the unaltered random-intercept model with a likelihood ratio of 4.40,  $\Delta df = 1, p < .05$ . In addition, modeled heteroscedasticity onto the model with the autoregressive error structure and compared it to the random intercept model with the autoregressive error structure. The model accounting for heteroscedasticity was a better fit to the data with a likelihood ratio of 15.25,  $\Delta df = 1, p < .001$ , therefore, I accounted for an autoregressive and heteroscedastic error structure in each stress model.

### ***Main Effects of Moderators on Stress***

After assessing the error structure, I determined whether my moderators independently impacted stress by individually adding them as fixed factors in the random intercept model. First, I assessed whether perceived resolvability independently influenced stress by adding it as a fixed effect. Perceived resolvability significantly predicted stress,  $\beta = 0.03, p < .01$ ; the more resolvable the conflict was perceived to be, the more stress a person indicated experiencing. I next assessed a model with each lifespan variable as a fixed effect and found that age,  $\beta = 0.03, p < .001$ , and relationship length,  $\beta = 0.02, p < .001$ , were significant predictors of stress; however, I also assessed a model in which all of the lifespan predictors were added as fixed effects to the model, and only age,  $\beta = 0.03, p < .001$ , was a significant predictor of stress when all lifespan measures were accounted for.

### ***Testing Communication Engagement Effects (H9, H13, H14)***

After examining the independent effects of my moderators on my outcome, I then began the modeling of the effect of communication engagement on stress (see Table 5.9). As a fixed effect and reported in the first column of Table 5.9, communication engagement was not a significant predictor of stress,  $\beta = 0.02, p = .56$ , which does not support H9. I next added

perceived resolvability as a moderator to examine whether the extent to which an individual's communication engagement influenced their perception of stress would be further influenced by their perception that the argument is resolvable (H13). The interaction term, detailed in the second column in Table 5.9, was not significant,  $\beta = -0.01$ ,  $p = .47$ ; therefore, H13 was not supported.

Each lifespan variable was then added as a moderator to this model independently to assess whether lifespan differences would moderate the extent to which perceived resolvability moderated the relationship between communication engagement and stress (H14). These results are reported in the final three columns in Table 5.9. For the model with communication engagement, perceived resolvability, and age, the three-way interaction was not significant,  $\beta = -.002$ ,  $p = .13$ . For the model with communication engagement, perceived resolvability, and relationship length, the three-way interaction was not significant,  $\beta = -0.001$ ,  $p = .36$ . For the model with communication engagement, perceived resolvability, and relationship stage, the three-way interaction was not significant,  $\beta = 0.03$ ,  $p = .16$ . From these findings, I did not find support for the moderating moderation of lifespan on the relationship between perceived resolvability, communication engagement, and stress (H14).

#### ***Assessing Communication Valence Effects (H10, H13, H14)***

Next, I modelled the effect of communication valence on stress (see Table 5.10). As a fixed effect, summarized in the first column in Table 5.10, communication valence was a significant predictor of stress,  $\beta = 0.31$ ,  $p < .001$ . The more a person perceived their communication about their issue with their partner was positively valenced, the more stress they experienced; this finding runs counter to H10. I next added perceived resolvability as a moderator to examine whether the extent to which an individual's communication valence

influenced their perception of stress would be further influenced by their perception that the argument is resolvable (H13). As detailed in the second column in Table 5.10, the interaction term was significant,  $\beta = 0.03$ ,  $p < .05$ .

To explore the impact of perceived resolvability on the relationship between communication valence and stress, I created a series of plots (see Figure 5.5). Each window depicts the relationship between communication valence and stress and three levels of resolvability. The first column of plot windows reflects the communication valence and stress associations for arguments that are rated as less resolvable (a scale rating between 1-3), and the last column reflects the engagement and relationship quality associations for arguments that are rated as highly resolvable (a scale rating between 4.75-6).

There is a clear strengthening in the relationship between communication valence and stress as the resolvability of an argument increases, with communication valence being rated as more positive regardless of the level of stress a person is experiencing in highly resolvable conflicts. Although there is a clear positive association between communication valence and stress in less resolvable conflicts, there is much more variability in communication valence assessments across levels of stress. The general trend is that communication valence is more positive at increased levels of stress, but that overall communication valence is mostly rated neutral to positive across all levels of stress for highly resolvable conflicts. This does not support the supposition that perceived resolvability attenuates the relationship between communication valence and stress (H13).

Each lifespan variable was then added as a moderator to this model independently to assess whether lifespan differences would moderate the extent to which perceived resolvability moderated the relationship between communication valence and stress (H14). These results are



in the last three columns of Table 5.10. For the model with communication valence, perceived resolvability, and age, the three-way interaction was non-significant,  $\beta = -0.00$ ,  $p = .52$ . For the model with communication valence, perceived resolvability, and relationship length, the three-way interaction was non-significant,  $\beta = 0.00$ ,  $p = .09$ . For the model with communication valence, perceived resolvability, and relationship length, the three-way interaction was also non-significant,  $\beta = 0.03$ ,  $p = .07$ . From these findings, I did not find support for the moderating moderation of lifespan on the relationship between perceived resolvability, communication valence, and stress (H14).

### ***Summary of Within Episode Results***

Overall, I found mixed support for the within episode hypotheses. Communication engagement was not significantly related to relationship quality nor stress (H1 and H9) but was negatively related to rumination as predicted (H5). Communication valence was positively related to relationship quality (H2) and was negatively related to rumination (H6), as anticipated; however, communication valences was positively related to stress, which contradicts my prediction (H10). I found some evidence that perceived resolvability moderates the extent to which communication valence is related to relationship quality and stress (H13). In addition, it did independently predict relationship quality, rumination, and stress. Finally, I found some evidence to suggest that lifespan differences (predominantly age and relationship length) may impact the extent to which perceived resolvability moderates the relationship between communication engagement and relationship quality and rumination (H14). Age and relationship length were stronger independent predictors of relationship quality, rumination, and stress than was relationship stage.

### **Between Episode Analysis**

As outlined in chapter four, I tested the reciprocal relationships between the two communication variables (communication engagement, communication valence) and relationship quality, rumination, and stress) using a series of random-intercept cross-lagged panel models (RI-CLPMs) on my complete dataset ( $n = 963$ ). To determine whether more constrained models might be a better fit to my data, I compared the fits of two alternative model types for each hypothesis: a cross-lagged panel model (CLPM), and a random intercept cross-lagged panel model with constrained autoregressive and cross-lagged paths. The CLPM and the constrained RI-CLPM are nested within the RI-CLPM and can be compared using a chi-squared difference test. The fit of each model was assessed based on a good fitting model having a nonsignificant chi-squared value ( $p > .05$ ), a Tucker Lewis index score (TLI) above .95, a comparative fit index (CFI) of above .95, an root mean square error of approximation (RMSEA) value less than .06, and a standardized root mean square residual (SRMR) of less than .06 (Hu & Bentler, 1999). The results of these comparative analyses for all models assessed are in Table 5.11. The RI-CLPM was a better fit to the data for every model except in the relationship between communication engagement and rumination, in which the CLPM was a significantly better fit to the data.

To examine the results of the RI-CLPM (see Figure 5.7), there are several primary areas of focus. First, are the between-level factor loadings (paths a-f) and the within-level factor loadings (paths g-l). Stronger within-level factor loadings indicate the variables are more likely time-varying in nature, whereas stronger between-level factor loadings indicate the variables are more likely stable or trait-like in nature. Next, we can examine the aggregated, person-level association between the variables of interest. Then, we examine the auto-regressive structure of the variables over time to determine whether the levels of a variable at one time predict changes in the same variable at the next time. Finally, we can examine the cross-lagged associations from

variable A at one time point to variable B at the next time point accounting for the auto-regressive influence of variable B from the previous time point. Both the auto-regressive and cross-lagged associations indicate an effect above and beyond the between-level association in the variables. For this study, the between-level is each individual person, while the within-level refers to experiences at each time point.

## **Communication Valence**

### ***Relationship Quality Assessment***

My first model tested the relationship between communication valence and relationship quality over three timepoints using a RI-CLPM (see Table 5.12 and Figure 5.8). The within-person portion of the model tests the autoregressive structure from communication valence at one timepoint to communication valence at the next time point, and relationship quality from one time point to relationship quality at the next time point. It also tests the cross-lagged relationship between communication valence at one time point to relationship quality at the next time point, controlling for the influence of the individuals mean relationship quality score. The reciprocal influence of relationship quality to communication valence is similarly estimated. Next, the between-persons differences are estimated by correlating individuals' overall change in communication valence and relationship quality. As indicated in Table 5.11, the analysis of alternative models indicated that the RI-CLPM provided the best fit to evaluate the relationship between communication valence and relationship quality,  $X^2(1) = 0.41$ ,  $p = .52$ ,  $RMSEA = .00$  ( $CI = .00 - .07$ ),  $p = .83$ ,  $CFI = 1.00$ ,  $TLI = 1.01$ , and  $SRMR = .01$  (see Figure 5.2).

At the between-person level, which is represented in the last row of Table 5.12, relationship quality was positively associated with positive perceptions of communication valence about a serial conflict episode,  $\beta = 0.70$ ,  $p < .001$ . At the within-person level, the only

significant autoregressive path, as presented in the first four rows of Table 5.12, was from relationship quality at time 2 to relationship quality at time 3,  $\beta = 0.42, p < .001$ . The cross-lagged parameters, presented in the second four rows of Table 5.12, indicated that a person's perception of their relationship quality at time 2 was predictive of their perception of communication valence in their conflict at time 3,  $\beta = 0.16, p < .05$ , in that the more positive their perceptions of relationship quality at time 2, the more positive they perceived their communication valence in a conflict episode at time 3. Overall, this offers support for H4a in that the between-person association indicated a positive relationship was present between relationship quality and communication valence. Notably, however, there was only a within-person effect from relationship quality to communication valence. Also, I did not observe relationship from communication valence to relationship quality; therefore, H4b was not supported.

### ***Rumination Assessment***

My second model tested the relationship between communication valence and rumination over three timepoints using a RI-CLPM (see Table 5.13 and Figure 5.9). The within-person portion of the model tests the autoregressive structure from communication valence at one timepoint to communication valence at the next time point, and rumination from one time point to rumination at the next time point. It also tests the cross-lagged relationship between communication valence at one time point to rumination at the next time point, controlling for the influence of the individuals mean rumination score. The reciprocal influence of rumination to communication valence is similarly estimated. Next, the between-persons differences are estimated by correlating individuals' overall change in communication valence and rumination. As indicated in Table 5.11, the analysis of alternative models indicated that the RI-CLPM provided the best fit to evaluate the relationship between communication valence and

rumination,  $X^2(1) = 0.29$ ,  $p = .59$ ,  $RMSEA = 0.00$  ( $CI = 0.00 - 0.07$ ),  $p = .86$ ,  $CFI = 1.00$ ,  $TLI = 1.01$ , and  $SRMR = .01$  (see Figure 5.3).

At the between-person level, as represented in the last row of Table 5.13, rumination was negatively associated with the perceived positivity of communication about a serial conflict episode,  $\beta = -0.56$ ,  $p < .001$ . Put differently, as people ruminated more, they perceived their communication to be more negatively-valenced within conflict episodes. The auto-regressive paths, expressed in the first four rows of Table 5.13, were significant from rumination at time 1 to rumination at time 2,  $\beta = 0.21$ ,  $p < .05$ , rumination from time 2 to time 3,  $\beta = 0.46$ ,  $p < .001$ , and communication valence from time 2 to time 3,  $\beta = 0.23$ ,  $p < .05$ . The cross-lagged parameters, represented in the second four rows in Table 5.13, indicated that a person's level of rumination at time 2 was predictive of their perception of communication valence in their conflict at time 3,  $\beta = -0.28$ ,  $p < .05$ , in that the more a person indicated they ruminated at time 2, the more negative they perceived their communication valence in a conflict episode at time 3. This offers support for H8a. Because none of the cross-lagged paths from communication valence to rumination were significant, H8b was not supported. In summary, participants' average scores on communication valence and rumination were negatively associated, and only rumination significantly predicted communication valence from one time point to another beyond the aggregated association.

### ***Stress Assessment***

My third model tested the relationship between communication valence and stress over three timepoints using a RI-CLPM (see Table 5.14 and Figure 5.10). The within-person portion of the model tests the autoregressive structure from communication valence at one timepoint to communication valence at the next time point, and stress from one time point to stress at the next

time point. It also tests the cross-lagged relationship between communication valence at one time point to stress at the next time point, controlling for the influence of the individuals mean stress score. The reciprocal influence of stress to communication valence is similarly estimated. Next, the between-persons differences are estimated by correlating individuals' overall change in communication valence and stress. As indicated in table 5.11, the analysis of alternative models indicated that the RI-CLPM provided the best fit to evaluate the relationship between communication valence and stress,  $X^2 (1) = 2.44, p = .12, RMSEA = .04 (CI = 0.00 - 0.10), p = .50, CFI = 1.00, TLI = 0.98,$  and  $SRMR = .01$  (see Figure 5.4).

At the between-person level, as defined in the last row of Table 5.13, stress was positively associated with perceptions of communication valence about a serial conflict episode, ( $\beta = 0.48, p < .001$ ). As people felt more stress, they perceived their communication to be more positively-valenced within conflict episodes. The autoregressive paths, as expressed in the first four rows of Table 5.14, indicated the path from stress at time 2 to stress at time 3 was significant,  $\beta = 0.34, p < .001$ ; none of the other autoregressive paths were significant. There were no significant cross-lagged associations between stress and communication valence, as described in the second four rows of Table 5.14. Although the mean of an individuals' communication valence and stress were positively correlated, individuals' within time-point associations did not deviate from their average, or expected level over time. This does not support H12a or H12b, both in the direction of the between-person association, which is positive rather than negative, and in that there was no significant within-person variation.

## **Communication Engagement**

### ***Relationship Quality Assessment***

My fourth model tested the relationship between communication engagement and relationship quality over three timepoints using a RI-CLPM (see Table 5.15 and Figure 5.11). The within-person portion of the model tests the autoregressive structure from communication engagement at one timepoint to communication engagement at the next time point, and relationship quality from one time point to relationship quality at the next time point. It also tests the cross-lagged relationship between communication engagement at one time point to relationship quality at the next time point, controlling for the influence of the individuals mean stress score. The reciprocal influence of relationship quality to communication engagement is similarly estimated. Next, the between-persons differences are estimated by correlating individuals' overall change in communication engagement and relationship quality. As indicated in table 5.11, the analysis of alternative models indicated that the RI-CLPM provided the best fit to evaluate the relationship between communication engagement and relationship quality,  $\chi^2(1) = 1.50, p = .21, RMSEA = 0.02 (CI = 0.00 - 0.09), p = .63, CFI = 1.00, TLI = 0.99, \text{ and } SRMR = .01$  (see Figure 5.5).

At the between-person level, defined in the last row of Table 5.15, relationship quality was not significantly associated with communication engagement,  $\beta = -0.90, p = .14$ . The autoregressive paths, as illustrated in the first four rows of Table 5.15, from engagement at wave 2 to engagement at wave 3,  $\beta = 0.47, p < .001$ , and relationship quality at wave 2 to relationship quality at wave 3,  $\beta = 0.43, p < .001$  were significant. None of the cross-lagged associations between relationship quality and communication engagement were significant, as shown in the second four rows in Table 5.15. This does not support H3a or H3b in that there is no significant between-person or within-person associations between engagement and relationship quality,

### ***Rumination Assessments***

My fifth model tested the relationship between communication engagement and rumination over three timepoints using a RI-CLPM (see Table 5.16 and Figure 5.12). The within-person portion of the model tests the autoregressive structure from communication engagement at one timepoint to communication engagement at the next time point, and rumination from one time point to rumination at the next time point. It also tests the cross-lagged relationship between communication engagement at one time point to rumination at the next time point, controlling for the influence of the individuals mean stress score. The reciprocal influence of rumination to communication engagement is similarly estimated. Next, the between-persons differences are estimated by correlating individuals' overall change in communication engagement and rumination. As indicated in table 5.11, the analysis of alternative models indicated that the CLPM provided the best fit to evaluate the relationship between communication engagement and rumination,  $X^2(4) = 15.09, p < .01, RMSEA = .05 (CI = .03 - .08), p = .37, CFI = 0.98, TLI = 0.93,$  and  $SRMR = .03$ . Because the CLPM does not estimate between-person effects, this model does not include those paths (see Figure 5.6).

At the within-person level, as described in the first four rows of Table 5.16, the autoregressive paths for communication engagement were negative from time 1 to time 2,  $\beta = -0.15, p < .001$ , and positive from time 2 to time 3,  $\beta = 0.41, p < .001$ . The autoregressive paths for rumination were positive both from time 1 to time 2,  $\beta = 0.51, p < .001$ , and from time 2 to time 3,  $\beta = 0.63, p < .001$ . Thus, all of the autoregressive paths were significant in this model. The cross-lagged paths from engagement at wave 2 to rumination at wave 3,  $\beta = -0.07, p < .001$ , rumination at wave 1 to engagement at wave 2,  $\beta = -0.14, p < .01$ , and rumination at wave 2 to engagement at wave 3,  $\beta = -0.14, p < .05$ , were significant as defined in the second four rows of Table 5.16. These results suggest that less rumination about an issue was a significant predictor



of engagement over time, which is counter to H7a. In support of H7b, the results showed that engagement in wave 2 lead to less rumination in wave 3. This finding supports a reciprocal within-person negative relationship between communication engagement and rumination over time. The more someone ruminates about a problem, the less likely they are to discuss the issue with their partner, whereas engaging with a partner about an issue corresponded with less rumination in the future.

### ***Stress Assessments***

My sixth model tested the relationship between communication engagement and stress over three timepoints using a RI-CLPM (see Table 5.17 and Figure 5.13). The within-person portion of the model tests the autoregressive structure from communication engagement at one timepoint to communication engagement at the next time point, and stress from one time point to stress at the next time point. It also tests the cross-lagged relationship between communication engagement at one time point to stress at the next time point, controlling for the influence of the individuals mean stress score. The reciprocal influence of stress to communication engagement is similarly estimated. Next, the between-persons differences are estimated by correlating individuals' overall change in communication engagement and stress. As indicated in Table 5.11, the analysis of alternative models indicated that the RI-CLPM provided the best fit to evaluate the relationship between communication engagement and stress,  $X^2(1) = 9.22, p < .01, RMSEA = 0.09 (CI = 0.05 - 0.15), p = .07, CFI = 0.99, TLI = 0.82,$  and  $SRMR = .03$  (see Figure 5.7).

At the between-person level, as indicated in the last row of Table 5.17, stress was not significantly associated with communication engagement,  $\beta = -0.77, p = .20$ . The autoregressive paths from time 2 to time 3 were significant for both communication engagement,  $\beta = 0.46, p < .001$ , and stress,  $\beta = 0.29, p < .001$ , as specified in the first four rows of Table 5.17. The cross-

lagged paths from stress at time 1 to engagement at time 2,  $\beta = 0.36, p < .001$ , and from engagement at time 2 to stress at time 3,  $\beta = 0.35, p < .05$  were significant, as expressed in the second two rows of Table 5.17. This supports H11a and H11b in that there is a reciprocal, over time relationship between stress and engagement, such that more stress coincides with decisions to engage in communication about an issue, and engagement in communication subsequently coincides with an increase in stress in the next time point.

### **Multilevel Structural Equation Model**

To assess whether my findings could be the result of multiple testing effects, I also ran a multilevel structural equation model in Mplus. I specified a two-level model grouped by subject, with stress, rumination, and relationship quality predicting engagement and valence both within and between time points. There were significant associations between relationship quality and communication valence,  $\beta = 0.61, p < .001$ , but not communication engagement,  $\beta = -0.12, p = .59$ , between time points. There were significant associations between rumination and communication valence,  $\beta = -0.74, p < .001$ , and communication engagement,  $\beta = -0.75, p < .001$ , between time points. There was also a significant association between stress and communication valence,  $\beta = 0.59, p < .001$ , but not communication engagement,  $\beta = 0.42, p = .10$ , between time points. The results of the multilevel structural equation model are consistent with the results of the RI-CLPMs.

### **Summary of Between Episode Findings**

Overall, the between episode hypotheses received mixed support. For the engagement models, there were no significant between-level associations between engagement and relationship quality (H3), rumination (H7), or stress (H11). However, there were significant within-level associations between communication engagement and rumination (H7a and H7b),

and a reciprocal association between stress and engagement (H11a and H11b). For the communication valence models, there were significant between-level associations between communication valence and relationship quality (H4), rumination (H8), and stress (H12). There were additional within-level associations from communication valence to relationship quality (H4a) and from rumination to communication valence (H8a).

Table 5.1 Variable mean differences and standard deviations between men and women within waves.

	Within Wave Means								
	Wave 1			Wave 2			Wave 3		
	Male ( <i>n</i> = 470)	Female ( <i>n</i> = 485)	<i>t</i>	Male ( <i>n</i> = 208)	Female ( <i>n</i> = 263)	<i>t</i>	Male ( <i>n</i> = 188)	Female ( <i>n</i> = 230)	<i>t</i>
Perceived Resolvability	3.79 (1.62)	3.53 (1.60)	2.50 *	4.22 (1.77)	4.13 (1.81)	0.57	4.31 (1.83)	4.11 (1.83)	1.10
Communication Valence	3.265 (0.86)	3.16 (0.85)	1.68	3.48 (0.90)	3.47 (0.86)	0.11	3.54 (0.92)	3.42 (0.90)	1.04
Relationship Quality	5.33 (1.09)	5.22 (1.19)	1.50	5.30 (1.27)	5.24 (1.28)	0.53	5.23 (1.35)	5.10 (1.42)	1.03
Rumination	4.46 (1.35)	4.73 (1.49)	-2.94 **	4.25 (1.54)	4.32 (1.71)	- 0.42	4.02 (1.56)	4.20 (1.67)	-1.13
Stress	3.45 (0.92)	3.16 (0.94)	4.69 ***	3.62 (0.94)	3.50 (0.88)	1.40	3.76 (0.88)	3.41 (0.96)	3.86 ***
Severity	3.57 (1.20)	3.76 (1.12)	-2.35 *	2.75 (1.17)	2.75 (1.18)	- 0.04	2.58 (1.17)	2.74 (1.20)	-1.43

Note: For gender differences, means are presented with standard deviations in parentheses for each gender with t-statistics for each wave. For ANOVAs using the subset of participants who completed all three waves (*n* = 325), the interaction between wave and gender was assessed; none of these two-way interactions were statistically significant.

Table 5.2 *Variable Mean Differences and Standard Deviations between People Who Are Dating, Engaged, and Married within Waves.*

	Within Wave Means											
	Wave 1				Wave 2				Wave 3			
	Daters ( <i>n</i> = 475)	Engaged ( <i>n</i> = 215)	Married ( <i>n</i> = 388)	<i>F</i>	Daters ( <i>n</i> = 215)	Engaged ( <i>n</i> = 44)	Married ( <i>n</i> = 214)	<i>F</i>	Daters ( <i>n</i> = 199)	Engaged ( <i>n</i> = 44)	Married ( <i>n</i> = 177)	<i>F</i>
Perceived Resolvability	3.65 (1.55)	3.84 (1.57)	3.62 (1.70)	0.69	4.11 (1.70)	4.41 (1.91)	4.19 (1.86)	0.59	4.28 (1.77)	4.14 (1.83)	4.11 (1.90)	0.65
Communication Valence	3.23 (0.85)	3.10 (0.90)	3.22 (0.84)	0.95	3.44 (0.87)	3.46 (0.91)	3.53 (0.88)	0.45	3.47 (0.91)	3.37 (0.96)	3.51 (0.90)	0.36
Relationship Quality	5.20 (1.08)	5.21 (1.28)	5.40 (1.17)	3.28 *	5.15 (1.20)	5.35 (1.28)	5.38 (1.34)	1.83	5.08 (1.35)	4.94 (1.55)	5.32 (1.38)	2.07
Rumination	4.52 (1.40)	5.12 (1.38)	4.56 (1.45)	6.87 **	4.40 (1.51)	4.62 (1.48)	4.12 (1.77)	2.59	4.20 (1.58)	4.58 (1.58)	3.89 (1.66)	3.81 *
Stress	3.31 (0.92)	2.96 (0.90)	3.39 (0.96)	8.02 ***	3.47 (0.88)	3.24 (0.73)	3.69 (0.93)	6.82 **	3.52 (0.91)	3.17 (0.95)	3.73 (0.95)	6.82 **
Severity	3.72 (1.14)	4.08 (1.02)	3.49 (1.21)	10.42 ***	2.80 (1.11)	3.14 (1.19)	2.62 (1.23)	4.02 *	2.71 (1.25)	2.86 (1.17)	2.56 (1.12)	1.38

*Note.* For relationship status difference differences, means are presented with standard deviations in parentheses for each relationship status with F-statistics for each wave. For ANOVAs using the subset of participants who completed all three waves (*n* = 325), the interaction between wave and status was assessed; none of these two-way interactions were statistically significant.

Table 5.3 *Correlations among Variables within Waves and ICC Values across Waves*

	1	2	3	4	5	6	7	8
1. Age	-							
2. Relationship Length	.57 ***	-						
3. Relationship Stage	.12 ***	.48 ***	-					
4. Perceived Resolvability	-.23 ***	-.16 ***	-.02					
	-.09	-.04	.02	.83				
	-.09	-.04	-.04					
5. Communication Valence	.03	-.01	-.01	.49 ***				
	.12 *	.10	.06	.55 ***	.82			
	.05	.00	.01	.59 ***				
6. Relationship Quality	-.02	.02	.11 ***	.38 ***	.45 ***			
	.05	.09	.13 **	.53 ***	.51 ***	.88		
	.05	.12 *	.10 *	.50 ***	.47 ***			
7. Rumination	-.15 ***	-.10 **	.02	-.11 ***	-.31 ***	-.24 ***		
	-.24 ***	-.17 ***	-.06	-.23 ***	-.29 ***	-.28 ***	.78	
	-.27 ***	-.20 ***	-.07	-.26 ***	-.42 ***	-.35 ***		
8. Stress	.42 ***	.19 ***	.19	-.03	.28 ***	.24 ***	-.35 ***	
	.49 ***	.32 ***	.14 **	.15 **	.38 ***	.29 ***	-.49 ***	.86
	.42 ***	.24 ***	.12 *	.23 ***	.48 ***	.35 ***	-.51 ***	

*Note.* For variables with multiple rows, the first row is based on data from wave 1 ( $n = 967$ ), the second row is based on data from wave 2 ( $n = 473$ ), the third row is based on data from wave 3 ( $n = 420$ ) and the diagonal is the ICC2 value for the variable as assessed across the three waves by the subsample that completed all waves ( $n = 325$ ).

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 5.4 *Differences in Variables across Waves.*

	<u>Within Wave Means</u>			<u>ANOVA Statistics</u>	
	Wave 1 ( <i>n</i> = 963)	Wave 2 ( <i>n</i> = 473)	Wave 3 ( <i>n</i> = 420)	<i>F</i>	<i>p</i>
Perceived Resolvability	3.66 <sup>a</sup>	4.18 <sup>b</sup>	4.19 <sup>b</sup>	22.06	< .001
Relationship Quality	5.28 <sup>a</sup>	5.27 <sup>a</sup>	5.16 <sup>a</sup>	1.31	.27
Communication Valence	3.21 <sup>a</sup>	3.48 <sup>b</sup>	3.47 <sup>b</sup>	17.77	< .001
Rumination	4.60 <sup>a</sup>	4.29 <sup>b</sup>	4.11 <sup>b</sup>	16.88	< .001
Stress	3.31 <sup>a</sup>	3.55 <sup>b</sup>	3.57 <sup>b</sup>	17.32	< .001
Severity	3.66 <sup>a</sup>	2.75 <sup>b</sup>	2.66 <sup>b</sup>	146.90	< .001

*Note.* Superscripts reflect Tukey pairwise comparisons; a group differs significantly from type b group, groups with the same superscript are not statistically different from one another.

Table 5.5 *Communication Engagement, Perceived Resolvability, and Lifespan Predicting Relationship Quality*

	Level 1 Model	PR	Age	Relationship Length	Relationship Stage
<i>Fixed effects</i>					
Intercept	5.32 *** (.07)	4.31 *** (.10)	2.68 *** (.30)	3.74 *** (.14)	3.87 *** (.49)
Time	-0.05 (.03)	-0.13 *** (.03)	-0.12 *** (.03)	-0.13 *** (.03)	-0.13 *** (.03)
Communication Engagement	0.02 (.05)	0.20 * (.10)	1.41 *** (.32)	0.50 *** (.15)	0.64 (.53)
Perceived Resolvability	-	0.28 (.02)	0.56 *** (.06)	0.37 *** (.03)	0.28 ** (.11)
Lifespan	-	-	0.04 *** (.01)	0.04 *** (.01)	0.09 (.10)
Communication Engagement x Perceived Resolvability	-	-0.03 (.02)	-0.23 ** (.07)	-0.08 * (.03)	-0.18 (.12)
Communication Engagement x Lifespan	-	-	-0.03 *** (.01)	-0.02 ** (.01)	-0.09 (.10)
Perceived Resolvability x Lifespan	-	-	-0.01 *** (.00)	-0.01 *** (.00)	0.00 (.02)
Communication Engagement x Perceived Resolvability x Lifespan	-	-	0.004 * (.00)	0.003 * (.00)	0.03 (.02)

*Note:* The level 1 model includes the prediction of only communication engagement and time. Each subsequent model includes level 2 predictors (perceived resolvability, age, relationship length, relationship stage). Each cell presents the coefficient values with the standard errors in parentheses.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .



Table 5.6 *Communication Valence, Perceived Resolvability, and Lifespan Predicting Relationship Quality*

	Level 1 Model	PR	Age	Relationship Length	Relationship Stage
<i>Fixed effects</i>					
Intercept	3.70 *** (.11)	3.16 *** (.22)	3.44 *** (.64)	3.25 *** (.30)	4.25 * (1.17)
Time	-0.17 *** (.03)	-0.21 *** (.03)	-0.21 *** (.03)	-0.21 *** (.03)	-0.21 *** (.03)
Communication Valence	0.54 *** (.03)	0.50 *** (.07)	0.22 (.21)	0.39 *** (.10)	0.13 (.36)
Perceived Resolvability	-	0.33 *** (.02)	0.41 * (.17)	0.31 *** (.08)	-0.13 (.31)
Lifespan	-	-	-0.01 (.02)	-0.00 (.02)	-0.22 (.23)
Communication Valence x Perceived Resolvability	-	-0.04 * (.02)	-0.03 (.05)	-0.02 (.02)	0.07 (.09)
Communication Valence x Lifespan	-	-	0.01 (.00)	0.01 (.01)	0.07 (.07)
Perceived Resolvability x Lifespan	-	-	-0.00 (.00)	0.00 (.01)	0.09 (.06)
Communication Valence x Perceived Resolvability x Lifespan	-	-	-0.00 (.00)	-0.00 (.00)	-0.02 (.02)

*Note:* The level 1 model includes the prediction of only communication valence and time. Each subsequent model includes level 2 predictors (perceived resolvability, age, relationship length, relationship stage). Each cell presents the coefficient values with the standard errors in parentheses.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 5.7 *Communication Engagement, Perceived Resolvability, and Lifespan Predicting Rumination*

	Level 1 Model	PR	Age	Relationship Length	Relationship Stage
<i>Fixed effects</i>					
Intercept	5.05 *** (.04)	5.50 *** (.15)	5.54 *** (.44)	5.40 *** (.21)	5.06 *** (.72)
Time	-0.28 *** (.04)	-0.24 *** (.04)	-0.22 *** (.04)	-0.23 *** (.04)	-0.25 *** (.04)
Communication Engagement	-0.21 ** (.07)	-0.14 (.15)	0.75 (.50)	0.04 (.22)	-0.84 (.81)
Perceived Resolvability	-	-0.13 *** (.03)	0.09 (.09)	-0.05 (.04)	0.05 (.16)
Lifespan	-	-	-0.00 (.01)	0.01 (.01)	0.08 (.14)
Communication Engagement x Perceived Resolvability	-	0.03 (.03)	-0.24 * (.11)	-0.07 (.05)	0.09 (.14)
Communication Engagement x Lifespan	-	-	-0.02 (.01)	-0.02 (.01)	0.14 (.16)
Perceived Resolvability x Lifespan	-	-	-0.01 ** (.00)	-0.01 ** (.00)	-0.04 (.03)
Communication Engagement x Perceived Resolvability x Lifespan	-	-	0.004 * (.00)	0.00 (.00)	-0.02 (.04)

*Note:* The level 1 model includes the prediction of only communication engagement and time. Each subsequent model includes level 2 predictors (perceived resolvability, age, relationship length, relationship stage). Each cell presents the coefficient values and the standard errors in parentheses.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 5.8 *Communication Valence, Perceived Resolvability, and Lifespan Predicting Rumination*

	Level 1 Model	PR	Age	Relationship Length	Relationship Stage
<i>Fixed effects</i>					
Intercept	6.29 *** (.14)	6.06 *** (.30)	6.32 *** (.87)	6.20 *** (1.58)	0.09 (.93)
Time	0.03 (.04)	0.03 (.04)	0.05 (.04)	0.03 (.04)	0.09 *** (.02)
Communication Valence	-0.53 *** (.04)	-0.49 *** (.09)	-0.40 (.28)	-0.81 (.50)	0.39 * (.18)
Perceived Resolvability	-	0.08 (.07)	-0.01 (.23)	-0.20 (.43)	0.61 * (.27)
Lifespan	-	-	-0.00 (.02)	-0.03 (.31)	0.28 (.18)
Communication Valence x Perceived Resolvability	-	-0.01 (.02)	0.01 (.06)	0.12 (.12)	-0.06 (.05)
Communication Valence x Lifespan	-	-	-0.00 (.01)	0.06 (.10)	-0.04 (.03)
Perceived Resolvability x Lifespan	-	-	-0.00 (.01)	0.06 (.08)	-.09 (.05)
Communication Valence x Perceived Resolvability x Lifespan	-	-	-0.00 (.00)	-0.03 (.02)	0.01 (.01)

*Note:* The level 1 model includes the prediction of only communication valence and time. Each subsequent model includes level 2 predictors (perceived resolvability, age, relationship length, relationship stage). Each cell presents the coefficient values and the standard errors in parentheses.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ).

Table 5.9 *Communication Engagement, Perceived Resolvability, and Lifespan Predicting Stress*

	Level 1 Model	PR	Age	Relationship Length	Relationship Stage
<i>Fixed effects</i>					
Intercept	3.21 *** (.05)	3.04 *** (.08)	1.84 *** (.24)	2.79 *** (.12)	3.31 *** (.41)
Time	0.09 *** (.02)	0.09 *** (.02)	0.08 *** (.02)	0.09 *** (.02)	0.10 *** (.02)
Communication Engagement	0.02 (.04)	0.08 *** (.08)	-0.17 (.27)	0.05 (.12)	-0.49 (.44)
Perceived Resolvability	-	0.04 * (.01)	0.05 (.05)	0.04 (.02)	-0.08 (.09)
Lifespan	-	-	0.03 (.01)	0.02 *** (.01)	-0.05 (.08)
Communication Engagement x Perceived Resolvability	-	-0.01 (.02)	0.07 (.06)	0.01 (.03)	0.13 (.10)
Communication Engagement x Lifespan	-	-	0.01 (.01)	0.00 (.01)	0.11 (.09)
Perceived Resolvability x Lifespan	-	-	0.00 (.00)	0.00 (.00)	0.02 (.02)
Communication Engagement x Perceived Resolvability x Lifespan	-	-	-0.00 (.00)	-0.00 (.00)	-0.02 (.02)

*Note:* The level 1 model includes the prediction of only communication engagement and time. Each subsequent model includes level 2 predictors (perceived resolvability, age, relationship length, relationship stage). Each cell presents the coefficient values and the standard errors in parentheses.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 5.10 *Communication Valence, Perceived Resolvability, and Lifespan Predicting Stress*

	Level 1 Model	PR	Age	Relationship Length	Relationship Stage
<i>Fixed effects</i>					
Intercept	2.29 *** (.09)	2.69 *** (.18)	1.37 ** (.51)	2.07 *** (.25)	0.78 (.97)
Time	0.02 (.02)	0.03 (.02)	0.02 (.02)	0.03 (.02)	0.03 (.02)
Communication Valence	0.31 *** (.03)	0.28 *** (.05)	0.36 * (.17)	0.43 *** (.08)	0.87 ** (.30)
Perceived Resolvability	-	-0.19 *** (.05)	-0.07 (.13)	-0.11 (.06)	0.21 (.26)
Lifespan	-	-	0.03 ** (.01)	0.05 *** (.02)	0.38 * (.19)
Communication Valence x Perceived Resolvability	-	0.03 * (.01)	0.00 (.04)	-0.00 (.02)	-0.10 (.07)
Communication Valence x Lifespan	-	-	-0.00 (.00)	-0.01 ** (.00)	-0.12 (.06)
Perceived Resolvability x Lifespan	-	-	-0.00 (.00)	-0.00 (.00)	-0.08 (.05)
Communication Valence x Perceived Resolvability x Lifespan	-	-	0.00 (.00)	0.00 (.00)	0.03 (.01)

*Note:* The level 1 model includes the prediction of only communication valence and time. Each subsequent model includes level 2 predictors (perceived resolvability, age, relationship length, relationship stage). Each cell presents the coefficient values and the standard errors in parentheses.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

Table 5.11 *Model Fits and Comparisons for RI-CLPMs, CLPMs, and Constrained RI-CLPMs.*

	<u>Model Fit</u>					<u>X<sup>2</sup> difference</u>					
	<u>X<sup>2</sup></u>	<u>df</u>	<u>p</u>	<u>RMSEA</u>	<u>PCLOSE</u>	<u>CFI</u>	<u>TLI</u>	<u>SRMR</u>	<u>Δ X<sup>2</sup></u>	<u>Δ df</u>	<u>p</u>
<i>Communication Valence x Relationship Quality</i>											
RI-CLPM	0.41	1	.52	.00 (.00 - .07)	.83	1.00	1.01	.01	-	-	-
CLPM	42.87	4	.00	.10 (.08 - .13)	.00	0.97	0.89	.04	42.47	3	.000
Constrained RI-CLPM	25.54	8	.00	.05 (.03 - .07)	.53	0.99	0.97	.04	25.14	7	.001
<i>Communication Valence x Rumination</i>											
RI-CLPM	0.29	1	.59	.00 (.00 - .07)	.86	1.00	1.01	.01	-	-	-
CLPM	28.54	4	.00	.08 (.05 - .11)	.03	0.97	0.89	.04	28.24	3	.000
Constrained RI-CLPM	18.74	8	.02	.04 (.02 - .06)	.81	0.99	0.98	.04	18.44	7	.010
<i>Communication Valence x Stress</i>											
RI-CLPM	2.44	1	.12	.04 (.00 - .10)	.50	1.00	0.98	.01	-	-	-
CLPM	55.56	4	.00	.12 (.09 - .14)	.00	0.95	0.80	.04	53.12	3	.000
Constrained RI-CLPM	21.43	8	.01	.04 (.02 - .06)	.71	0.99	0.97	.05	18.99	7	.008

*Communication Engagement x Relationship Quality*

RI-CLPM	1.50	1	.22	.02 (.00 - .09)	.63	1.00	0.99	.01	-	-	-
CLPM	29.03	4	.00	.08 (.06 - .11)	.03	0.97	0.88	.02	27.53	3	.000
Constrained RI-CLPM	89.32	8	.00	.10 (.08 - .12)	.00	0.90	0.81	.08	87.81	7	.000

*Communication Engagement x Rumination*

RI-CLPM	7.97	1	.01	.09 (.04 - .14)	.10	0.99	0.82	.02	-	-	-
CLPM	15.09	4	.01	.05 (.03 - .08)	.37	0.98	0.93	.03	7.12	3	.07
Constrained RI-CLPM	71.86	8	.00	.09 (.08 - .11)	.00	0.89	0.79	.07	56.77	7	.001

*Communication Engagement x Stress*

RI-CLPM	9.22	1	.00	.09 (.05 - .15)	.07	0.99	0.82	.03	-	-	-
CLPM	34.27	4	.00	.09 (.06 - .12)	.01	0.96	0.83	.03	25.05	3	.000
Constrained RI-CLPM	77.55	8	.00	.10 (.08 - .12)	.00	0.90	0.81	.07	68.33	7	.000

*Note.* Chi-squared difference scores reflect the comparison between the unconstrained RI-CLPM and either the CLPM or constrained RI-CLPM, except for the communication engagement by rumination model comparisons, in which the difference scores for the constrained RI-CLPM reflect its model fit relative to the CLPM, which was a better fit to the data than the RI-CLPM.

Table 5.12 *Standardized Parameter Estimates for the RI-CLPM Regarding the Association between Communication Valence and Relationship Quality across Three Waves*

	$\beta$	SE $\beta$	p
Communication Valence Wave 1 $\rightarrow$ Communication Valence Wave 2	- 0.21	0.52	0.68
Communication Valence Wave 2 $\rightarrow$ Communication Valence Wave 3	0.19	0.12	0.09
Relationship Quality Wave 1 $\rightarrow$ Relationship Quality Wave 2	- 0.75	2.41	0.57
Relationship Quality Wave 2 $\rightarrow$ Relationship Quality Wave 3	0.42	0.08	0.00
Communication Valence Wave 1 $\rightarrow$ Relationship Quality Wave 2	- 0.29	0.85	0.68
Communication Valence Wave 2 $\rightarrow$ Relationship Quality Wave 3	0.02	0.13	0.81
Relationship Quality Wave 1 $\rightarrow$ Communication Valence Wave 2	- 0.54	1.31	0.52
Relationship Quality Wave 2 $\rightarrow$ Communication Valence Wave 3	0.16	0.08	0.05
Correlation Wave 1	-0.26	0.06	0.39
Residual Correlation Wave 2	-0.27	0.38	0.88
Residual Correlation Wave 3	0.21	0.03	0.00
Between-person Correlation	0.70	0.06	0.00

*Note.* The model fit for the RI-CLPM ( $\chi^2(1) = 0.41$ ,  $p = .52$ ,  $RMSEA = .00$  ( $CI = .00 - .07$ ),  $p = .83$ ,  $CFI = 1.00$ ,  $TLI = 1.01$ , and  $SRMR = .01$ ) was a good fit to the data.



Table 5.13 *Standardized Parameter Estimates for the RI-CLPM Regarding the Association between Communication Valence and Rumination across Three Waves*

	$\beta$	SE $\beta$	p
Communication Valence Wave 1 → Communication Valence Wave 2	-0.04	0.21	0.83
Communication Valence Wave 2 → Communication Valence Wave 3	0.21	0.12	0.04
Rumination Wave 1 → Rumination Wave 2	0.23	0.14	0.05
Rumination Wave 2 → Rumination Wave 3	0.46	0.07	0.00
Communication Valence Wave 1 → Rumination Wave 2	0.10	0.28	0.38
Communication Valence Wave 2 → Rumination Wave 3	-0.04	0.19	0.67
Rumination Wave 1 → Communication Valence Wave 2	0.06	0.08	0.69
Rumination Wave 2 → Communication Valence Wave 3	-0.28	0.05	0.01
Correlation Wave 1	-0.10	0.08	0.46
Residual Correlation Wave 2	-0.21	0.10	0.14
Residual Correlation Wave 3	-0.31	0.05	0.00
Between-person Correlation	-0.56	0.08	0.00

*Note.* The model fit for the RI-CLPM ( $X^2(1) = 0.29$ ,  $p = .59$ ,  $RMSEA = 0.00$  ( $CI = 0.00 - 0.07$ ),  $p = .86$ ,  $CFI = 1.00$ ,  $TLI = 1.01$ , and  $SRMR = .01$ ) was a good fit to the data.

Table 5.14 *Standardized Parameter Estimates for the RI-CLPM Regarding the Association between Communication Valence and Stress across Three Waves*

	$\beta$	SE $\beta$	p
Communication Valence Wave 1 → Communication Valence Wave 2	-0.13	0.20	0.49
Communication Valence Wave 2 → Communication Valence Wave 3	0.10	0.13	0.41
Stress Wave 1 → Stress Wave 2	-0.06	0.17	0.73
Stress Wave 2 → Stress Wave 3	0.34	0.10	0.00
Communication Valence Wave 1 → Stress Wave 2	-0.05	0.15	0.74
Communication Valence Wave 2 → Stress Wave 3	0.20	0.13	0.08
Stress Wave 1 → Communication Valence Wave 2	-0.19	0.18	0.26
Stress Wave 2 → Communication Valence Wave 3	0.04	0.12	0.72
Correlation Wave 1	-0.02	0.04	0.90
Residual Correlation Wave 2	0.15	0.06	0.49
Residual Correlation Wave 3	0.45	0.03	0.00
Between-person Correlation	0.48	0.04	0.00

*Note.* The model fit for the RI-CLPM ( $\chi^2(1) = 2.44$ ,  $p = .12$ ,  $RMSEA = .04$  ( $CI = 0.00 - 0.10$ ),  $p = .50$ ,  $CFI = 1.00$ ,  $TLI = 0.98$ , and  $SRMR = .01$ ) was a good fit to the data.

Table 5.15 *Standardized Parameter Estimates for the RI-CLPM Regarding the Association between Communication Engagement and Relationship Quality across Three Waves*

	$\beta$	SE $\beta$	p
Communication Engagement Wave 1 → Communication Engagement Wave 2	-0.17	0.15	.16
Communication Engagement Wave 2 → Communication Engagement Wave 3	0.47	0.06	.00
Relationship Quality Wave 1 → Relationship Quality Wave 2	-0.42	1.10	.51
Relationship Quality Wave 2 → Relationship Quality Wave 3	0.42	0.08	.00
Communication Engagement Wave 1 → Relationship Quality Wave 2	-0.10	0.38	.62
Communication Engagement Wave 2 → Relationship Quality Wave 3	0.06	0.13	.36
Relationship Quality Wave 1 → Communication Engagement Wave 2	0.26	0.27	.30
Relationship Quality Wave 2 → Communication Engagement Wave 3	-0.05	0.04	.30
Correlation Wave 1	-0.08	0.03	.14
Residual Correlation Wave 2	0.43	0.08	.65
Residual Correlation Wave 3	0.14	0.02	.01
Between-person Correlation	-0.90	0.03	.14

*Note.* The model fit for the RI-CLPM ( $\chi^2(1) = 1.50, p = .21, RMSEA = 0.02 (CI = 0.00 - 0.09), p = .63, CFI = 1.00, TLI = 0.99, and SRMR = .01$ ) was a good fit to the data.

Table 5.16 *Standardized Parameter Estimates for the CLPM Regarding the Association between Communication Engagement and Rumination across Three Waves*

	$\beta$	SE $\beta$	p
Communication Engagement Wave 1 → Communication Engagement Wave 2	-0.15	0.05	.00
Communication Engagement Wave 2 → Communication Engagement Wave 3	0.41	0.05	.00
Rumination Wave 1 → Rumination Wave 2	0.52	0.04	.00
Rumination Wave 2 → Rumination Wave 3	0.63	0.04	.00
Communication Engagement Wave 1 → Rumination Wave 2	0.07	0.17	.06
Communication Engagement Wave 2 → Rumination Wave 3	-0.12	0.15	.01
Rumination Wave 1 → Communication Engagement Wave 2	-0.14	0.01	.00
Rumination Wave 2 → Communication Engagement Wave 3	-0.14	0.01	.01
Correlation Wave 1	0.17	0.02	.00
Residual Correlation Wave 2	-0.31	0.03	.00
Residual Correlation Wave 3	-0.17	0.03	.00
Between-person Correlation	-	-	-

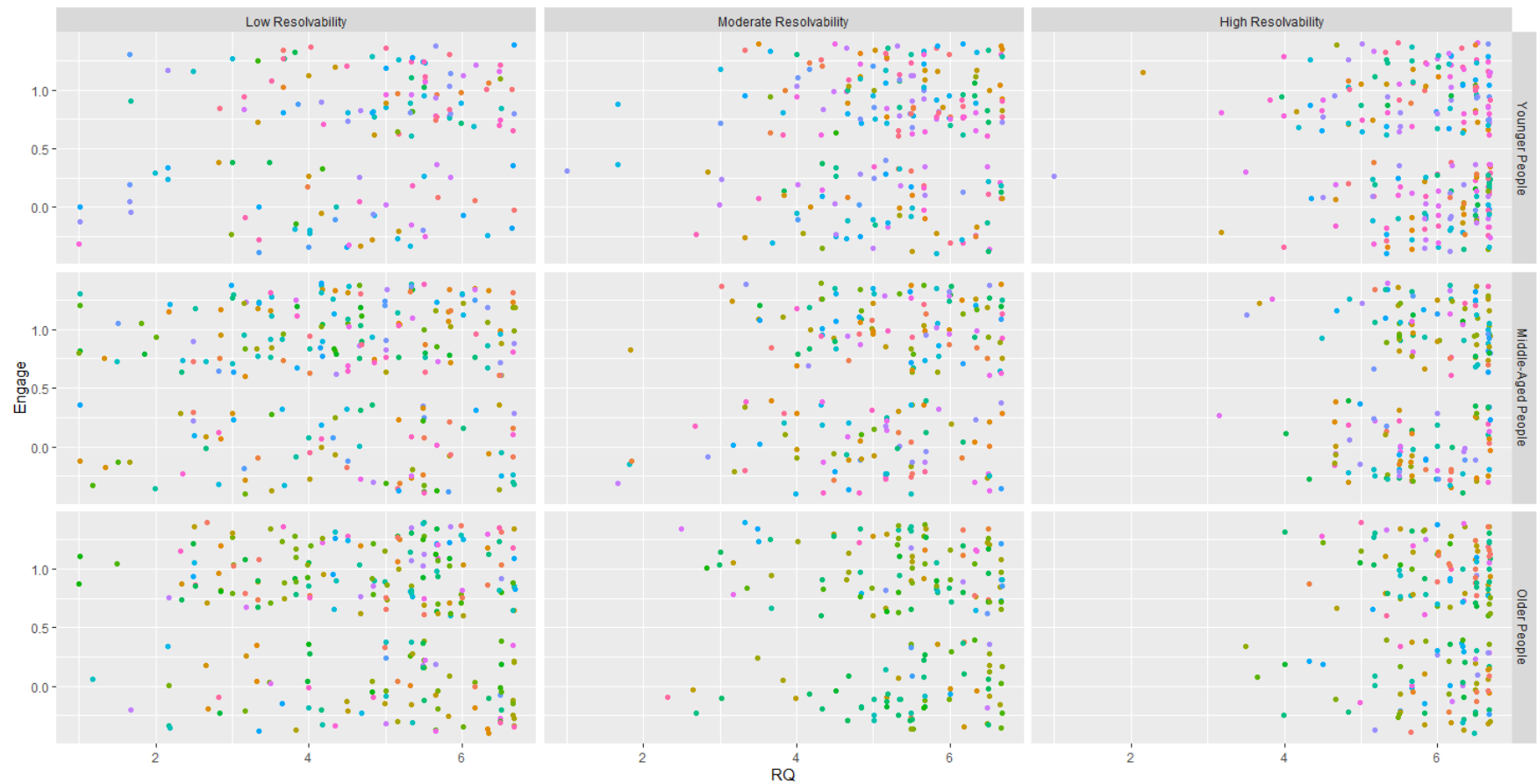
*Note.* The model fit for the CLPM ( $\chi^2(4) = 15.09, p < .01, RMSEA = .05 (CI = .03 - .08), p = .37, CFI = 0.98, TLI = 0.93, and SRMR = .03$ ) was an acceptable fit to the data.

Table 5.17 *Standardized Parameter Estimates for the RI-CLPM Regarding the Association between Communication Engagement and Stress across Three Waves*

	$\beta$	SE $\beta$	p
Communication Engagement Wave 1 → Communication Engagement Wave 2	-0.15	0.13	.14
Communication Engagement Wave 2 → Communication Engagement Wave 3	0.46	0.08	.00
Stress Wave 1 → Stress Wave 2	0.09	0.14	.54
Stress Wave 2 → Stress Wave 3	0.29	0.11	.00
Communication Engagement Wave 1 → Stress Wave 2	-0.04	0.15	.70
Communication Engagement Wave 2 → Stress Wave 3	0.25	0.13	.01
Stress Wave 1 → Communication Engagement Wave 2	0.36	0.07	.00
Stress Wave 2 → Communication Engagement Wave 3	0.00	0.07	.96
Correlation Wave 1	-0.07	0.02	.38
Residual Correlation Wave 2	0.52	0.02	.00
Residual Correlation Wave 3	0.10	0.02	.11
Between-person Correlation	-0.77	0.02	.20

*Note.* The model fit for the RI-CLPM ( $X^2(1) = 9.22, p < .01, RMSEA = 0.09 (CI = 0.05 - 0.15), p = .07, CFI = 0.99, TLI = 0.82,$  and  $SRMR = .03$ ) was a good fit to the data.

Figure 5.1 *Relationship between Relationship Quality and Communication Engagement at Three Levels of Perceived Resolvability for Three Age Groups*



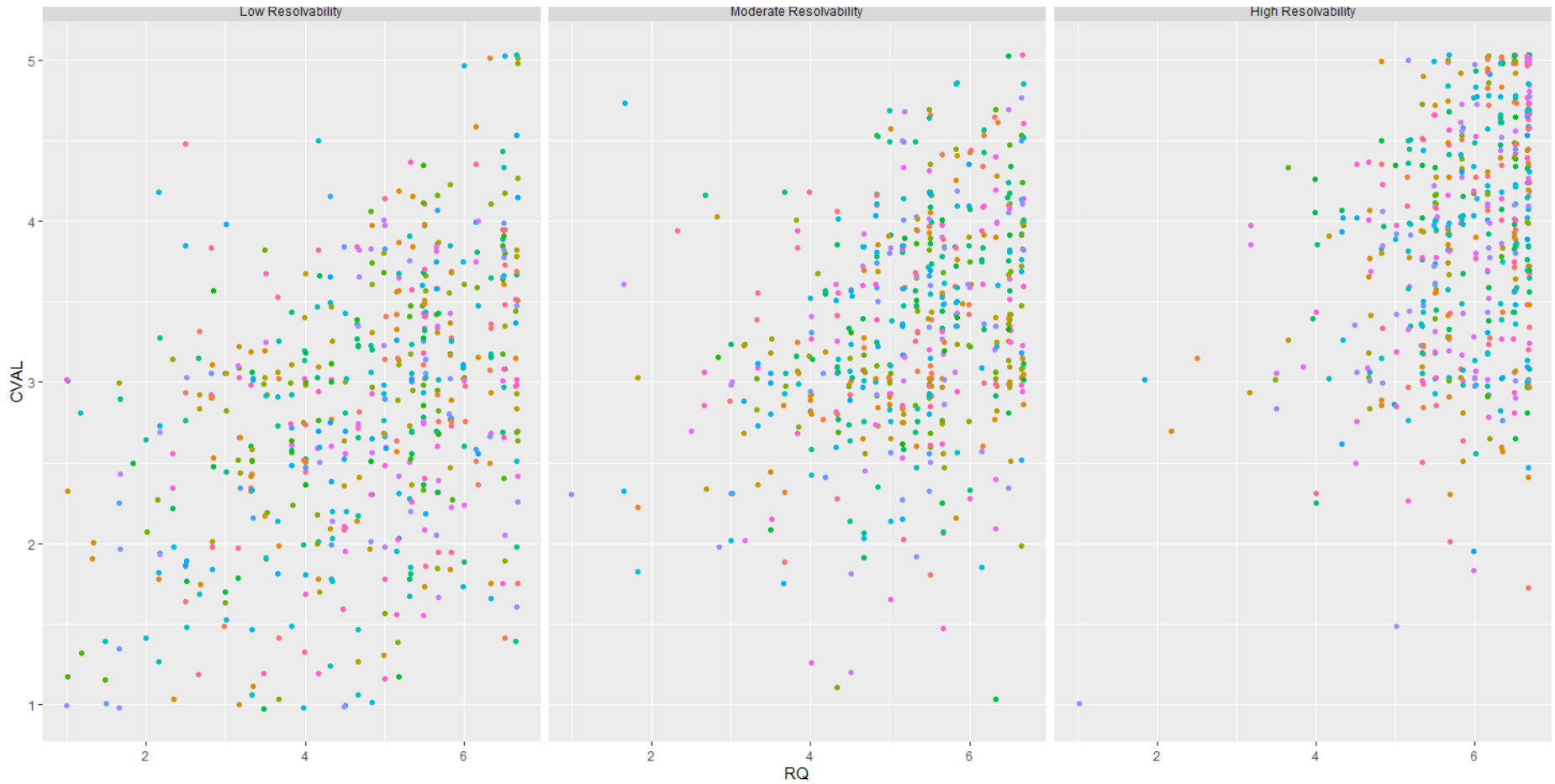
*Note.* RQ = Relationship Quality, Engage = Communication Engagement. Each column is reflective of a change in resolvability from the lowest resolvability conflicts in the left-most column to the highest resolvability conflicts in the right-most column. Each row reflects a range of ages, with the top row reflecting experiences of people younger than 31, the middle row reflecting experiences of people between the ages of 32 and 49, and the bottom row reflecting experiences of people between the ages of 50 and 79.

Figure 5.2 *Relationship between Relationship Quality and Communication Engagement at Three Levels of Perceived Resolvability for Three Relationship Length Groups*



*Note.* RQ = Relationship Quality, Engage = Communication Engagement. Each column is reflective of a change in resolvability from the lowest resolvability conflicts in the left-most column to the highest resolvability conflicts in the right-most column. Each row reflects a range of relationship lengths, with the top row reflecting experiences for shorter relationships (1-3 years), the middle row reflecting experiences for moderate term relationships (4-12 years), and the bottom row reflecting experiences for longer relationships (13-50 years).

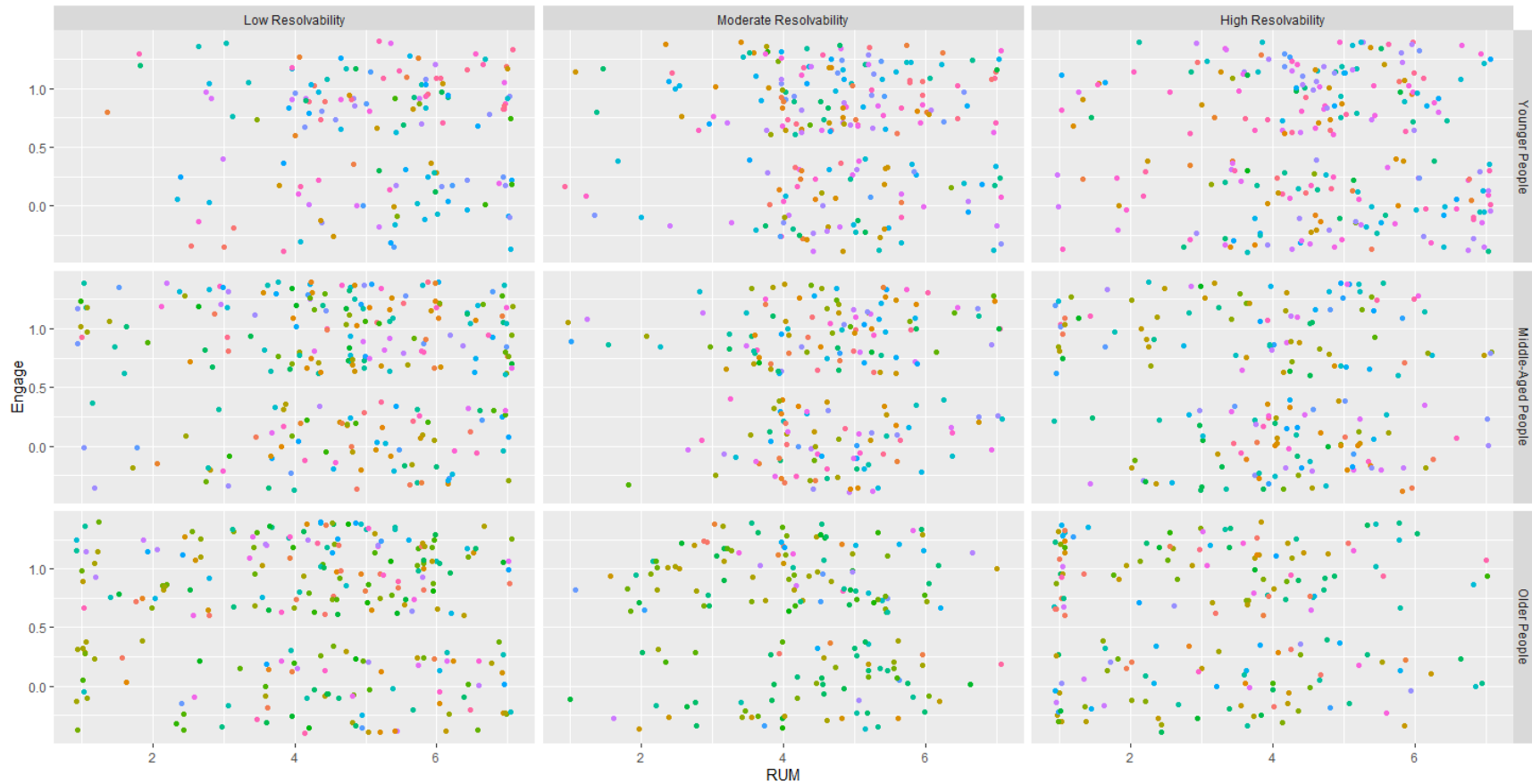
Figure 5.3 *Relationship between Communication Valence and Relationship Quality over Three Levels of Perceived Resolvability*



*Note.* RQ = Relationship Quality, CVAl = Communication Valence. Each plot window reflects the relationship between communication valence and relationship quality at three levels of perceived resolvability, with the left plot reflecting low perceived argument resolvability and the right plot reflecting high perceived argument resolvability.



Figure 5.4 *Relationship between Rumination and Communication Engagement at Three Levels of Perceived Resolvability for Three Age Groups*



*Note.* RUM = Rumination, Engage = Communication Engagement. Each column is reflective of a change in resolvability from the lowest resolvability conflicts in the left-most column to the highest resolvability conflicts in the right-most column. Each row reflects a range of ages, with the top row reflecting experiences of people younger than 31, the middle row reflecting experiences of people between the ages of 32 and 49, and the bottom row reflecting experiences of people between the ages of 50 and 79.

Figure 5.5 *Relationship between Communication Valence and Stress over Three Levels of Perceived Resolvability*



*Note.* CVAl = Communication Valence. Each plot window reflects the relationship between communication valence and stress at three levels of perceived resolvability, with the left plot reflecting low perceived argument resolvability and the right plot reflecting high perceived argument resolvability.

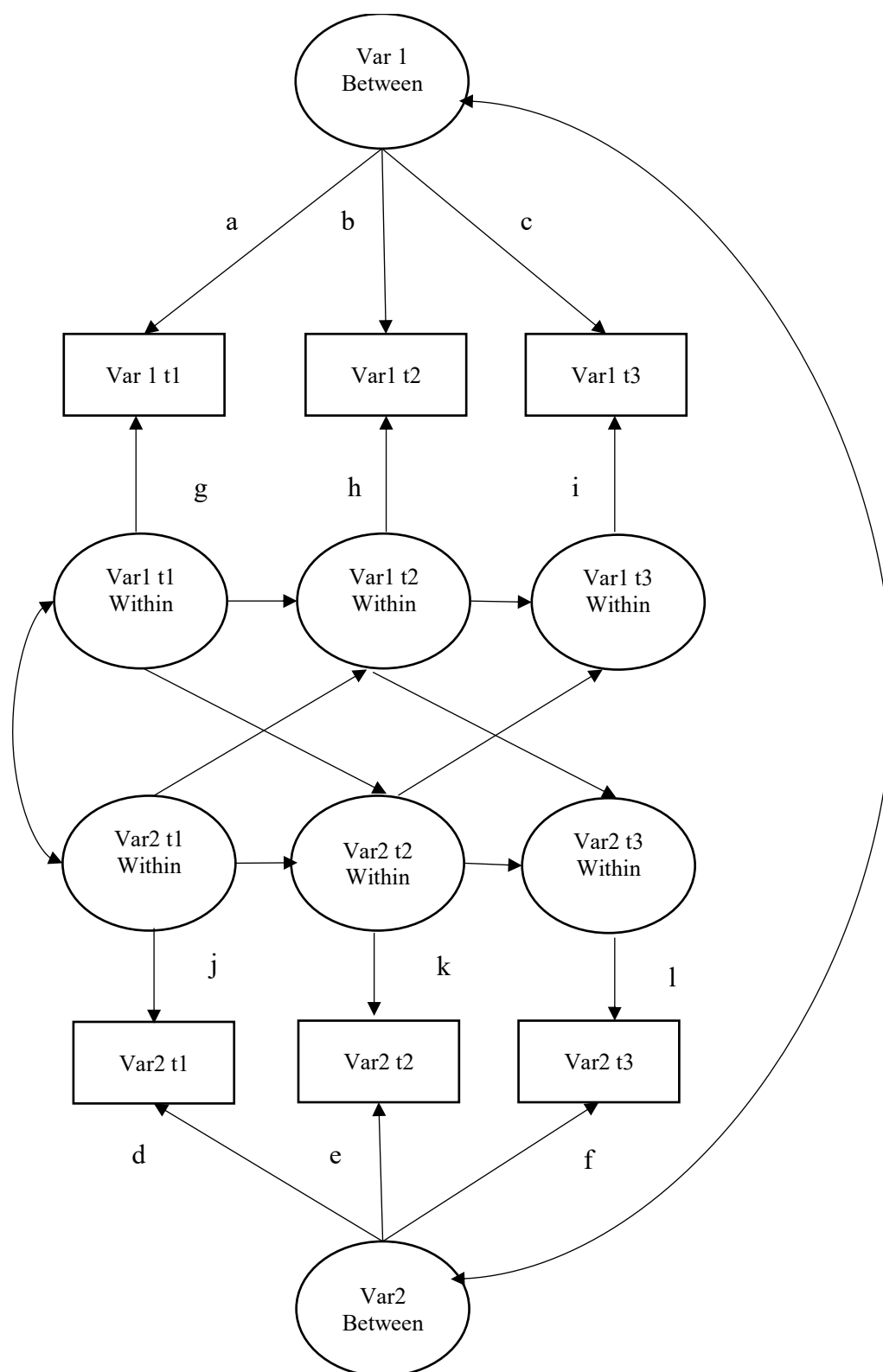
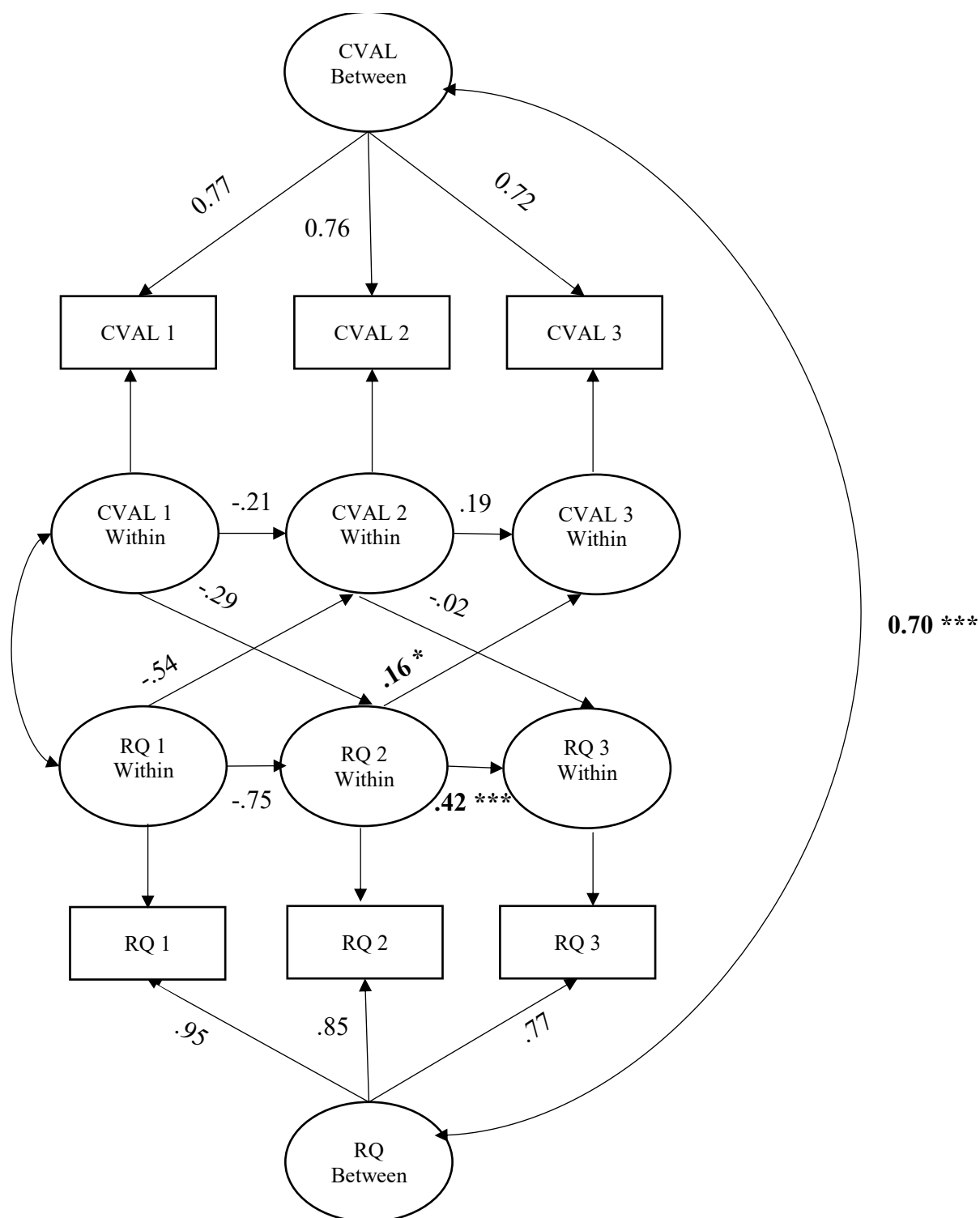
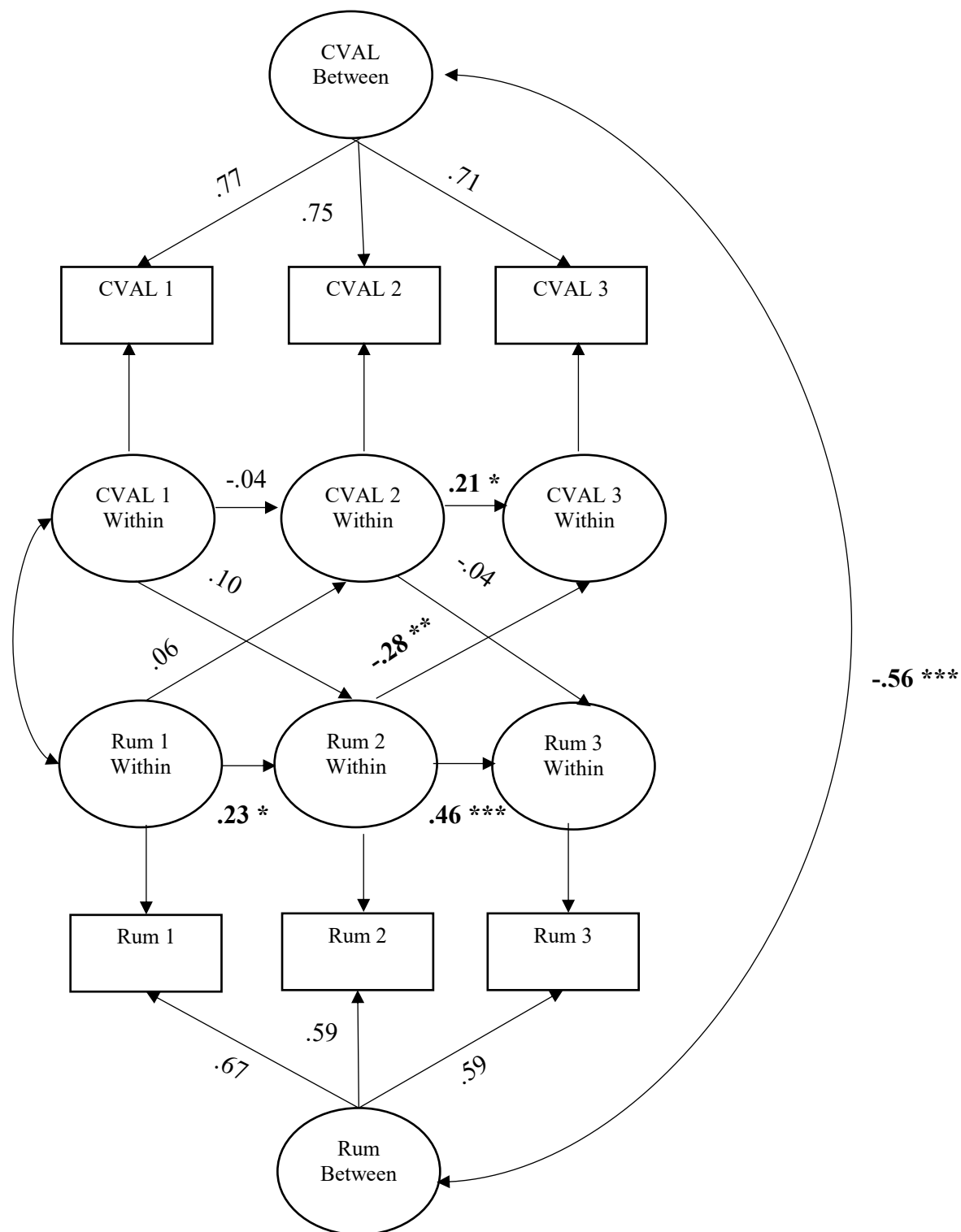
Figure 5.6 *Demonstration RI-CLPM*

Figure 5.7 Random-Intercept Cross-Lagged Panel Model between Communication Valence and Relationship Quality



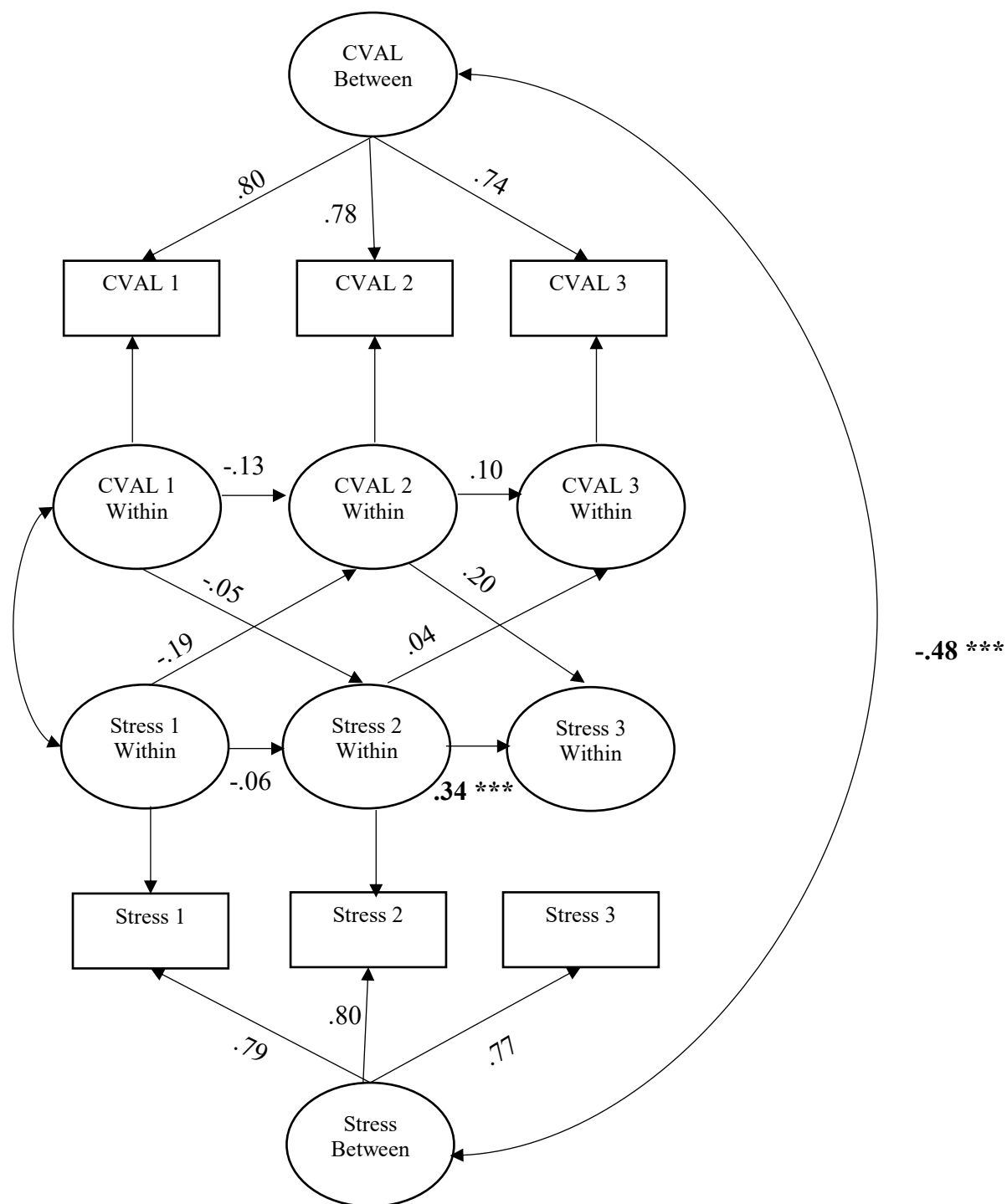
*Note.* This model had a mean structure and residual correlations at time two and three, but for ease of interpretation, those are not included in this diagram. Bold values indicate significant paths.

Figure 5.8 *Random-Intercept Cross-Lagged Panel Model between Communication Valence and Rumination*



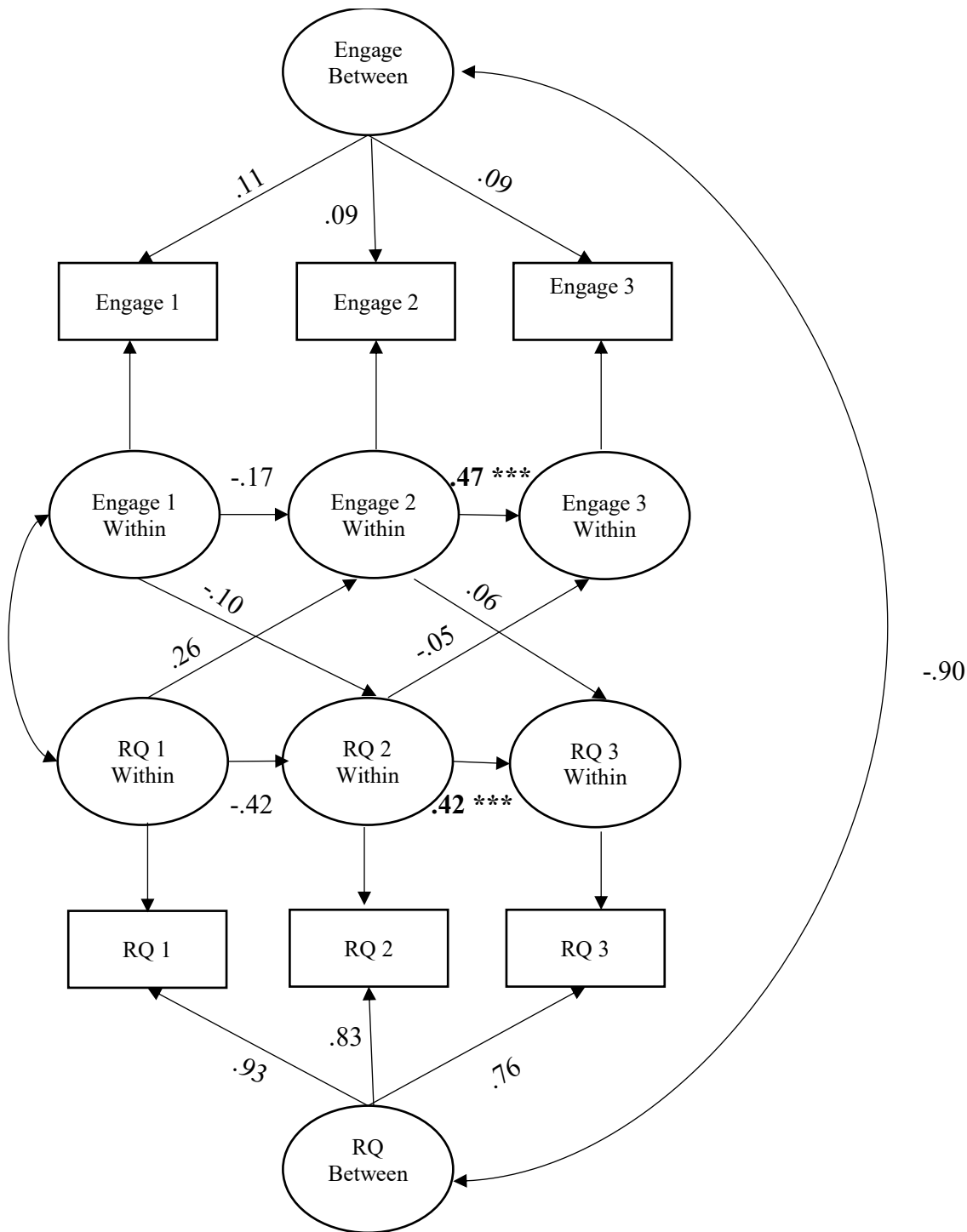
*Note.* This model had a mean structure and residual correlations at time two and three, but for ease of interpretation, those are not included in this diagram. Bold values indicate significant paths.

Figure 5.9 Random-Intercept Cross-Lagged Panel Model between Communication Valence and Stress



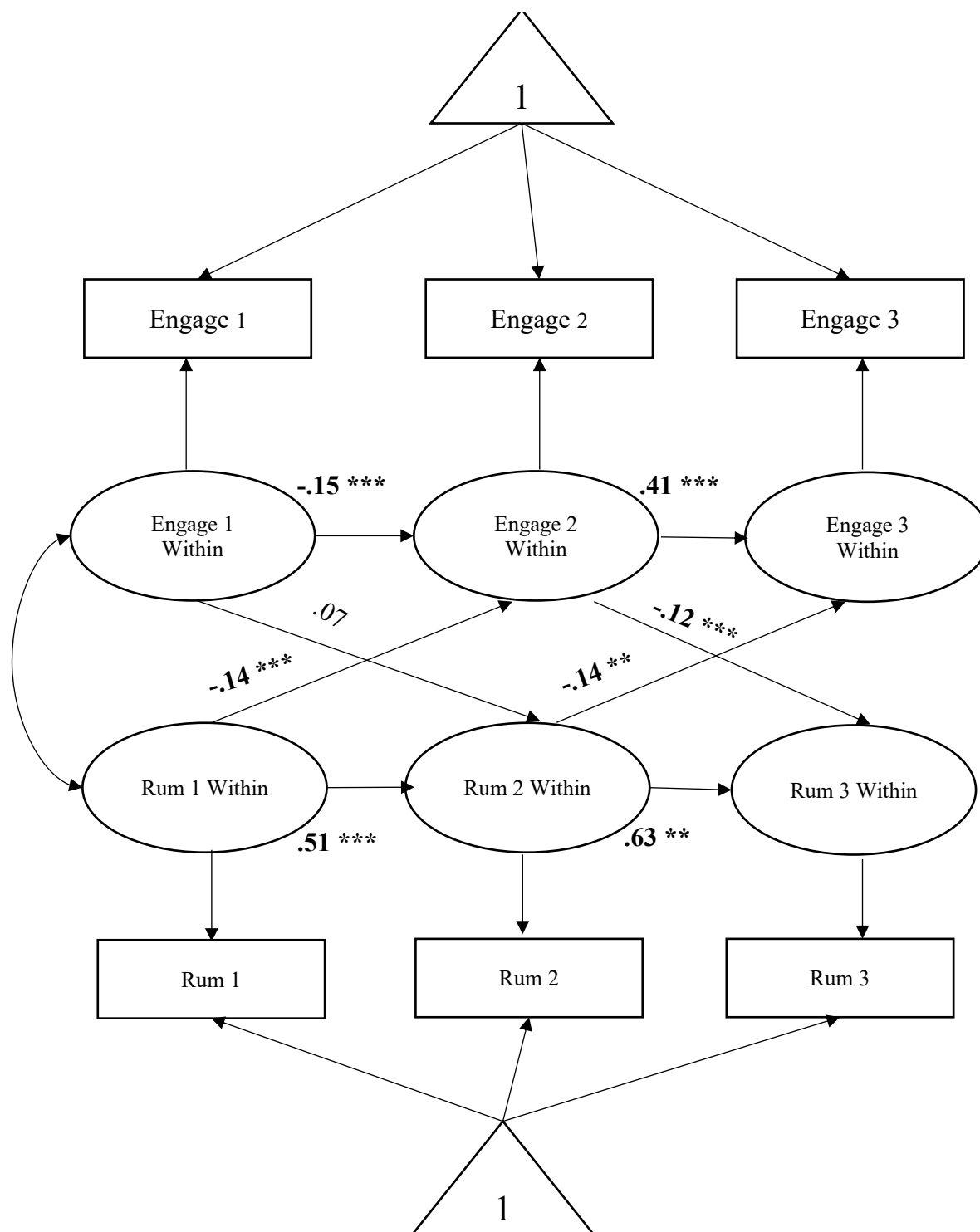
*Note.* This model had a mean structure and residual correlations at time two and three, but for ease of interpretation, those are not included in this diagram. Bold values indicate significant paths.

Figure 5.10 *Random-Intercept Cross-Lagged Panel Model between Communication Engagement and Relationship Quality*



*Note.* This model had a mean structure and residual correlations at time two and three, but for ease of interpretation, those are not included in this diagram. Bold values indicate significant paths.

Figure 5.11 Cross-Lagged Panel Model between Communication Engagement and Rumination



*Note.* This model had residual correlations at time two and three, but for ease of interpretation, are not included in this diagram. Bold paths indicate significance. Beta values in this figure are standardized





## Chapter 6

The experience of conflict in romantic relationships is common and consequential (Sillars et al., 2004). Previous research has highlighted serial arguments as being particularly deleterious because they can be difficult to resolve and can be persistent. Intractable conflicts have been found to have impacts on both relational (e.g. Morrison & Schrodt, 2017) and physical well-being (e.g. Malis & Roloff, 2006). Prior research has largely emphasized the experiences of serial arguing in college aged dating relationships. Although these experiences are entirely valid, this focus of prior studies limits the generalizability of previous findings. Furthermore, the majority of research has taken a cross-sectional approach to the exploration of an over time phenomenon, with a few notable exceptions (e.g. Hample et al., 2012; Worley & Samp, 2018). Therefore, my overarching goal for this dissertation was to determine whether previous findings regarding serial conflict experiences could be generalized to a broader subset of relationships longitudinally.

Prior research has sought to understand how the perception that an argument is more or less resolvable may influence the experience of serial arguments (e.g. Johnson & Roloff, 1998), and is in turn influenced by other factors (Bevan et al., 2008). Facets of an individual's relationship, such as satisfaction or commitment, can influence the extent to which an argument is perceived to be resolvable (Johnson & Roloff, 1998). Communication within an argument episode can also influence this perception, such as particular patterns of communication like demand/withdraw, constructive communication (Bevan et al., 2008; Johnson & Roloff, 1998), mutual hostility (Johnson & Roloff, 2000a). Finally, perceived resolvability has been found to be influenced by different cognitive processes, such as ruminating about the argument issue (Carr et al., 2014; Johnson & Roloff, 1998).

Often, research on serial arguments emphasizes the impact of argument experiences on the perceived resolvability of a conflict episode. One aim of this dissertation was to move from the idea that perceived resolvability is influenced by the experiences of each episode toward an understanding of how the resolvability of an argument influences argument processes. When initially described in formative research on serial arguments (e.g. Johnson & Roloff, 1998), perceived resolvability was the force that dictated the course of a serial argument episode. In other words, the conception of perceived resolvability, when initially theorized, emphasized how perceptions of a conflict's resolvability shaped people's communication behaviors in that episode. There was a change in role for perceived resolvability in which it moved to an outcome of an episode (e.g. Bevan et al., 2007). Given its overarching influence in serial argument research over time and following initial theoretical conceptions of the phenomenon, I proposed that perceived resolvability moderates associations within a conflict episode.

In addition to exploring the influence of resolvability on arguments, I wanted to understand how this influence may change as people and their relationships age as a context for this dissertation. Cognitive growth that occurs naturally as people age (Bonache et al., 2017), and the accumulation of life experiences can impact the perception of communication within conflicts (Sarantakos, 1992). The amount of time an individual has been exposed to their partner also may influence their perception of behaviors and communication, particularly when discussing difficult issues. Moreover, the stage of the relationship coincides with fluctuations in commitment level, or reliance on one another, which can also impact these conflict experiences (Sillars & Zietlow, 1988). Therefore, a primary aim of this dissertation was to explore the influence of age, relationship length, and relationship stage on conflict processes and experiences.

Finally, a notable contribution of this dissertation was to explore how the knowledge we have about serial arguments would hold up when examining people's experience of multiple conflict episodes. Some of the foundational work on serial arguments examines the experience of one conflict episode (i.e. Johnson & Roloff, 1998). Given that a serial argument is defined as a series of multiple, related conflict episodes, I sought to explore this level of abstraction to provide insight into the phenomenon of serial arguments. There were two main goals related to exploring the argument versus conflict abstraction: first, to understand whether commonly assessed relationships between variables would persist when examining within-person change over multiple conflict episodes; second, to understand how the experiences of one conflict episode may contribute to experiences in a subsequent episode

To pursue this line of inquiry, I first examined people's serial argument experiences as they occur within a time point, focusing on six enduring relationships that have been explored in the extent literature. Specifically, I hypothesized that communication engagement would be positively associated with relationship quality (H1), negatively associated with rumination (H5) and positively associated with stress (H9). I also hypothesized that communication valence would be positively associated with relationship quality (H2), negatively associated with rumination (H6), and negatively associated with stress (H10). I further posited the moderation of perceived resolvability (H13), and the moderated moderation of lifespan (e.g. age, relationship length, and relationship stage) (H14) on the initial six relationships.

The second line of inquiry examined the effects of communication in earlier conflicts on experience in subsequent episodes. I posited six hypotheses regarding over time effects, whereby communication engagement and relationship quality have a positive reciprocal influence over time (H3), communication valence and relationship quality have a positive reciprocal influence

over time (H4), communication engagement is negatively associated with rumination over time (H7b) while rumination is positively associated with communication engagement over time (H7a), communication valence and rumination have a negative reciprocal influence over time (H8), communication engagement and stress have a positive reciprocal influence over time (H11), and communication valence and stress have a negative reciprocal influence over time (H12).

To integrate the results of this dissertation and put them in conversation with previous research on serial arguments, the following sections present the overall results and implications for each variable in this study. I first discuss meaningful differences in these variables as a function of gender or lifespan differences, as well as the significant correlations I documented involving that variable. I next explore the within and over time results for hypotheses to which the variable contributed. Notably, the within episode associations only account for time to parse out each episode for each person; this is essentially a cross-sectional understanding of this association. The between-level relationship is an aggregated, trait-like relationship between the two variables within-people. For each variable, I conclude by discussing meaningful over time effects revealed by my analysis. This chapter concludes with a discussion of broader implications, as well as the strengths and limitations of the project.

### **Relationship Quality**

Descriptive statistics for the measure of relationship quality largely followed the expected paths. Relationship quality was perceived to be significantly higher for married people than those in dating relationships, which corresponds with a positive association between relationship quality and relationship stage. Relationship quality was positively associated with perceived resolvability, communication valence, and stress, and was negatively associated with rumination.

Perceptions of relationship quality did not appear to change depending on communication engagement, either within an episode or over time. Furthermore, perceived resolvability did not moderate this association within episodes. In accounting for lifespan differences, however, age and relationship length brought to light the influence of perceived resolvability on the extent to which communication engagement was associated with relationship quality. For older people and those at more advanced relationship lengths, highly resolvable conflict corresponded with increased perceptions of relationship quality regardless of whether or not they engaged with their partner about their issue; however, for younger people in less mature relationships, engagement in highly resolvable conflict had more variable associations with relationship quality. For arguments in which resolvability was lower, older people and those in more advanced relationships were more likely to engage in than avoid conflict, whereas their younger counterparts and those in newer relationships were more evenly distributed between engagement and non-engagement. Both older and younger people, and those in shorter- and longer-term relationships had much more variability in their relationship quality perceptions regardless of their decision to engage in or avoid communicating about the issue compared to older people or those in more advanced relationship lengths.

Communication valence was positively associated with relationship quality at all three time points. This finding was held up both in the within-person analysis, and the between-level association in the over-time analysis. Perceived resolvability further moderated this association within episodes such that as perceived resolvability of the argument increased, the association between communication valence and relationship quality strengthened and became more positive. Lifespan differences did not account for any further moderation of this relationship within episodes. In addition, none of the main effects for lifespan were significant predictors of

relationship quality when accounting for valence. Over time, communication valence at one time point impacted relationship quality at the next time point; however, relationship quality at one time point did not subsequently impact communication valence.

From these results, relationship quality emerged as an interesting and important construct in serial arguments. Decisions about engaging in or avoiding communication about an issue corresponded with relationship quality perceptions differently across the lifespan and at varying levels of argument resolvability. This relationship was only present within episodes, but not between episodes. Furthermore, relationship quality and communication valence were positively associated, with over time analyses indicating that communication valence impacts perceptions of relationship quality from one time point to the next. This supports findings from prior research (e.g. Johnson & Roloff, 2000a) suggesting that perceptions of hostile communication within an episode were associated with relational harm, whereas integrative tactic usage was associated with increased relationship satisfaction (Bevan et al., 2008). The causal mechanism between communication engagement and relationship satisfaction was not as clear, only suggesting that a relationship may exist differently across ages and relationship lengths depending on the perceived resolvability of an argument.

### **Rumination**

The conclusions supported by this investigation concerning the role of rumination were also largely in line with prior research. Women ruminated more than men did, and older people and those in longer term relationships were less likely to ruminate about their conflict. As the study progressed, reported rumination behaviors decreased significantly. Rumination was negatively associated with perceived resolvability, communication valence, relationship quality, and stress.

Communication engagement was negatively associated with rumination. When accounting for perceived resolvability, engagement was no longer a significant predictor of rumination; perceived resolvability, however, did not moderate this relationship. When accounting for lifespan differences, age moderated the moderation of perceived resolvability on the association between communication engagement and rumination. Across levels of resolvability, younger people tended to ruminate more about their issue regardless of engagement in their issue, with lack of engagement trending toward more rumination than when a person engages in communication about their issue. For middle-aged to older people in this study, people who engage in conflict seem to experience less rumination about their issue, whereas people who did not engage in conflict about their issue experienced slightly more rumination about their issue.

In looking at the over time effects, engagement and rumination were negatively, reciprocally associated over time. With engagement not being trait-like, the inclusion of a between-level association in a random intercept cross-lagged panel model (RI-CLPM) was not a better fit to the data than was the standard cross-lagged panel model (CLPM). In the CLPM, the cross-lagged parameters were significant both from rumination to communication engagement and from communication engagement. The more a person ruminated about an issue, the less likely they were to report engaging in conflict in the next episode. In addition, when a person communicated with their partner about their issue, they were reported experiencing less rumination about their issue at the next time point.

Rumination was negatively associated with communication valence at all three time points. This was further sustained in the within time point model and the between-level association in the over-time model, revealing the association between communication valence



and rumination holds constant at each time point and aggregated at the person-level over several time points. Perceived resolvability was not a significant moderator of the relationship between communication valence and rumination within episodes, and lifespan did not further moderate this association. Interestingly, rumination at one time point was negatively associated with valence at the next time point, however, valence did not subsequently predict rumination over time. This means that when an individual has recurrent negative thoughts about their issue, they will engage in more negative communication with their partner. This negative communication does not necessarily result in further rumination.

These two over time patterns reveal an interesting assessment of ruminations role in serial arguments. Rumination is associated with future avoidance of communicating about the issue, and engagement in communication about an issue corresponds with less rumination. This supports prior research on communication engagement (e.g. Cloven & Roloff, 1993), in that communicating about a problem helps to reduce perceived problem severity and the negative influence of rumination. Future work ought to incorporate problem severity perceptions into this between episode analysis to get a clearer picture of the interplay between communication engagement and rumination,

### **Stress**

The set of findings on stress both affirmed and called into question conclusions drawn from prior research. Men indicated being more stressed than women did in two of the three time points. Furthermore, older people, those in longer relationships, and those at more advanced relationship stages indicated experiencing more stress. Overall stress increased from time 1 to time 2 across the entire sample. Stress was positively associated with perceived resolvability, communication valence, and relationship quality, and was negatively associated with rumination.

Communication engagement was not a significant predictor of stress within episodes, nor at the between-level in the over time models. When accounting for perceived resolvability, the main effect of engagement was significant as well as the main effect of perceived resolvability. Of the lifespan measures, only the main effect for relationship length was significant in predicting stress within episodes. Subsequently, the moderations of perceived resolvability and lifespan were nonsignificant. Interestingly, although the between-level association for engagement and stress was not significant, there were significant reciprocal within-level associations. Stress was associated with subsequent communication engagement, and communication engagement corresponded with subsequent increases in stress.

Communication valence was positively associated with stress both within episodes and at the between-level association over time. Within episodes, perceived resolvability moderated that relationship, however, when accounting for lifespan differences, perceived resolvability no longer had a significant main effect on stress. Furthermore, the interaction between communication valence and relationship length was a significant predictor of stress within episodes. Each of the main effects for the lifespan variables were significant in predicting stress. There were no significant over time effects for communication valence and stress.

Stress and communication engagement exclusively had over time associations that were not seen cross-sectionally. Stress external to the relationship was associated with engaging in communication with a partner about an issue. This communication tended to be more positive as stress increased. Regardless of the valence of that communication, engagement in a discussion of an issue corresponded with increased stress in a subsequent time point. These results indicate that stress may be a more prolonged state that isn't a proximal factor in whether or not a person engages in communication with their partner but is a proximal factor in the tone or perceived

valence of the conversation. In studying the influence of stress on engagement or avoidance decisions in conflict, future research should utilize longitudinal methods to more effectively capture this experience.

### **Communication Valence**

Perhaps the most common facet of research on serial arguments is a focus on how constructively partners communicate about recurrent conflicts. For example, people have studied demand/withdraw patterns (Malis & Roloff, 2006), perceived hostility and constructive communication (Johnson & Roloff, 1998), and conflict tactic usage (Bevan et al., 2008). In line with previous research, this dissertation found that valence was positively associated with perceived resolvability, relationship quality, and stress, and was negatively associated with rumination. The valence of communication became more positive over time, particularly from time 1 to time 2 across the whole sample.

The within episode associations and between-level associations between communication valence and relationship quality, rumination, and stress were all significant. The moderation of perceived resolvability within episodes was significant for both relationship quality and stress, but not for rumination. Lifespan did not seem to influence this association for any of the outcomes within episodes.

Over time associations were present from rumination to valence and valence to relationship quality. This provided some time-ordered understanding of the within episode results. Communication valence impacted relationship quality both within episodes and over time, while the inverse was not the case. For rumination, the within episode analyses indicated that communication valence and rumination were associated within time points, but the over time results indicated that rumination was a stronger prediction of subsequent communication valence

from one time point to the next. When looking over time, the influence of communication valence on rumination from one time point to the next does not have an impact beyond the mean level association.

These results indicate that communication valence impacts experiences both within and between conflict episodes in a serial argument. It is associated with all three variables in this study (relationship quality, rumination, and stress) and has variable impacts depending on how resolvable the argument is perceived to be. This is constant across ages and relationship lengths, indicating prior research largely effectively captures these dynamics. A novel finding in this study is in the over time associations. Rumination impacts communication valence, which subsequently impacts relationship quality. Future research may want to examine this ordering of phenomena more closely over a longer period of time.

### **Communication Engagement**

A prominent focus in theory and research on interpersonal conflict is the extent to which partners engage in communication about their disagreements (e.g. Afifi et al., 2009). Following in that tradition, this dissertation documented several interesting patterns associated with communication engagement. For the within episode analyses, decisions to engage or avoid communication were only independently associated with rumination, but not with either relationship quality or stress. This association was further moderated by perceived resolvability. The moderation of perceived resolvability was not significant for either relationship quality or stress. However, when accounting for age, perceived resolvability moderated the engagement and relationship quality association, and the engagement and rumination association. Furthermore, relationship length moderated the influence of perceived resolvability on the engagement by relationship quality association.

Cross-sectional assessments of communication engagement would largely have missed the most interesting dynamics for this construct. The within episode analyses indicated that communication engagement and stress were not significantly associated. Indeed, when analyzed over time, this is confirmed as the between-level association was also not significant. Interestingly, however, stress and communication engagement have an over time reciprocal influence on one another. Stress begot engagement which, in turn, corresponded with increased stress.

Similarly, rumination and engagement were associated at the within episode level. When explored at the between episode level, the RI-CLPM was not a better fit to the data than the CLPM, indicating that the association was largely variable over time and not a trait-like or stable association within-people. Instead, the over time effects illuminated that engagement was associated with less rumination over time, and that rumination was associated with nonengagement over time.

Within and between conflict episodes, communication engagement appeared to be more readily associated with more distal constructs. Relationship quality appeared to not effect or be affected by communication engagement. This could potentially be because it is a more stable construct over time, and this dissertation focused on a two-month period. This may not have been enough time to capture meaningful changes in relationship quality if they exist.

Communication engagement and avoidance have largely been studied in how individuals verbally respond to conflict situations (e.g. Afifi et al., 2009) rather than when a person will decide to approach or avoid their partner, entirely (e.g. Cloven & Roloff, 1993). This study found two unique over time cycles between communication engagement and rumination and communication engagement and stress that help to further understand engagement decisions.

Experiences of stress external to the relationship help to promote engagement in communication with a partner over time, which in turn impacts experiences of stress. Rumination, on the other hand, prolongs arguments such that the more a person ruminates about the issue, the less likely they will engage, and the more likely they will continue to ruminate about the issue. External stress may motivate people to try and resolve their interpersonal conflicts, whereas rumination may tarnish perceptions of a partner, reducing the desire to discuss a problem with them and ultimately exacerbating rumination behaviors.

### **Perceived Resolvability**

Perceived resolvability has been a foundational tenant of serial argument research. In this study, men perceived their arguments to be more resolvable than women did. Older people and those in longer term relationships indicated perceiving their arguments to be less resolvable. Perceived resolvability was positively correlated with communication valence, relationship quality and stress, and negatively correlated with rumination. Furthermore, perceived resolvability seemed to increase over time, particularly from time 1 to time 2. When not accounting for any other variable, perceived resolvability was positively associated with relationship quality and stress and was negatively associated with rumination within episodes.

This study posited the moderation of perceived resolvability on within episode behaviors. Perceived resolvability did directly moderate the relationships between communication valence and relationship quality and communication valence and stress. It only moderated the engagement relationships when accounting for lifespan differences for relationship quality and rumination, particularly when accounting for age or relationship length.

This supports the assessment that perceived resolvability likely has greater impacts on the serial argument process than has been explored previously. Perceived resolvability as a quality of

the overall argument has impacts on experiences within conflict episodes. The expectation that an argument ought to be resolvable fundamentally impacts intra-conflict dynamics, as was found and discussed in this dissertation. People in less mature relationships and those who are of a younger age tend to either perceive their arguments are more resolvable or decided to report on more resolvable conflict than did their older counterparts.

Future work ought to generally explore conflict people experience at different ages to determine whether younger people have a more optimistic outlook on their arguments. Even though participants were instructed to pick the most severe conflict topic to discuss, younger people tended to select less severe conflicts on average than did older people. Severity of conflict and the resolvability of the conflict were significantly negatively associated. This may have influenced the effects of perceived resolvability in this study, and future work ought to examine the interplay of perceived resolvability and conflict severity in the serial argument process.

### **Lifespan**

In looking at the effects of the three lifespan variables, age and relationship length were the most consistent predictors. Independently, relationship length and stage both significantly predicted relationship quality, however, when all lifespan variables were in the same model, none of them were significant predictors. For rumination and stress, relationship length and age were significant predictors, but only age remained a significant predictor when the other lifespan metrics were accounted for in the same model. Relationship stage was largely a nonfactor.

The dismissal of communication engagement as an impactful factor on serial argument processes was largely an artifact of initial studies on serial arguments being limited in participant age (e.g. Johnson & Roloff, 1998). Through exploring this variable with people at various ages and relationship maturities, its influence was made clear. Essentially, the lack of sample diversity

in earlier serial argument studies limited the scope of findings in such a way that meaningful or more nuanced relationships stemming from communication engagement were potentially obscured.

Communication valence was largely unaffected by lifespan factors. All people appear to be equally affected by the perception that the tone of an argument was positive or negative. What changes, however, is the impact of decisions to engage in or avoid discussion of a problem. For younger people, there was a more discrepant experience in how engagement and avoidance correlated with perceptions of relationship quality in arguments that are perceived to be highly resolvable. Alternatively, in less resolvable conflicts, that relationship is much more variable both for young people and old people. Through this analysis, it appears that young people may have a more volatile reaction to conflict experiences, regardless of engagement decisions, across levels of perceived resolvability.

### **Broader Implications**

The series of analyses described in this dissertation illuminate the experiences of serial arguments from two vantage points. The first set of analyses underscored the impact of sample diversity, in terms of age and relationship maturity, on behavior in, and individual perceptions of, conflict episodes. The second set of analyses explored the over time experiences behaviors in, and perceptions of, conflict experiences. To this point, I have underscored the implications for research on specific facets of serial arguments. In this section, I consider two issues that arise more generally from the design and theoretical claims advanced in this project. Specifically, this dissertation provides insight into differences in our understanding of serial arguments through the level of abstraction of the analysis. In addition, this dissertation investigated the possibility



that perceived resolvability is more than just an antecedent or consequent condition of conflict episodes, but rather, is a foundational tenant of larger argument processes.

### **Levels of Abstraction for Studying Serial Arguments**

This dissertation provided insight into various levels of abstraction at which serial arguments can be investigated. Serial arguments are often studied at a more micro level of abstraction, in that scholars often study individual conflict episodes rather than the larger argument process. Implications from these conflict-level examinations are then extended to the larger serial argument, perhaps erroneously. The first set of analyses in this dissertation explored the episodic experiences of conflict episodes, and, in tandem with the second over time set of analyses, a deeper understanding of serial argument processes emerged.

When looking solely at the within episode level analyses, communication engagement was not related to stress. In examining this relationship over time through a random-intercept cross lagged panel model, a reciprocal relationship emerged between stress and engagement, such that increased stress at one point corresponded with an increase in the likelihood of engagement at the next time point, and subsequently corresponded with an increase in stress at the following timepoint. Alternatively, communication valence and stress were related when examined in the within episode analyses. When analyzed over time, there were no within-level effects, and only the aggregated person-level relationship was significant.

Serial arguments are an over-time process, and therefore, merit longitudinal examination. Episodic understandings may not fully capture the essence of the overarching argument process or experience. Moreover, episodic results cannot be accurately extrapolated to argument level. Future research on serial arguments would benefit from more precise theorizing at the

appropriate level of abstraction to fully capture the essence of what separated a serial argument from a one-off conflict experience.

### **Perceived Resolvability**

Prior to carrying out the analyses in this dissertation, I postulated that the theorizing of perceived resolvability throughout the serial argument literature was largely a product of study samples consisting of largely an undergraduate dating population. In looking at the broader conflict literature that emphasized different moments in the lifespan, dating relationships appeared to be more idealistic, whereas more mature relationships were more stable. In addition, younger people are less emotionally mature, whereas older people are more levelheaded. In tandem, these perspectives lead me to postulate that younger people would be more affected by the perception of argument resolvability than their older counterparts. In turn, that would mean that all research on perceived resolvability was subject to the influence of this sampling bias.

Beyond providing evidence for the pervasiveness of perceived resolvability's influence outside of a college dating sample, this dissertation also explored its influence on serial argument processes. Prior studies argue that perceived resolvability is either an antecedent or consequent condition of a conflict episode. I argued that perceived resolvability has a more pervasive role in the argument process in that it moderates conflict experiences.

In this study, perceived resolvability independently moderated the relationships between communication valence and relationship quality and between communication valence and stress. The effect of perceived resolvability on the relationships between communication engagement and relationship quality and between communication engagement and rumination were only illuminated through the lens of lifespan differences. Younger people and those in shorter-term relationships were more likely to indicate that their arguments were resolvable, which was in

support of the idea that young people may be more idealistic about their relationships. People who were older or in longer-term relationships were affected by the resolvability of their conflicts, they were just affected differently. Younger people experienced more variability in their perceptions of relationship quality and rumination in highly resolvable conflict compared to their older counterparts. Older people and those in longer-term relationships had more polarized responses to increasing perceptions of conflict resolvability.

Overall, these results underscore the importance of purposive sampling in conflict research. College aged dating relationships are real, and they are valuable to study, but sampling from this population requires careful theorizing around the implications for conflict at that stage in the lifespan. Perceived resolvability has not been studied in varied enough samples to have a complete picture of its influence. Furthermore, these results provide support for the idea that perceived resolvability has a bigger influence on conflict experiences than has been postulated in prior research. The perceived resolvability of a conflict alters how an individual approaches and perceives the conflict. Future work should explore this moderation further.

### **Seriality**

One argument I made in the introduction to this dissertation was that seriality was defined in a potentially limiting way in prior research on serial arguments. Not every instance of a serial argument needs to be connected topically; rather, one conflict may be perceived as related to other conflicts a person has had with this partner, which in turn may conflate multiple conflicts into a broader argument. To one partner, this conflict is about something specific and concrete, and to the other, it may be tied to prior conflict experiences within the relationship, making it a broader and more complex conflict. This mismatch of conceptions of the conflict's scope can be part of what perpetuates seemingly, topically benign arguments.

Conflict is one area of research that has benefited from an examination of cross-generational communication adaptation. Studies have examined how a person's parents' conflict behaviors are subsequently mirrored in their own behaviors in romantic relationships. If parents engage in highly distributive communication during conflict, their children are likely to engage in highly distributive communication during conflict. Some of this behavioral mirroring exemplifies the seriality aspect of conflict. Our prior exposure to communication shapes our expectations for, and actual execution of, conflict in the future.

This cognitive connection of conflict episodes may be an important frame for future communication research. All communication is serial. Because we do not communicate in a bubble, prior experience with particular communication behaviors or situations should impact how we experience similar behaviors or situations in the future. Exploration of many communication phenomenon, such as support, advice, or persuasion, may benefit from this seriality lens.

### **Strengths and Limitations**

The contributions of this dissertation are qualified by several strengths and limitations. Data were collected from a sample that encompassed people of varying ages in different relationship stages, which advances research on this topic. Participants completed up to three surveys over the course of a two-month period, which illuminated argument level experiences above and beyond a cross-sectional episodic evaluation. Hierarchical linear modelling allowed for participants to be included in data analysis even when they were missing data. This allowed for a larger sample of participants in this analysis, which provided power for more advanced analytics beyond the typical structural equation model (e.g. Bevan et al., 2008) or actor-partner independence model (e.g. Bevan, 2014).

Measures in this dissertation were collected through surveys. Although these measures were largely perception based (e.g. perceived resolvability, communication valence), some of the measures targeted behavioral phenomena (e.g. communication engagement), which introduces a source of error in measurement. Furthermore, there was no way to control for the length of time between a conflict episode and taking a survey, nor for the number of episodes that may have occurred between surveys. This means for some participants these conflicts may have been more salient than for other participants. For those who may have had more time elapse between the conflict episode and the survey, time may have impacted their perceptions of their argument.

Participants were recruited through the use of a Qualtrics panel. Although this approach afforded a diverse participant pool quickly, it is subject to some concern. In particular, qualitative data can be poor in using this service. In addition, participants may be less reliable than participants recruited through other methods. Although rigorous data cleaning procedures took place before any substantive analysis, data quality may have been affected by the method of participant recruitment.

### **Conclusion**

This dissertation examined the experience of serial arguments over time and at different moments in the individual and relational lifespan. To do so, I examined within-episode effects of perceived resolvability and lifespan on conflict processes. In particular, I examined the influence of these moderators on the relationships between communication engagement and communication valence and perceptions of relationship quality, rumination, and stress. I then examined over time relationships between communication engagement and communication valence and perceptions of relationship quality, rumination, and stress. Results from these

analyses provide a deeper understanding of serial argument processes within and between conflict episodes.

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## APPENDIX: MEASURES

### Exclusionary Items

1. Are you currently involved in a committed, romantic relationship?
  - a. Yes
  - b. No
  
2. What is your relationship status?
  - a. Single
  - b. Seeing each other, but without a commitment
  - c. Friends with benefits
  - d. Committed dating, but not engaged
  - e. Engaged
  - f. Married
  - g. Separated
  
3. Do you experience conflict with your romantic partner?
  - a. Yes
  - b. No

### Demographics

4. What is your age in years?
  
5. What is your partner's age in years? \_\_\_\_\_
  
6. What is your ethnicity?
  - a. White/Caucasian
  - b. Black/African American
  - c. Asian/Pacific Islander
  - d. Middle Eastern
  - e. Native American
  - f. Hispanic/Latino
  - g. Other \_\_\_\_\_
  
7. What is your partner's ethnicity?
  - a. White/Caucasian
  - b. Black/African American
  - c. Asian/Pacific Islander
  - d. Middle Eastern
  - e. Native American
  - f. Hispanic/Latino
  - g. Other \_\_\_\_\_

8. Please select the gender you identify as
  - a. Man
  - b. Woman
  - c. Other \_\_\_\_\_
  
9. Please select the gender your partner identifies as
  - a. Man
  - b. Woman
  - c. Other \_\_\_\_\_
  
10. What is the highest degree or level of education you have completed?
  - a. Less than high school
  - b. High school graduate (includes equivalency)
  - c. Some college, no degree
  - d. Associate's degree
  - e. Bachelor's degree
  - f. Ph.D.
  - g. Graduate or professional degree
  
11. What was your total household income before taxes during the past 12 months?
  - a. Less than \$25,000
  - b. \$25,000 to \$34,999
  - c. \$35,000 to \$49,999
  - d. \$50,000 to \$74,999
  - e. \$75,000 to \$99,999
  - f. \$100,000 to \$149,999
  - g. \$150,000 or more
  
12. We use the word "cohabitation" to mean that both partners live full time at the same address. Given this definition, are you currently cohabiting with your partner?
  - a. Yes
  - b. No
  
13. Have you ever been married before to someone that is not your current partner?
  - a. Yes
  - b. No
  
14. We are interested in how long you've been involved in this relationship.
  
15. Have you been together more than 1 year?
  - a. Yes
  - b. No
    - i. If yes: how many years? \_\_\_\_\_
    - ii. If no: how many months? \_\_\_\_\_
  
16. Do you and your spouse have children?

a. If yes, how many currently live at home with you? \_\_\_\_\_

17. Do you or your spouse have children from another relationship?

a. Me

b. My Spouse

c. No

d. If yes, how many children? \_\_\_\_\_

**Religiosity (Solomon & Brisini, 2017)**

1. To what extent do you consider yourself a religious person?

1	2	3	4	5	6
Not religious					Very religious

2. How much of an influence would you say that religion has on the way you choose to act and the way you choose to spend your time each day?

1	2	3	4	5	6
No Influence					A large influence

3. When you are faced with a serious problem or decision, how often do you take religious advice or religious teachings into consideration?

1	2	3	4	5	6
Never					Always



### Argument Questions

A serial argument is a repeated set of conflicts you have with your partner over time, typically about the same issue. Please list the topic of up to five ongoing serial arguments you have with your partner below: \_\_\_\_\_

1. Please rank the how serious you perceive each conflict to be:

In thinking about the argument you chose as being the most severe, please respond to the following questions:

2. Approximately how long ago did you first start arguing about this issue? \_\_\_\_\_
3. Approximately how often do you argue about this issue? \_\_\_\_\_
4. When was the last time you argued about this issue? \_\_\_\_\_
5. Who usually initiates conflict about this issue?
  - a. Me
  - b. My partner
  - c. Both of us

**Perceived Resolvability (Johnson & Roloff, 1998)**

To what extent do you believe the following about your selected serial argument?

1	2	3	4	5	6	7
Not at all					To a great extent	

1. I believe that it will never be resolved
2. I believe that it will be resolved sometime in the future
3. I don't think that my partner will ever agree on this issue
4. I anticipate that this issue will always be a problem

New Items:

5. Since the first discussion of this issue, I feel we have made progress on resolving the issue
6. I think that the next discussion of this issue will move us towards a resolution
7. I think we will eventually come to a resolution that will be satisfactory to both me and my partner
8. I believe that each discussion of this issue brings us closer to a solution
9. I think we will fight about this issue for the foreseeable future
10. I think the end of this argument is near.

## Communication Engagement

1. Have you discussed this issue with your partner within the last two weeks?
  - a. Yes
  - b. No





**Communication Valence**

1

2

3

4

5

Strongly disagree

Strongly agree

To what extent would you agree that, compared to previous conflict you have experienced with your partner, the most recent discussion of this issue was:

1. difficult
2. overwhelming
3. hurtful
4. aggressive
5. unfair
6. rational
7. cooperative
8. calm
9. helpful
10. encouraging







