
#### Abstract

Title of Document: A DUAL PERSPECTIVE ON THE MANAGEMENT OF RELATIONAL TRANSGRESSIONS IN ROMANTIC RELATIONSHIPS

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Relational transgressions are important events that affect romantic relationships. The current research analyzed the cognitive and communicative processes people use to frame a transgression. A structural equation model was proposed to test fifteen hypotheses and to examine five research questions. Several factors were hypothesized to influence the attributions partners make about the transgression and the perceived importance of three types of goals, which, in turn, affect one's orientation toward a particular dialogue type, which affects the perceived resolvability of the transgression and partners' satisfaction with its management.

Two experiments were conducted. Undergraduate students ( $N=437$ ) in dating relationships participated in the first experiment, and older adults in married relationships ( $N=276$ ) participated in the second experiment. Participants were randomly assigned to hypothetical scenarios in which one's role in the transgression, the frequency of the


transgression, and the type of transgression (only in the first experiment) were manipulated. All participants provided information about themselves and their romantic relationships, read a hypothetical scenario, and provided answers using magnitude scales to items assessing the dependent measures.

Results indicated that the proposed model for the management of relational transgressions fit the data acceptably. One's role in the transgression and one's sample type (i.e., dating undergraduates vs. older, married adults) were important factors that differentiated how people manage relational transgressions. Dialogue types were predicted well by attributions and goals. Resolvability was predicted by positive dialogue types. The negotiation dialogue orientation was the only one that made people satisfied with the management of the transgression. The study's limitations and directions for future research are discussed.

# A DUAL PERSPECTIVE ON THE MANAGEMENT OF RELATIONAL TRANSGRESSIONS IN ROMANTIC RELATIONSHIPS 

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## CHAPTER I

## The Case for Relational Transgressions

Relational transgressions are negative violations of rules and expectations about appropriate behavior. Their occurrence can "rock the very foundation of a relationship" (Metts, 1994, p. 217; also see Cupach \& Metts, 1994). For example, lying to one's romantic partner violates the assumption of honesty that underlies most romantic relationships. Not only do transgressions disrupt the stability of a relationship, but they also trigger emotional responses such as hurt and anger (Metts, 1994). Partners must make sense of the event and figure out the implications it has for their relationship. The effect of a transgression can be devastating; for example, infidelity has frequently been a reason for terminating a romantic relationship. But Metts and Cupach (2007) also acknowledge that a relationship can overcome a transgression and even improve in the aftermath of a transgression. Partners may learn more about each other and may develop a mutual understanding about how to handle similar situations in the future. Why the effects of transgressions are widely different and how partners can successfully overcome such events are important questions to answer.

Most research on relational transgressions has analyzed the phenomenon in romantic relationships because transgressions have a high probability of occurrence in such relationships (Metts \& Cupach, 2007). Scholars have thus far focused on defining relational transgressions (e.g., Metts \& Cupach, 2007), identifying behaviors that constitute transgressions (e.g., Baxter, 1986; Metts, 1994), identifying people's reasons for engaging in such behaviors (e.g., Kowalski, 1997, 2000, 2001), and examining the feelings such events trigger for victims of transgressions (e.g., Vangelisti, 2006;

Vangelisti \& Crumley, 1998). Despite growing interest in relational transgressions, the interpersonal literature is still scarce in respect to studies regarding the management of such events. Several studies have addressed gender differences in the interpretation and evaluation of relational transgressions (e.g., Cann, Mangum, \& Wells, 2001; Hendrick \& Hendrick, 1995), the way partners respond to transgressions (e.g., Metts, Aune, \& Ebesu, 1990), and the maintenance strategies partners adopt following a relational transgression (e.g., Blumstein \& Schwartz, 1983; Bowman, 1990). The mental processes at work when partners are faced with a relational transgression, however, have not been studied closely. Partners' initial cognitions following a transgression are important because they set the tone and frame the event, which affect its subsequent management and the consequences it has on the relationship. For example, if a person faced with a relational transgression approaches the event by criticizing his or her partner, the tone for any discussion about the event is rooted in this negative approach, and the situation may escalate into a conflict. Conflict is frequently associated with negative relational outcomes (Straus, 1979) and its management is critical for the well-being of the relationship (Gottman, 1994). Mapping the cognitive and communicative processes at work in the aftermath of a relational transgression is important because it helps researchers predict the possible responses people adopt for managing transgressions.

Another issue regarding relational transgressions is that researchers have analyzed these events often from the perspective of those whose expectations have been violated, often labeled victims. Less is known about how those who commit the transgressions, often labeled transgressors, frame these events. Available research on transgressors has focused on their repair strategies and relational maintenance behaviors (e.g., Metts et al.,
1990), but information about their approaches to the management of a transgression is scarce. Because relational transgressions affect both partners once the transgression has been revealed or discovered, the transgressors' perspective is equally important. It provides information about the causes of such behaviors, and it permits predicting how both partners in a romantic relationship address a transgression.

A great deal of the interpersonal literature on relational transgressions has also focused on severe violations, such as infidelity, lying, and deception, despite the fact that other behaviors (e.g., breaking promises, being insensitive, being rude, forgetting an important event, not privileging the primary relationship; Metts, 1994) constitute transgressions as well. Infidelity, lying, and deception are severe events and they often have devastating effects in a relationship. Broken promises and forgetfulness may not be as devastating as infidelity is, but they may be more likely to occur in a romantic relationship than infidelity is; not everyone will cheat on one's partner, but eventually everyone is bound to forget an anniversary, say something insensitive, or not spend enough time with one's partner. Such behaviors still violate expectations and disturb the normal flow of a relationship and repeated occurrences may become the straw that breaks the (relationship) camel's back. Knowledge about such less severe events is equally important as knowledge already available about severe relational transgressions.

This dissertation proposes research into the management of less severe relational transgressions from the perspectives of both victims and transgressors. The focus is on behaviors that constitute, in the perception of at least one partner, a relational transgression. It is assumed that both partners are aware of the behavior, so the current research does not address transgressions known unilaterally (usually by the transgressor),
such as secrets, and it does not address means of discovery of a transgression, such as confessions or third-party revelations. Furthermore, the current research does not focus on severe transgressions, such as relational infidelity, but on less severe transgressions that may be more frequent and may occur in more relationships than infidelity does, such as broken promises and insensitivity.

The primary goal of the current research is to map the cognitive and communicative processes at work following a relational transgression and prior to any verbal communication with one's partner about the transgression. In other words, the focus is on the cognitive preparation for a discussion about the transgression and the communicative options available for such a discussion. The focus on transgressions that have not been widely studied yet adds knowledge to the interpersonal and conflict management literatures. A secondary goal of the current research is to provide a dual perspective on the management of relational transgressions, focusing on how both victims and transgressors manage such events. This focus contributes to the interpersonal communication literature because transgressors' behaviors in the aftermath of a relational transgression have not been studied in depth. Finally, a third goal of the current research is to compare the management of relational transgressions in couples who are at different stages in their romantic relationships (i.e., dating vs. married). This focus permits an extension beyond the traditional undergraduate student samples used in a great deal of research, and permits assessing whether results with such populations are generalizable.

To accomplish these goals, concepts are borrowed from the normative structure of dialogue systems developed by informal logicians (e.g., Hamblin, 1970; Walton, 1998; Walton \& Krabbe, 1995). This framework is useful because it outlines the possible types
of dialogue that can develop (i.e., persuasive dialogue, negotiation dialogue, informationseeking dialogue, eristic dialogue, deliberative dialogue, and inquiry dialogue) in a discussion between partners about a relational transgression. This framework is also broader than, for example, account typologies that have been used to describe partners' responses to relational transgressions (Metts, Aune, \& Ebesu, 1990), which means it can accommodate a variety of strategies partners may use to address the transgression.

It is posited that in the aftermath of a relational transgression people make attributions about the transgressive behavior and formulate several types of goals (i.e., expressive goals, face concerns, and relationship-oriented goals) that they perceive to be important for a discussion with their partner about the transgression. These attributions constitute the initial situation the dialogue framework describes and, along with the goals people formulate, function as predictors of the orientation toward one of the dialogue types proposed by Walton and Krabbe (1995). These dialogue orientations, in turn, affect the perceived resolvability of the transgression and partners' satisfaction with the management of the transgression, both important aspects for the well-being of a relationship. The effects of several variables involved in the process described above are also analyzed: the role one has in the transgression (victim vs. transgressor), the type of transgression (broken promises vs. insensitivity), the frequency of the transgressive behavior (whether the transgression occurred for the first time vs. whether it has occurred several times before), and partners' overall relational quality.

Two experiments were conducted to analyze how people manage relational transgressions. An indirect goal of the current research was to assess whether people at different relational stages address transgressions in a similar manner. Therefore, the first
experiment was conducted with an undergraduate, mostly dating sample, whereas the second experiment was conducted with an older, mostly married sample. In the first experiment, one's role in the transgression, the frequency of the transgressive behavior, and the type of transgression were manipulated in eight hypothetical scenarios. In the second experiment, one's role in the transgression and the frequency of the behavior were manipulated in four hypothetical scenarios depicting one of the two transgressions studied in the first experiment.

The following chapters provide an overview of relational transgressions and explain the theoretical considerations that have guided this research. A model of how partners manage relational transgressions is proposed, and the hypotheses and research questions that will be examined are presented. Next, the research method is detailed, including descriptions of the pilot studies conducted, the scale development study, and the two experiments. Results are provided and a discussion of these results and their implications for the interpersonal communication literature are presented. Finally, limitations of the present studies and directions for future research are discussed.

## CHAPTER II

## The Anatomy of a Transgression

A relational transgression is rooted in the expectations partners in romantic relationships have of each other and of their relationship. The following sections detail the concept of expectations and their role in relational transgressions. In addition, the sections detail the processes at work following a relational transgression: attributions about the transgressive behavior, goals perceived as important in the aftermath of a relational transgression, dialogue type orientations, and outcome measures of such dialogue orientations (i.e., perceived resolvability of the transgression and satisfaction with its management).

## Expectations and Relational Rules

Expectations are "framing devices that define and shape interpersonal interactions" (Burgoon, 1993, p. 32). People have expectations about how others act and react in social interactions. People also evaluate others and the interactions they have with others based, in part, on whether their expectations were confirmed or violated (Burgoon, 1995). Expectations develop based on social and cultural norms and specific knowledge about the other person in the relationship (Burgoon, 1993; Burgoon, LePoire, \& Rosenthal, 1995; Metts \& Cupach, 2007).

In romantic relationships, people have some views about the other person, about the relationship, and about what behaviors are appropriate in the relationship (Roloff \& Cloven, 1994). According to Fuhrman, Flannagan, and Matamoros (2009), people expect their partners to be emotionally close to them (e.g., be loyal, emotionally supportive, and uncritical), be their social companions (e.g., exchange presents and attend family events
together), and be positive about the relationship (e.g., avoid anger and avoid swearing). Moreover, people have higher expectations for their romantic partners than for other people in their lives (e.g., friends in Fuhrman et al., 2009), which implies that violations committed by romantic partners may have more severe effects (e.g., be more hurtful) than if they were committed by other people.

As a relationship develops, partners establish and explore their expectations and also delineate appropriate behaviors within the relationship (Metts, 1994). Relational rules develop based on expectations, and they allow partners to "infer, negotiate, assume, and specify the rules of conduct and relationship functioning that will coordinate their behaviors, standardize their goals, and define their relationship" (Metts, 1994, p. 219). Relational rules can be developed individually, by each partner, based on personal preferences and past experiences. Such rules may be upheld unilaterally by the person who developed them. An assumption that such rules are shared may exist, but this assumption can be disconfirmed by the other partner. People have different perceptions of appropriate behaviors within a romantic relationship and the relational rules that govern the relationship. For example, Partner A may believe that flirting is acceptable while dating Partner B, whereas Partner B may believe that flirting is not acceptable when dating Partner A. Relational rules can also be developed mutually by partners during their relationship. It is expected that such rules are shared by both partners. For example, if partners agree to become monogamous, each partner would expect this relational rule to be shared and upheld by the other partner.

Relational rules may be explicit or implicit. Metts and Cupach (2007) argued that explicit rules tend to be person- or relationship-specific because they have been
developed based on knowledge of that particular person in that particular relationship. For example, Partner A's addiction to gambling may result in a rule concerning the management of finances by Partner B (Metts \& Cupach, 2007). Implicit rules tend to be based on socially and culturally accepted norms for proper behavior in a relationship (Metts \& Cupach, 2007). For example, Americans expect no extramarital involvement because monogamy in a marriage is a socially upheld rule in this culture (Treas \& Giesen, 2000). Explicit rules are likely to be discussed orally and established by the two partners, whereas implicit rules are assumed or shared frequently without an explicit oral agreement.

In addition, relational rules may be regulative or constitutive. Regulative rules guide behavior in the relationship, specifying "how episodes and activities will be conducted" (Metts, 1994, p. 220). For example, married couples reported that being considerate, being rational, and keeping the exchange positive were some regulative rules that guided their management of conflict (Jones \& Gallois, 1989). Constitutive rules specify "the behaviors that must occur if a particular activity is going to come into being or continue to exist" (Metts, 1994, p. 220). Ellis and Weinstein (1986) argued that such rules may be used to operationalize feelings. For example, a monogamy rule may operationalize the feeling of loving one's partner more than loving anyone else.

According to Ellis and Weinstein (1986), rules are essential for sustaining the cohesion of a relationship and defining its boundaries. Because they have such a central role within a relationship, rule violations are significant moments that require partners' attention. When the violation is a positive one (e.g., surprising one's partner by cooking dinner), the relationship is likely to benefit. When the violation is negative, (e.g.,
forgetting the partner's birthday), the relationship is likely to suffer. Several studies have found that rule violations ended a relationship or were used to end a relationship (Baxter, 1986; Vaughan, 1986). Such negative violations constitute relational transgressions and they have received a great deal of attention given their adverse effects on romantic relationships. An in-depth discussion of these violations is presented below.

## Relational Transgressions

A relational transgression is a negative violation "of some rule of conduct or taken-for-granted expectation about how the partners should act in their relationship" (Cupach \& Metts, 1994, p. 70). Partners may interpret any instance in which a relational rule is violated as a relational transgression (Metts, 1994). The rule violated may be explicit or implicit, regulative or constitutive. What matters is that at least one of the partners believes a violation has occurred. The person who commits the violation is the transgressor, and the other person (toward whom the violation is directed) is the victim.

Several studies identified relational rules whose violations lead to transgressions in romantic relationships (Baxter, 1986; Feeney, 2005; Jones \& Burdette, 1993; Metts, 1991; Metts, Morse, \& Lamb, 2001; Metts, Pensinger, \& Cupach, 2001; Roscoe, Cavanaugh, \& Kennedy, 1988). Baxter (1986) found that several rules were important in romantic relationships: autonomy, similarity display, supportiveness, openness, loyalty, shared time, equity, and "an inexplicable 'magic' quality" the relationship ought to have (p. 289). Participants identified the violation of these rules as the cause of their relational termination. Feeney (2005) reported similar categories and added trust as a frequently mentioned rule whose violation led to hurt feelings in close relationships. Jones and Burdette (1993) reported that extramarital affairs, lies, ignorance/avoidance, criticism,
and gossip were consequences of violating expectations, commitment, and trust in relationships. Metts (1994) concluded that transgressions result from several categories of behaviors: "sexual involvement outside of the primary relationship," secrets and privacy (e.g., deceptive use of information or betrayal of private information), unfulfilled commitments (e.g., broken promises), not "privileging the primary relationship" (e.g., spending free time with others rather than with one's romantic partner), "interaction management" (e.g., verbal or physical abuse), and (in)"appropriate emotions" (e.g., not reciprocating affection, p. 224). Cameron, Ross, and Holmes (2002) identified similar categories: "broken promises, overreaction to victim's behavior, inconsiderate behavior, violating the victim's desired level of intimacy, neglecting the victim, threat of infidelity, infidelity, verbal aggression toward the victim, unwarranted disagreement, and violent behavior toward the victim" (p. 310).

Most research on relational transgressions has focused thus far on one of the most severe transgressions, infidelity (e.g., Blow \& Hartnett's 2005a, 2005b, reviews of infidelity in committed relationships). Studies in this line of research have analyzed the prevalence and acceptability of emotional, physical, or sexual infidelity (e.g., Afifi, Falato, \& Weiner, 2001; Buss \& Shackelford, 1997; Drigotas, Safstrom, \& Gentilia, 1999; Glass \& Wright, 1985; Patterson \& Kim, 1991; Roscoe, Cavanaugh, \& Kennedy, 1988; Sheppard, Nelson, \& Andreoli-Mathie, 1995); causes of infidelity, such as jealousy, revenge, and betrayal (e.g., Brainerd, Hunter, Moore, \& Thompson, 1996; Buunk, 1982; Feldman, Cauffman, Jensen, \& Arnett, 2000; Yablonsky, 1979); the effects of infidelity in relationships (e.g., Atkins, Eldridge, Baucom, \& Christensen, 2005; Jones \& Burdette, 1993; Jones, Couch, \& Scott, 1997); and gender differences in infidelity
(e.g., Atkins, Baucom, \& Jacobson, 2001; Blumstein \& Schwartz, 1983; Glass \& Wright, 1985; Guerrero, Spitzberg, \& Yoshimura, 2004).

Relational transgressions, however, arise from other rule violations. For example, breaking a promise, being rude to the other person, making insensitive comments about the other person, deceiving the other person, and changing plans made with the other person are all likely to violate a partner's expectations and constitute a more or less severe transgression in a relationship. These violations trigger an attribution process in which people (especially victims) search for the motivation of the transgressive behavior (e.g., Atwater, 1979; Roscoe et al., 1988), and must be addressed. The dialogue framework delineates the possible conversational options partners have for a dialogue about the transgression. This framework is explained below.

## The Normative Dialogue Framework

The dialogue framework developed by Walton and Krabbe (1995) proposes that an argumentative dialogue occurs because partners are in a situation they need or want to change. Such a situation arises from a conflict of opinion, from an open problem that must be solved, or from the lack of information about something (Walton \& Krabbe, 1995). The framework also proposes that each dialogue type is characterized by a primary goal: to reach a stable agreement or resolution, to reach a practical settlement, or to reach a provisional accommodation. Participants who engage in a particular type of dialogue are supposed to subscribe to this overarching goal in addition to pursuing individual goals such as getting the best deal, demonstrating personal knowledge, winning the argument, and finding an irrefutable piece of evidence (Walton \& Krabbe, 1995).

The dialogue framework is a useful tool for mapping the possible dialogue types that can emerge between partners in the aftermath of a relational transgression (Cionea, 2011). It specifies the available choices for framing the initial situation and the goals partners ought to pursue, depending on the outcome they want to reach. It also specifies the argumentative moves that lead to constructive dialogues, which is essential for successfully managing a relational transgression. Different moves are available within each framework and such moves may aggravate or alleviate the state of tension that surrounds a relational transgression. For example, such moves may take the form of accounts, a well-studied impression management strategy (Schlenker, 1980; Schönbach, 1980, 1990; Scott \& Lyman, 1968). Accounts are statements "made by a social actor to explain unanticipated or untoward behavior" (Scott \& Lyman, 1968, p. 46). So, accounts are likely to be present when partners address a relational transgression. Buunk and Bringle (1987) found that partners create joint accounts for managing transgressions, whereas Metts et al. (1990) found that apologies, which are a type of accounts, increased relational trust. Thus, accounts may take the form of a particular argumentative move in a dialogue partners have about the transgression. For example, transgressors who engage in information-seeking may offer an excuse or a justification of their behavior.

An orientation toward a particular dialogue type is important because it reveals how people approach conversations about problematic events in their relationships. It is also important because it reveals potential communication differences between partners and it permits identifying constructive ways to manage problematic events. It can also shed light onto the processes involved in the cognitive preparation for a dialogue with one's partner about a relational transgression. Such information is important because
initial dialogues about a transgression affect whether partners believe the issue is resolvable, which is correlated strongly with their relational satisfaction (Johnson \& Roloff, 1998).

When applied to relational transgression, the initial situation of dialogue consists of the internal and external attributions partners make about the transgressive behavior, whereas the main objective of the dialogue consists of the individual goals people wish to pursue while discussing the event with their partners. Attributions and goals determine the dialogue type that partners are inclined to adopt while addressing the transgression. The following sections detail the concepts of attributions and goals and identify several factors that affect how people make attributions and how they prioritize their goals for a discussion with their partner about the transgression.

## Conceptualizing Attributions and Perceived Goal Importance

Attribution theory. Relational transgressions are usually unexpected events in a relationship, so they require explanations of the transgressive behavior. The processes through which people generate explanations for their own behavior and for other people's behavior have been analyzed extensively through the framework of attribution theory (Heider, 1958; Jones \& Davis, 1965; Kelley, 1967; Weiner, 1986). According to Heider (1958), the outcome of an action depends on "factors within the person and factors within the environment" (p. 82). In other words, when people make attributions about an event, they judge the behavior based on either personal, internal motives (internal attributions) or based on environmental, situational motives (external attributions). These attributions are nuanced by a person's perceived intent, motivation, and ability.

Jones and Davis (1965) elaborated on Heider's (1958) view regarding
attributions, paying particular attention to the dispositional inferences people make for an action. According to the correspondent inference theory articulated by these authors, people rely on several factors (e.g., the perceived choice the person had) to assess whether the outcome of an action corresponds to a person's dispositions. In making such assessments, people consider the intentionality of a person's action. When actions are believed to be intentional, people make more dispositional (internal) attributions than when actions are perceived to be unintentional, in which case people make more situational (external) attributions.

Attribution theory includes several other variables that affect the attribution process. For example, Jones and Davis (1965) proposed that people take into account whether an action is socially desirable. Weiner (1986) proposed that people determine the cause of behavior based on the locus of the action (internal or external), the stability of the cause, and the perceived control a person has over the cause (e.g., one's skills vs. chance or luck). How people make attributions is a well-researched phenomenon, and it is not the focus of the current research. The focus is on the end result of the attribution process, as outlined by attribution theory: the internal and external attributions people make for their behavior and for their partner's behavior. These attributions lead to subsequent responses (e.g., anger and distributive conflict management strategies) that are rooted in the perceived cause of an action (Feeney, 2005; Kelley, 1971; Sillars, 1980).

Perceived goal importance. In the aftermath of a relational transgression, in addition to attributions about the transgressive behavior, partners also formulate several types of goals they perceive to be important for a dialogue with their partner. The present research focuses on the perceived importance of three such types: face concerns, which
capture issues related to the image of the two partners; expressive goals, which capture the desire to express feelings (positive and negative); and relationship-oriented goals, which capture concerns about the well-being of the relationship in the aftermath of the transgression. Each category will be detailed below.

Face concerns. Face represents the image people display to others in interactions, whereas facework encompasses the strategies people enact to ensure their actions are consistent with the face they wish to portray (Goffman, 1959, 1967). Brown and Levinson (1978) classified face into positive face and negative face. Positive face represents a person's concern for his or her own image and the need for approval from others. Negative face reflects an individual's concern for his or her autonomy (Wilson, Aleman, \& Leatham, 1998). Self-face is the concern for one's own image, whereas otherface is the concern for another person's image (Ting-Toomey, 2005). Thus, four categories of face concerns exist: self-positive face, self-negative face, other-positive face, and other-negative face. Face concerns have been studied in relation to conflict styles across cultures (e.g., Oetzel \& Ting-Toomey, 2003; Ting-Toomey et al., 1991) and interaction goals (e.g., Cai \& Wilson, 2000; Wilson, Kunkel, Robson, Olufowote, \& Soliz, 2009).

It is probable that all four types of face concerns play a role in the management of a relational transgression. Face is essential to one's sense of identity, even in intimate interactions where one does not need to engage in a performance at all times (Cupach \& Metts, 1994). Partners, however, are expected to engage in mutual face maintenance (Goffman, 1967). Problematic episodes in a relationship threaten the face of both partners. For example, Wilson et al. (2009) found that relational disengagement goals
were perceived as threatening to both partners' face. When face is threatened or lost, interactions are disruptive (Cupach \& Metts, 1994), so facework is needed to regain balance in the relationship.

Relational transgressions are face-threatening events because they not only violate relational rules, but they also place both partners in an embarrassing predicament (Cupach \& Metts, 1994; Goffman, 1967). In the case of transgressors, transgressions reveal aspects of the self that one may wish to keep private and a disregard for the other person's face needs (Cupach \& Metts, 1994). A transgression is often an embarrassing situation that results in negative attributions about the transgressor because it questions his or her character (Cupach \& Metts, 1994). Transgressions threaten victims' self-face because they damage victims' image of themselves. For example, Partner A may believe he or she is respected by Partner B, but a relational transgression threatens this positive image of the self that Partner A has and may make Partner A appear weak in front of Partner B.

Studies on relational transgressions have found that face concerns are embedded in the strategies couples use to manage the discovery and revelation of a transgression. Cupach and Metts (1994) argued that after a severe transgression has occurred in a relationship, transgressors use repair strategies for their own face but also for their partner's face, and they are concerned with restoring the integrity of their relationship. According to Metts et al. (1990), transgressors want to control the attributions others make about their identity, the degree to which they are involved in repairing the situation, and their nonverbal displays. Controlling attributions about one's identity suggests a concern for one's positive face, whereas control over repair strategies suggests concern
for one's negative face. Thus, face concerns are important following a relational transgression.

Expressive goals. In addition to concerns about face, relational transgressions trigger emotional responses for both victims and transgressors (Cupach \& Metts, 1994). Transgressions have been described as hurtful events (e.g., Vangelisti, 2006; Vangelisti \& Crumley, 1998), and the emotions they elicit range from anger, fear, and resentment to jealousy, guilt, and shame (Cupach \& Metts, 1994; Feeney, 2005). These feelings are sufficiently intense to permeate the way partners manage transgressions, in the form of expressive goals partners consider important to pursue. This research proposes that three expressive goals are perceived to be important after a transgression: negative feelings, dominance, and positive feelings (Bevan, Finan, \& Kaminsky, 2008; Bevan, Hale, \& Williams, 2004). The first goal involves expressing feelings of frustration, anger, and disappointment towards a partner; it permits releasing negative emotions triggered by the transgressive behavior. The second goal captures the effort to take control of the situation in the aftermath of a relational transgression. Partners (especially victims) may try to compensate for the uncertainty created by a transgression by dominating the dialogue about it. The third goal offers partners the opportunity to infuse the dialogue about the transgression with positivity by expressing care, love, and support for the other person.

Cupach (2000) argued that partners use both positive (or prosocial) and negative (or antisocial) behaviors in situations of conflict. Serial argument studies have found that expressing positive and negative feelings, expressing dominance, and wanting to change the other person were important goals for partners engaged in a repetitive argument (Bevan et al., 2004; Bevan et al., 2008). Positive feelings, such as love and support for
the other person, demonstrate concern and emotional support. They can function as a way to apologize, show remorse, and reassure the other partner of one's investment in the relationship. Negative feelings, such as anger and disappointment, as well as trying to control the other person and make him or her feel bad, demonstrate the hurtful effect a transgression has on a partner. Such goals may function as a way to release emotion and vent, to gain some control over the situation, to pay the other person back, and to assert and display power.

The pursuit of one category of goals versus the other depends on one's role in the transgression. Victims are more likely to pursue negative goals because a transgression is directed towards them. If Partner A lies to Partner B, Partner B may get angry, frustrated, hurt, and disappointed by this behavior. Transgressors are more likely to pursue positive goals because such goals could help them counteract the negative effect the transgression has on the relationship. If Partner A lies to Partner B, Partner A's expression of love and care for Partner B can alleviate the damage his or her behavior has caused, can show remorse for the behavior, and can help resolve the situation.

Relationship-oriented goals. Finally, a relational transgression threatens the wellbeing of a relationship by questioning its future viability. It can have negative effects, such as termination of the relationship, but also neutral and positive effects, such as increased communication between partners (Olson, Russell, Higgins-Kessler, \& Miller, 2002; Shackelford, Buss, \& Bennett, 2002; Spanier \& Margolis, 1983). Relationshiporiented goals are important for both partners (unless, of course, a transgression is enacted with the goal of terminating a relationship). Both victims and transgressors perceive such goals to be important in the aftermath of a relational transgression because
these goals give partners the opportunity to communicate their involvement in the relationship, to assure their partner that they value the relationship, and to minimize the effects the transgression has on the relationship. Cupach (2000) argued that behaviors confirming the relationship could help alleviate the negative effects a partner's behavior has on the relationship and can enhance one's perception of one's partner and the relationship. Relational goals, then, are important when addressing a transgression.

## Attributions and Goals in the Aftermath of a Relational Transgression

Attributions about the other person's behavior are frequent in problematic situations, such as relational transgressions (Harvey, 1987). There are several factors, specific to relational transgressions, which affect the type of attributions people make in the aftermath of such an event. These factors also affect how important the three categories of goals are perceived to be.

First, the overall quality of the relationship affects how partners evaluate a transgression. Transgressions are unexpected events, ambiguous in meaning, and relational quality serves as an anchoring point against which a transgression can be evaluated. In other words, partners interpret the transgressive behavior in part based on how satisfied they are with the other person. Studies have analyzed the effect of attributions on marital satisfaction (e.g., Bradbury \& Fincham, 1992; Fincham \& Bradbury, 1987, 1993) and found that marital satisfaction moderates the relationship between attributions and behavior (Fincham \& Bradbury, 1993), and that attributions predict marital satisfaction after a year (Fincham \& Bradbury, 1987).

The reverse relationship (the effect of relational satisfaction on attributions) has been tested in only a few studies. Fincham and Bradbury (1993) found that men's marital
satisfaction predicted their causal attributions twelve months later, but this was not the case for women. Fincham, Paleari, and Regalia (2002), however, found that marital quality predicted responsibility attributions: higher marital quality led to attributions that were more benign. This finding is consistent with previous results (Fincham, Beach, \& Baucom, 1987) in which marital distress influenced the type of attributions partners made: nondistressed spouses made more benign attributions than distressed spouses did.

In relational transgressions, relational quality affects the attributions partners make about the transgressive behavior. As Vangelisti (2001) explained, judgments of intent (and, similarly, attributions about behavior) are made based on relational quality. Regardless of their role in a transgression, people are more likely to believe their behavior (or their partner's behavior) is due to some situational factors when they are otherwise satisfied with their relationship. These considerations are summarized in the following hypothesis:

H1: Relational quality affects people's attributions about the transgressive behavior in that higher relational quality leads (a) to a lesser extent of internal attributions and (b) to a greater extent of external attributions.

In addition, relational quality is likely to affect the goals partners perceive as important when addressing a transgression. Highly satisfied partners care about their relationship, the other person, and reducing the effect a transgression has. Rusbult, Zembrodt, and Gunn (1982) found that satisfied couples addressed dissatisfactory events with constructive communicative responses because they believed these behaviors would be more successful in restoring the relationship than negative responses would. Roloff, Soule, and Carey (2001) examined two types of couples who continued their
relationships after a relational transgression: those who did so because they were emotionally involved with the other person and those who did so because they were afraid of losing the other person. The authors found the former category had more positive reactions to the transgression than did the latter category. Emotional involvement in a relationship is connected to relational satisfaction, so satisfaction with the relationship is likely to cause more positive reactions (such as positive feelings and relationship-oriented goals) to a relational transgression.

If hurtful behaviors occur in an otherwise satisfying relationship, partners are more likely to believe the behavior was accidental, seek to understand the other party, and express concern for their relationship. Vangelisti, Young, Carpenter-Theune, and Alexander (2005) found that relational satisfaction was negatively associated with how hurt people felt due to their partner's denigration of their relationship. Satisfaction implies a certain level of care and concern that both partners have for each other and for their relationship (Leary, Springer, Negel, Ansell, \& Evans, 1998). Regardless of role, partners in satisfied relationships are used to constructive communication, which involves positive face goals and positive feelings towards their partner. The following hypothesis is proposed:

H 2 : Relational quality affects the perceived importance of goals in that higher relational quality increases the perceived importance of (a) positive feelings, (b) self-positive face, (c) other-positive face, and (d) relationship-oriented goals. Second, one's role in a transgression affects the attributions one makes about the transgressive behavior. Several studies on relational transgressions found that people minimize the effect their own behaviors have on the relationship, but identify their
partner's transgressions as main causes of relational termination (Buunk, 1987; Spanier \& Margolis, 1983). When negative events occur, people also tend to blame themselves less and others more (Bradbury \& Fincham, 1990). Finally, Baumeister, Stillwell, and Wotman (1990) found that transgressors perceived transgressions ended more happily than victims did, whereas victims perceived transgressions had more negative consequences than transgressors did. These results suggest victims and transgressors evaluate a transgression differently.

In addition, early attribution research has argued that people tend to attribute their own behaviors to external factors and the behavior of others to internal factors (Jones \& Nisbett, 1972). Furthermore, Kelley (1967) reported that people attributed their own success and positive behaviors to internal factors and their failure and negative behavior to external factors. These differences suggest that victims and transgressors make different attributions about a transgressive behavior. Transgressions are negative events, low in social desirability, which motivates people to attribute their own transgressive behavior to external factors rather than to internal ones and to attribute the behavior of others to internal factors more than to external ones. These considerations are summarized in the following hypothesis:

H3: One's role in a transgression affects the attributions partners make about the transgressive behavior in that (a) victims make internal attributions to a greater extent than transgressors, whereas (b) transgressors make external attributions about the transgressive behavior to a greater extent than victims.

The role one has in a transgression also affects the goals that are perceived as important. Transgressions result in hurt feelings and a flood of emotions for victims
(Metts, 1994). Vangelisti et al. (2005) found that people tend to respond by attacking the other person if they believe the other denigrated the relationship. Roloff and Cloven (1994) explained that victims use retribution as a maintenance strategy in the aftermath of a relational transgression. Victims want to see transgressors punished; they reciprocate hurtful behavior and use criticism and sarcasm as a way to cope with transgressions (Bowman, 1990; Roloff \& Cloven, 1994). Transgressors may express remorse for their behavior as a means to minimize the need for revenge and punishment that victims may feel (O’Malley \& Greenberg, 1983). Metts et al. (1999) reported that transgressors who apologized and focused on face issues were able to restore trust in their relationship more so than transgressors who did not apologize and who did not focus on face issues. Because such a violation threatens the face of the other person, the authors argued that remedial strategies oriented towards the other person are appropriate.

Victims experience a threat to face given that a transgression damages their image of themselves and requires them to reformulate the image they have portrayed in the relationship. Ellis and Weinstein (1986) explained that one often considers what other people will think when one's public image is threatened. Transgressions may cause feelings of deficiency in victims, impose on their freedom, and reflect badly on their selfimages (Cupach \& Metts, 1994). For example, a victim may have considered himself or herself a loved and loving person, involved in a mutually satisfying relationship. The other partner's extra-dyadic affair, Buunk and Bringle (1987) argued, threatens the victim's positive face because the victim may consider himself or herself responsible for the transgression and because the transgression questions the victim's adequacy as a relational or sexual partner. The victim's management of the transgression may involve
the pursuit of face-negative goals, meant to demonstrate he or she can cope with the situation and decide freely how to handle the event.

Transgressors experience threats to several aspects of face. A transgression threatens a transgressor's self-positive face because it may cost a transgressor the respect of the other person. A transgression also threatens a transgressor's self-negative face because the transgressor may feel obligated towards the victim. Therefore, transgressors are likely to engage in facework strategies meant to restore their own face. A transgression, however, threatens the face of the other person, too; after all, the transgressor's actions have caused the face-threatening situation in the first place. Several face repair strategies, such as remediation and apologies, suggest transgressors may place their own face needs second, giving priority to other's face needs and to restoring balance in the relationship (Cupach, Metts, \& Hazelton, 1986). Finally, Cupach and Metts (1994) argued that, after a severe transgression has occurred in a relationship, transgressors are concerned with restoring the integrity of their relationship. In other words, they are concerned with relational goals. The following hypothesis is proposed:

H4: One's role in a transgression affects the perceived importance of goals in that victims perceive (a) negative feelings, (b) dominance, (c) self-positive face, and (d) self-negative face to be more important than transgressors, whereas transgressors perceive (e) positive feelings, (f) other-positive face, (g) othernegative face, and (h) relationship-oriented goals to be more important than victims.

Third, little attention has been paid to whether the frequency of a transgressive behavior affects attributions. People may make different attributions if this is the first
time the transgressive behavior has happened versus if the behavior has occurred several times before.

The evidence from several studies is contradictory in respect to frequency. Serial argument studies have found that the frequency of a serial argument did not affect partners' satisfaction with the relationship (Hample \& Krueger, 2009; Johnson \& Roloff, 1998, 2000a, 2000b). Frequency of an argument does not seem to matter, but whether the argument is perceived as resolvable or not does. In the case of relational transgressions, these findings suggest that whether a transgression has occurred several times or not in and of itself does not change how partners approach the issue. The question is whether the transgression affects the attributions partners make and the goals they pursue.

In a study on social allergies (i.e., reactions of "hypersensitive annoyance or disgust to a repeated behavior"), Cunningham, Shamblen, Barbee, and Ault (2005) found that increased frequency of a partner's annoying behaviors (including norm violations) in romantic relationships resulted in increased negative emotional reaction from the other partner (p. 273). Those at the receiving end of the annoying behavior reacted more negatively as the behavior reoccurred over time. This finding suggests that victims are likely to make more internal attributions when a transgression repeats itself. According to Kelley's (1967) covariation principle, people analyze the extent to which another person's behavior is consistent over time and across different situations. If consistency is high, people make internal attributions about the behavior in question. In the case of relational transgressions, repeated transgressions increase consistency, meaning that they suggest the behavior is due to dispositional factors more than to situational factors. The first time Partner A transgresses, Partner B may attribute the transgression to situational
factors, that is to elements out of Partner A's control, and believe it was unintentional. But the repetition of the same behavior indicates consistency and leads Partner B to believe the transgression occurred due to internal factors that have to do with Partner A and not to situational factors.

This repetition of a transgression may also annoy and make a partner angry that the situation is reoccurring. Serial arguments research has found that changing the other person was one of the seven goals that partners pursue in such recurring arguments (Bevan et al., 2004, 2008). It is reasonable to infer that in the presence of repeated transgressions one may want to change the other person, thus imposing on his or her autonomy and choice, which reflects self-negative and other-negative face concerns.

The frequency of the transgression may affect transgressors' behaviors, as well. Transgressors may realize the double trouble that stems from not only violating their partner's expectations but also doing it repeatedly. They may be particularly concerned with compensating for their behavior by apologizing, focusing on positive feelings, and assuring their partners that the relationship is important to them. At the same time, they are likely to express self-positive face goals, wanting to make sure their partners still think highly of them and respect them despite the repeated transgression. In light of these considerations, it is proposed that frequency has an effect on attributions and goals. The following hypothesis is proposed:

H5: One's role in a transgression interacts with the frequency of the transgressive behavior so that people who have been the victims of a transgression several times before and transgressors who have engaged in a transgression for the first time (a) make internal attributions to a greater extent and perceive (b) negative
feelings, (c) dominance, (d) positive feelings, (e) self-positive face, (f) selfnegative face, and (g) relationship-oriented goals to be more important than people who have been the victims of a transgression for the first time and transgressors who have engaged in a transgression several times before. Finally, the type of transgression may affect the attributions people make about the behavior of the other person. Some transgressions are worse than others (Metts, 1994). The behavior involved in a transgression can vary in severity; this level of severity influences how the transgression is managed (Metts, 1994). The severity of a transgression can vary for the same type of transgression (e.g., forgetting an anniversary or forgetting to buy milk is the same type of transgression even though one of them is more severe than the other). But forgetting an anniversary or forgetting to buy milk may not ever be as severe of a transgression as kissing another person or having sex with another person. Severity also varies across types of transgressions. The two transgressions addressed in the current research (broken promises and insensitivity) differ in their perceived severity. Broken promises are a more severe transgression than insensitivity is because making a promise involves a conscious and orally expressed decision to engage in a behavior. Making an insensitive or rude comment could be motivated by situational and contextual factors, such as being tired and upset.

Differentiating between these types of transgressions is important for determining whether they have different effects on attributions and goals. The following research question is advanced:

RQ1: Does type of transgression affect (a) the extent of internal attributions, (b) the extent of external attributions, and/or the perceived importance of (c) negative
feelings, (d) dominance, (e) positive feelings, (f) self-positive face, (g) selfnegative face, (h) other-positive face, (i) other-negative face, and/or (j) relationship-oriented goals?

## Dialogue Orientations

As previously explained, the combination of the initial situation arguers find themselves in and the primary goal of a dialogue generates six dialogue types: persuasion, inquiry, information seeking, negotiation, deliberation, and eristic, summarized in Figure 1.

|  | Initial Situation | Conflict | Open Problem |
| :--- | :--- | :--- | :--- |
| Main Goal | Unsatisfactory <br> Spread of <br> Information |  |  |
| Stable Agreement/ <br> Resolution | Persuasion | Inquiry | Information <br> Seeking |
| Practical Settlement/ <br> Decision (Not) to Act | Negotiation | Deliberation |  |
| Reaching a (Provisional) <br> Accommodation | Eristic |  |  |

Figure 1. Systematic survey of dialogue types. From Commitment in Dialogue: Basic Concepts in Interpersonal Reasoning, by D. N. Walton and E. C. W. Krabbe, 1995, p. 80. Copyright 1995 State University of New York Press (Reprinted with permission).

Persuasion is a conflict of opinion whose primary goal is to reach a stable agreement (Walton \& Krabbe, 1995). To accomplish this goal, at least one of the partners has to change his or her point of view as a result of being persuaded by the arguments presented. Walton and Krabbe identified building confidence and adding to prestige as secondary individual benefits of this dialogue type. Confidence may increase as a result of presenting well-articulated and persuasive arguments that sway the other party, whereas prestige is closely connected to enhancing one's face, which suggests such a dialogue may satisfy partners because it boosts their ego and image. Preference for this dialogue type will be referred to as a persuasive dialogue orientation.

Inquiry stems from an open problem and its goal is to accumulate facts and demonstrate the truth of a conclusion. Walton and Krabbe (1995) explained that scientific research and investigations are subtypes of this dialogue. This dialogue is employed sometimes to find a proof (such as a mathematical proof) or some other type of irrefutable piece of evidence that would demonstrate a claim. This dialogue type did not appear as relevant to relational transgressions in the pilot work conducted for this research and will not be detailed further.

Information-seeking is a dialogue type in which one participant has more information than the other participant, so the goal is to share this information (Walton \& Krabbe, 1995). An interview and an interrogation are subtypes of this dialogue type, as are an expert consultation and a didactic dialogue (Walton \& Krabbe, 1995). The lack of shared knowledge stems sometimes from personal ignorance. Therefore, those actively engaging in this dialogue type want to gain more information that can help them articulate a position (Walton \& Krabbe, 1995). Preference for this type of dialogue will be referred to as an information-seeking dialogue orientation.

Negotiation is also a conflict of opinion but its main goal is to reach a settlement. As Walton and Krabbe (1995) explained, each partner is interested in maximizing his or her benefits. The bargaining that occurs is self-interested and is directed toward a mutually agreeable compromise. In addition to building confidence, this dialogue type can lead to an agreement between parties (Walton \& Krabbe, 1995). This dialogue type allows both parties to present their arguments and to articulate and carry on a negotiation, which builds their confidence. In the case of relational transgressions, it also permits an open negotiation of relational rules. An agreement can clarify partners' expectations and
set behavioral guidelines for the future. The term negotiation dialogue orientation will be used to indicate preference for this dialogue type.

Deliberation stems from an open, practical problem and the goal is to reach a decision about how to act. The examples provided by Walton and Krabbe (1995) include a means-end discussion and a board meeting in which arguers try to influence the outcome of the deliberation process. Similar to inquiry, this dialogue type did not appear relevant for relational transgressions in the pilot work conducted and will not be detailed further.

Finally, the eristic dialogue type stems from a conflict of opinion with the primary goal of reaching an accommodation or a temporary agreement. It includes verbal exchanges and quarrels in which participants are primarily interested in winning (Walton \& Krabbe, 1995). The initial situation is characterized by antagonism. Therefore, scoring a point against the other person during the exchange is important, and some secondary goals include venting emotions, amusing one's self, and enhancing one's prestige (Walton \& Krabbe, 1995). This dialogue type can have a positive outcome because it permits airing out differences and issues that bother arguers. For example, Partner A may be upset about Partner B's behavior, which hurt his or her feelings, but Partner B is unaware of this. If a quarrel breaks out, Partner B will learn how Partner A feels. A quarrel reveals the conflict, but it is also highly emotional, face-threatening, and often does not end with a resolution. Preference for this dialogue type will be called an eristic dialogue orientation.

Dialogue orientations following a relational transgression. There are no empirical studies about dialogue types. In the absence of an empirical literature on this
subject, this research draws on several other studies in argumentation, negotiation, and conflict to predict the ways in which attributions and goals affect one's orientation toward a particular dialogue type.

Dialogues allow discovering the other party's position on an issue and forming or revealing one's own position (Walton \& Krabbe, 1995). Internal attributions may reasonably lead to persuasive dialogue or to negotiation dialogue. For example, suppose Partner A has attributed Partner B's transgressive behavior to some dispositional causes. Partner A may rely on persuasive arguments and present reasons why Partner B should change his or her behavior. The exchange could be a persuasive dialogue, meaning Partner B would agree that Partner A's arguments are valid and stronger than his or her own arguments and agree to change the behavior for the future. Imagine that the behavior in question involves a relational rule. In a persuasive dialogue, Partner B would commit to upholding this rule for the future. If the exchange involves both partners trying to gain some individual benefits, a negotiation dialogue may ensue. Both A and B could present reasons why the rule ought to be reformulated or clarified, and negotiate the details of their agreement about how to handle such situations in the future.

Internal attributions make victims distance themselves from their partner who hurt them (Vangelisti \& Young, 1999). Vangelisti (2001) argued that distancing one's self from a partner involves a sacrifice of relational closeness and that the explanations provided for the hurtful behavior are essential for easing the tension created by the loss of relational closeness. If Person A believes Person B hurt him or her accidentally or was justified in committing the hurtful behavior, Person B's behavior is seen as infrequent and not likely to repeat itself (Vangelisti, 2001). Applied to relational transgressions,
these findings suggest that internal attributions can lead to a dialogue type that permits partners to gain or share more information to determine intent, responsibility, and guilt about the transgressive behavior. Partners will use the dialogue as means to find out what's going on and what motivated the other person's behavior (in the case of victims), and as means to explain their behavior and motives (in the case of transgressors).

The tension created by a relational transgression leads to negativity in the dialogue. How this negativity is handled depends on the attributions made about the transgressive behavior. Sillars (1980) found that internal attributions made people engage in competitive conflict with their roommates, whereas Sillars, Roberts, Dun, and Leonard (2001) reported that, in married relationships, evaluations of the other person were more frequent than evaluations of the self and the relationship; the majority of these evaluations consisted of complaints and other negative thoughts. Responses to a transgression, especially from victims, may also focus on retribution (Roloff \& Cloven, 1994). Given that internal attributions assign responsibility and blame for the situation to transgressors, it is not surprising that they generate complaints, accusations, and antagonism from victims. Bowman (1990) found that married people used sarcasm, criticism, and revenge to cope with problems in their relationships, whereas Fincham (1999) reported that internal attributions led people to criticize and whine. A relational transgression is a problem and, when partners make internal attributions about its cause, the preferred dialogue type is one that permits releasing these feelings. The following hypothesis and research question are advanced:

H6: A greater extent of internal attributions leads to more of an eristic dialogue orientation.

RQ2: Does a greater extent of internal attributions lead to more of (a) a persuasive dialogue orientation, (b) a negotiation dialogue orientation, and/or (c) an information-seeking dialogue orientation?

External attributions about the transgressive behavior attribute causality to situational factors, which absolve the transgressor of responsibility. When the behavior is perceived as unintentional, partners focus on different aspects of the relational transgression. Several studies have found that the extent to which participants find the other person's behavior intentional or not affects their responses (Leary et al., 1998; Vangelisti, 2001). Fincham et al. (2002), for example, found that when people made more benign attributions about the other person's responsibility they also felt less negativity. Therefore, external attributions do not arouse the same negativity and are unlikely to lead to a dialogue focused on criticism and venting (i.e., eristic dialogue). They are, however, likely to lead to dialogues that permit partners to discuss the transgression. For example, suppose that Partner A and Partner B have conflicting viewpoints about whether cancelling dinner plans at the last moment is appropriate or not. Partner B has recently done so in order to stay at work longer, but Partner A does not think work should take priority over their relationship. If their goal for a dialogue about this issue were to persuade one another about each other's position on the matter and come to a final resolution, they would engage in a persuasive dialogue. They could just as well engage in a negotiation dialogue if both A and B were trying to make a deal about how to treat such situations in the future. For example, Partner A may explain why dinner is an important family tradition and agree to move dinner to a later time in the day, whereas Partner B may promise to be home in time for dinner and ask to be able to go in during the
weekend if needed. Such an exchange would permit both parties to bargain for their interests and get the best deal for themselves (i.e., a negotiation dialogue).

Finally, external attributions can reasonably lead to an information-seeking dialogue. Zillmann (1993) found that people who made external attributions were more willing to listen to the other party's explanations in a conflict. Similarly, following a relational transgression, people may need to find out or share more information, such as explanations. For example, Partners A and B may have never discussed explicitly whether it is acceptable to cancel plans with each other in favor of spending time with friends who are in town for a brief visit. But once B did so, A felt that the behavior was inappropriate, although A believes B behaved this way due to the circumstances. Their discussion about the behavior could focus on determining each other's position on the matter, and whether they can establish a rule about such situations. If the only goal is to find information or share information, then the dialogue is an information-seeking dialogue. In light of the considerations presented above, the following research question is proposed:

RQ3: Does a greater extent of external attributions lead to more of (a) a persuasive dialogue orientation, (b) a negotiation dialogue orientation, and/or (c) an information-seeking dialogue orientation?

In addition to attributions, goals are also important in determining dialogue orientations. Expressive goals have been studied in relation to tactics used in the context of serial arguments. Expressing negativity has been linked repeatedly to the use of distributive tactics in the serial arguments literature, negotiation studies, and conflict research. For example, Bevan et al. (2008) found that the goals of expressing negative
feelings led people to rely on distributive tactics while in a serial argument, whereas Liu and Wang (2010) found that anger (a negative feeling) led negotiators to use competitive goals. Dominance has also been found to lead to the use of distributive tactics (Bevan et al., 2008; Hample \& Allen, 2010; Hample \& Cionea, 2012; Hample \& Krueger, 2011). Dominance may be motivated by anger (Liu \& Wang, 2010) and the desire to get revenge. It makes people likely to use a dialogue that permits them to try to win, attack the other party, and express their frustration. By definition, such a dialogue is an eristic one. The following hypothesis is proposed:

H7: Greater perceived importance of (a) negative feelings and (b) dominance leads to more of an eristic dialogue orientation.

Positive feelings about the partner and the relationship have been negatively associated with the use of distributive tactics and demanding in an argument (Hample \& Cionea, 2012). In several studies, Bevan and colleagues found that positive goals (i.e., expressing positive feelings and mutual understanding) were positively associated with the use of integrative tactics (Bevan et al., 2007), had a significant positive path to integrative tactics (Bevan et al., 2008), and they were perceived as more important than any of the negative goals (Bevan, 2010). The conflict literature also offers support to the idea that other-oriented goals lead people to rely on integrative tactics during conflict. For example, Canary, Cunningham, and Cody (1988) found that pro-relational goals were associated with the use of integrative tactics. Thus, the goal of positive feelings is likely to lead to a cooperative dialogue type that takes into account the other person, his or her interests, and his or her needs.

Two types of dialogues can accommodate the use of such integrative tactics. The
persuasive dialogue type permits partners to present their reasons and provide arguments to reach an agreement with the other person. The focus of this dialogue type is the conflict of opinion, and partners are interested in a mutually agreeable solution (Walton \& Krabbe, 1995). It is reasonable to infer that wanting to remedy the situation may involve the use of positivity in an effort to reassure the other party and demonstrate involvement in the relational repair process. The information-seeking dialogue is also one that accommodates the use of integrative tactics given that such tactics have as a component offering information to and requesting information from the other party (Keck \& Samp, 2007). The initial situation in this case is an unsatisfactory spread of knowledge about the transgression. As long as questions and explanations are phrased in positive terms, one could perceive the goal of positive feelings and demonstrating concern for the well-being of the relationship as important. The following hypothesis is advanced:

H8: Greater perceived importance of positive feelings leads to more of (a) a persuasive dialogue orientation and (b) an information-seeking dialogue orientation.

Finally, face concerns relate to dialogue orientations. Face goals have been studied extensively in relation to conflict styles (e.g., Oetzel, Myers, Meares, \& Lara, 2003; Oetzel \& Ting-Toomey, 2003). Oetzel and Ting-Toomey (2003) found that concern for one's own face was positively associated with the dominating conflict style, whereas concern for the other person's face was associated with the avoiding style and the integrating style. Oetzel et al. (2003) reported the same relationship between self-face and dominating conflict style and also found a positive association between other-face and the integrating, obliging, and compromising styles. Research on responses to face-
threatening situations and embarrassing situations has found that people respond with negativity (Breakwell, 1986) and hostility (Miller, 1996) when their face is threatened. They also dislike the person who threatened their face (Martin, 1987), and their relational quality and satisfaction decrease (Petronio, Olson, \& Dollar, 1989). Liu and Wang (2010) found that anger made people want to attack their negotiation partner's face, whereas compassion made them want to enhance it. These results provide the basis for developing predictions about how face concerns affect dialogue orientations.

In a previous study on serial arguments, Hample and Cionea (2012) found several associations between face concerns and goals. Although face concerns are conceptualized in the current research as goals in themselves (as opposed to explanatory variables that influence serial argument goals in the Hample and Cionea study), their results offer an insight into the general type of orientations that people may have in the aftermath of a relational transgression. Self-positive face was negatively associated with goals such as hurting the other person and changing the other person (Hample \& Cionea, 2012). In other words, when partners are concerned with their image and want to be respected and thought of highly, they tend to use a positive dialogue type, such as persuasion, negotiation, and information-seeking. According to Walton and Krabbe (1995), all three types offer the side benefit of enhancing one's prestige. An eristic dialogue orientation may reveal unpleasant aspects about one's self that may damage others' impression of the person, so it will not be preferred. This dialogue type, however, is important if partners wish to express their frustration and anger. Hample and Cionea (2012) found selfnegative face was associated with dominance. Following a transgression, a person may wish to reassert his or her autonomy and ability to make decisions about the situation
freely. Victims may feel humiliated and may try not only to control the outcome of the situation but also to be free from imposition from their partners when deciding what punishment is satisfactory. Transgressors may want to maintain control over their ability to decide the next steps and not be at the mercy of the other person. Such motivations take the form of an eristic dialogue in which partners want to win at the expense of the other or a negotiation dialogue in which each party tries to benefit one's self, independently of the other person's influence. The following hypotheses are advanced regarding self-face concerns:

H9: Greater perceived importance of self-positive face leads to more of (a) a persuasive dialogue orientation, (b) a negotiation dialogue orientation, and (c) an information-seeking dialogue orientation.

H10: Greater perceived importance of self-negative face leads to more of (a) a negotiation dialogue orientation and (b) an eristic dialogue orientation.

Other-face concerns have been associated with more positivity, such as conflict styles that take into account the other person's interests, and with the use of integrative tactics. Other-positive face concerns reflect a desire to protect the other person's face, thus avoiding any threats to it. A person concerned with not embarrassing his or her partner will abstain from blaming and criticizing, so an eristic dialogue is not likely in this case. If the goal is to reassure the other party that one thinks highly and respects him or her, the persuasive and the information-seeking dialogue types are likely choices. In a persuasive exchange one can compliment the other on the quality of the arguments, recognize the superiority of an argument, and express respect for the explanations provided. One can also do so if requesting information from the other partner in a
nonthreatening, understanding manner. Other-negative face reflects a concern with the autonomy and freedom of the other person and with imposing on the other person. In a dialogue, it would be essential for a person to ensure the solution is mutually acceptable. Both the persuasion and the negotiation dialogue types permit partners to demonstrate a concern for the other person's autonomy and freedom of choice. It is hypothesized that: H11: Greater perceived importance of other-oriented positive face leads to more of (a) a persuasive dialogue orientation and (b) an information-seeking dialogue orientation.

H12: Greater perceived importance of other-oriented negative face leads to more of (a) a persuasive dialogue orientation and (b) a negotiation dialogue orientation. Finally, relationship-oriented goals have been associated in the serial arguments literature with the use of integrative tactics (Bevan et al., 2008; Hample \& Allen, 2010; Hample \& Krueger, 2011). Relational concerns demonstrate a willingness to focus on the relationship, which indicates people are willing to change focus from individual feelings and goals to the commitment between partners (Finkel, Rusbult, Kumashiro, \& Hannon, 2002). If one is concerned with the relationship, then mutually supportive approaches are taken. In studies on negotiation behavior, Liu and Wang (2010) found that compassion (a positive emotion) led to the use of more cooperative goals, such as sharing information and letting the other party know the relationship between parties was valued. Relational concerns require a dialogue that permits partners to demonstrate their investment in the relationship. Persuasion, negotiation, and information seeking are all amenable to the pursuit of such goals, whereas the eristic dialogue is likely to be pursued when such concerns are not important for partners. Eristic dialogues can degenerate into quarrels
that typically are filled with criticism, stonewalling, and defensiveness, all of which have destructive consequences for a relationship (Gottman, 1994). The following hypothesis is proposed:

H13: Greater perceived importance of relationship-oriented goals leads to more of (a) a persuasive dialogue orientation, (b) a negotiation dialogue orientation, and (c) an information-seeking dialogue orientation, but leads to less of (d) an eristic dialogue orientation.

## The Resolvability of a Transgression and Satisfaction with the Transgression's

## Management

The final step in the proposed processes involved in the management of a relational transgression consists of the perceived resolvability of the situation and satisfaction with its management. Resolvability has been studied mainly in the context of serial arguments (Bevan et al., 2007; Bevan et al., 2008; Hample \& Allen, 2010; Hample \& Cionea; 2012; Hample \& Krueger, 2011; Johnson \& Roloff, 1998, 2000a, 2000b). It has been associated with partners' satisfaction with the relationship, and several studies have analyzed the connection between resolvability and the tactics used by partners during a serial argument. For example, Bevan et al. (2008) found that integrative tactics increased the perceived resolvability of the argument, whereas Hample and Krueger (2011) found that distributive tactics reduced the perceived resolvability of the argument. Resolvability is an important variable because it is positively correlated with relational satisfaction and commitment to the relationship (Johnson \& Roloff, 1998). It functions as a better predictor of relational quality than the frequency of the argument does (Johnson \& Roloff, 1998).

As Trapp and Hoff (1985) found, serial arguments often arise from violated expectations. The relationships found in the serial arguments literature regarding the resolvability of the issue are applicable to the study of relational transgressions. The persuasive dialogue type, the negotiation dialogue type, and the information-seeking dialogue type are likely to increase the perceived resolvability of the transgression. They all involve a somewhat constructive approach in which partners try to resolve the issue or find more information about the issue. The eristic dialogue type, however, is infused with negativity and the use of distributive tactics. It is likely to reduce the perceived resolvability of the transgression if partners focus on venting, criticizing, and blaming the other person for the situation. The following hypothesis is proposed:

H14: More of (a) a persuasive dialogue orientation, (b) a negotiation dialogue orientation, and (c) an information-seeking dialogue orientation each increases the perceived resolvability of the transgressions, whereas (d) more of an eristic dialogue orientation decreases the perceived resolvability of the transgression.

In the aftermath of a transgression partners think about the transgression, make attributions, and adopt a specific dialogue orientation. Satisfaction with the management of the transgression is an outcome measure used in the current research to capture whether partners are satisfied with their approach, their identified goals, and their preferred dialogue orientations. In the negotiation literature, this subjective assessment of the outcomes of a negotiation has been predictive of a range of post-negotiation behaviors, such as implementing the agreements reached (Schweitzer, 2006), future willingness to engage in a cooperative negotiation with the same person (Curhan, Elfenbein, \& Xu, 2006), and satisfaction with one's position in employment negotiations
(Curhan, Elfenbein, \& Kilduff, 2009). In the case of relational transgressions, it indicates whether partners are likely to be satisfied with their cognitive processing of the transgression, whether they are likely to enact their preferred communicative strategies in the form of their dialogue orientations, and whether they are going to be more or less satisfied with their relationship.

In serial arguments research, satisfaction has been predicted by the perceived resolvability of an issue and by the tactics partners use. Hample and Cionea (2012) found that relational satisfaction increased regardless of the tactics used (integrative, distributive, and demand-withdraw). This result suggests that the simple fact of using the desired strategy makes people satisfied, regardless of the subsequent effect of this strategy. If one wants to vent, being able to do so makes the person satisfied with the way the situation was handled. Any of the four dialogue types lead to satisfaction with the management of the transgression if a person is able to pursue a desired type of dialogue. The following hypothesis is advanced:

H15: More of (a) a persuasive dialogue orientation, (b) a negotiation dialogue orientation, (c) an information-seeking dialogue orientation, and (d) an eristic dialogue orientation each increases satisfaction with the management of the transgression.

A causal model that summarizes these predictions is presented in Figure 2.

Figure 2. Structural relations in the proposed model for the management of relational transgressions. Solid lines represent
hypotheses, whereas dotted lines represent research questions.
Note. RELQ = participants' relational quality, $\mathrm{ROL}=$ one's role in the scenario, $\mathrm{F} * \mathrm{R}=$ interaction term for frequency of the transgressive behavior and one's role in the scenario, TYP = type of transgression described in the scenario, IA = internal attributions, EA = external attributions, NEG = perceived importance of face, $\mathrm{SNF}=$ perceived importance of self-negative face, $\mathrm{OPF}=$ perceived importance of other-positive face, $\mathrm{ONF}=$ perceived importance of other-negative face, information-seeking dialogue orientation, $\mathrm{EDO}=$ eristic dialogue orientation, $\mathrm{RES}=$ perceived resolvability of the situation, and SAT = satisfaction with the management of the transgression.

## CHAPTER III

## Method

All studies conducted in the current research are based on scenarios that participants were asked to imagine themselves in and about which they answered questions.

## Pilot Studies

A pilot study was conducted in Spring 2010 (April-May) to obtain information about the expectations people have of their romantic partners. A second pilot study was conducted in Spring 2011 (April) to obtain information about the factors people take into account when assessing a relational transgression as well as the goals they envision for a conversation with their partner about the transgression.

Pilot Study 1: Expectations and reactions to conflict situations. The purpose of this study was to obtain information about the expectations people have in romantic relationships and to pretest several conflict scenarios depicting relational transgressions. All participants listed expectations they had of their romantic partners and of their friends, but only the responses pertaining to romantic partners are discussed below. The research questions investigated were:

RQ1: What do people expect from their romantic partners?
RQ2: What do people expect their romantic partners not to do in their relationship?

In addition to expectations, participants answered open-ended questions about fifteen conflict scenarios developed based on people's responses to a previous study about arguing behaviors (Cionea, 2010). The scenarios portrayed various relationships
(e.g., friends, dating partners, married partners) and various situations (e.g., forgetting an important date, hurting the other person's feelings, lying to the other person). Participants were asked questions meant to assess their reactions to the situations (e.g., "Would the other person's behavior bother you?" and "Why would the other person's behavior bother you?"). The goal of these questions was to assist in generating scenarios for the main studies.

Participants. Participants in the study were 200 undergraduate students at a large South Atlantic university. They ranged in age from 18 to 31 years old $(M=19.79, M d n=$ $19, S D=1.75$ ). Eighty-nine participants were male and 111 were female. One hundred and nine participants were European-American, 25 were Asian-American, 18 were African-American, eight were Hispanic-American, five were Asian, four were European, two were South or Central American, and 29 participants were of some other ethnicity or preferred not to answer the question. Ninety participants were freshmen, 30 were sophomores, 45 were juniors, 34 were seniors, and one participant indicated another class standing.

Procedures. Participants were recruited from undergraduate Communication courses and received extra credit for their participation in the study. They completed an online questionnaire in which they provided demographic information, answers to openended questions about the scenarios, and an assessment of the scenarios' realism. The fifteen scenarios were grouped into five batches of three scenarios each, and participants were randomly assigned to one batch of scenarios. All participants answered the questions regarding their expectations in romantic and friendship relationships.

Instruments. The fifteen scenarios and the questions participants answered after
reading each scenario are found in Appendix A. Participants were asked questions such as "Would the other person's comments or behavior bother you?" and were also asked to indicate on a scale from $0=$ not at all to $100=$ extremely how much the other person's behavior would bother them. They were also asked how the situation made them feel, whether they would do anything about the situation, and on a scale from $0=$ not at all to $100=$ extremely, how likely they would be to say something to the other person.

For questions pertaining to expectations, participants were instructed to list as many things as possible and then asked "In a romantic relationship, what are some of the things you expect from your romantic partner?" and "In a romantic relationship, what are some of the things you expect your romantic partner NOT to do?"

Finally, participants were asked to estimate, on a scale from $0=$ not at all to $100=$ extremely, whether they believed the scenario was credible, realistic, reflected a situation that could occur in everyday life, and the difficulty they had imagining themselves in the scenario described.

Results. Participants' responses regarding their expectations were initially Qsorted by an undergraduate research assistant based on patterns identified in the answers. The unit of analysis consisted of a participant's answer, so it was possible for the same answer to be included in more than one cluster of the final sorted data if the answer contained more than one expectation. Several clusters of responses emerged. Some common expectations included honesty, truthfulness, trustworthiness, loyalty, faithfulness, fidelity, love, care, affection, compassion, understanding, empathy, compassion, respect, politeness, kindness, thoughtfulness, intimacy, passion, sex, communication, openness, approachability, laughter, fun, appreciation, and support. The
expectations participants indicated mattered most for them included honesty, truthfulness, trustworthiness, loyalty, fidelity, devotion, and love. The ones that mattered least included communication with one's partner, laughter, fun, kindness, and compassion.

Participants also answered questions about what they expected their partner not to do in a romantic relationship. Common expectations included not to lie; not to betray them; not to be unfaithful; not to be dishonest; not to criticize them; not to be mean, rude, or abusive; and not to keep secrets from them. Not to lie, not to cheat, not to betray them, not to break their trust, and not to be dishonest were the expectations participants said mattered most to them. Not to be clingy and needy, not to be disrespectful, hypocritical, mean, and deceitful were the ones participants indicated mattered least.

These answers did not provide a clear picture of which expectations mattered least and which mattered most because some participants indicated an expectation (e.g., communicating with one's partner) mattered most, whereas others indicated it mattered least. To better answer the study's research questions, a quantitative descriptive content analysis was undertaken.

Two undergraduate research assistants first unitized participants' answers. The initial sampling units (a participant's answer) were separated into coding units: Each expectation constituted a coding unit (Krippendorf, 2004). For example, if a participant listed seven expectations, seven coding units were created. Intercoder reliability for unitizing was assessed with Guetzkow's index $(U)$, which assesses the disagreement between observers (Folgers, Hewes, \& Poole, 1984; Guetzkow, 1950). The index value was .0005 (or .9995 agreement) for the question regarding expectations from one's romantic partners, yielding a total number of 956 usable coding units. The index value
was 0 (i.e., perfect agreement) for the questions pertaining to expectations about what a partner should not do in the relationship, yielding 666 usable coding units.

Second, a coding scheme was developed based on the clusters of sorted answers that emerged in the Q-sort analysis (included in Appendix B). Third, the same two undergraduate research assistants categorized the coding units into eleven categories of expectations and six categories of things participants expected their partner not to do. Intercoder reliability was calculated based on Cohen's kappa, which is an extremely conservative measure of agreement (Neuendorf, 2002). The scores were .68 for the first set of units and .71 for the second set of units, indicating substantial agreement based on the criteria set forth by Landis and Koch (1977). Disagreements between the two coders were resolved through discussion.

In response to RQ1, the most common expectations were honesty and truthfulness ( $n=257$ units), followed by love, sex, and intimacy ( $n=164$ units), emotional support ( $n$ $=124$ units), good manners $(n=90)$, fun and uniqueness $(n=70)$, some other traits $(n=$ 69), reliability and support ( $n=62$ ), priority for the relationship ( $n=46$ ), some other expectations ( $n=41$ ), and communication with the other person $(n=33)$.

In response to RQ2, participants indicated that they expected their partners not to cheat or betray them ( $n=200$ units), not to be dishonest or lie to them ( $n=167$ units), not to be rude or insensitive ( $n=144$ units), some other expectation ( $n=78$ units), and not to neglect the relationship ( $n=77$ units). These results indicated that infidelity and betrayal are the most severe transgressions. These categories provided information as to which transgressions would be appropriate for the used in the main studies of the current research.

The second part of the study analyzed people's reactions to situations depicting relational conflict. Only the scenarios describing romantic relationship interactions are discussed below. The questions participants answered pertained to whether their partner's behavior or comments bothered them, the feelings experienced in such a situation, and whether they would confront their partner. In addition, participants assessed whether they could imagine themselves in the scenario they read, whether the scenario was realistic and credible, and whether it reflected a situation that could occur in everyday life.

Regardless of scenario, participants indicated on a scale from $0=$ not at all to 100 $=$ extremely that they were bothered by the other person's behavior or comments (the minimum mean score for how bothered they were was 63.67 , whereas the maximum mean score for how bothered they were was 92.24 ) and that they would be likely to confront the other person (minimum mean score for likelihood of confronting the other person $=59.93$, whereas maximum mean score for likelihood of confronting the other person $=98.00$ ). The open-ended reasons for why their partner's behavior would bother them revealed that participants perceived the behavior to be a violation of some expectation, rule, or standard for behavior. These results indicated the behaviors portrayed in the scenarios were appropriate for analyzing relational transgressions. There were a variety of reasons for which participants indicated they would confront the other person. The open-ended answers also revealed that, depending on the particular scenario, participants felt upset, sad, angry, hurt, and frustrated. Most of the feelings enumerated were negative ones, suggesting the scenarios managed to evoke the emotional experience of a relational transgression.

Finally, participants assessed the realism of all scenarios on the same 0 to 100
scale. The scenarios were perceived as credible (minimum credibility mean score $=$ 81.00, maximum credibility mean score $=90.53$ ), realistic (minimum realism mean score $=79.81$, maximum realism mean score $=93.52$ ), and likely to occur in everyday life ( minimum likelihood of occurrence mean score $=77.13$, maximum likelihood of occurrence mean score $=92.29$ ). In general, participants did not have much difficulty imagining themselves in the scenario (minimum mean score $=66.74$, maximum mean score $=78.36$ ).

Several important conclusions about the scenarios were drawn. First, scenarios that depicted married relationships $(n=4)$, although realistic and credible, received the lowest realism scores (mean realism scores of $63.55,68.61,66.74$, and 70.61 ) and were the hardest for participants to imagine themselves in. Given the demographics of the sample, this result makes sense and informed future revisions of the scenarios' language. Second, trivial issues such as the one portrayed in Scenario 11 (choosing paint color), did not bother participants much (the mean score for how much it would bother participants was 63.67 , the lowest of all scenarios) nor did it make it very likely for participants to confront the other person about his or her comments (the mean score for likelihood of confronting the other person was 59.93, the lowest of all scenarios).

In light of the results regarding expectations and the responses to the situations in the scenarios, the following steps were undertaken for Pilot Study 2. First, five relational transgressions were chosen: making rude or insensitive comments, lying or deceiving the other person, disregarding the relationship in favor of some alternate activity, breaking a promise, and keeping a secret from the other person. The first three behaviors are consistent with responses to RQ2, and all five behaviors are consistent with previously
identified relational transgressions (Baxter, 1986; Feeney, 2005; Metts, 1994). Second, the language of the scenarios was changed from using specific relational labels (e.g., you have been married) to general labels (i.e., you and your partner) so that the scenario would apply to relationships in any stage of development.

Pilot Study 2: Assessing a relational transgression. Pilot Study 2 narrowed the list of transgressions used to the set of five behaviors mentioned above. It also manipulated the role one had in the transgression (victim or transgressor) and phrased scenario descriptions accordingly.

Pilot Study 2 had several goals. First, Pilot Study 1 did not indicate a clear pattern of reasons people consider prior to confronting the other person about the transgressive behavior. So, Pilot Study 2 explored this matter further by rephrasing the questions participants answered. Second, Pilot Study 2 investigated the goals people formulate following a relational transgression and whether these goals are consistent with the theoretical classification of the dialogue framework and previous goal typologies. Finally, Pilot Study 2 collected responses from individuals other than undergraduate students in preparation for one of the main studies that would include an older, married sample of participants. More specifically, the study asked the following research questions:

RQ1: What factors do people in a romantic relationship take into account for evaluating a relational transgression?

RQ2: What goals do people in a romantic relationship wish to pursue in a discussion with their partner following a relational transgression?

Participants. Participants in the study were 130 adults who ranged in age from 19 to 68 years $(M=32.32, M d n=29, S D=11.74)$. Twenty-one participants were male and

109 were female. One hundred and three participants were Caucasian, seven were Indian, five were Black or African-American, three were Hispanic, one was Asian, and eleven participants were of some other ethnicity or preferred not to answer the question. All participants were involved in a romantic relationship at the time, such as seriously committed, engaged, or married. Participants' length of time in their current relationship ranged from half a month to 42 years $(M=97.70$ months or 8.14 years, $M d n=252$ months or 21 years, $S D=356.03$ months or 29.67 years). Their satisfaction with their relationship was, on average, 8.35 on a scale from $1=$ not at all satisfied to $10=$ extremely satisfied, $M d n=8.50, S D=0.71$.

Procedures. Participants were recruited through a snowball sample of acquaintances, friends, and colleagues. They completed an online questionnaire in which they were randomly assigned to one of the five relational transgressions and to one of the two possible roles (victim or transgressor). After reading the scenario, participants provided answers to open-ended questions assessing whether the situation constituted a transgression, the factors participants would take into account for evaluating the event, and their goals for a discussion with their partner. Participants were eligible to win one of two $\$ 100$ raffle prizes for completing the questionnaire.

Instruments. The scenarios and all the questions participants answered after reading each scenario are found in Appendix C. Only some of the questions asked were analyzed in detail and the results are presented below.

First, participants were asked whether the situation was pleasant, neutral, or unpleasant, and they were asked to explain why. This question was meant to assess the negative valence of the transgressive behavior that a relational transgression ought to
have. Participants were also asked whether the situation was surprising and were asked to explain why. In conjunction with this question, another question asked whether the situation violated any expectations or rules about how partners should behave in the relationship. These two questions were meant to ensure that the situation described was a violation of partners' expectations.

Two key questions were asked in order to elicit a list of factors people would take into account when evaluating the situation and their goals for conversations with their partners about the transgression. The first question asked participants the aspects that they would take into account when evaluating the situation and they were also asked to list all the things they would consider. The second question asked participants if they would bring the issue up with their partners and (in a separate question), if they did so, what they would want to accomplish. Finally, participants were asked to indicate whether they believed the scenario was realistic (yes or no), whether they were able to imagine themselves in the scenario (an open-ended question) and whether they would change anything about the scenario to make it seem more realistic.

Results. A first look at the results indicated that there were not enough responses for Scenarios 9 and 10 depicting the transgression of keeping secrets ( $n=8$ for the role of victim and $n=6$ for the role of transgressor). This transgression was not analyzed further as the small sample size did not permit drawing clear conclusions about how people respond to this type of transgression.

A detailed reading of the answers provided to the questions regarding violations of partners' expectancies and the valence associated with the transgressive behavior indicated that, indeed, the scenarios managed to portray such behaviors (i.e., they were
violations that were perceived to be negative).
Similar to the procedure employed in Pilot Study 1, responses for each scenario were initially Q-sorted by an undergraduate research assistant to create clusters of similar answers. There were a total of 104 complete responses ( $n=21$ for Scenario 1, $n=15$ for Scenario 2, $n=12$ for Scenario 3, $n=8$ for Scenario 4, $n=14$ for Scenario 5, $n=13$ for Scenario 6, $n=19$ for Scenario 7, and $n=14$ for Scenario 8). Responses about the factors taken into account by partners to evaluate the relational transgression depicted in each scenario indicated the following factors: the frequency of the behavior; the transgressor's intent, motivation, and control over the situation; the history, level of commitment, and length of the relationship; the importance of plans, whether the plans were solid, whether they could be rescheduled, and the importance of alternative plans (in the disregard for primary relationship and in the broken promises scenarios).

Participants' responses were also sorted based on recurring patterns in the goals respondents indicated they wished to pursue in a discussion or quarrel with their partner about the transgression. The results indicated the following goals were the most common: to change the behavior of the other person for the future, to avoid such a situation in the future, to express one's own feelings, to understand the other person's motives, to understand one's partner, to understand the situation, to determine the future of the relationship or the effect the situation has on the relationship, and to resolve the situation.

Next, participants' responses for the two main questions of interest were unitized by two undergraduate research assistants (Krippendorf, 2004). Respondents frequently indicated several factors and several goals, so the new coding units of analysis consisted of one factor or one goal. Guetzkow's index was .133 (.867 agreement) for factors and
.116 (. 884 agreement) for goals, yielding a list of 291 factors and 151 goals. It was evident from the reading of the sorted clusters of answers that the factors people take into account when evaluating a transgression differ from scenario to scenario, and that they depend on the role a person has in the transgression. An individual coding scheme was developed for each scenario (see Appendix D), and the two undergraduate research assistants coded the factor and goal units accordingly. Overall intercoder reliability across all eight scenarios, assessed with Cohen's kappa, was .82 for factors taken into account when evaluating a transgression and .78 for people's goals in a conversation with their partner about the issue, indicating substantial agreement among the two coders (Landis \& Koch, 1977). Disagreements were discussed and coders mutually agreed on a final categorization. A summary of results is presented in Appendix E.

Some common patterns emerged across scenarios. Participants reported that, for all scenarios, they would take into account contextual factors (such as the importance of the situation) and partner's past behavior. Another recurring factor among participants' responses in several scenarios was the nature of the situation. These results suggested that frequency of the transgressive behavior affected participants' evaluation of the situation and supported the inclusion of frequency as an independent variable in the main studies. Second, the results indicated that more clarification was needed in the scenarios regarding the details of the situation depicted, the importance of the events, and the transgressor's intent and control over the situation and plans (especially in the scenario describing broken promises). Finally, these results suggested that when faced with a relational transgression, people seek an explanation for that behavior and seek to identify the cause of the behavior. They also assess the degree of control the transgressor had over
the behavior as well as the perceived responsibility of the transgressor. The theoretical framework that captures this process is attribution theory, and this framework is used in the current research to explain how people evaluate and interpret a relational transgression.

Participants also reported similar goals across scenarios. In the majority of scenarios participants wanted to resolve the issue and avoid such situations in the future. Such goals are indicative of a persuasive dialogue orientation (partners could discuss how the situation should be handled) or a negotiation dialogue orientation (partners can negotiate rules about appropriate behavior in future recurrences of a similar situation). In addition, in several scenarios, participants reported the goal of understanding the other person, his or her intentions, and the goal of explaining the situation to their partner. These goals are indicative of information-seeking dialogue in which partners could provide or seek more information about the other person's intentions, behavior, and reasons for the behavior. Finally, in several cases, participants reported that they wanted to express their feelings about the situation and the other person's behavior, which indicates an eristic dialogue orientation. The results of Pilot Study 2 suggested that inquiry and deliberation were not dialogue types used frequently in discussing relational transgressions with one's partner. These two dialogue types were not analyzed further in the main studies.

Finally, participants' assessment of the scenarios provided information as to which scenarios should be retained for the main studies. The majority of participants (74\%) considered the situations described in the scenarios as a violation of their expectations, and $90 \%$ considered the situations presented in the scenarios to be realistic.

The scenario depicting lack of sensitivity or rudeness violated the expectations of $78 \%$ of the victims and $70 \%$ of the transgressors. It was considered realistic by $86 \%$ of victims and $92 \%$ of transgressors. Although it was not considered entirely realistic, this scenario provided an appropriate, everyday situation. It was retained, and it was modified for the main studies by adding details regarding the situation and the exact comments of the transgressor.

The vast majority of participants rated the situation described in the lying and deception scenarios as a violation ( $95 \%$ of the victims and $93 \%$ of the transgressors). The realism of the scenario, however, was low compared to the other scenarios ( $65 \%$ of victims and $79 \%$ of transgressors considered the situation realistic). This scenario was eliminated because of its low realism score. In addition, participants indicated in the open-ended answers that they had a hard time imagining themselves in this situation because they did not lie to their partners, and they could not imagine their partner lying to them. Although these responses may be motivated by social desirability, they do suggest a problem with the scenario. Finally, this situation was a clear violation of expectations. A clear violation would not offer the intended level of severity of a transgression that the current research seeks to analyze.

The scenario depicting broken promises was considered $100 \%$ realistic by both victims and transgressors, and the situation depicted violated expectations for $40 \%$ of victims and $64 \%$ of transgressors, thus providing an appropriate situation for the main studies. This scenario was retained although it was modified for the main studies to include some of the suggestions provided by participants (e.g., specifying the event and the reasons the person had to break the promise).

Finally, the scenario depicting disregard for the primary relationship was eliminated. Although the results indicated that this would be a good scenario to use in the main studies, the transgression itself is very similar to the transgression of breaking a promise. In both cases, the violating behavior involves changing already made plans. This similarity may prove problematic; it may not be clear whether difference in results would be due to a similar process or to a similar transgression.

## Main Studies

Study 1: Development of measurement scales. Several scales employed in the main studies were adapted from previous studies, whereas the scales for dialogue orientations were developed specifically for the present research. Study 1's main goal was to examine the dimensionality and reliability of these scales. Study 1's secondary goal was to pretest the revised scenarios. Based on the results of the two pilot studies, eight scenarios were created by manipulating one's role in the transgression (victim vs. transgressor), the type of transgression enacted (broken promises vs. insensitivity), and the frequency of the transgressive behavior (the person didn't remember having engaged in such a behavior previously vs. the person remembered having engaged in such a behavior several times before). The wording of this latter variable was left ambiguous ("several times before") intentionally, given that a specific number could have had different interpretations for participants. For example, for some participants two or three repetitions of the transgressive behavior may be more than enough, whereas for others it may take seven or eight repetitions of the transgressive behavior for them to consider it a severe event.

Participants. Participants in the study were 325 undergraduate students at a large

South Atlantic university. They ranged in age from 18 to 39 years old $(M=20.25, M d n=$ $20, S D=2.21$ ). Two hundred and fifty one were female and 74 were male. Two hundred and six participants were White, 45 were Asian, 32 were Black or African-American, 12 were Hispanic or Latino/Latina, two were American Indian or Alaska native, one was Native Hawaiian or other Pacific islander, 19 were a combination of these ethnicities, five were of some other ethnicity, and three participants preferred not to disclose their ethnicity. One hundred and fifteen participants were college seniors, 81 were juniors, 83 were sophomores, 43 were freshmen, and three participants indicated some other class standing. All participants were involved in a romantic relationship at the time they completed the questionnaire. Sixty-nine participants indicated that they were casually dating, 75 were exclusively dating, 75 indicated that they and their partners were committed to each other, 96 indicated they and their partners were seriously committed to each other, three participants were engaged, five were married, and two were in a civil union or partnership. Three hundred and eighteen participants were in heterosexual relationships, and seven participants were in homosexual relationships. These relationships ranged from five days to 7,305 days (approximately 20 years, which seems highly unlikely given the age of respondents; $M=554.87$ days or approximately 1.52 years, $M d n=360.84$ days or approximately one year, $S D=661.32$ days or approximately 1.81 years).

For the purposes of data analyses a conservative approach was adopted and several responses were eliminated. The questionnaire contained three questions that assessed participants' ability to use magnitude scales. The first question asked them to indicate what the lowest number they could use was (the correct answer being zero), the
second question asked them to specify what 100 indicated when using the scale in the study (the correct answer being a moderate amount), and the third question asked them whether they could use a number such as 245 to answer a question in the study (the correct answer being yes). Responses from participants who did not answer all three questions correctly were not included in the final analyses. A total of 274 participants were included in the final analyses. Their demographic data were as follows. Their ages ranged from 18 to 39 years old ( $M=20.17, M d n=20, S D=1.99$ ). Two hundred and twelve of these participants were female and 62 were male. One hundred and seventy nine were White, 35 were Asian, 25 were Black or African American, nine were Hispanic or Latino/Latina, one was American Indian or Alaska native, one was Native Hawaiian or some other Pacific Islander, 17 were a combination of these ethnicities, four indicated some other ethnicity, and three participants preferred not to disclose their ethnicity. Ninety-five participants were college seniors, 67 were juniors, 70 were sophomores, 39 were freshmen, and three participants indicated another class standing. Fifty-four participants indicated that they were casually dating, 62 were exclusively dating, 67 indicated that they and their partners were committed to each other, 83 indicated that they and their partners were seriously committed to each other, two were engaged, four were married, and two were in a civil union or a partnership. Two hundred and sixty eight participants were in heterosexual relationships, and six were in homosexual relationships. The length of their romantic relationship ranged from five days to 3,045 days (approximately 8.34 years; $M=523$ days or approximately 1.43 years, $M d n=360.84$ days or approximately one year, $S D=528.07$ days or approximately 1.45 years).

Procedure. Participants were recruited from undergraduate Communication
courses and received extra credit for their participation in the study. They completed the questionnaire online. After giving their consent and providing demographic information, participants were assigned to the eight experimental conditions through a two-step process. First, participants were asked to look at their watches and click the button that corresponded to the appropriate time; the hour was divided into four 15-minute intervals, creating four experimental conditions (transgression type x frequency). In the second step, participants were asked to click on a button that corresponded to the last digit of their university ID number, which assigned them to the role manipulation.

In each experimental condition, participants were first trained to use magnitude scales. Participants were told that they would be asked to use a number from zero to infinity to indicate their response for the questions in the study. A response of zero meant not at all, 100 meant $a$ moderate amount, and they could use any number from zero to infinity. Participants were given a few examples and were then asked to practice using the scales by answering two questions. Next, participants were asked three test questions that assessed their familiarity with using magnitude scales (described in the previous section).

Next, participants provided information about their romantic relationship: the type of relationship (heterosexual or homosexual), the approximate length of their relationship, and their type of relationship (casual dating, exclusively dating, committed to each other, seriously committed to each other, engaged, married, in a civil union/partnership, or other). Finally, participants assessed the quality of their relationship using magnitude scales.

The next page in the questionnaire presented participants with one of the eight
scenarios describing a relational transgression. Participants were asked to read the scenario, imagine that the situation happened to them, and answer questions on the following pages. The questions measured (with magnitude scales) whether the behavior described in the scenario was an expectancy violation, the internal and external attributions participants made about this behavior, the perceived importance of negative feelings, dominance, face concerns, positive feelings, and relationship maintenance, preference for dialogue types, perceived resolvability of the situation, satisfaction with the management of the transgression, and the realism of the situation described in the scenario. Participants were also asked, as an open-ended question, if they would change anything about the scenario to make it more realistic. Finally, participants were thanked for their participation in the study and were asked to enter their research ID number to ensure extra credit would be processed appropriately.

Instruments. Eight scenarios were employed in this study: broken promises, low frequency, victim (Scenario 1), broken promises, low frequency, transgressor (Scenario 2), broken promises, high frequency, victim (Scenario 3), broken promises, high frequency, transgressor (Scenario 4), insensitivity, low frequency, victim (Scenario 5), insensitivity, low frequency, transgressor (Scenario 6), insensitivity, high frequency, victim (Scenario 7), insensitivity, high frequency, transgressor (Scenario 8). The scenarios are included in Appendix F. The broken promises scenarios described a situation in which one of the partners (the transgressor) tells the other partner (the victim) that he or she cannot make it to a family event the upcoming weekend (an event that had been on the calendar for a few months and to which the transgressor had promised to go) because he or she had to catch up on work. The insensitivity scenario described a
situation in which one of the partners (the victim) comes home after having had a terrible day. He or she starts telling his or her partner about it but the partner snaps at the victim asking the victim to get over it and get ready to go out.

All items for the variables of interest were measured with the magnitude scales described above. A copy of the questions is found in Appendix F. Reliability coefficients for multi-item measures, calculated based on the transformed data, are presented in Table 1. Note that the principal component reliability was calculated based on the following formula: alpha $=\frac{N}{N-1} \times \frac{E-1}{E}$, where $N$ is the number of items in the scale, and $E$ is the eigenvalue of the first principal component (for a description of this procedure, see Serlin \& Kaiser, 1976, and Hampson, Goldberg, \& John, 1987).

Relational quality. Participants' satisfaction with their current romantic relationship was measured with five items adapted from Norton's (1983) Quality Marriage Index. Participants indicated how strong, stable, and good their current romantic relationship was, how happy it made them, and how satisfied they were with it.

Attributions. Attributions were measured with twelve items, six measuring internal attributions and six measuring external attributions, adapted from Yao (2009) and Yao, Cai, and Fink (2010). Items were phrased to reflect the role of participants in the scenario. Participants assigned to the role of victim assessed, for internal attributions, the extent to which the matter reflected something about their partner's personality, about who their partner was as a person, some of the things that defined who their partner was as a person, the extent to which who their partner was as a person caused the matter, the extent to which who their partner truly was deep down inside cause the matter, and the extent to which their partner was responsible for the matter. Participants assigned to the
role of transgressor answered the same questions phrased from their perspective; instead of partner's behavior, they assessed their own behavior.

For external attributions participants assessed the extent to which the matter reflected something about the situation in which they or their partner were, some things that were not characteristic of who they or their partner were, the extent to which the situation in which they or their partner were cause the matter, the extent to which the matter reflected something about other people, the extent to which some unfortunate circumstances caused the matter, and the extent to which the matter was due to the circumstances which they or their partner were in.

Goals. Negative feelings were measured with five items developed based on results from Pilot Study 2 and the existent measure of negative expressiveness goals proposed by Bevan et al. (2004) for the study of serial argument goals. Items measured the extent to which it was important for participants to express anger, frustration, disappointment, and negative feelings towards their partner, as well as the perceived importance of ensuring one's partner understood how one felt. Dominance was also measured with five items adapted from Bevan et al.'s (2004) measure of dominance goals in serial arguments. These items assessed the extent to which it was important for participants to dominate, control, and put down their partner in the aftermath of a relational transgression, as well as the importance of trying to make one's partner feel bad and feel insecure. Positive feelings were measured with five items also adapted from Bevan et al. (2004). Items measured the extent to which it was important for participants to express love, care, and support for their partner following a relational transgression, as well as express positive feelings and let one's partner know one understood how the other
person felt.
Twelve items adapted from Cai and Wilson (2000) were used to measure self- and other-oriented face concerns. Self-positive face was measured with three items that captured how important it was for participants not to damage their partner's impression of them, ensure that they partner still thought highly of them, and that their partner still respected them. Self-negative face was also measured with three items assessing how important it was for participants not to appear weak in front of their partner, not to put themselves at the mercy of their partner, and to be able to make their own decisions about the relational transgression. Other-positive face was measured with three items as well. These items assessed how important it was for participants to let their partner know they still respected him or her, thought highly of him or her, and how important it was for them not to embarrass their partner. Finally, other-negative face was measured with three items that captured how important it was for participants to leave their partner a choice, to keep from imposing on their partner too much, and to ensure their partner could make his or her own decisions.

Finally, relationship-oriented goals were measured with five items developed for this research. The items assessed the importance participants placed on letting their partner know they cared and valued the relationship, on minimizing the effects of the transgression on the relationship, on eliminating any tensions in their relationship, and on continuing the relationship with their partner.

Dialogue orientations. All dialogue orientation items were developed for this research based on the description of dialogue types, the initial situation of the arguers, and the normative rules of each dialogue type proposed by Walton and Krabbe (1995).

Persuasive dialogue orientation was measured with six items assessing the extent to which participants would try to explain their position to their partner, give reasons for their position, make a case for their position, convince their partner to think about the situation in the same way as participants did, talk their partner into thinking about the matter the way participants did, and the extent to which they would try to ensure they and their partner were on the same page about the issue.

Negotiation dialogue orientation was measured with six items as well. Questions asked participants to indicate how much they would try to reach a deal with their partner, make a deal with their partner, come up with an agreement that both could live with, make concessions in the hope that their partner would, too, make sure that what both partners wanted was accomplished, and the extent to which they would try to settle the matter.

Information-seeking dialogue orientation was measured with four items. Participants assigned to the role of victim in the hypothetical scenarios indicated how much they would try to find out more information about the matter from their partner, get all the details, ask their partner for the whole story, and ensure they knew everything about the matter. Participants assigned to the role of transgressor indicated how much they would try to let their partner know more about the matter, give their partner all the details, offer the whole story, and make sure their partner knew everything about the matter.

Finally, eristic dialogue orientation was measured with seven items assessing how much participants would try to just get the matter over with for the time being, use words to attack their partner, vent about the situation, take the opposite position from
their partner, let all their feelings out, blame their partner, and quarrel with their partner.
Resolvability. The perceived resolvability of the situation was measured with six items adapted from serial arguments research (Johnson \& Roloff, 1998, 2000a, 2000b). Participants indicated how confident they were that they would be able to remedy the situation, agree about the matter, resolve the situation in the immediate future, find a really good solution, get through the situation with their partner, and how confident they were that they and their partner would be able to get through the situation.

Satisfaction. Satisfaction with the management of the transgression was measured with seven items adapted from Johnson and $\operatorname{Roloff}(1998,2000 a, 2000 b)$. These items asked participants to indicate how satisfied and happy they would feel, how much more they would respect their partner, and how much better their relationship would be if they had a conversation with their partner in which they pursued their stated goals and enacted their preferred dialogue types.

Expectancy violations. This measure was meant to ensure that, on average, the behavior described in the scenarios constituted a relational transgression. Five items adapted from Floyd and Voloudakis (1999) measured the extent to which the other person's behavior was perceived as surprising, unusual, unexpected, normal for the relationship, and appropriate.

Realism. Three items were developed to assess whether participants were able to imagine themselves in the scenario, whether they believed the scenario was credible, and whether it reflected a situation that could happen in life.

Finally, an open-ended question was used to solicit feedback from participants about the scenarios employed. This question asked them if there was anything they would
suggest researchers change about the scenario they had had read to make it more realistic.

Table 1
Study 1 Reliability Scores of Initial Scales and of Revised Scales

|  |  | Initial Scales |  |  |  | Revised Scales |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | No. | Cronbach | PC <br> items $^{\text {a }}$ | No. <br> Reliability | Cronbach | PC <br> items $^{\text {c }}$ |  |
| Reliability $^{\text {d }}$ |  |  |  |  |  |  |  |  |
| Relational quality | 274 | 5 | .79 | .95 |  | N/A |  |  |
| Internal attrib. | 274 | 6 | .90 | .91 |  | N/A |  |  |
| External attrib. | 274 | 6 | .75 | .79 | 4 | .79 | .83 |  |
| Negative feelings | 274 | 5 | .88 | .88 |  | N/A |  |  |
| Dominance | 274 | 5 | .75 | .90 |  | N/A |  |  |
| Self-positive face | 274 | 3 | .63 | .83 |  | N/A |  |  |
| Self-negative face | 274 | 3 | .66 | .66 |  | N/A |  |  |
| Positive feelings | 274 | 5 | .80 | .93 |  | N/A |  |  |
| Other-pos. face | 274 | 3 | .55 | .77 |  | N/A |  |  |
| Other-neg. face | 274 | 3 | .64 | .80 |  | N/A |  |  |
| Rel. oriented-goals | 274 | 5 | .86 | .92 |  | N/A |  |  |
| Persuasive orient. | 271 | 6 | .91 | .94 |  | N/A |  |  |
| Negotiation orient. | 271 | 6 | .89 | .91 |  | N/A |  |  |
| Info-seeking orient. 271 | 4 | .96 | .96 |  | N/A |  |  |  |
| Eristic orientation | 271 | 7 | .78 | .83 | 6 | .80 | .84 |  |
| Resolvability | 268 | 6 | .92 | .94 |  | N/A |  |  |
| Satisfaction | 268 | 7 | .96 | .96 |  | N/A |  |  |
| Expectancy viol. | 274 | 5 | .67 | .83 | 3 | .95 | .95 |  |
| Realism | 268 | 3 | .86 | .88 |  | N/A |  |  |

[^0]Results. The analyses performed on the scales in Study 1 are presented below. The maximum likelihood method was used to estimate parameters for all models. It is "the most commonly used approach in structural equation modeling" (Hoyle, 1995, p. 38).

Data preparation. Preliminary investigations into the distribution of the data revealed all indicator variables were positively skewed and most indicator variables had several outliers (e.g., participants who responded 1,000,000 to a magnitude scale question). Outliers affect parameter estimates and inflate error rates (Osborne \& Overbay, 2004). In addition, the maximum likelihood estimation method assumes multivariate normality of population errors (Kline, 2005) and violating this assumption can lead to large chi-square values (Hoyle, 1995; West, Finch, \& Curran, 1995). Thus, it is important to address the problem of outliers and nonnormality, and two steps were implemented. First, all indicator variables were winsorized to the $95^{\text {th }}$ percentile (see Tukey, 1962, for a discussion of winsorization). Table 2 presents the final maximum value for each indicator variable. Second, data were transformed following the transformation equation for the single-bend family of transformations: " $Y^{*}=(Y+k)^{(\lambda)}$, such that if $\lambda=0, Y^{*}=\ln (Y+k)$, and if $\lambda \neq 0, Y^{*}=(Y+k)^{\lambda}$ where $Y$ is the initial variable, $Y^{*}$ is the transformed variable, $\ln$ is the natural logarithm, and $k$ is a constant" (Fink, 2009, p. 382). Table 3 presents the pre-transformation skewness and kurtosis values for all indicators, the values for $k$ and $\lambda$, and the post-transformation skewness and kurtosis values for all indicators. This step, although not sufficient for ensuring multivariate normality of the population errors, is a necessary step towards it.

LISREL 8.80 (Jöreskog \& Sörbom, 2007) is sensitive to missing data, so in
preparation for confirmatory factor analysis with this software, missing values for some variables were imputed. Three respondents' missing answers for dialogue orientations and six respondents' missing answers for resolvability and satisfaction were replaced with the series mean of those respective variables (Norušis, 2010).

Table 2
Study 1 Minimum and Maximum Values Pre- and Post-Winsorization

| Variable | Minimum value | Maximum value | Trimmed (95 <br> percentile) Maximum |
| :--- | :--- | :--- | :--- |
| IA1 | 0 | 10000 | 500 |
| IA2 | 0 | 100000 | 500 |
| IA3 | 0 | 100000 | 500 |
| IA4 | 0 | 1000 | 500 |
| IA5 | 0 | 10000 | 400 |
| IA6 | 0 | 100000000 | 700 |
| EA1 | 0 | 10000 | 500 |
| EA2 | 0 | 1000000000 | 500 |
| EA3 | 0 | 9999999 | 600 |
| EA4 | 0 | 100000000 | 400 |
| EA5 | 0 | 10000000 | 500 |
| EA6 | 0 | 1000000000 | 500 |
| NEG1 | 0 | 1000000 | 500 |
| NEG2 | 0 | 1000000 | 400 |
| NEG3 | 0 | 1000000 | 500 |
| NEG4 | 0 | 10000 | 500 |
| NEG5 | 0 | 10000000 | 2000 |
| DOM1 | 0 | 10000 | 200 |
| DOM2 | 0 | 10000 | 200 |
| DOM3 | 0 | 10000 | 150 |
| DOM4 | 0 | 1000 | 100 |
| DOM5 | 0 | 698 | 100 |
| SPF1 | 0 | 10000000 | 900 |
| SPF2 | 0 | 100000000 | 1000 |
| SPF3 | 0 | 1000000000 | 4000 |
| SNF1 | 0 | 100000000 | 500 |
| SNF2 | 0 | 100000000 | 600 |
| SNF3 | 0 | 1000000000 | 600 |
| POS1 | 0 | 1000000 | 1000 |
| POS2 | 0 | 1000000000 | 3000 |
| POS3 | 0 | 1000000000 | 9000 |
| POS4 | 0 | 1000000000 | 9000 |
| POS5 | 0 | 1000000000 | 4000 |
| OPF1 | 0 | 1000000000 | 5000 |
| OPF2 | 0 | 1000000000 | 4000 |
| OPF3 | 10 | 1000000000 | 900 |
| ONF1 | 0 | 10000000 | 800 |
|  |  |  |  |
|  |  |  |  |


| Variable | Minimum value | Maximum value | Trimmed (95 <br> percentile) Maximum |
| :--- | :--- | :--- | :--- |
| ONF2 | 0 | 4000000 | 500 |
| ONF3 | 0 | 10000000 | 900 |
| REL1 | 0 | 1000000000 | 10000 |
| REL2 | 0 | 100000000 | 5000 |
| REL3 | 0 | 1000000000 | 10000 |
| REL4 | 0 | 1000000000 | 10000 |
| REL5 | 0 | 1000000000 | 1000000 |
| PDO1 | 0 | 1000000000 | 1000 |
| PDO2 | 0 | 1000000000 | 1000 |
| PDO3 | 0 | 700000 | 1000 |
| PDO4 | 0 | 1000000000 | 1000 |
| PDO5 | 0 | 10000000 | 1000 |
| PDO6 | 0 | 1000000000 | 1000 |
| NDO1 | 0 | 1000000000 | 1000 |
| NDO2 | 0 | 1000000000 | 1000 |
| NDO3 | 0 | 1000000000 | 1000 |
| NDO4 | 0 | 1000000000 | 1000 |
| NDO5 | 0 | 1000000000 | 1000 |
| NDO6 | 0 | 1000000000 | 5000 |
| ISDO1 | 0 | 1000000000 | 1000 |
| ISDO2 | 0 | 1000000000 | 1000 |
| ISDO3 | 0 | 1000000000 | 1000 |
| ISDO4 | 0 | 1000000000 | 1000 |
| EDO1 | 0 | 9000000 | 1000 |
| EDO2 | 0 | 10000000 | 300 |
| EDO3 | 0 | 1000000000 | 600 |
| EDO4 | 0 | 100000 | 300 |
| EDO5 | 0 | 1000000000 | 1000 |
| EDO6 | 0 | 10000 | 300 |
| EDO7 | 0 | 1000000 | 200 |
| RES1 | 0 | 10000000 | 1000 |
| RES2 | 0 | 500000 | 900 |
| RES3 | 0 | 1000000000 | 1000 |
| RES4 | 0 | 1000000 | 1000 |
| RES5 | 0 | 10000000000 | 1000 |
| RES6 | 0 | 1000000000 | 10000 |
| SAT1 | 0 | 10000000000 | 1000 |
| SAT2 | 0 | 0 | 0000000000 |
| SAT3 | 0 | SAT4 | 0 |


| Variable | Minimum value | Maximum value | Trimmed (95 <br> percentile) Maximum |
| :--- | :--- | :--- | :--- |
| SAT5 | 0 | 9000000 | 1000 |
| SAT6 | 0 | 10000000 | 1000 |
| SAT7 | 0 | 1000000000 | 1000 |
| RELQ1 | 0 | 1000000000 | 1000 |
| RELQ2 | 10 | 1000000000 | 1000 |
| RELQ3 | 10 | 1000000000 | 1000 |
| RELQ4 | 10 | 1000000000 | 3000 |
| RELQ5 | 0 | 1000000000 | 1000 |
| EV1 | 0 | 1000000000 | 500 |
| EV2 | 0 | 10000000 | 500 |
| EV3 | 0 | 10000000 | 600 |
| EV4 | 0 | 100000000 | 400 |
| EV5 | 0 | 30000 | 500 |
| REAL1 | 0 | 100000000 | 1000 |
| REAL2 | 0 | 1000000000 | 2000 |
| REAL3 | 0 | 1000000000 | 2500 |

[^1]Table 3
Study 1 Skewness and Kurtosis Values Pre- and Post-Transformation, Values of $k$, and $\lambda$ in the Transformation Equation $Y^{*}=(Y+k)^{(\lambda)}$

| Variable | Pre-Transformation |  |  |  | $k$ | $\lambda$ | Post-Transformation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skewness |  | Kurtosis |  |  |  | Skewness |  | Kurtosis |  |
|  | Statistic | SE | Statistic | SE |  |  | Statistic | SE | Statistic | SE |
| IA1 | 14.07 | 0.15 | 217.73 | 0.29 | 0 | 0.40 | -0.19 | 0.15 | 0.10 | 0.29 |
| IA2 | 16.53 | 0.15 | 273.50 | 0.29 | 0 | 0.40 | -0.10 | 0.15 | 0.21 | 0.29 |
| IA3 | 16.51 | 0.15 | 273.06 | 0.29 | 0 | 0.40 | -0.15 | 0.15 | -0.08 | 0.29 |
| IA4 | 2.84 | 0.15 | 9.05 | 0.29 | 0 | 0.40 | -0.03 | 0.15 | 0.09 | 0.29 |
| IA5 | 15.26 | 0.15 | 245.00 | 0.29 | 0 | 0.40 | -0.12 | 0.15 | -0.29 | 0.29 |
| IA6 | 16.32 | 0.15 | 268.56 | 0.29 | 0 | 0.40 | -0.04 | 0.15 | 0.23 | 0.29 |
| EA1 | 16.53 | 0.15 | 273.46 | 0.29 | 0 | 0.50 | -0.01 | 0.15 | -0.29 | 0.29 |
| EA2 | 16.32 | 0.15 | 268.56 | 0.29 | 0 | 0.50 | 0.07 | 0.15 | 0.23 | 0.29 |
| EA3 | 16.55 | 0.15 | 273.94 | 0.29 | 0 | 0.40 | 0.03 | 0.15 | -0.29 | 0.29 |
| EA4 | 16.55 | 0.15 | 274.00 | 0.29 | 0 | 0.40 | 0.08 | 0.15 | -0.26 | 0.29 |
| EA5 | 16.55 | 0.15 | 274.00 | 0.29 | 0 | 0.50 | 0.16 | 0.15 | -0.03 | 0.29 |
| EA6 | 16.32 | 0.15 | 268.56 | 0.29 | 0 | 0.50 | 0.16 | 0.15 | -1.05 | 0.29 |
| NEG1 | 13.53 | 0.15 | 192.26 | 0.29 | 0 | 0.50 | 0.11 | 0.15 | -0.59 | 0.29 |
| NEG2 | 16.55 | 0.15 | 274.00 | 0.29 | 0 | 0.50 | 0.17 | 0.15 | -0.63 | 0.29 |
| NEG3 | 16.55 | 0.15 | 273.94 | 0.29 | 0 | 0.50 | 0.07 | 0.15 | -0.35 | 0.29 |
| NEG4 | 14.20 | 0.15 | 221.63 | 0.29 | 0 | 0.50 | 0.06 | 0.15 | -0.67 | 0.29 |
| NEG5 | 9.32 | 0.15 | 86.14 | 0.29 | 0 | 0.25 | -0.02 | 0.15 | 2.41 | 0.29 |
| DOM1 | 14.83 | 0.15 | 232.75 | 0.29 | 0 | 0.40 | 0.15 | 0.15 | -1.41 | 0.29 |
| DOM2 | 15.67 | 0.15 | 254.03 | 0.29 | 0 | 0.60 | 0.73 | 0.15 | -0.67 | 0.29 |
| DOM3 | 15.89 | 0.15 | 258.72 | 0.29 | 0 | 0.60 | 0.81 | 0.15 | -0.66 | 0.29 |
| DOM4 | 7.16 | 0.15 | 57.67 | 0.29 | 0 | 0.30 | 0.85 | 0.15 | -1.03 | 0.29 |
| DOM5 | 6.40 | 0.15 | 46.50 | 0.29 | 0 | 0.10 | 0.98 | 0.15 | -0.99 | 0.29 |
| SPF1 | 16.32 | 0.15 | 268.51 | 0.29 | 0 | 0.50 | 0.23 | 0.15 | -0.47 | 0.29 |
| SPF2 | 15.99 | 0.15 | 260.78 | 0.29 | 0 | 0.40 | -0.16 | 0.15 | 0.39 | 0.29 |
| SPF3 | 9.36 | 0.15 | 86.75 | 0.29 | 0 | 0.25 | 0.38 | 0.15 | 3.12 | 0.29 |
| SNF1 | 16.55 | 0.15 | 273.95 | 0.29 | 0 | 0.50 | 0.11 | 0.15 | -0.51 | 0.29 |
| SNF2 | 16.32 | 0.15 | 268.56 | 0.29 | 0 | 0.50 | 0.21 | 0.15 | -0.61 | 0.29 |
| SNF3 | 16.55 | 0.15 | 274.00 | 0.29 | 0 | 0.50 | 0.17 | 0.15 | -0.71 | 0.29 |
| POS1 | 9.36 | 0.15 | 86.74 | 0.29 | 0 | 0.40 | 0.16 | 0.15 | -0.17 | 0.29 |
| POS2 | 16.32 | 0.15 | 268.46 | 0.29 | 0 | 0.20 | 0.19 | 0.15 | 2.69 | 0.29 |
| POS3 | 11.56 | 0.15 | 133.10 | 0.29 | 1 | 0 | 0.90 | 0.15 | 1.94 | 0.29 |
| POS4 | 9.40 | 0.15 | 87.34 | 0.29 | 1 | 0 | 0.40 | 0.15 | 2.70 | 0.29 |
| POS5 | 16.32 | 0.15 | 268.51 | 0.29 | 0 | 0.20 | -0.01 | 0.15 | 4.06 | 0.29 |
| OPF1 | 16.32 | 0.15 | 268.51 | 0.29 | 0 | 0.20 | -0.35 | 0.15 | 3.80 | 0.29 |


| Variable | Pre-Transformation |  |  |  | $k$ | $\lambda$ | Post-Transformation |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skewness |  | Kurtosis |  |  |  | Skewness |  | Kurtosis |  |
|  | Statistic | SE | Statistic | SE |  |  | Statistic | SE | Statistic | SE |
| OPF2 | 16.55 | 0.15 | 273.89 | 0.29 | 0 | 0.20 | 0.22 | 0.15 | 3.50 | 0.29 |
| OPF3 | 16.55 | 0.15 | 274.00 | 0.29 | 0 | 0.40 | -0.18 | 0.15 | 0.19 | 0.29 |
| ONF1 | 16.10 | 0.15 | 263.32 | 0.29 | 0 | 0.40 | -0.10 | 0.15 | 0.37 | 0.29 |
| ONF2 | 15.33 | 0.15 | 242.95 | 0.29 | 0 | 0.50 | 0.05 | 0.15 | -0.37 | 0.29 |
| ONF3 | 16.32 | 0.15 | 268.32 | 0.29 | 0 | 0.30 | 0.11 | 0.15 | 0.29 | 0.29 |
| REL1 | 11.64 | 0.15 | 134.47 | 0.29 | 0 | 0.20 | 1.19 | 0.15 | 3.45 | 0.29 |
| REL2 | 11.74 | 0.15 | 134.42 | 0.29 | 0 | 0.25 | 0.76 | 0.15 | 2.88 | 0.29 |
| REL3 | 11.60 | 0.15 | 133.78 | 0.29 | 0 | 0.20 | 1.33 | 0.15 | 4.18 | 0.29 |
| REL4 | 11.56 | 0.15 | 133.07 | 0.29 | 0 | 0.15 | 1.23 | 0.15 | 4.20 | 0.29 |
| REL5 | 7.97 | 0.15 | 62.67 | 0.29 | 0 | 0.10 | 2.25 | 0.15 | 3.71 | 0.29 |
| PDO1 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.30 | 0.02 | 0.15 | 0.34 | 0.30 |
| PDO2 | 16.46 | 0.15 | 270.95 | 0.29 | 0 | 0.30 | -0.02 | 0.15 | 0.57 | 0.30 |
| PDO3 | 15.18 | 0.15 | 240.65 | 0.29 | 0 | 0.40 | 0.23 | 0.15 | 0.31 | 0.30 |
| PDO4 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.17 | 0.15 | 0.16 | 0.30 |
| PDO5 | 16.17 | 0.15 | 264.27 | 0.29 | 0 | 0.40 | 0.12 | 0.15 | 0.52 | 0.30 |
| PDO6 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.35 | 0.15 | -0.01 | 0.30 |
| NDO1 | 11.58 | 0.15 | 132.96 | 0.29 | 0 | 0.40 | 0.02 | 0.15 | 0.08 | 0.30 |
| NDO2 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | -0.02 | 0.15 | -0.08 | 0.30 |
| NDO3 | 11.58 | 0.15 | 132.97 | 0.29 | 0 | 0.40 | 0.10 | 0.15 | -0.16 | 0.30 |
| NDO4 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.14 | 0.15 | 0.34 | 0.30 |
| NDO5 | 11.58 | 0.15 | 132.97 | 0.29 | 0 | 0.40 | 0.30 | 0.15 | -0.08 | 0.30 |
| NDO6 | 11.57 | 0.15 | 132.96 | 0.29 | 0 | 0.20 | 0.75 | 0.15 | 3.43 | 0.30 |
| ISDO1 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.19 | 0.15 | 0.34 | 0.30 |
| ISDO2 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.17 | 0.15 | 0.09 | 0.30 |
| ISDO3 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.18 | 0.15 | -0.05 | 0.30 |
| ISDO4 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.27 | 0.15 | -0.01 | 0.30 |
| EDO1 | 15.90 | 0.15 | 257.89 | 0.29 | 0 | 0.40 | 0.13 | 0.15 | 0.07 | 0.30 |
| EDO2 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.45 | 0.57 | 0.15 | -0.82 | 0.30 |
| EDO3 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | -0.08 | 0.15 | -0.05 | 0.30 |
| EDO4 | 16.22 | 0.15 | 265.45 | 0.29 | 0 | 0.60 | 0.46 | 0.15 | -0.64 | 0.30 |
| EDO5 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.40 | 0.38 | 0.15 | 0.09 | 0.30 |
| EDO6 | 12.77 | 0.15 | 178.48 | 0.29 | 0 | 0.50 | 0.64 | 0.15 | -0.74 | 0.30 |
| EDO7 | 16.46 | 0.15 | 271.00 | 0.29 | 0 | 0.50 | 0.57 | 0.15 | -0.91 | 0.30 |
| RES1 | 16.14 | 0.15 | 262.62 | 0.29 | 0 | 0.40 | 0.18 | 0.15 | -0.20 | 0.30 |
| RES2 | 14.80 | 0.15 | 229.95 | 0.29 | 0 | 0.40 | 0.24 | 0.15 | 0.17 | 0.30 |
| RES3 | 16.37 | 0.15 | 267.95 | 0.29 | 0 | 0.40 | 0.26 | 0.15 | -0.29 | 0.30 |
| RES4 | 16.14 | 0.15 | 262.58 | 0.29 | 0 | 0.40 | 0.35 | 0.15 | 0.05 | 0.30 |
| RES5 | 16.37 | 0.15 | 268.00 | 0.29 | 0 | 0.40 | 0.24 | 0.15 | -0.46 | 0.30 |


| Variable | Pre-Transformation |  |  |  | $k$ | $\lambda$ | Post-Transformation |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skewness |  | Kurtosis |  |  |  | Skewness |  | Kurtosis |  |
|  | Statistic | $S E$ | Statistic | $S E$ |  |  | Statistic | $S E$ | Statistic | $S E$ |
| RES6 | 9.31 | 0.15 | 85.47 | 0.29 | 0 | 0.15 | 1.11 | 0.15 | 4.04 | 0.30 |
| SAT1 | 15.92 | 0.15 | 257.50 | 0.29 | 0 | 0.40 | 0.42 | 0.15 | -0.43 | 0.30 |
| SAT2 | 15.92 | 0.15 | 257.54 | 0.29 | 0 | 0.40 | 0.28 | 0.15 | -0.21 | 0.30 |
| SAT3 | 16.32 | 0.15 | 266.80 | 0.29 | 0 | 0.40 | 0.29 | 0.15 | -0.26 | 0.30 |
| SAT4 | 16.32 | 0.15 | 268.00 | 0.29 | 0 | 0.40 | 0.17 | 0.15 | -0.14 | 0.30 |
| SAT5 | 16.08 | 0.15 | 261.28 | 0.29 | 0 | 0.40 | 0.20 | 0.15 | 0.06 | 0.30 |
| SAT6 | 11.54 | 0.15 | 132.71 | 0.29 | 0 | 0.40 | 0.06 | 0.15 | -0.10 | 0.30 |
| SAT7 | 16.35 | 0.15 | 268.00 | 0.29 | 0 | 0.40 | 0.03 | 0.15 | -0.17 | 0.30 |
| RELQ1 | 8.11 | 0.15 | 64.37 | 0.29 | 0 | 0.20 | 0.42 | 0.15 | -0.28 | 0.30 |
| RELQ2 | 9.41 | 0.15 | 87.36 | 0.29 | 0 | 0.35 | 0.31 | 0.15 | 0.33 | 0.30 |
| RELQ3 | 8.14 | 0.15 | 64.71 | 0.29 | 0 | 0.20 | 0.32 | 0.15 | -0.43 | 0.30 |
| RELQ4 | 11.56 | 0.15 | 133.07 | 0.29 | 0 | 0.10 | 0.65 | 0.15 | 0.62 | 0.30 |
| RELQ5 | 11.64 | 0.15 | 134.44 | 0.29 | 0 | 0.30 | -0.02 | 0.15 | 0.73 | 0.30 |
| EV1 | 16.55 | 0.15 | 274.00 | 0.29 | 0 | 0.50 | 0.03 | 0.15 | -0.31 | 0.30 |
| EV2 | 16.32 | 0.15 | 268.51 | 0.29 | 0 | 0.50 | 0.00 | 0.15 | -0.55 | 0.30 |
| EV3 | 16.55 | 0.15 | 273.84 | 0.29 | 0 | 0.50 | 0.07 | 0.15 | -0.48 | 0.30 |
| EV4 | 16.55 | 0.15 | 274.00 | 0.29 | 0 | 0.40 | 0.04 | 0.15 | -0.09 | 0.30 |
| EV5 | 14.53 | 0.15 | 221.89 | 0.29 | 0 | 0.40 | 0.21 | 0.15 | -0.25 | 0.30 |
| REAL1 | 16.33 | 0.15 | 267.14 | 0.29 | 0 | 0.35 | 0.08 | 0.15 | 0.51 | 0.30 |
| REAL2 | 16.14 | 0.15 | 262.68 | 0.29 | 0 | 0.30 | 0.45 | 0.15 | 0.54 | 0.30 |
| REAL3 | 15.92 | 0.15 | 257.54 | 0.29 | 0 | 0.30 | 0.52 | 0.15 | 1.47 | 0.30 |

Note. See Appendix F for item labels.

Scale development analyses. The main goal of Study 1 was to assess the dimensionality and reliability of the developed scales. To accomplish this goal, several analyses were conducted using the SPSS Statistics GradPack 18 and LISREL 8.80 (Jöreskog \& Sörbom, 2007) and with the transformed data. First, Cronbach's alphas were calculated. Second, reliability scores based on the first principal component were calculated. This procedure also provided information about the dimensional structure for each scale, but did not constitute, by itself, the only influence on further decisions about the scales. Instead, confirmatory factor analyses were conducted as the third step in the measurement analyses. In these analyses, model fit for each scale was assessed based on Hu and Bentler's (1999) fit criteria. The absolute fit index used was the standardized root mean square residual (SRMR), whose value should be close to or less than .08 . The incremental fit index used was the comparative fit index (CFI), whose value should be close to or great than .95. Finally, the parsimonious fit index used was the root mean square error of approximation (RMSEA), whose value should be close to or less than . 06 . Unless otherwise specified, maximum likelihood estimation was used and the exogenous variables were allowed to covary.

Modifications were implemented when such changes were reasonable and theoretically appropriate. For example, error covariances that may indicate an underlying common measurement factor were permitted. This approach is consistent with the approach of multitrait-multimethod modeling. Campbell and Fiske (1959) acknowledged the possibility of systematic variance in responses due to the scales used for measuring the phenomenon of interest. In other words, two indicators may covary due to trait similarity between them but also due to the method employed to measure them. Kenny
and Kashy (1992), for example, suggested that error covariances be added to reflect a shared method factor in a structural model. This suggestion was applied in the present research to permit error covariances when items were phrased in a similar manner. It was believed this similarity may result in shared variance between those items.

All six internal attributions scale items were retained. ${ }^{1}$ The scale was unidimensional according to the principal components analysis results. Initial model fit, as indicated by the confirmatory factor analysis, was acceptable given that two of the three fit indices were within acceptable values, $\chi^{2}(9, N=274)=84.06(p<.01)$, RMSEA $=.18, C F I=.96$, and $S R M R=.04$. Two error covariances were permitted: between items four and five and between items one and two. These covariances were believed to reflect a measurement factor because the items were phrased in the same manner. Item four asked "To what extent did who you are as a person cause this matter?," whereas item five asked "To what extent did who you truly are deep down inside cause this matter?" Both items capture the same underlying idea of someone's internal dispositions. The revised model fit was good, $\chi^{2}(7, N=274)=14.66(p>.01)$, RMSEA $=.06, C F I=1.00$, and $S R M R=.02$.

The external attributions scale (measured with six items) was revised. Items two (assessing the extent to which the matter reflected some things that were not characteristic of who the participant or the participant's partner was as a person), and four (assessing the extent to which the matter reflected something about other people) were problematic. Cronbach's alpha indicated the scale's reliability would improve if items two and four were deleted. The principal components analysis indicated that, although all

[^2]items loaded on one component, these two items had the two lowest component loading scores ( .34 and .53 , as compared to .73 to .85 for the other items). The confirmatory factor analysis revealed that initial model fit was not acceptable, $\chi^{2}(9, N=274)=52.14$ $(p<.01), R M S E A=.13, C F I=.93$, and $S R M R=.05$, and the latent factor explained $17 \%$ and 5\% of the variance in these indicators (as compared to the rest of the items, in which the latent explained from $41 \%$ to $70 \%$ of the variance). Therefore, items two and four were dropped from further analyses.

Next, an error covariance between items one and three was allowed. These items had a very similar wording: Item one asked "To what extent does this matter reflect something about the situation in which you were?," whereas item three asked "To what extent did the situation in which you were cause this matter?," so the error covariance is reasonable. The final model fit was good, $\chi^{2}(1, N=274)=1.98(p>.05), R M S E A=.06$, $C F I=1.00$, and $S R M R=.01$.

In addition, a model with the internal and the revised external attributions as two factors allowed to covary was tested. Initial model fit was not good, $\chi^{2}(26, N=274)=$ $203.40(p<.01), R M S E A=.16, C F I=.93$, and $S R M R=.11$. Several modifications were implemented. The error terms of items one and two, one and three, and two and three from the internal attributions scale were allowed to covary. All three items have a similar wording that asks whether the matter reflected something about one's personality (item one), about who one was as a person (item two), and some of the things that defined one as a person (item three). The error terms of items one and three and items five and six in the external attributions scale were also allowed to covary. These items contained similar words referring to the situation (item one and item three) and the circumstances (item five
and six) in which one was. As a result of these revisions, model fit improved to $\chi^{2}(22, N$ $=274)=78.39(p<.001), R M S E A=.09, C F I=.98$, and $S R M R=.08$, which satisfied two of the three fit criteria. Further modifications could have been implemented to reduce the RMSEA index to an acceptable value, but these error covariances were not theoretically justifiable.

The perceived importance of negative feelings was measured with five items. This scale was also modified. Initial model fit was acceptable, with two of the three fit indices within acceptable values, $\chi^{2}(5, N=274)=46.70(p<.01), R M S E A=.18, C F I=.96$, and $S R M R=.04$, but the fifth item in the scale presented problems (this item asked how important it would be for one to make sure one's partner understood how one felt). Cronbach reliability statistics indicated the scale's reliability would increase if this item were deleted. The principal components analysis indicated that the scale was unidimensional, but this item had the lowest loading (. 55 as compared to the rest of the items whose loadings varied from .84 to .92 ). Finally, the confirmatory factor analysis indicated that the latent factor explained $20 \%$ of the variance in this item, compared to the rest of the indicators in which the latent factor explained $62 \%$ to $85 \%$ of the variance. This item was eliminated from further analyses. Model fit after this elimination changed to $\chi^{2}(2, N=274)=24.29(p<.001), R M S E A=.20, C F I=.98$, and $S R M R=.02$, which reduced the chi-square significantly $(p<.01)$ but did not satisfy the $R M S E A$ fit criterion. There were no reasonable modifications suggested, so the final model fit satisfied only two of the three fit criteria.

All five dominance items were retained. The items loaded on one component in the principal components analysis. The confirmatory factor analysis indicated that initial
model fit was not good, $\chi^{2}(5, N=274)=68.11(p<.001), R M S E A=.23, C F I=.94$, and $S R M R=.05$. Modifications were implemented permitting the error terms of the first and third items and the error terms of the fourth and fifth items to correlate. Item one asked about the importance to dominate one's partner, whereas item three asked about the importance to control one's partner. These two words have a similar meaning. Item four asked about the importance of putting down one's partner, whereas item five asked about the importance of making one's partner feel insecure. The correlation between these error terms may be capturing a consequence of dominance. The revised model fit was good, $\chi^{2}$ $(3, N=274)=1.77(p>.05), R M S E A=.00, C F I=1.00$, and $S R M R=.01$.

All twelve face concerns scale items (three for each subscale) were retained. Although the reliability of each scale as indicated by Cronbach's alpha was not very good (values from . 55 to .66 ), the principal components analysis indicated each of the scales was unidimensional. The confirmatory factor analyses model for each subscale was justidentified because each subscale had three items, so fit indices were not provided.

All five items measuring the perceived importance of positive feelings were retained. The principal components analysis indicated the scale was unidimensional. Initial model fit, as indicated by the confirmatory factor analysis, was not good, $\chi^{2}(5, N$ $=274)=86.94(p<.01), R M S E A=.25, C F I=.94$, and $S R M R=.04$. The errors of the first and second items and the third and fourth items were allowed to covary. Item one asked about the perceived importance of positive feelings about one's partner, whereas item two asked about the perceived importance of showing support for one's partner. Showing support for someone is a positive action, so this covariance may be capturing the positive intent involved in both items. Item three asked about the importance of
showing that one cared about one's partner, whereas item four asked about the importance of showing one loved one's partner. These items are phrased similarly. In addition, loving and caring for someone are intertwined feelings as they are both manifestations of loving another person. The revised model fit was acceptable, $\chi^{2}(3, N=$ 274) $=18.49(p>.05)$, RMSEA $=.13, C F I=.99$, and $S R M R=.02$, satisfying two of the three fit criteria.

Finally, all five items measuring relationship-oriented goals were retained.
Principal components analysis indicated that the scale was unidimensional. Confirmatory factor analysis revealed that initial model fit was relatively acceptable, but the RMSEA index was higher than acceptable, $\chi^{2}(5, N=274)=20.40(p<.01)$, RMSEA $=.10, C F I=$ .99 , and $S R M R=.02$. The model fit could have been improved through the implementation of error covariances between two pairs of indicators, but freeing these covariances was not theoretically justified.

An overall model with all eight goals was also tested to assess potential crossloadings between factors. ${ }^{2}$ Table 4 presents the zero-order correlations between the latent factors. All eight exogenous variables were allowed to covary. The initial model fit was relatively acceptable, but the $R M S E A$ value was above acceptable limits, $\chi^{2}(406, N=$ $274)=1,337.23(p<.01), R M S E A=.10, C F I=.95$, and $S R M R=.07$. Modifications were made that consisted of implementing the same four error covariances permitted for the individual scales (see Appendix G for the LISREL syntax). The revised model fit was relatively good, but the $R M S E A$ was still slightly above acceptable limits, $\chi^{2}$ (402, $N=$

[^3]$274)=1,145.97(p<.01), R M S E A=.09, C F I=.96$, and $S R M R=.07$.

Table 4
Study 1 Latent Goals Zero-Order Correlations

|  | NEG | DOM | POS | SPF | SNF | OPF | ONF | REL |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| NEG | 1.00 |  |  |  |  |  |  |  |
| DOM | $.64^{* *}$ | 1.00 |  |  |  |  |  |  |
| POS | .06 | $-.28^{* *}$ | 1.00 |  |  |  |  |  |
| SPF | .12 | -.09 | $.58^{* *}$ | 1.00 |  |  |  |  |
| SNF | $.44^{* *}$ | $.31^{* *}$ | $.39^{* *}$ | $.68^{* *}$ | 1.00 |  |  |  |
| OPF | .11 | $-.25^{* *}$ | $.93^{* *}$ | $.66^{* *}$ | $.40^{* *}$ | 1.00 |  |  |
| ONF | .11 | $-.23^{* *}$ | $.69^{* *}$ | $.60^{* *}$ | $.50^{* *}$ | $.70^{* *}$ | 1.00 |  |
| REL | $.15^{* *}$ | $-.19^{* *}$ | $.86^{* *}$ | $.67^{* *}$ | $.46^{* *}$ | $.84^{* *}$ | $.70^{* *}$ | 1.00 |
| ** $p<.01$. |  |  |  |  |  |  |  |  |

** $p<.01$.
Note. NEG = perceived importance of negative feelings, DOM = perceived importance of dominance,
POS = perceived importance of positive feelings, SPF = perceived importance of self-positive face, SNF = perceived importance of self-negative face, OPF = perceived importance of other-positive face, $\mathrm{ONF}=$ perceived importance of other-negative face, and REL $=$ perceived importance of relationshiporiented goals.

The persuasive dialogue orientation scale consisted of six items. The scale was unidimensional according to the principal components analysis results, and the items performed well in the confirmatory factor analysis. Initial model fit was not good, $\chi^{2}(9$, $N=274)=225.29(p<.01), R M S E A=.31, C F I=.90$, and $S R M R=.06$. Two error covariances were added: between the first and second items, and between the fourth and fifth items. These items were similarly worded. Item one asked about explaining one's position, whereas item two asked about giving reasons for one's position. Item four asked about trying to convince one's partner to see things one's way, whereas item five asked about trying to talk one's partner into thinking about the matter in the same way one does. The revised model fit improved, $\chi^{2}(7, N=274)=55.24(p>.05), R M S E A=.16$, $C F I=.98$, and $S R M R=.03$. The chi-square difference between the initial model and the revised model was significant ( $p<.01$ ), and two of the three fit indices were within acceptable values. The addition of three other error covariances would have brought the RMSEA index within required values, but freeing these covariances was not theoretically justified.

All six items measuring the negotiation dialogue orientation were retained. The scale was unidimensional according to the results of the principal components analysis. The initial model fit, as assessed by confirmatory factor analysis, was relatively acceptable, $\chi^{2}(9, N=274)=73.67(p<.01), R M S E A=.16, C F I=.96$, and $S R M R=.04$. The fit improved after two error covariances were added: between the first and sixth items, and between the second and fourth items, $\chi^{2}(7, N=274)=23.22(p>.05)$, $R M S E A=.09, C F I=.99$, and $S R M R=.02$. Item one asked how much one would try to reach a compromise with one's partner, whereas item six asked about how much one
would try to settle the matter. Settling and compromising are similar words, and the error covariance can capture this measurement similarity. Item two asked how much one would try to make a deal with one's partner, whereas item four asked about how much one would try to make concessions in the hope that one's partner made concessions too. Making a deal and making concessions may be associated because making a deal involves making some concessions.

The information-seeking dialogue orientation scale consisted of four items. The scale was unidimensional according to the results of the principal components analysis. According to the confirmatory factor analysis, initial model fit was relatively acceptable given that two of the three fit indices were within required values, $\chi^{2}(2, N=274)=31.68$ $(p<.01), R M S E A=.24, C F I=.98$, and $S R M R=.02$. An error covariance was added between the first and second items. These two items asked how much one would try to let one's partner know more about the matter (item one for transgressors), and how much one would try to give one's partner all the details of the matter (item two for transgressors). Knowing more about a matter involves giving more details, so the covariance was reasonable given that the two questions share a similar wording. As a result, model fit improved to $\chi^{2}(1, N=274)=0.01(p>.05), R M S E A=.00, C F I=1.00$, and $S R M R=.00$.

Finally, the eristic dialogue orientation was measured with seven items. The first item, which asked how much one would try to just get the matter over with for now, was problematic. Cronbach' alpha analysis indicated the scale's reliability would increase if this item were dropped. The principal components analysis indicated this item loaded highly (.66) on a different component from the other six items. Finally, the confirmatory
factor analysis indicated that the percentage of explained variance for this item was $3.5 \%$, suggesting the latent factor explain very little variance in this item. Also, initial model fit was not good, $\chi^{2}(14, N=274)=96.92(p<.01)$, RMSEA $=.15, C F I=.92$, and $S R M R=$ .08. Therefore, this item was dropped from further analyses.

The revised eristic dialogue orientation scale, with six items, was unidimensional according to the principal components analysis results, and was subjected to a new confirmatory factor analysis. The data fit the model better, $\chi^{2}(9, N=274)=74.72(p<$ $.01), R M S E A=.16, C F I=.93$, and $S R M R=.08$, but fit indices were still not within acceptable parameters. An error covariance between the third and fifth items was added. Item three asked about how much one would try to vent about the situation, whereas item five asked how much one would try to let all one's feelings out. Venting and letting it all out are somewhat similar ideas, so the covariance seems reasonable. The modification improved model fit to $\chi^{2}(7, N=274)=8.33(p>.05), R M S E A=.03, C F I=1.00$, and $S R M R=.03$.

A model with all four dialogue orientations (i.e., four factors allowed to covary) was tested to assess potential overlap between the four dialogue types. Table 5 presents the latent factors zero-order correlations. ${ }^{3}$ The initial model fit was not good, $\chi^{2}$ (203, $N=$ $274)=1,018.99(p<.01), R M S E A=.13, C F I=.94$, and $S R M R=.13$. The error covariances permitted for each individual scale were added. In addition, one more error covariance between the first and third items in the negotiation dialogue orientation scale was added (see Appendix H for the LISREL syntax). Item one asked how much one

[^4]would try to reach a compromise, whereas item three asked how much one would try to come up with an agreement that both partners could live with. Reaching a satisfactory agreement and reaching a compromise are similar concepts. As a result of freeing this error covariance, model fit improved to $\chi^{2}(196, N=274)=692.96(p<.01), R M S E A=$ $.09, C F I=.97$, and $S R M R=.13$. Although neither the $R M S E A$ nor the $S R M R$ values were within acceptable values, the chi-square difference between the revised model and the initial model was significant, $p<.01$.

Table 5
Study 1 Latent Dialogue Orientations Zero-Order Correlations

|  | PDO | NDO | ISDO | EDO |
| :--- | :--- | :--- | :--- | :--- |
| PDO | 1.00 |  |  |  |
| NDO | $.79^{* *}$ | 1.00 |  |  |
| ISDO | $.65^{* *}$ | $.80^{* *}$ | 1.00 |  |
| EDO | $.25^{* *}$ | .01 | .06 | 1.00 |

** $p<.01$.
Note. $\mathrm{PDO}=$ persuasive dialogue orientation, $\mathrm{NDO}=$ negotiation dialogue orientation, $\mathrm{ISDO}=$ information-seeking dialogue orientation, and EDO $=$ eristic dialogue orientation.

The resolvability scale's six items were retained in the scale's original form. According to the principal components analysis, all items loaded on one component, indicating unidimensionality. Model fit, as indicated by the confirmatory factor analysis, was initially not good, $\chi^{2}(9, N=274)=140.52(p<.01), R M S E A=.23, C F I=.94$, and $S R M R=.05$, but improved once three error covariances were added: between the first and third items, the fifth and sixth items, and the second and fourth items. All these error covariances were justified given the wording of the items. Item one asked about one's confidence in being able to remedy the situation, whereas item three asked about one's confidence in being able to resolve the situation. Item five asked about one's confidence in working through the situation with one's partner, whereas item six asked about one's confidence in being able to get through the situation with one's partner. Finally, item two asked about one's confidence in agreeing on the matter, whereas item four asked about one's confidence in finding a really good solution. The revised model fit was $\chi^{2}(6, N=$ $274)=18.74(p<.05), R M S E A=.09, C F I=.98$, and $S R M R=.02$, which satisfies two of the three fit criteria and is a significant improvement in the overall model chi-square ( $p<$ .01).

All seven items in the satisfaction scale were retained. According to the principal components analysis, the scale was unidimensional. According to the confirmatory factor analysis, initial model fit was not good, $\chi^{2}(14, N=274)=501.83(p<.01)$, RMSEA $=$ $.38, C F I=.85$, and $S R M R=.09$. Several error covariances were permitted, some of them not suggested by modification indices, but reasonable from a theoretical standpoint: between items one and two, between items one and three, between items two and three, between items four and five, and between items six and seven. These pairs of items share
similar wording, which makes the error covariances justifiable as an underlying measurement factor could be responsible for the significant covariance. Items asked one to evaluate how satisfied one would be (item one), how happy one would be (item two), how good one would feel (item three) if one managed the transgression as previously indicated in the questionnaire. Similarly, item six asked how much stronger one's relationship would be, whereas item seven asked how much better one's relationship would be. Model fit improved after these revisions to $\chi^{2}(9, N=274)=39.19(p<.01)$, $R M S E A=.11, C F I=.99$, and $S R M R=.02$, which satisfies two of the three fit criteria and decreases the model chi-square significantly ( $p<.01$ ).

The expectancy violation scale was measured with five items, and this scale was revised. Item four (which measured the extent to which a person's behavior or a partner's behavior was normal for the relationship), and item five (which measured the extent to which a person's behavior or a partner's behavior was appropriate) were problematic. Based on Cronbach's alpha analysis, the scale's reliability would increase if these two items were eliminated. The principal components analysis indicated these two items loaded higher on a second component than the other three items (loading of .69 for item four and .82 for item five). In the confirmatory factor analysis, initial model fit was not acceptable, $\chi^{2}(5, N=274)=92.79(p<.01), R M S E A=.23, C F I=.89$, and $S R M R=.12$, and the percentage of variance explained by the expectancy factor for the fourth and fifth items was very low, $12 \%$ for item four and $3 \%$ for item five. It was, therefore, decided to drop these items; their wording also suggested a different dimension than the one assessed by the other three items. The revised model could not be evaluated given that, with three indicators, it was a just-identified model.

The five items in the scale measuring relational quality were also assessed. The scale was unidimensional according to the principal components analysis. According to the confirmatory factor analysis, initial model fit was not good, $\chi^{2}(5, N=274)=108.78$ $(p<.01), R M S E A=.28, C F I=.94$, and $S R M R=.04$, but improved once three error covariances were added: between the first and third items, the first and second items, and the second and third items. The first item asked how good one's relationship was, the second item asked how stable one's relationship was, and the third item asked how strong one's relationship was. These are similar words people use to describe a satisfying relationship. The revised model fit was $\chi^{2}(2, N=274)=6.24(p>.01), R M S E A=.09$, $C F I=1.00$, and $S R M R=.01$. Although the $R M S E A$ is above the cutoff value, the other indices are within acceptable values and the chi-square difference between the revised model and the initial model is significant ( $p<.01$ ).

Finally, a measurement model with attributions, goals, dialogue orientations, resolvability, satisfaction, and relational quality, all allowed to covary, was tested. Expectancy violation was not included in this model because it was not part of the theoretical causal model to be tested in the main studies; it simply served as a control variable to ensure the behaviors portrayed in the scenarios constituted relational transgressions. The LISREL syntax for the model is presented in Appendix I.

The initial model fit was not very good, $\chi^{2}(3,023, N=274)=7,971.55(p<.01)$, $R M S E A=.08, C F I=.95$, and $S R M R=.09$. None of the theoretically justified modifications would have reduced the RMSEA and SRMR indices values to acceptable values. So they were not implemented. Given the large number of variables and indicators, the fit indices are, nevertheless, relatively acceptable and this model offers
some support for the factor structures as conceptualized. Table 6 presents the zero-order correlations among all latent variables.
Table 6
Study 1 Relational Quality, Attributions, Goals, Dialogue Orientations, and Outcome Measures Zero-Order Correlations

|  | RELQ | IA | EA | NEG | DOM | POS | SPF | SNF | OPF | ONF | REL | PDO | NDO | ISDO | EDO | RES | SAT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RELQ | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IA | . 03 | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EA | .26** | . 32 ** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NEG | . 07 | .34** | . 25 ** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DOM | -. 10 | .25** | . 10 | .59** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |
| POS | .44** | . 07 | . 38 ** | . 06 | -.29** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |
| SPF | .29** | . 08 | . 30 ** | . 13 | -. 10 | .59** | 1.00 |  |  |  |  |  |  |  |  |  |  |
| SNF | . 07 | . $38^{* *}$ | .36** | .44** | .29** | .39** | . 67 ** | 1.00 |  |  |  |  |  |  |  |  |  |
| OPF | . $44 * *$ | . 04 | . $36 * *$ | . 11 | .25** | .93** | . 66 ** | .40** | 1.00 |  |  |  |  |  |  |  |  |
| ONF | . $45^{* *}$ | .14* | . 28 ** | . 11 | -.23** | .70** | . 59 ** | .49** | .70** | 1.00 |  |  |  |  |  |  |  |
| REL | . $44 * *$ | .13* | . 38 ** | .15** | -.21** | .86** | .66** | .46** | .70** | .69** | 1.00 |  |  |  |  |  |  |
| PDO | .29** | . 33 ** | . $47^{* *}$ | .44** | . 05 | .47** | . 63 ** | .61** | .49** | .52** | . $57 * *$ | 1.00 |  |  |  |  |  |
| NDO | .40** | .15** | . $41^{* *}$ | .21** | -. 12 | .67** | .63** | .45** | .65** | .66** | .68** | .75** | 1.00 |  |  |  |  |
| ISDO | . 33 ** | .21** | . 32 ** | .20** | -. 05 | .51** | .49** | .40** | .53** | .54** | .54** | .65** | .78** | 1.00 |  |  |  |
| EDO | -. 01 | .24** | . 13 | .64** | .73** | -.14* | -. 03 | .25** | -.14* | -. 06 | -. 07 | .30** | . 05 | . 10 | 1.00 |  |  |
| RES | . 51 ** | .19** | . 43 ** | .14** | -. 13 | .63** | .52** | .51* | .62** | .64** | .67** | .52** | .63** | .53** | -. 10 | 1.00 |  |
| SAT | . $36 * *$ | .15** | .27** | .16** | -. 08 | .40** | .39** | .47** | . 39 ** | .57** | . 45 ** | . 50 ** | . 61 ** | .48** | . 00 | .75** | 1.00 |

$* p<.05$.
$* * p<.01$.
Note. RELQ = participants' relational quality, IA = internal attributions, EA = external attributions, NEG = perceived importance of negative feelings, DOM = perceived importance of dominance, $\mathrm{POS}=$ perceived importance of positive feelings, $\mathrm{SPF}=$ perceived importance of self-positive face, $\mathrm{SNF}=$ perceived importance of self-negative face, $\mathrm{OPF}=$ perceived importance of other-positive face, $\mathrm{ONF}=$ perceived importance of other-negative face, $\mathrm{REL}=$ perceived importance of relationship-oriented goals, $\mathrm{PDO}=$ persuasive dialogue orientation, $\mathrm{NDO}=$ negotiation dialogue orientation, $\mathrm{ISDO}=$ information-seeking dialogue orientation, $\mathrm{EDO}=$ eristic dialogue orientation, RES = perceived resolvability of the situation, and SAT = satisfaction with the transgression's management.

The confirmatory factor analyses, corroborated with Cronbach reliability analyses, and the principal components analyses indicated that the most scales were reliable. It was decided that the two problematic items measuring external attributions (items four and six) would be reworded. The two problematic items measuring expectancy violations (items four and five) would also be reworded and three items measuring the valence of the violation would be added. All other items previously dropped during confirmatory factor analyses would be excluded from future scales.

Model comparisons. In addition to assessing the individual scales' factor structure, Study 1 investigated whether the eight goals model could be reduced to a more parsimonious structure in which some of the factors would be combined. This analysis involved several model comparisons.

The first model comparison concerned the structure of the negative feelings and dominance items. It is feasible that these factors may be reflective of a single factor that captures negativity in interaction given that they were moderately correlated $(r=.59)$. A model with these two factors allowed to covary (Model 1) was compared with an alternate one-factor model with nine indicators (Model 2). Neither model had acceptable fit initially, $\chi^{2}(26, N=274)=165.68(p<.01), R M S E A=.14, C F I=.95$, and $S R M R=$ .17 for Model 1, and $\chi^{2}(27, N=274)=612.80(p<.01), R M S E A=.34, C F I=.80$, and $S R M R=.15$ for Model 2. The same modifications used in the individual scales' analysis were implemented (permitting two error covariances between items in the dominance scale). As a result, Model 1's fit became $\chi^{2}(24, N=274)=87.44(p<.01), R M S E A=$ $.10, C F I=.98$, and $S R M R=.05$, and Model 2's fit became $\chi^{2}(25, N=274)=295.76(p<$ $.01), R M S E A=.21, C F I=.91$, and $S R M R=.14$. Based on Hu and Bentler's (1999)
criteria, the data fit Model 1 better, satisfying two of the three criteria.
To compare these two models further, the AIC index was used. According to Brown (2006), this index is preferable for comparing nonnested models and even nested models that fix a parameter (such as the correlation between two factors) to one. The model with the minimum AIC should be preferred when deciding between competing models (Brown, 2006). Model 1's $A I C=134.20$, whereas Model 2 's $A I C=366.93$. Therefore, Model 1 has a better fit.

Burnham and Anderson (2004) cautioned that individual AIC values should not be interpreted by themselves because the index is affected by sample size. They proposed analyzing the $A I C$ difference between competing models. For a model $i$, if $\Delta_{A I C} \leq 2$, the model has substantial support, if $4 \leq \Delta_{A I C} \leq 7$, the model has considerably less support, and if $\Delta_{A C C} \geq 10$, the model has no support. Based on these criteria, the difference between Model 2 AIC and Model 1 AIC is 232.73, which indicates that Model 2 (dominance and negative feelings as one factor) has no support. Based on all these results, it is concluded data supports Model 1 , two factors for negative feelings and dominance, best.

Second, the results regarding the structure of face concerns were explored further.
Model 1 consisted of the initial solution with four face factors allowed to covary. A solution with fewer factors would be more parsimonious, so two alternate models were tested: one in which self-positive and self-negative face concerns were conceptualized as one factor and other-positive and other-negative concerns as a second factor, with the two factors allowed to covary (Model 2), and a second solution with one overall face factor with twelve indicators (Model 3).

The data did not fit any of the models well initially $\chi^{2}(48, N=274)=248.77(p<$ $.01), R M S E A=.13, C F I=.93$, and $S R M R=.08$ for Model 1; $\chi^{2}(53, N=274)=420.68$ $(p<.01), R M S E A=.18, C F I=.88$, and $S R M R=.10$ for Model 2 ; and $\chi^{2}(54, N=274)=$ $597.72(p<.01), R M S E A=.20, C F I=.82$, and $S R M R=.10$ for Model 3.

Modifications were permitted as follows. For Model 1 and Model 2, four error covariances were permitted: between items one and two in the self-positive face concerns scale (assessing the importance of not damaging partner's impression of one and the importance of making sure one's partner still thought highly of one), between items two and three in the self-positive face scale (item three assessed the importance of making sure one's partner still respected one), between items one and two in the self-negative face scale (assessing the importance of not appearing weak in front of one's partner and the importance of not putting one's self at the mercy of one's partner), and between items one and two in the other-positive face scale (assessing the importance of letting one's partner know one still respected him or her and the importance of letting one's partner know one still thought highly of him or her). For Model 3, an error covariance was added (in addition to the previously mentioned four) between the first and third items in the other-negative face scale (assessing the importance of leaving one's partner a choice and the importance of making sure one's partner could make his or her own decisions).

As a result of these modifications, model fit improved for all three models. Model 1's fit became $\chi^{2}(44, N=274)=160.07(p<.001), R M S E A=.10, C F I=.96$, and $S R M R$ $=.06$. Model 2's fit became $\chi^{2}(49, N=274)=215.30(p<.01), R M S E A=.11, C F I=$ .95 , and $S R M R=.07$. Finally, Model 3's fit became $\chi^{2}(49, N=274)=247.21(p<.01)$, $R M S E A=.12, C F I=.94$, and $S R M R=.07$. Model 1 has the lowest $A I C$, so it ought to be
preferred. The difference between Model 2 and Model 1 was 37.36 , indicating Model 2 has no support according to the criterion set forth by Burnham and Anderson (2004). Similarly, the difference between Model 3 and Model 1 was 76.70, also indicating Model 3 has no support for being a viable alternative to Model 1. In conclusion, the data fit best the factor structure with four separate face concerns.

Finally, a third comparison pertained to the positive feelings and relational concerns factors. The question was whether these two factors could be combined into one factor that reflected an allocentric concern for the other person and the relationship. Two models were compared: Model 1 with positive feelings and relationship-oriented goals as two factors allowed to covary, and Model 2, a one-factor structure with ten indicators. Model 1's fit was $\chi^{2}(34, N=274)=233.15(p<.01), R M S E A=.15, C F I=.96$, and $S R M R=.05$, whereas Model 2's fit was $\chi^{2}(35, N=274)=433.93,(p<.01), R M S E A=$ $.23, C F I=.93$, and $S R M R=.07$. Model 1 satisfied two of Hu and Bentler's (1999) fit criteria whereas Model 2 satisfied only one.

Modifications were permitted as follows. For Model 1, three error covariances were allowed to be free in the scale measuring perceived importance of positive feelings: between items one and two (this error covariance was permitted in the confirmatory factor analysis as well), between items one and three (item one asked how important it would be to express positive feelings, whereas item three asked how important it would be to show that one cared about one's partner), and between items two and three (item two asked how important it would be to show support for one's partner). For Model 2, an additional error covariance was allowed to be free between items three and four (which asked how important it was to show love for one's partner) in the same scale.

As a result, model fit improved to $\chi^{2}(31, N=274)=97.75(p<.001)$, RMSEA $=$ $.09, C F I=.99, S R M R=.03$, and $A I C=140.61$ for Model 1 and to $\chi^{2}(31, N=274)=$ $165.14(p<.01), R M S E A=.13, C F I=.97, S R M R=.05, A I C=216.04$ for Model 2. The difference in AIC between Model 2 and Model 1 was 75.43, and above the value proposed by Burnham and Anderson for feasible alternate models. Thus, the data fit best the two-factor structure with positive feelings and relationship-oriented goals as two distinct factors permitted to covary.

The overall model comparisons found that data did not support any alternate factor structures in which the eight goals would be reduced to fewer goals. The initial conceptualization of eight goals should be used in the current research main studies.

Scenario revisions. In addition to assessing scales, Study 1 pilot-tested scenarios to be used in the main studies. The goal was to create realistic scenarios that participants could imagine themselves in, so participants were asked to assess the realism of each scenario. The first realism scale item asked participants to indicate whether they were able to imagine themselves in the situation. Participants responded based on the same magnitude scales used for all other continuous variables $(0=$ not at all, $100=$ a moderate amount, and any number from zero on up could be used for a response). Winsorized data (responses capped at the $95^{\text {th }}$ percentile, the value of 1,000 in this case) from 268 participants were analyzed. Responses ranged from 0 to 1,000 , with $M=237.84, M d n=$ 120.00 , and $S D=266.54$, suggesting a slightly more than moderate ability to imagine the situation happened in their romantic relationship.

An open-ended question asked participants for suggestions to increase the realism of the scenarios. Approximately half of the respondents indicated that they would not
change anything about the scenario they were assigned to because it already seemed realistic. Realism items two (measuring the extent to which the scenario reflected a situation that could happen in life), $M=402.26, M d n=200.00, S D=495.49$, and realism item three (measuring the extent to which the scenario reflected a credible situation), $M=$ 417.99, $M d n=200.00, S D=571.50$, supported the conclusion that these scenarios reflected a situation that could happen in the lives of the participants and, therefore, they reflected a credible situation.

The remaining participants had various suggestions to improve the scenarios, with different degrees of usefulness. Several respondents suggested replacing the magnitude scales with "a better scale system," such as a scale from $0-100$, in order to be more precise and to make the scale easier to use. Other respondents indicated that the questions were very similar and repetitive.

Finally, concrete suggestions about how to improve the scenarios included being more specific about each of the situations and including more details about the context (e.g., in the broken promises scenarios specify what work prevented the partner from keeping his or her promise). Participants also suggested making the situations more relatable to a college age audience (e.g., not every college student can identify with a work situation because not every student has a job and not all college students live together, so they don't come home in the evening to their significant other), making the event in the broken promises scenario a more important one, and changing the alternate activity for which plans are cancelled to a more enjoyable activity because most people would understand that sometimes work has to take precedence over family commitments. These suggestions were useful and were used to generate revised scenarios for the main
studies.

## Study 2 and Study 3: Relational transgressions in romantic relationships.

Two experiments were conducted to test the relational transgression model proposed. Two different samples were employed: for Study 2, undergraduate students who were currently in a romantic relationship, and for Study 3, married individuals mostly over 30 years of age. Except the number of manipulations included, the procedure for the two studies was similar. The instruments used were identical.

Study 2 participants. Participants in the study were 437 undergraduate students at a large South Atlantic university. Four hundred and seven participants indicated their age, which ranged from 18 to 33 years $(M=19.89, M d n=20.00, S D=1.67)$. One hundred and sixty four participants were male, 272 were female, and one participant did not answer this question. The vast majority of respondents were White ( $n=300$ ), whereas the other ethnicities in the study were Black or African-American ( $n=53$ ), Asian ( $n=$ 41), Hispanic or Latino/Latina ( $n=17$ ), Native Hawaiian or other Pacific Islander ( $n=$ 1). Some participants reported that their ethnicity was a combination of the other ethnicities $(n=17)$, that it was some other ethnicity $(n=6)$, or they did not indicate their ethnicity $(n=2)$. Participants' class standing was as follows: 76 were freshmen, 145 were sophomores, 115 were juniors, 94 were seniors, four participants indicated some other class standing, and three did not answer this question.

Additional demographic data collected from participants indicated that most of them lived in an urban environment $(n=339)$, came from families of four $(n=156)$ or five $(n=113)$, had some college education $(n=334)$, made less than $\$ 20,000$ a year ( $n=$ 279), and did not have any children $(n=432)$. Most of them engaged in intellectual labor
on a daily basis ( $n=299$ ), came in contact with other people almost all the time ( $n=$ 277); some didn't argue with others very often $(n=202)$, whereas others did so often ( $n=$ 151). Most of them did not supervise other people very often $(n=255)$ but had to make decisions often $(n=130)$, very often $(n=164)$, or almost all the time $(n=123)$. Some of them had to deal with conflicts often $(n=183)$ whereas others didn't have to do so often ( $n=153$ ). See Appendix $\mathbf{J}$ for the demographic information questions.

Finally, most participants were in a heterosexual relationship ( $n=430$ ) and only a small number of them were in a homosexual relationship ( $n=7$ ). Participants indicated that they were casually dating $(n=102)$, exclusively dating $(n=108)$, that they were committed $(n=109)$ or seriously committed $(n=112)$, engaged $(n=1)$, married $(n=3)$, and in a civil union or partnership $(n=2)$. These relationships ranged in duration from one to 4,382 days (approximately twelve years, $M=521.87$ days or approximately 1.43 years, $M d n=365.24$ days or approximately one year, $S D=509.10$ days or approximately 1.40 years). Thus, Sample 1 is a younger sample composed mostly of dating undergraduate students in heterosexual relationships of about one year.

Study 3 participants. Participants in this study were 276 married individuals from across the United States. Two hundred and thirty four participants indicated their age, which ranged from 25 to 78 years $(M=40.22, M d n=37.00, S D=9.60)$. Sixty-one participants were male, 214 were female, and one participant preferred not to answer this question. Similar to Study 2, most participants were White ( $n=230$ ); the remaining participants identified themselves as Asian $(n=20)$, Black or African-American $(n=4)$, Hispanic or Latino/Latina ( $n=3$ ), American Indian or Alaska native ( $n=2$ ), Native Hawaiian or other Pacific Islander $(n=1)$, a combination of the other ethnicities $(n=11)$,
some other ethnicity $(n=4)$, and one participant preferred not to answer this question.
Participants listed their occupation as an open-ended response. A coding scheme with seven categories was developed based on their responses and the United States Census Bureau Industry and Occupation (2010) classification. Two undergraduate research assistants coded the occupations participants listed into one of the six categories of the coding scheme. Intercoder reliability, assessed based on Cohen's kappa, was .75, indicating substantive agreement (Landis \& Koch, 1977). Disagreements were resolved through discussion.

Based on this coding scheme, participants' occupation was in one of the following domains: education and intellectual labor $(n=133)$; legal, legislative, and policy work ( $n$ $=31$ ); administration, management, and financial operations $(n=30)$; and healthcare ( $n=$ 15). Twenty participants identified themselves as homemakers, 33 of them indicated another profession such as minister, mapping technician, mechanical engineer, graphic and Web designer, and fourteen participants did not indicate their occupation. The coding scheme is included in Appendix K.

Participants in Study 3 also indicated the region (as classified by the United States Census Bureau, n. d.) in which they lived. One hundred and ten participants lived in the South Atlantic region (Delaware, D.C., Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia), 57 lived in the East North Central region (Indiana, Illinois, Michigan, Ohio, and Wisconsin), 24 in the Middle Atlantic region (New Jersey, New York, and Pennsylvania), 21 in the Mountain region (Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, and Wyoming, 18 lived in the Pacific region (Alaska, California, Hawaii, Oregon, and Washington), 13 in the West

North Central region (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota), 12 in the West South Central region (Arkansas, Louisiana, Oklahoma, and Texas), eight in the New England region (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont), seven in the East South Central region (Alabama, Kentucky, Mississippi, and Tennessee), and six participants indicated another geographical location.

The supplemental demographic information revealed that most participants lived in an urban environment $(n=222)$; came from families of four $(n=82)$; had either a master's degree $(n=99)$ or a doctoral degree $(n=97)$; and most of them had children ( $n$ $=199)$. Participants' total annual income varied across several categories: $19 \%$ of participants had a total annual income over $\$ 140,000(n=53)$, about $18 \%$ of them indicated their annual income was between $\$ 60,000$ and $\$ 79,999(n=49), 12 \%$ of them indicated income between $\$ 80,000$ and $\$ 99,999(n=33), 11 \%$ reported income between $\$ 100,000$ and $\$ 119,999(n=30)$, and $11 \%$ indicated their annual income was between $\$ 40,000$ and $\$ 59,999(n=10.5)$. Fifty-six other participants indicated income in the other categories and 26 participants chose not to answer this question.

Most participants engaged in intellectual labor on a daily basis ( $n=229$ ); came in contact with other people almost all the time $(n=136)$ or very often $(n=76)$; made decisions almost all the time $(n=112)$ or very often $(n=91)$; and some dealt with conflict often $(n=92)$, whereas others did not do so very often $(n=101)$. The frequency of arguing with others was distributed relatively equally around the midpoints of the scale: 99 participants indicated they argued with others often, 68 indicated they did not argue very often, and 63 indicated they argued very often. In respect to supervising
others, 72 participants indicated they did not do so very often, and 69 indicated that they supervised others often.

Most participants were in a heterosexual relationship ( $n=263$ ), a small number of them were in a homosexual relationship $(n=9)$, some preferred not to answer the question ( $n=2$ ), and two participants did not answer the question. Most participants were married ( $n=270$ ) or in a civil union or partnership ( $n=2$ ); one was seriously committed, another was engaged, and two participants did not indicate their relationship status. Their relationships ranged from 593.32 days (approximately 1.63 years) to 21,914.40 days (approximately 60 years), $M=5,257.12$ days or approximately 14.40 years, $M d n=$ $4,382.88$ days or approximately twelve years, $S D=3,616.40$ days or approximately 9.90 years. Thus, Sample 2 is an older sample composed of mostly married individuals who work mostly in an educational environment, live mostly in the South Atlantic region, and are in a heterosexual relationship of about twelve years' duration.

Procedure. Participants in Study 2 were recruited from undergraduate Communication courses and received extra credit for their participation in the study. Participants in Study 3 were recruited via a snowball sample. Information about the study was sent to acquaintances, friends, and colleagues who forwarded the message to their personal and professional networks and special interest groups. A message about the study was also sent to the National Communication Association listserv (CRTNet.org). Participants were eligible to enter a raffle for one of ten $\$ 75$ prizes randomly selected at the conclusion of data collection.

All participants completed a version of the questionnaire online. Study 2 contained eight experimental conditions: 2 (Transgression type: broken promises vs.
insensitivity) x 2 (Frequency of the transgressive behavior: happened several times before vs. no recollection of a similar incident having occurred before) x 2 (Role: victim vs. transgressor). Study 3 contained four experimental conditions: only one of the transgressions from Study 2 was studied (broken promises), and the role and the frequency of the transgressive behavior were manipulated exactly as they had been in Study 2.

All participants read an informed consent form and agreed to participate by click a radio button, answered affirmatively to the question of whether they were in a romantic relationship at the moment (or they were otherwise not able to continue completing the questionnaire), and provided demographic information. Participants were then assigned to the experimental conditions based on the same procedure used in Study 1. For participants in Study 2, four 15-minute intervals were created to generate the transgression type by frequency conditions. Participants then clicked a button corresponding to the last digit of their university ID number to be assigned to one of the two role conditions. For participants in Study 3, two 30-minute intervals were created, and then participants were instructed to click a button that corresponded to the last digit of their social security number to be assigned to the role manipulation condition.

After being assigned to their experimental condition, participants were trained to use the measurement scale. Participants were given the same instructions as for Study 1 and completed two training questions. Participants in Study 2 answered practice questions about exams and food on campus, whereas participants in Study 3 answered practice questions about fast food and spending the winter holidays with their families. A copy of these questions is included in Appendix J.

Similar to Study 1, participants were then asked three test questions that assessed their ability to use magnitude scales (see Appendix J). The first question asked them to indicate what the lowest number they could use was (correct answer was zero), the second question asked them what number they would use to indicate a moderate amount (the correct number was 100), and the third question asked them whether they could use a number such as 245 to answer a question in the study (the correct answer was yes). Participants were not allowed to proceed to the next question unless they answered the first two questions correctly (i.e., an incorrect answer message appeared on the screen). For the third question, an incorrect answer brought participants back to it and they were only allowed to proceed when they answered the question correctly.

After the training, participants provided information about their romantic relationship. The information required was the same as in Study 1: the type of relationship, the approximate length of the relationship, a description of their relationship, and the quality of their relationship. Refer to Appendix J for a copy of these questions.

Participants in both studies and in every experimental condition read a hypothetical scenario and then answered questions about it. All scenarios and questions are included in Appendix J. The variables of interest were the same as in Study 1 with the exception of three questions added to assess the violation's valence.

Instruments. The scales employed to assess the variables of interest in both studies were similar to the ones used in Study 1, with a few exceptions. The expectancy violation scale was revised: Items four and five were reworded. The new items asked participants to assess the extent to which their behavior or their partner's behavior was unforeseen and unanticipated. In addition, three items were added to assess the valence of
the violation. These items asked participants to indicate the extent to which their behavior or their partner's behavior was unpleasant, whether they or their partner has behaved in an undesirable manner in the situation, and whether their behavior or their partner's behavior was a violation of the expectations the other person had of the participant. The new measure was entitled violation assessment.

Revisions were also made to the external attributions scale in which items two and four were reworded. The new items asked participants to indicate the extent to which other people caused the situation and the extent to which the matter was due to the circumstances in which one or one's partner was. A copy of all the scales is provided in Appendix J.

In addition, six questions meant to check whether the manipulation of role, frequency, and transgression type were successful were added. Participants indicated the extent to which they or their partners engaged in the transgression, whether the transgression had occurred before, and whether they or their partners were the main actors in the scenario. These questions are also included in Appendix J.

Cronbach alphas were calculated for all multi-item scales. Alphas based on the first principal component were also calculated. In addition, the coefficient $H$, which assesses the construct reliability of a latent variable, was calculated for the variables to be used in the structural equation model. The formula for this coefficient is

$$
H=1 /\left[1+\frac{1}{\frac{l_{1}^{2}}{\left(1-l_{1}^{2}\right)}+\ldots+\frac{l_{i}^{2}}{\left(1-l_{i}^{2}\right)}}\right],
$$

where $l_{\mathrm{i}}$ is the standardized loading of the $i$-th indicator of a latent variable (Hancock \&

Mueller, 2001). Results for these analyses are presented in Table 7.

Table 7
Study 2 and Study 3 Reliability Scores

|  | No. of <br> items | $N$ | Coefficient <br> $H 1^{a}$ |  | Coefficient <br> $H^{b}$ | Cronbach’s <br> $\mathrm{c}^{\mathrm{c}}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Internal attributions | 6 | 713 | .97 | .97 | .94 | .94 |
| Alpha $^{\text {d }}$ |  |  |  |  |  |  |

Note. All reliabilities were calculated using the transformed indicators.
${ }^{\mathrm{a}} \mathrm{Hl}$ is the latent variable reliability (coefficient $H$ ) calculated based on standardized loadings in the initial model.
${ }^{\text {b }} \mathrm{H} 2$ is the latent variable reliability (coefficient $H$ ) calculated based on standardized loadings in the modified model (with modification indices implemented).
${ }^{c} \alpha$ is the scale reliability (Cronbach alpha).
${ }^{\mathrm{d}} \mathrm{PC}$ is the scale alpha calculated based on the eigenvalue of the first principal component.

## CHAPTER IV

## Results

Data from Study 2 and Study 3 were combined to test the current research hypotheses and to answer the research questions advanced. The variable "sample type" was added to differentiate between the two data sets in analyses. All analyses for Study 2 and Study 3 were conducted using IBM SPSS Statistics 19 and LISREL 8.80 (Jöreskog \& Sörbom, 2007) software.

## Data Preparation

Similar to Study 1, data were initially winsorized to reduce the effect of outliers. Table 8 presents the minimum and maximum value for each sample, prior to winsorization. Responses over the value of 1,000 for any indicator variable and the manipulation check variables were reduced to this value. The percentile for each variable that corresponds to this value is also indicated in Table 8.

Also similar to Study 1, data were transformed to reduce the effect of skewness and kurtosis following the same transformation equation $Y^{*}=(Y+k)^{(\lambda)}$ (Fink, 2009). The same transformation was employed for all indicators, with $k=0$ and $\lambda=0.30$, to reduce skewness and kurtosis to acceptable values. Table 9 presents the pre- and posttransformation statistics.

Missing data appeared only for variables assessing the realism of the scenarios ( $n$ $=2)$ and for the manipulation checks $(n=4)$. Given that these variables were not used in the structural equation model, data were not modified to adjust for the missing values.
Table 8
Study 2 and 3 Minimum and Maximum Values Pre-Winsorization and Percentile for the Winsorized Maximum Value of 1,000

| Variable | Sample 1 <br> minimum | Sample 1 maximum | Sample 2 <br> minimum | Sample 2 maximum | Sample 1 <br> percentile | Sample 2 <br> percentile | Sample 1 <br> and 2 <br> percentile |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IA1 | 0 | 999999999 | 0 | 2147483647 | 98.4 | 89.1 | 94.8 |
| IA2 | 0 | 99999999 | 0 | 2147483647 | 98.2 | 88 | 94.2 |
| IA3 | 0 | 99999999 | 0 | 2147483647 | 98.9 | 88 | 94.7 |
| IA4 | 0 | 999999999 | 0 | 2000000000 | 98.4 | 88.8 | 94.7 |
| IA5 | 0 | 99999999 | 0 | 2000000000 | 98.9 | 90.9 | 95.8 |
| IA6 | 0 | 99999999 | 0 | 2147483647 | 97.3 | 81.2 | 91 |
| EA1 | 0 | 999999999 | 0 | 2147483647 | 99.1 | 92 | 96.4 |
| EA2 | 0 | 99999999 | 0 | 2147483647 | 97.9 | 91.3 | 95.4 |
| EA3 | 0 | 9000000 | 0 | 1000000000 | 98.2 | 94.2 | 96.6 |
| EA4 | 0 | 99999999 | 0 | 1000000 | 98.9 | 98.9 | 98.9 |
| EA5 | 0 | 999999999 | 0 | 2000000000 | 98.6 | 97.1 | 98 |
| EA6 | 0 | 99999999 | 0 | 2000000000 | 98.9 | 96 | 97.8 |
| NEG1 | 0 | 99999999 | 0 | 2000000000 | 98.4 | 96.4 | 97.6 |
| NEG2 | 0 | 100000 | 0 | 1000000 | 99.1 | 97.8 | 98.6 |
| NEG3 | 0 | 100000 | 0 | 2000000000 | 98.4 | 96.7 | 97.8 |
| NEG4 | 0 | 100000 | 0 | 2000000000 | 98.6 | 96.7 | 97.9 |
| DOM1 | 0 | 69696969 | 0 | 5000 | 99.3 | $>100$ | 99.4 |
| DOM2 | 0 | 99999999 | 0 | 5000 | 99.3 | 99.6 | 99.4 |
| DOM3 | 0 | 1000 | 0 | 5000 | 99.8 | $>100$ | 99.6 |
| DOM4 | 0 | 1000 | 0 | 500 | 100 | $>100$ | 100 |
| DOM5 | 0 | 123456789 | 0 | 1000 | 100 | 100 | 100 |
| SPF1 | 0 | 0 | 0000000 | 97.9 | 94.2 | 96.5 |  |
| SPF2 | 0 | 100000000 | 0 | 2000000000 | 96.8 | 91.3 | 94.7 |


| Variable | Sample 1 <br> minimum | Sample 1 maximum | Sample 2 <br> minimum | Sample 2 maximum | Sample 1 <br> percentile | Sample 2 <br> percentile | Sample 1 <br> and 2 <br> percentile |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SPF3 | 0 | 999999999 | 0 | 2000000000 | 94.7 | 88.4 | 92.3 |
| SNF1 | 0 | 9000000 | 0 | 1000000 | 98.4 | 97.5 | 98 |
| SNF2 | 0 | 1000000000 | 0 | 50100100 | 97.9 | 95.3 | 96.9 |
| SNF3 | 0 | 1000000000 | 0 | 2000000000 | 96.1 | 91.7 | 94.4 |
| POS1 | 0 | 99999999 | 0 | 2000000000 | 96.1 | 89.1 | 93.4 |
| POS2 | 0 | 902384908 | 0 | 2000000000 | 95.9 | 89.1 | 93.3 |
| POS3 | 0 | 219307539 | 0 | 2147483647 | 93.1 | 84.1 | 89.6 |
| POS4 | 0 | 1000000000 | 0 | 2147483647 | 92.9 | 83.7 | 89.3 |
| POS5 | 0 | 1000000000 | 0 | 1000000000 | 95 | 97.9 |  |
| OPF1 | 0 | 123456789 | 0 | 2147483647 | 94.3 | 85.1 | 90.7 |
| OPF2 | 0 | 123456789 | 0 | 2147483647 | 94.3 | 86.2 | 91.2 |
| OPF3 | 0 | 123456789 | 0 | 2000000000 | 96.1 | 87.3 | 92.7 |
| ONF1 | 0 | 1000000000 | 0 | 2147483647 | 96.8 | 88.4 | 93.5 |
| ONF2 | 0 | 123456789 | 0 | 2147483647 | 97 | 90.2 | 94.4 |
| ONF3 | 0 | 99999999 | 0 | 2147483647 | 94.7 | 86.6 | 91.6 |
| REL1 | 0 | 1000000000 | 0 | 2147483647 | 92 | 82.6 | 88.4 |
| REL2 | 0 | 1000000000 | 0 | 2147483647 | 94.3 | 85.9 | 91 |
| REL3 | 0 | 10000000 | 0 | 2147483647 | 93.1 | 87.7 | 91 |
| REL4 | 0 | 1000000000 | 0 | 2147483647 | 91.5 | 82.6 | 88.1 |
| REL5 | 0 | 1010101010 | 0 | 2147483647 | 86.3 | 69.9 | 79.9 |
| PDO1 | 99999999 | 0 | 2000000000 | 94.7 | 86.2 | 91.4 |  |
| PDO2 | 0 | 99999999 | 0 | 2000000000 | 94.5 | 85.5 | 91 |
| PDO3 | 0 | 999999999 | 0 | 2000000000 | 96.3 | 85.5 | 92.1 |
| PDO4 | 0 | 99999999 | 0 | 2000000000 | 96.6 | 89.5 | 93.8 |
| PDO5 | 0 | 0 | 99999999 | 0 | 2000000000 | 96.1 | 88.8 |
| PDO6 | 0 | 999999999 | 0 | 2000000000 | 95 | 88.8 | 93.3 |

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| Variable | Sample 1 <br> minimum | Sample 1 maximum | Sample 2 <br> minimum | Sample 2 maximum | Sample 1 <br> percentile | Sample 2 <br> percentile | Sample 1 <br> and 2 <br> percentile |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NDO1 | 0 | 100000000 | 0 | 2000000000 | 95.4 | 85.9 | 91.7 |
| NDO2 | 0 | 1000000000 | 0 | 2000000000 | 97.3 | 90.6 | 94.7 |
| NDO3 | 0 | 1000000000 | 0 | 2000000000 | 95 | 83.7 | 90.6 |
| NDO4 | 0 | 1000000000 | 0 | 2000000000 | 97 | 89.9 | 94.2 |
| NDO5 | 0 | 1000000000 | 0 | 2147483647 | 95 | 85.1 | 91.2 |
| NDO6 | 0 | 1000000000 | 0 | 2000000000 | 94.3 | 82.6 | 89.8 |
| ISDO1 | 0 | 1000000000 | 0 | 2000000000 | 96.3 | 87.7 | 93 |
| ISDO2 | 0 | 99999999 | 0 | 2000000000 | 96.1 | 86.6 | 92.4 |
| ISDO3 | 0 | 999999999 | 0 | 2000000000 | 95.7 | 87 | 92.3 |
| ISDO4 | 0 | 999999999 | 0 | 2000000000 | 95.9 | 87.3 | 92.6 |
| EDO2 | 0 | 99999999 | 0 | 1000000000 | 99.1 | 98.6 | 98.9 |
| EDO3 | 0 | 1000000000 | 0 | 2000000000 | 97.3 | 96.7 | 97.1 |
| EDO4 | 0 | 999999999 | 0 | 986837 | 97.9 | 98.9 | 98.3 |
| EDO5 | 0 | 999999999 | 0 | 2000000000 | 96.3 | 92.8 | 95 |
| EDO6 | 0 | 999999999 | 0 | 1000000 | 99.5 | 98.2 | 99 |
| EDO7 | 0 | 999999999 | 0 | 500000 | 99.1 | $>100$ | 99 |
| RES1 | 0 | 1000000000 | 0 | 2000000000 | 94.5 | 87 | 91.6 |
| RES2 | 0 | 99999999 | 0 | 2000000000 | 96.6 | 88.8 | 93.5 |
| RES3 | 0 | 1000000000 | 0 | 2000000000 | 93.6 | 87.7 | 91.3 |
| RES4 | 0 | 1000000000 | 0 | 2000000000 | 95.9 | 87.7 | 92.7 |
| RES5 | 0 | 1000000000 | 0 | 2147483647 | 94.1 | 83.3 | 89.9 |
| RES6 | 0 | 1000000000 | 0 | 2147483647 | 92 | 75.4 | 85.6 |
| SAT1 | 0 | 1000000000 | 0 | 2000000000 | 94.7 | 89.1 | 92.6 |
| SAT2 | 0 | 1000000000 | 0 | 2000000000 | 95.4 | 90.2 | 93.4 |
| SAT3 | 0 | 1000000000 | 0 | 2000000000 | 95.2 | 89.5 | 93 |
| SAT4 | 0 | 1000000000 | 0 | 2000000000 | 93.6 | 90.6 | 92.4 |
|  |  |  |  |  | 9 |  | 9 |


| Variable | Sample 1 minimum | Sample 1 maximum | Sample 2 minimum | Sample 2 maximum | Sample 1 percentile | Sample 2 percentile | Sample 1 and 2 percentile |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAT5 | 0 | 1000000000 | 0 | 2000000000 | 94.3 | 92 | 93.4 |
| SAT6 | 0 | 1000000000 | 0 | 2000000000 | 94.5 | 90.6 | 93 |
| SAT7 | 0 | 999999999 | 0 | 2000000000 | 94.5 | 91.3 | 93.3 |
| RELQ1 | 0 | 100000000 | 0 | 2147483647 | 96.8 | 83.7 | 91.7 |
| RELQ2 | 0 | 1000000000 | 50 | 2147483647 | 97.3 | 83.3 | 91.9 |
| RELQ3 | 0 | 100000000 | 0 | 2147483647 | 97.5 | 83.3 | 92 |
| RELQ4 | 0 | 1000000000 | 0 | 2147483647 | 94.5 | 82.6 | 89.9 |
| RELQ5 | 0 | 1000000000 | 0 | 2147483647 | 95.9 | 82.6 | 90.7 |
| EV1 | 0 | 100000000 | 0 | 2147483647 | 98.2 | 86.6 | 93.7 |
| EV2 | 0 | 1000000000 | 0 | 2147483647 | 98.4 | 85.5 | 93.4 |
| EV3 | 0 | 999999999 | 0 | 2147483647 | 97.7 | 85.1 | 92.8 |
| EV4 | 0 | 2000000 | 0 | 2147483647 | 97.9 | 85.9 | 93.3 |
| EV5 | 0 | 2000000 | 0 | 2147483647 | 98.4 | 85.9 | 93.5 |
| VAL1 | 0 | 999999999 | 0 | 2147483647 | 95.7 | 82.6 | 90.6 |
| VAL2 | 0 | 999999999 | 0 | 2147483647 | 95.7 | 80.8 | 89.9 |
| VAL3 | 0 | 1000000000 | 0 | 2147483647 | 96.3 | 82.2 | 90.9 |
| REAL1 | 0 | 109219210 | 0 | 2000000000 | 95.9 | 95.6 | 95.8 |
| REAL2 | 0 | 123456789 | 0 | 2000000000 | 93.6 | 94.2 | 93.8 |
| REAL3 | 0 | 1292019201 | 0 | 2000000000 | 92.7 | 93.4 | 93 |
| MCTYPE1 | 0 | 999999999 | 0 | 2000000000 | 94.3 | 92.7 | 93.7 |
| MCTYPE2 | 0 | 10000000 | 0 | 2000000000 | 96.8 | 87.9 | 93.4 |
| MCFREQ1 | 0 | 99633113 | 0 | 5000 | 98.6 | 99.6 | 99 |
| MCFREQ2 | 0 | 10000 | 0 | 1000000 | 98.6 | 98.2 | 98.4 |
| MCROLE1 | 0 | 999999999 | 0 | 2147483647 | 97.5 | 94.5 | 96.3 |
| MCROLE2 | 0 | 1000000000 | 0 | 2000000000 | 96.6 | 87.2 | 92.9 |

Note. The online data collection software does not permit response values that exceed $2,147,483,647$. Participants were informed that the highest value they could enter was $2,000,000,000$. See Appendix J for item labels.

Table 9
Study 2 and Study 3 Skewness and Kurtosis Values Pre- and Post-Transformations

| Variable | Pre-Transformations |  |  |  | Post-Transformations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skewness |  | Kurtosis |  | Skewness |  | Kurtosis |  |
|  | Statistic | SE | Statistic | SE | Statistic | SE | Statistic | SE |
| IA1 | 1.55 | 0.09 | 1.22 | 0.18 | -. 28 | 0.09 | . 04 | 0.18 |
| IA2 | 1.57 | 0.09 | 1.25 | 0.18 | -. 22 | 0.09 | -. 07 | 0.18 |
| IA3 | 1.73 | 0.09 | 1.86 | 0.18 | -. 19 | 0.09 | -. 16 | 0.18 |
| IA4 | 1.73 | 0.09 | 1.86 | 0.18 | -. 17 | 0.09 | -. 11 | 0.18 |
| IA5 | 1.99 | 0.09 | 3.01 | 0.18 | -. 06 | 0.09 | -. 32 | 0.18 |
| IA6 | 0.94 | 0.09 | -0.64 | 0.18 | -. 42 | 0.09 | . 12 | 0.18 |
| EA1 | 1.97 | 0.09 | 3.08 | 0.18 | -. 30 | 0.09 | . 53 | 0.18 |
| EA2 | 1.96 | 0.09 | 2.79 | 0.18 | -. 17 | 0.09 | . 16 | 0.18 |
| EA3 | 2.14 | 0.09 | 3.89 | 0.18 | -. 28 | 0.09 | . 37 | 0.18 |
| EA4 | 3.56 | 0.09 | 13.91 | 0.18 | . 15 | 0.09 | -. 76 | 0.18 |
| EA5 | 2.49 | 0.09 | 5.98 | 0.18 | -. 02 | 0.09 | -. 71 | 0.18 |
| EA6 | 2.40 | 0.09 | 5.36 | 0.18 | -. 20 | 0.09 | -. 06 | 0.18 |
| NEG1 | 2.12 | 0.09 | 3.46 | 0.18 | -. 01 | 0.09 | -. 64 | 0.18 |
| NEG2 | 2.79 | 0.09 | 7.83 | 0.18 | . 05 | 0.09 | -. 70 | 0.18 |
| NEG3 | 2.31 | 0.09 | 4.74 | 0.18 | -. 14 | 0.09 | -. 47 | 0.18 |
| NEG4 | 2.13 | 0.09 | 3.84 | 0.18 | -. 12 | 0.09 | -. 72 | 0.18 |
| DOM1 | 5.17 | 0.09 | 34.89 | 0.18 | . 51 | 0.09 | -. 84 | 0.18 |
| DOM2 | 4.44 | 0.09 | 23.51 | 0.18 | . 62 | 0.09 | -. 60 | 0.18 |
| DOM3 | 60.09 | 0.09 | 47.48 | 0.18 | . 76 | 0.09 | -. 50 | 0.18 |
| DOM4 | 8.28 | 0.09 | 92.76 | 0.18 | 1.48 | 0.09 | 1.24 | 0.18 |
| DOM5 | 9.86 | 0.09 | 116.84 | 0.18 | 2.02 | 0.09 | 3.66 | 0.18 |
| SPF1 | 1.80 | 0.09 | 2.24 | 0.18 | -. 23 | 0.09 | -. 80 | 0.18 |
| SPF2 | 1.27 | 0.09 | 0.35 | 0.18 | -. 53 | 0.09 | . 41 | 0.18 |
| SPF3 | 0.94 | 0.09 | -0.55 | 0.18 | -. 61 | 0.09 | . 73 | 0.18 |
| SNF1 | 2.52 | 0.09 | 6.20 | 0.18 | -. 13 | 0.09 | -. 68 | 0.18 |
| SNF2 | 2.17 | 0.09 | 3.99 | 0.18 | -. 13 | 0.09 | -. 70 | 0.18 |
| SNF3 | 1.35 | 0.09 | 0.47 | 0.18 | -. 23 | 0.09 | . 64 | 0.18 |
| POS1 | 1.37 | 0.09 | 0.51 | 0.18 | -. 16 | 0.09 | . 53 | 0.18 |
| POS2 | 1.15 | 0.09 | -0.07 | 0.18 | -. 34 | 0.09 | . 44 | 0.18 |
| POS3 | 0.81 | 0.09 | -0.85 | 0.18 | -. 28 | 0.09 | 0.09 | 0.18 |
| POS4 | 0.71 | 0.09 | -1.06 | 0.18 | -. 28 | 0.09 | -. 02 | 0.18 |
| POS5 | 0.89 | 0.09 | -0.65 | 0.18 | -. 53 | 0.09 | . 61 | 0.18 |
| OPF1 | 0.88 | 0.09 | -0.70 | 0.18 | -. 51 | 0.09 | . 54 | 0.18 |
| OPF2 | 0.98 | 0.09 | -0.46 | 0.18 | -. 50 | 0.09 | . 58 | 0.18 |
| OPF3 | 1.08 | 0.09 | -0.27 | 0.18 | -. 50 | 0.09 | . 17 | 0.18 |


| Variable | Pre-Transformations |  |  |  | Post-Transformations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skewness |  | Kurtosis |  | Skewness |  | Kurtosis |  |
|  | Statistic | SE | Statistic | SE | Statistic | SE | Statistic | SE |
| ONF1 | 1.38 | 0.09 | 0.60 | 0.18 | -. 43 | 0.09 | . 46 | 0.18 |
| ONF2 | 1.57 | 0.09 | 1.28 | 0.18 | -. 34 | 0.09 | . 44 | 0.18 |
| ONF3 | 1.10 | 0.09 | -0.13 | 0.18 | -. 31 | 0.09 | . 53 | 0.18 |
| REL1 | 0.69 | 0.09 | -1.04 | 0.18 | -. 41 | 0.09 | . 28 | 0.18 |
| REL2 | 1.07 | 0.09 | -0.24 | 0.18 | -. 28 | 0.09 | . 40 | 0.18 |
| REL3 | 0.88 | 0.09 | -0.67 | 0.18 | -. 45 | 0.09 | . 48 | 0.18 |
| REL4 | 0.64 | 0.09 | -1.10 | 0.18 | -. 54 | 0.09 | . 52 | 0.18 |
| REL5 | 0.20 | 0.09 | -1.62 | 0.18 | -. 54 | 0.09 | -. 21 | 0.18 |
| PDO1 | 0.97 | 0.09 | -0.40 | 0.18 | -. 30 | 0.09 | . 54 | 0.18 |
| PDO2 | 0.97 | 0.09 | -0.44 | 0.18 | -. 34 | 0.09 | . 65 | 0.18 |
| PDO3 | 1.07 | 0.09 | -0.22 | 0.18 | -. 39 | 0.09 | . 62 | 0.18 |
| PDO4 | 1.25 | 0.09 | 0.34 | 0.18 | -. 40 | 0.09 | . 58 | 0.18 |
| PDO5 | 1.41 | 0.09 | 0.79 | 0.18 | -. 37 | 0.09 | . 56 | 0.18 |
| PDO6 | 1.04 | 0.09 | -0.27 | 0.18 | -. 40 | 0.09 | . 62 | 0.18 |
| NDO1 | 0.96 | 0.09 | -0.49 | 0.18 | -. 55 | 0.09 | . 72 | 0.18 |
| NDO2 | 1.49 | 0.09 | 1.10 | 0.18 | -. 45 | 0.09 | . 30 | 0.18 |
| NDO3 | 0.90 | 0.09 | -0.58 | 0.18 | -. 44 | 0.09 | . 50 | 0.18 |
| NDO4 | 1.40 | 0.09 | 0.83 | 0.18 | -. 40 | 0.09 | . 72 | 0.18 |
| NDO5 | 1.05 | 0.09 | -0.29 | 0.18 | -. 42 | 0.09 | . 71 | 0.18 |
| NDO6 | 0.84 | 0.09 | -0.79 | 0.18 | -. 33 | 0.09 | . 35 | 0.18 |
| ISDO1 | 1.27 | 0.09 | 0.33 | 0.18 | -. 38 | 0.09 | . 65 | 0.18 |
| ISDO2 | 1.24 | 0.09 | 0.30 | 0.18 | -. 38 | 0.09 | . 61 | 0.18 |
| ISDO3 | 1.13 | 0.09 | -0.02 | 0.18 | -. 42 | 0.09 | . 54 | 0.18 |
| ISDO4 | 1.25 | 0.09 | 0.30 | 0.18 | -. 41 | 0.09 | . 62 | 0.18 |
| EDO2 | 4.82 | 0.09 | 26.34 | 0.18 | . 76 | 0.09 | -. 34 | 0.18 |
| EDO3 | 2.41 | 0.09 | 5.16 | 0.18 | -0.09 | 0.09 | -. 29 | 0.18 |
| EDO4 | 3.61 | 0.09 | 14.02 | 0.18 | . 19 | 0.09 | -. 70 | 0.18 |
| EDO5 | 1.99 | 0.09 | 2.98 | 0.18 | -. 16 | 0.09 | . 22 | 0.18 |
| EDO6 | 3.95 | 0.09 | 18.10 | 0.18 | . 57 | 0.09 | -. 69 | 0.18 |
| EDO7 | 4.79 | 0.09 | 26.74 | 0.18 | . 62 | 0.09 | -. 47 | 0.18 |
| RES1 | 1.12 | 0.09 | -0.20 | 0.18 | -. 21 | 0.09 | . 40 | 0.18 |
| RES2 | 1.62 | 0.09 | 1.31 | 0.18 | -. 21 | 0.09 | . 59 | 0.18 |
| RES3 | 1.08 | 0.09 | -0.27 | 0.18 | . 34 | 0.09 | . 52 | 0.18 |
| RES4 | 1.35 | 0.09 | 0.48 | 0.18 | . 08 | 0.09 | . 29 | 0.18 |
| RES5 | 0.85 | 0.09 | -0.78 | 0.18 | -. 33 | 0.09 | . 32 | 0.18 |
| RES6 | 0.52 | 0.09 | -1.31 | 0.18 | -. 40 | 0.09 | . 04 | 0.18 |
| SAT1 | 10.18 | 0.09 | 0.04 | 0.18 | -. 38 | 0.09 | . 50 | 0.18 |
| SAT2 | 1.22 | 0.09 | 0.15 | 0.18 | -. 36 | 0.09 | . 40 | 0.18 |


| Variable | Pre-Transformations |  |  | Post-Transformations |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skewness |  | Kurtosis |  | Skewness |  | Kurtosis |  |
|  | Statistic | $S E$ | Statistic | $S E$ | Statistic | SE | Statistic | $S E$ |
| SAT3 | 1.22 | 0.09 | 0.16 | 0.18 | -.40 | 0.09 | .30 | 0.18 |
| SAT4 | 1.25 | 0.09 | 0.18 | 0.18 | -.44 | 0.09 | .32 | 0.18 |
| SAT5 | 1.34 | 0.09 | 0.47 | 0.18 | -.41 | 0.09 | .36 | 0.18 |
| SAT6 | 1.36 | 0.09 | 0.53 | 0.18 | -.43 | 0.09 | .02 | 0.18 |
| SAT7 | 1.45 | 0.09 | 0.83 | 0.18 | -.41 | 0.09 | -.00 | 0.18 |
| RELQ1 | 1.15 | 0.09 | -0.06 | 0.18 | .25 | 0.09 | -.26 | 0.18 |
| RELQ2 | 1.07 | 0.09 | -0.32 | 0.18 | .26 | 0.09 | -.50 | 0.18 |
| RELQ3 | 1.04 | 0.09 | -0.34 | 0.18 | -.22 | 0.09 | -.48 | 0.18 |
| RELQ4 | 0.89 | 0.09 | -0.69 | 0.18 | .03 | 0.09 | -.36 | 0.18 |
| RELQ5 | 1.01 | 0.09 | -0.44 | 0.18 | .13 | 0.09 | -.42 | 0.18 |
| EV1 | 1.30 | 0.09 | 0.29 | 0.18 | -.13 | 0.09 | .16 | 0.18 |
| EV2 | 1.27 | 0.09 | 0.23 | 0.18 | -.23 | 0.09 | .17 | 0.18 |
| EV3 | 10.18 | 0.09 | -0.03 | 0.18 | -.20 | 0.09 | -.07 | 0.18 |
| EV4 | 1.26 | 0.09 | 0.20 | 0.18 | -.20 | 0.09 | .02 | 0.18 |
| EV5 | 1.25 | 0.09 | 0.21 | 0.18 | -.24 | 0.09 | .13 | 0.18 |
| VAL1 | 0.95 | 0.09 | -0.49 | 0.18 | -.41 | 0.09 | .23 | 0.18 |
| VAL2 | 0.87 | 0.09 | -0.71 | 0.18 | -.38 | 0.09 | 0.18 | 0.18 |
| VAL3 | 0.96 | 0.09 | -0.50 | 0.18 | -.40 | 0.09 | .14 | 0.18 |
| REAL1 | 1.87 | 0.09 | 2.35 | 0.18 | -.11 | 0.09 | -.24 | 0.18 |
| REAL2 | 1.30 | 00.09 | 0.33 | 0.18 | -.30 | 0.09 | -.22 | 0.18 |
| REAL3 | 1.21 | 00.09 | 0.04 | 0.18 | -.29 | 0.09 | .14 | 0.18 |
| MCTYPE1 | 1.55 | 00.09 | 1.02 | 0.18 | .03 | 0.09 | -1.28 | 0.18 |
| MCTYPE2 | 1.48 | 00.09 | 0.82 | 0.18 | .03 | 0.09 | -1.29 | 0.18 |
| MCFREQ1 | 3.12 | 00.09 | 100.18 | 0.18 | .45 | 0.09 | -1.93 | 0.18 |
| MCFREQ2 | 3.22 | 00.09 | 10.86 | 0.18 | .50 | 0.09 | -1.87 | 0.18 |
| MCROLE1 | 2.03 | 00.09 | 2.98 | 0.18 | .12 | 0.09 | -1.04 | 0.18 |
| MCROLE2 | 1.62 | 00.09 | 1.25 | 0.18 | .04 | 0.09 | -1.08 | 0.18 |
|  |  |  |  |  |  |  |  |  |

Note. See Appendix J for item labels.

## Confirmatory Factor Analysis and Model Comparisons

Similar to Study 1, confirmatory factor analyses were conducted for each scale, for attributions and goals, for dialogue orientations, and for all variables in the measurement model with all factors allowed to covary. The same criteria used for Study 1 were used to assess the goodness of fit for each model. All items and their respective item numbers are included in Appendix J.

The internal attributions scale was composed of six items. Data fit the model relatively well initially (two of the three fit indices were within acceptable values), $\chi^{2}$ ( 9 , $N=713)=268.24(p<.001), R M S E A=.21, C F I=.95$, and $S R M R=.04$. Implementing several modifications improved the overall model fit to $\chi^{2}(5, N=713)=46.06(p<.01)$, $R M S E A=.11, C F I=.99$, and $S R M R=.02$. Errors for items one and three, two and three, and one and three (which assessed the extent to which the matter reflected something about one's personality, something about who one was as a person, and the extent to which the matter reflected some of the things that defined one as a person) were permitted to covary. In addition, an error covariance was permitted between the fourth and fifth items, which assessed the extent to which the matter was caused by who one was as a person (item four), or who one was deep down inside (item five). Note that these modification indices are the same as in Study 1, either in the internal attributions scale, or in the combined internal and external attributions model. As a result, model fit improved, the chi-square difference between the two models was significant ( $p<.01$ ), but the RMSEA index did not reach an acceptable value.

The model for external attributions (scale with six items) did not have an acceptable fit initially, $\chi^{2}(9, N=713)=231.51(p<.001), R M S E A=.21, C F I=.90$, and
$S R M R=.08$. The same modifications implemented in Study 1 for the external attributions scale and the combined internal and external attributions model were allowed (errors of items one and three and items five and six were permitted to covary given the similar wording of each pair of items). As a result, model fit improved to $\chi^{2}(7, N=713)=73.70$ $(p<.001), R M S E A=.12, C F I=.97$, and $S R M R=.06$. The chi-square difference between the initial model and the revised model was significant ( $p<.01$ ), two of the three fit indices were within acceptable parameters, and the RMSEA index decreased even though it did not reach an acceptable value. Additional covariances between error terms would have made this index lower, but the modifications were not theoretically justifiable, so they were not implemented.

The data fit the negative feelings model (scale of four items) relatively well initially given that two of the three fit indices were met, $\chi^{2}(2, N=713)=5.32(p>.05)$, $R M S E A=.15, C F I=1.00$, and $S R M R=.01$. No revisions were made because none of the modifications suggested by LISREL were theoretically reasonable.

Dominance was measured with five items. Data did not fit the model well
initially, $\chi^{2}(5, N=713)=291.21(p<.01), R M S E A=.31, C F I=.90$, and $S R M R=.06$. Two errors covariances were permitted: between items one and three, and between items four and five, given that the wording of the items was similar. Note that these are the same error covariances permitted in Study 1. Model fit improved to $\chi^{2}(3, N=713)=$ $2.84(p>.05), R M S E A=.00, C F I=1.00, S R M R=.00$, and the chi-square difference between the initial dominance model and the dominance model with modifications was significant $(p<.01)$.

The positive feelings scale contained five items. Data did not fit the model well
initially, $\chi^{2}(5, N=713)=310.31(p<.01), R M S E A=.30, C F I=.93$, and $S R M R=.05$. Two modifications from Study 1 were implemented: the error covariances between the first and second items, and between the third and fourth items were freed. Two more theoretically reasonable error covariances were freed: between the second and fourth items (item two asked about the perceived importance of showing support for the other person, whereas item four asked about the perceived importance of showing love for the other person, so both involve showing a positive feeling), and between the first and third items (item one asked about the perceived importance of positive feelings, whereas item three asked about the perceived importance of showing one cared about one's partner). As a result of these modifications model fit improved to $\chi^{2}(1, N=713)=2.15(p>.05)$, $R M S E A=.04, C F I=1.00, S R M R=.00$, and the difference in chi-square values between the initial positive feelings model and this latter positive feelings model, with modifications, was significant $(p<.01)$.

The scales measuring self-positive face, self-negative face, other-positive face, and other-negative face could not be assessed via a confirmatory factor model. Each scale had three items, yielding a just-identified model for which fit indices could not be calculated.

Finally, the relationship-oriented goals scale consisted of five items. The data fit the model relatively well initially, with two of the three fit indices within acceptable values $\chi^{2}(5, N=713)=141.22(p<.01), R M S E A=.19, C F I=.96$, and $S R M R=.04$. Two errors were permitted to covary: between the second and third items (item two asked about the perceived importance of minimizing the transgression's effects on the relationship, whereas item three asked about the perceived importance of eliminating
tension in one's relationship), and between items three and four (item four asked about the perceived importance of letting one's partner know one valued the relationship). Minimizing the effects of a transgression is similar to eliminating tensions, whereas valuing the relationship is one of the reasons one may want to minimize tension in the relationship. Following these modifications model fit became $\chi^{2}(3, N=713)=5.94(p>$ $.05), R M S E A=.04, C F I=1.00$, and $S R M R=.00$. The chi-square difference between the initial scale model and the scale model with modifications was also significant, $p<.01$.

Internal attributions, external attributions, and all eight goals were tested together in a model with all ten factors allowed to covary. Initial model fit was $\chi^{2}(815, N=713)$ $=4,256.44(p<.01), R M S E A=.09, C F I=.95$, and $S R M R=.08$. This model fit was acceptable, given that two of the three fit indices were within recommended parameters. Several modifications were implemented, permitting the same error terms to covary as in the individual scale revised models. Two of these covariances (between the errors of the first and third items in the scales measuring the perceived importance of positive feelings; and between the errors of the first and third items assessing external attributions) were not significant in this model and were eliminated.

Several other error covariances that were theoretically justified were added. An error covariance was permitted in each of the face concerns scales (note that these scales were not evaluated previously due to the just-identified structure of the model). The error of the first item and the third item measuring perceived importance of self-positive face were permitted to covary. These items assessed the importance of not damaging the other person's impression of one, and ensuring one's partner still thought highly of one. The errors of the first and second items in the scale measuring self-negative face concerns
were also permitted to covary. Item one assessed the perceived importance of not appearing weak in front of the other person, whereas item two assesses the perceived importance of not putting one's self at the mercy of the other person. Similarly, the errors of the first and second items in the scale measuring other-positive face concerns were permitted to covary. Item one assessed the perceived importance of letting one's partner know one still respected him or her, whereas item two assessed the perceived importance of letting one's partner know one still thought highly of him or her. In the other-negative face concerns scale, errors of items one and three were permitted to covary. Item one asked how important it was for one to leave one's partner a choice, whereas item two asked how important it was for one to keep from imposing on one's partner. An error covariance was also permitted between the third item in the self-negative face concerns scale and the third item in the other-negative face concerns scale given that the two items were worded almost exactly; the first asked about the perceived importance of being able to make one's own decisions, whereas the second asked about the perceived importance of making sure one's partner was able to make his or her own decisions. Finally, another error covariance was permitted between the fourth item in the external attributions scale and the sixth item in the internal attributions scale. This covariance captures the underlying responsibility dimension that affects people's attributions. Item four of the external attributions scale assessed the extent to which other people caused the situation, whereas item six in the internal attributions assessed the extent to which one was responsible for the situation.

The revised model fit was $\chi^{2}(797, N=713)=2,867.42(p<.01), R M S E A=.06$, $C F I=.97$, and $S R M R=.07$, satisfying all three fit criteria set forth by Hu and Bentler
(1999). The LISREL syntax is presented in Appendix L. Table 10 presents the zero-order correlations between the latent variables.

Table 10
Study 2 and 3 Attributions and Goals Zero-Order Correlations

|  | IA | EA | NEG | DOM | POS | SPF | SNF | OPF | ONF | REL |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| IA | 1.00 |  |  |  |  |  |  |  |  |  |
| EA | $.22^{* *}$ | 1.00 |  |  |  |  |  |  |  |  |
| NEG | $.14^{* *}$ | $.11^{* *}$ | 1.00 |  |  |  |  |  |  |  |
| DOM | $.08^{*}$ | .08 | $.55^{* *}$ | 1.00 |  |  |  |  |  |  |
| POS | $.22^{* *}$ | $.36^{* *}$ | -.06 | $-.26^{* *}$ | 1.00 |  |  |  |  |  |
| SPF | $.26^{* *}$ | $.26^{* *}$ | .04 | -.03 | $.73^{* *}$ | 1.00 |  |  |  |  |
| SNF | $.43^{* *}$ | $.34^{* *}$ | $.40^{* *}$ | $.18^{* *}$ | $.43^{* *}$ | $.61^{* *}$ | 1.00 |  |  |  |
| OPF | $.19^{* *}$ | $.36^{* *}$ | $-.12^{* *}$ | $-.29^{* *}$ | $.97^{* *}$ | $.72^{* *}$ | $.39^{* *}$ | 1.00 |  |  |
| ONF | $.31^{* *}$ | $.33^{* *}$ | -.08 | $-.26^{* *}$ | $.82^{* *}$ | $.60^{* *}$ | $.49^{* *}$ | $.84^{* *}$ | 1.00 |  |
| REL | $.29^{* *}$ | $.32^{* *}$ | .03 | $-.20^{* *}$ | $.89^{* *}$ | $.71^{* *}$ | $.48^{* *}$ | $.89^{* *}$ | $.83^{* *}$ | 1.00 |
| $* p<.05$ |  |  |  |  |  |  |  |  |  |  |

* $p<.05$.
** $p<.01$.
Note. IA = internal attributions, EA = external attributions, NEG = perceived importance of negative feelings, DOM = perceived importance of dominance, POS = perceived importance of positive feelings, SPF = perceived importance of self-positive face, $\mathrm{SNF}=$ perceived importance of self-negative face, OPF = perceived importance of other-positive face, ONF = perceived importance of other-negative face, and REL $=$ perceived importance of relationship-oriented goals.

Persuasive dialogue orientation was measured with six items. Model fit was not good, $\chi^{2}(9, N=713)=713.94(p<.001), R M S E A=.34, C F I=.88$, and $S R M R=.07$. Similar to Study 1, two error covariances were added between the first and second items; and the fourth and fifth items. In addition, two more error covariances were permitted: between the first and third items (item one assessed how much one would try to explain one's position to one's partner, whereas item three assessed how much one would try to make a case for one's position), and between the second and third items (item two assessed how much one would try to give reasons for one's position). As a result, model fit improved to $\chi^{2}(5, N=713)=108.69(p<.01), R M S E A=.17, C F I=.98$, and $S R M R=$ .02. The chi-square difference between the initial persuasive dialogue orientation model and the model with modifications was significant, $p<.01$, and the RMSEA index, although not within acceptable limits, decreased by half.

The negotiation dialogue orientation scale consisted of six items. The data fit the model relatively acceptably, with two of the three indices in the acceptable range of values, $\chi^{2}(9, N=713)=107.56(p<.001), R M S E A=.13, C F I=.98$, and $S R M R=.03$. One of the error covariances from Study 1 was added (between the errors of items two and four). The second covariance from Study 1, between the errors of items one and six, was not significant when added, so it was removed. Two more error covariances were added: between items one and two (which assessed how much one would try to reach a compromise and how much one would try to make a deal); and between items one and three (item three assessed how much one would try to come up with an agreement that both partners could live with). As a result model fit improved to $\chi^{2}(96, N=713)=25.16$ $(p<.001), R M S E A=.07, C F I=1.00$, and $S R M R=.01$. The chi-square difference
between the model with modifications and the initial negotiation dialogue orientation model was significant, $p<.01$, and the $R M S E A$ index was almost at the acceptable upper limit value.

The information-seeking dialogue orientation scale consisted of four items. The data fit the model relatively well, but the $R M S E A$ index was high, $\chi^{2}(2, N=713)=86.22$ $(p<.001), R M S E A=.25, C F I=.97$, and $S R M R=.02$. The same error covariance permitted in Study 1 (allowing the errors of the first and second items to covary) was implemented. As a result, model fit improved to $\chi^{2}(1, N=713)=2.66(p>.05)$, RMSEA $=.05, C F I=1.00$, and $S R M R=.00$.

Finally, eristic dialogue orientation was measured with six items. The data did not fit the model well at first, $\chi^{2}(9, N=713)=156.36(p<.001)$, RMSEA $=.16, C F I=$ .94 , and $S R M R=.07$. The same error covariance permitted in Study 1, between the third and fifth items, was allowed to be free. In addition, an error covariance between the sixth and seventh items was also permitted. Item six asked how much one would try to blame one's partner, whereas item seven asked how much one would try to quarrel with one's partner. Quarrels involve blaming the other person, so this covariance is reasonable. As a result, model fit improved to $\chi^{2}(7, N=713)=37.46(p<.001), R M S E A=.08, C F I=.99$, and $S R M R=.03$. Although the $R M S E A$ index is not within acceptable values, it is very close to the upper-limit value, and the difference in chi-square between the initial and the revised model is significant, $p<.01$.

A model with all four dialogue orientations as factors allowed to covary was tested. Initial model fit was $\chi^{2}(203, N=713)=2,055.80(p<.01), R M S E A=.12, C F I=$ .95 , and $S R M R=.11$. Modifications permitting error covariances between indicators,
similar to the individual scales, were implemented. The error covariance between items one and six in the negotiation dialogue orientation scale was reintroduced. In addition, an error covariance was added between the fifth and six items in the persuasive dialogue orientation scale. Item five asked how much one would try to talk one's partner into thinking about the matter in the same way, whereas item six asked how much one would try to make sure one and one's partner were on the same page. Another error covariance was added between the third and fifth items in the negotiation dialogue orientation scale. Item three asked how much one would try to come up with an agreement that both partners could live with, whereas item five asked how much one would try to make sure that what both partners wanted was accomplished. Finally, an error covariance between items two and five in the eristic dialogue orientation scale was added. Item two asked how much one would use words to attack one's partner, whereas item five asked how much one would try to let all one's feelings out. Appendix M contains the LISREL syntax.

As a result of these modifications, model fit improved to $\chi^{2}(189, N=713)=$ $1,081.49(p<.01), R M S E A=.08, C F I=.98$, and $S R M R=.09$. The chi-square difference between the initial dialogues model and the dialogues model with modifications was significant, $p<.01$, but neither the $R M S E A$ nor the $S R M R$ values were within acceptable limits. Table 11 presents the zero-order correlations between the latent dialogue orientation factors.

Table 11
Study 1 Latent Dialogue Orientations Zero-Order Correlations


The resolvability scale consisted of six items. The data did not fit the model well, $\chi^{2}(9, N=713)=323.42(p<.001), R M S E A=.22, C F I=.94$, and $S R M R=.05$. Similar to Study 1, error covariances between the fifth and sixth items, and between the second and fourth items were added (the third error covariance from Study 1 was not significant in this study). One more error covariance was added between the first and sixth items. Item one assessed one's confidence in one's ability to remedy the situation, whereas item six assessed one and one's partner ability to get through the situation. As a result of these modifications, model fit improved to $\chi^{2}(6, N=713)=21.98(p<.01), R M S E A=.06$, $C F I=1.00, S R M R=.01$, and the chi-square difference between the initial model and the model with modifications was significant, $p<.01$.

Satisfaction was measured with seven items. The data did not fit the model well at first, $\chi^{2}(14, N=713)=2,122.94(p<.001), R M S E A=.51, C F I=.74$, and $S R M R=.13$. The same error covariances permitted in Study 1 were implemented: between items one and two; items one and three; items two and three; items four and five; and items six and seven. Model fit improved to $\chi^{2}(9, N=713)=21.40(p<.01), R M S E A=.04, C F I=$ 1.00 , and $S R M R=.01$, and the difference in chi-square between this revised model and the initial model was significant, $p<.01$.

The relational quality scale consisted of five items. The data fit the model relatively well initially, but the RMSEA index was well above the recommended values, $\chi^{2}(5, N=713)=286.63(p<.001), R M S E A=.29, C F I=.95$, and $S R M R=.02$. The same modifications implemented in Study 1 were implemented (allowing errors of items one and two; one and three; and two and three to covary). Model fit improved to $\chi^{2}(2, N=$ $713)=12.41(p<.01), R M S E A=.09, C F I=1.00$, and $S R M R=.00$. The $R M S E A$ value
was above the recommended limit, but the chi-square difference between the model with modifications and the initial model was significant, $p<.01$.

The violations assessment scale consisted of five items measuring expectancy violations and three items measuring the violation's valence. The data did not fit the model well, $\chi^{2}(20, N=713)=1,374.83(p<.01), R M S E A=.31, C F I=.88$, and $S R M R=$ .09. Several error covariances were permitted between items that used similar wording. In the expectancy violations scale, the errors of items one (which asked how surprising the behavior was) and item two (which asked how unexpected the behavior was) were allowed to covary; the errors of items two and four (which asked how unforeseen the behavior was) were allowed to covary; and the errors of items two and five (which asked how unanticipated the behavior was) were allowed to covary. In the violation valence scale, all the items' errors were permitted to covary. Item one assessed the extent to which the behavior was unpleasant, item two assessed the extent to which one's partner had behaved in an undesirable manner, and item three assessed the extent to which the partner's behavior was a negative violation of one's expectations of one's partner. Model fit improved following these modifications to $\chi^{2}(11, N=713)=25.32(p<.05)$, RMSEA $=.04, C F I=1.00$, and $S R M R=.01$, and the chi-square difference between this revised model and the initial model was significant, $p<.01$.

Finally, a measurement model with attributions, goals, dialogue orientations, the two outcome measures, resolvability and satisfaction, and relational quality as exogenous variables permitted to covary was tested. Initial model fit was relatively good (two of the three fit indices were met), $\chi^{2}(3,184, N=713)=13,952.48(p<.01), R M S E A=.08, C F I$ $=.96$, and $S R M R=.08$. The modifications implemented for each individual scale were
applied and, as a result, model fit improved to $\chi^{2}(3,155, N=713)=10,106.27,(p<.01)$, $R M S E A=.06, C F I=.97$, and $S R M R=.08$, with all three of the Hu and Bentler (1999) fit criteria within acceptable limits. Appendix N contains the LISREL syntax and Table 12 presents the zero-order correlations between all latent variables.
Table 12
Study 2 and Study 3 Relational Quality, Attributions, Goals, Dialogue Orientations, and Outcome Measures Zero-Order Correlations

|  | RELQ | IA | EA | NEG | DOM | POS | SPF | SNF | OPF | ONF | REL | PDO | NDO | ISDO | EDO | RES | SAT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RELQ | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IA | .19** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EA | .19** | .20** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NEG | . 02 | .13** | .11** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DOM | -.18** | . 07 | .09* | .49** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |  |
| POS | . $55 * *$ | .20** | . $34 * *$ | -. 04 | -.26** | 1.00 |  |  |  |  |  |  |  |  |  |  |  |
| SPF | . $35 * *$ | .24** | .26** | . 00 | -. 04 | .72** | 1.00 |  |  |  |  |  |  |  |  |  |  |
| SNF | -. 01 | .19** | . 30 ** | . 33 ** | .29** | .26** | .49** | 1.00 |  |  |  |  |  |  |  |  |  |
| OPF | . 50 ** | .15** | . $34 * *$ | -. 26 ** | -.26** | .90** | .70** | . $24 * *$ | 1.00 |  |  |  |  |  |  |  |  |
| ONF | . 51 ** | .29** | . 32 ** | -.08* | -.26** | .79** | .59** | . 32 ** | .78** | 1.00 |  |  |  |  |  |  |  |
| REL | . $59 * *$ | .26** | . 32 ** | . 03 | -.22** | .89** | .71** | .29** | .84** | .81** | 1.00 |  |  |  |  |  |  |
| PDO | . $45^{* *}$ | . $35 * *$ | . $39 * *$ | . $33 * *$ | .09* | . $59 * *$ | . $53 * *$ | . 36 ** | .48** | . $51 * *$ | . $64 * *$ | 1.00 |  |  |  |  |  |
| NDO | . 50 ** | .23** | . 36 ** | .08* | $-.11 * *$ | .72** | .60** | .24** | .67** | . $64 * *$ | .71** | .82** | 1.00 |  |  |  |  |
| ISDO | . 42 ** | .24** | .25** | .11** | -. 05 | . $55^{* *}$ | . 49 ** | . $22^{* *}$ | . 51 ** | . 50 ** | . 57 ** | . 69 ** | .74** | 1.00 |  |  |  |
| EDO | -. 03 | .14** | .10* | .64** | .73** | -. 10 * | . 05 | . 36 ** | -. 12 ** | -.09* | -. 04 | . $37 * *$ | .11** | .16** | 1.00 |  |  |
| RES | . $57 * *$ | . 06 | .25** | .14** | -.11 ** | .56** | . $37 * *$ | .10* | . 50 ** | . $52 * *$ | . $58 * *$ | .56** | . 61 ** | . 52 ** | . 07 | 1.00 |  |
| SAT | . 36 ** | -. 01 | . 30 ** | .17** | . 00 | . $44^{* *}$ | .39** | .20** | .46** | . $34 * *$ | . $44^{* *}$ | . 43 ** | .52** | . 40 ** | .11** | . 61 ** | 1.00 |

[^5]
## Manipulation Checks

Six measures were employed to assess the extent to which one's role in the transgression, the type of transgression, and the frequency of the transgressive behavior, were successfully manipulated (see Appendix $\mathbf{J}$ for these measures). Three questions asked participants to indicate, based on the scenario, the extent to which their behavior had been insensitive (or the extent to which they had broken their promise), how often they had been insensitive (or had broken their promise) before, and the extent to which they were the main actor in the situation described in the scenario. Another three questions asked participants to indicate the extent to which their partner's behavior had been insensitive (or their partner had broken his or her promise), how often their partner had been insensitive (or had broken his or her promise) before, and the extent to which their partner was the main actor in the situation described in the scenario. Several analyses were conducted with the transformed measures.

First, the six measures were subjected to a principal components analysis. Results revealed that the variables loaded on two components: one component for the three items asking about one's own behavior, and the other component for the three items asking about the other partner's behavior. These results indicated respondents were able to differentiate between questions regarding their own behavior and questions regarding their partner's behavior.

Second, several independent samples $t$ tests were conducted with each of the transformed manipulation checks entered one at a time as the dependent variable, and the dichotomous variables of type of transgression, frequency of the transgressive behavior, and role in a transgression entered as independent variables. The manipulation for type of
transgression revealed a problem. The first question asked participants to indicate the extent to which their partner's behavior had been insensitive (in the insensitivity scenarios) or the extent to which their partner had broken his or her promise (in the broken promises scenario). The second question asked participants to indicate the extent to which their own behavior had been insensitive (in the insensitivity scenarios) or the extent to which they had broken their promise (in the broken promises scenarios). It was determined, however, that these questions did not assess the manipulation of transgression type, as initially intended, but rather the role manipulation. Participants were exposed only to one scenario, which clearly described the type of transgression, and they answered questions in which the type of transgression was identified. Therefore, even though the manipulation for type of transgression could not be checked, it is reasonable to infer that participants were able to recognize the transgression described in the scenarios.

The two manipulation checks for the frequency of the transgressive behavior were assessed. The first measure asked participants to indicate how often their partner had been insensitive or had broken a promise before. This measure was entered as the dependent variable, whereas the dichotomous measure for the frequency of the transgressive behavior (the behavior had not occurred before vs. the behavior had occurred several times before) was entered as the independent variable in an independent samples $t$ test. If the manipulation worked, the mean of responses in the first category of the independent variable should be lower than the mean of responses in the second category. Levene's test for the homogeneity of variance was significant, $F(2,707)=4.81$, $p<.05$, rejecting the hypothesis of equal population variances. The Mann-Whitney $U$ test
was used. The test was significant at $p<.001$, indicating that the null hypothesis assuming the distribution of the dependent variable across the two levels of the independent variables was the same should be rejected. The mean of responses for scenarios depicting a transgression that had not occurred before was significantly lower, $M=1.54, S D=1.99$ (scale of 0 to 7.94 ), as compared to the mean of responses for scenarios depicting a transgression that had occurred several times before, which was $M$ $=3.23, S D=2.40$ (scale of 0 to 7.94 ). This manipulation worked because participants were able to recognize correctly the intended frequency described in the scenario for their partner's transgressive behavior.

The second frequency manipulation asked participants to indicate how often they had been insensitive or had broken a promise before. This measure was entered as the dependent variable, whereas the frequency of the transgressive behavior dichotomous variable was entered as the independent variable in an independent samples $t$ test. If the manipulation worked, the mean of responses for the first category of the independent variable (the transgression has not occurred before) should be lower than the mean of responses in the second category (the transgression has occurred several times before). The homogeneity of variance test was not significant, $F(2,707)=3.79, p>.05$, so the $t$ test statistic was used. Its result indicated a significant difference, in the appropriate direction, between the two categories of frequency on the dependent variable, $t(707)=$ $-6.96, p<.01$. The mean of responses for the first category, $M=1.70, S D=2.14$ (scale of 0 to 7.94), was significantly lower than the mean of responses for the second category, $M$ $=2.89, S D=2.40$ (scale of 0 to 7.94 ). Participants were able to identify correctly that the frequency of their own transgressive behavior differed, so this manipulation worked.

Finally, two manipulation checks were used to assess whether participants were able to identify their assigned role in the transgression. The first measure asked participants to indicate the extent to which their partner was the main actor in the situation described in the scenario. This measured was entered as the dependent variable in the independent samples $t$ test, whereas the dichotomous variable of role (victim vs. transgressor) was entered as the independent variable. If the manipulation worked, victims' responses should be higher than transgressors' responses. The homogeneity of variance assumption was not met for this test, $F(2,707)=.12 .07, p<.01$, so the nonparametric Mann-Whitney $U$ test was used to check the manipulation. The test was significant, $p<.001$. Indeed, the mean for victims' responses, $M=4.80, S D=2.07$ (scale from 0 to 7.94), was higher than the mean for transgressors' responses, $M=1.62, S D=$ 2.03 (scale from 0 to 7.94 ). Participants were able to identify correctly their role, so the manipulation of role worked.

The second manipulation check for one's role in the transgression asked participants to indicate the extent to which they were the main actors in the situation described in the scenario. This measure was entered as the dependent variable in the independent samples $t$ test and the dichotomous variable of role was entered as the independent variable. If the manipulation worked, the mean for transgressors' responses should be significantly higher than the mean for victims' responses. Levene's test for homogeneity of variance indicated this assumption was violated, $F(2,707)=5.38, p<$ .01. The nonparametric Mann-Whitney $U$ test was used to assess the success of the manipulation. The statistic was significant, $p<.001$, indicating a significant difference between victims and transgressors, in the appropriate direction. Transgressors' mean
response, $M=5.01$, and $S D=2.23$ (scale from 0 to 7.94 ), was significantly higher than victims' mean response, $M=2.09$, and $S D=2.22$ (scale from 0 to 7.94 ). So, this manipulation was successful as well.

## Scenario Realism

Participants' scores on the three variables measuring the perceived realism of the scenarios were analyzed to check for potential problems (e.g., it would be a problem if a large number of respondents could not imagine themselves in the scenario).

First, the internal structure of the realism measure was assessed. A principal components analysis revealed that all three items measuring realism loaded on one component, with component loadings of $.81, .93$, and .91 . Inter-item correlations ranged between .58 and .83 , but the determinant of the three indicators correlation matrix was .19. So, the scale is unidimensional, with items that are highly correlated but not perfectly multicollinear.

Second, descriptive statistics for each of the three items post-winsorization but prior to transformations were examined. There were 711 responses ranging from 0 to 1,000. Participants indicated they were able to imagine themselves in the scenarios more than moderately $(M=210.43, M d n=100.00, S D=285.80)$, that the scenario reflected a situation that could happen in everyday life ( $M=287.14, M d n=110.00, S D=325.58$ ), and that it reflected a credible situation $(M=313.80, M d n=185.00, S D=330.36)$.

Further analyses were conducted to determine what affected participants' ability to imagine themselves in the scenarios. A one-way ANOVA was conducted with the first transformed realism item (asking participants how much they were able to imagine themselves in the situation described) as the dependent variable, and one's role in the
transgression, type of transgression, frequency of the transgressive behavior, participants’ sample type (younger, dating undergraduates vs. older, married participants), and participants' sex as the fixed factors. Levene's test for homogeneity of variance was significant, $F(25,685)=1.98, p<.01$, so follow-up nonparametric tests (i.e., MannWhitney $U$ test) were used to assess whether differences in the dependent variable across the categories of each independent variable were significant. Role and sample differences were significant, $p<.001$. Transgressors were able to imagine themselves in the scenarios less than victims were, and participants in the older, married sample were able to imagine themselves in the scenarios less than participants in the younger, dating undergraduate sample were. The results were also consistent with some of the informal feedback received from participants in the study. Several participants from Sample 2 (older, married individuals) indicated that they would never behave in the manner described in the scenario in their relationship. These results point to limitations in the current research and are discussed further in the next chapter.

## Interactions and Multicollinearity among Independent Variables

Another set of analyses conducted prior to structural equation modeling concerned possible interactions of the independent variables of one's role, type of transgression, and frequency of the transgressive behavior. Given the demographic differences between the two samples, sample type was added as an independent variable. Although it was expected that the proposed model would fit the data well regardless of sample type, one of the goals of the present research was to identify whether relational transgressions are managed similarly across relationships at different stages. It was expected that sample type would have individual effects on some of the variables in the
model. In addition, differences between men and women have been found in regard to attributions in relational transgressions (e.g., Mongeau, Hale, \& Alles, 1994). So, although not initially hypothesized to affect attributions and goals, sex was also included as an independent variable in these analyses.

A multivariate analysis of variance (MANOVA) was conducted. The first principal component was calculated using transformed data for each of the two types of attributions, the eight goals, the four dialogue orientations, and the two outcome measures (i.e., resolvability and satisfaction), yielding a total of 16 variables which were entered as dependent variables, whereas the five independent variables mentioned above were entered as predictors in the MANOVA. First, Box's $M$ test assessing the equality of the dependent variables covariance matrices was significant, $F(2,448,97,920.14)=1.82$, $p<.001$. So the covariance matrices of the dependent variables were significantly different across the five predictors. Therefore, the Pillai's trace statistic was used to evaluate the results of the omnibus test (Meyers, Gamst, \& Guarino, 2006). The following variables had a significant effect: one's role [Pillai's trace $=.29, F(16,672)=$ $17.29, p<.001$, partial eta squared $=.29]$ affected external attributions and all goals except self-negative face concerns; type of transgression [Pillai's trace $=.06, F(16,672)$ $=2.72, p<.001$, partial eta squared $=.06]$ affected internal and external attributions; sample type [Pillai's trace $=.18, F(16,672)=9.41, p<.001$, partial eta squared $=.18$ ] affected internal attributions and all goals except self-positive face concerns; and respondents' sex [Pillai's trace $=.07, F(16,672)=17.29, p<.05$, partial eta squared $=$ .04] affected internal attributions, expressing negative and positive feelings, self-positive face concerns, and relationship-oriented goals. In addition, the following interactions
were significant: one's role and sample type, Pillai's trace $=.09, F(16,672)=3.98, p<$ .001 , partial eta squared $=.09$, affected expressing negative and positive feelings, otheroriented face concerns, and relationship-oriented goals; one's role and one's sex, Pillai's trace $=.04, F(16,672)=1.65, p=.05$, partial eta squared $=.04$, affected negative feelings; and sample and sex, Pillai's trace $=.06, F(16,672)=2.47, p<.01$, partial eta squared $=.06$, affected negative feelings.

Several of these effect sizes were small. It was decided to include only those variables whose effect size was greater than $5 \%$ in the MANOVAs: one's role, transgression type, sample type, and the interaction of one's role and sample type. A new variable was created to reflect this interaction. In the two by two table of one's role and sample, one diagonal was coded as -1 and the second diagonal was coded as +1 . The first diagonal was composed of victims in the first sample and transgressors in the second sample, whereas the second diagonal was composed of victims in the second sample and transgressors in the first sample.

In addition, although the multivariate analyses did not indicate frequency of the transgressive behavior and role in the transgression interacted, an interaction term was created so that H5 could be tested in the structural equation model. The two contrast codes used for diagonals in the two (one's role) by two (frequency of the transgressive behavior) table were also -1 (for victims who did not recall their partner transgressing before and for transgressors who recalled transgressing several times before) and 1 (for victims who recalled their partners transgressed several times before and for transgressors who did not recall transgressing before). The addition of the two interaction terms led to formulating the following research questions:

RQ4: Does sample type affect (a) the extent of internal attributions, (b) the extent of external attributions, or the perceived importance of (c) negative feelings, (d) dominance, (e) positive feelings, (f) self-positive face, (g) self-negative face, (h) other-positive face, (i) other-negative face, and/or (j) relationship-oriented goals? RQ5: Does the interaction of one's role and sample type affect (a) the extent of internal attributions, (b) the extent of external attributions, or the perceived importance of (c) negative feelings, (d) dominance, (e) positive feelings, (f) selfpositive face, (g) self-negative face, (h) other-positive face, (i) other-negative face, and/or (j) relationship-oriented goals?

Finally, multicollinearity between the independent predictors was assessed. One's role in the transgression, type of transgression, frequency of the transgressive behavior, sample type, the interaction term for one's role and sample type, the interaction term for one's role and frequency of the transgressive behavior, and participants' relational quality were entered into a principal components analysis. The determinant of the correlation matrix of these seven variables was .63 , which indicated relative linear independence among this set of predictors.

## Hypotheses and Research Questions

The hypotheses and research questions in the main studies were tested via a structural equation model in LISREL 8.80 (Jöreskog \& Sörbom, 2007). Table 13 presents a summary of the predictions. To test the research questions, paths were freed from the exogenous variables to the endogenous variables specified in each research question. The LISREL syntax for the model is presented in Appendix O and the covariance matrix analyzed is presented in Appendix P.
Table 13
Study 2 and Study 3 Proposed Hypotheses and Research Questions

Note. $\mathrm{DV}=$ dependent variables, $\mathrm{RELQ}=$ participants' relational quality, $\mathrm{ROL}=$ one's role in the scenario, $\mathrm{F}^{*} \mathrm{R}=$ interaction term for frequency of the
transgressive behavior and one's role in the scenario, TYP = type of transgression described in the scenario, $\mathrm{S}=$ sample type, $\mathrm{R} * \mathrm{~S}=$ interaction term for sample type and one's role in the transgression, IA = internal attributions, EA = external attributions, NEG = perceived importance of negative feelings, DOM = perceived importance of dominance, $\mathrm{POS}=$ perceived importance of positive feelings, $\mathrm{SPF}=$ perceived importance of self-positive face, $\mathrm{SNF}=\mathrm{perceived}$ importance of self-negative face, $\mathrm{OPF}=$ perceived importance of other-positive face, $\mathrm{ONF}=$ perceived importance of other-negative face, $\mathrm{REL}=$ perceived importance of relationship-oriented goals, $\mathrm{PDO}=$ persuasive dialogue orientation, $\mathrm{NDO}=$ negotiation dialogue orientation, ISDO $=$ information-seeking dialogue orientation, $\mathrm{EDO}=$ eristic dialogue orientation, $\mathrm{RES}=$ perceived resolvability of the situation, and SAT $=$ satisfaction with the transgression's management.

The initial model fit was not good, $\chi^{2}(3,727, N=713)=18,740.71(p<.01)$, $R M S E A=.09, C F I=.95$, and $S R M R=.17$. This initial model specified a metric assumption for each of the exogenous variables. The path from the latent factor to the single indicator was set to one, and the error variance of that indicator to zero for the dichotomous exogenous variables (i.e., one's role in the transgression, the frequency of the transgression, the type of transgression, one's sample type, the interaction term for sample and role, and the interaction term for frequency and role). In addition, the path from the latent factor to the first indicator in the relational quality scale was set to one. Modifications permitting error terms to covary (the same ones used in the measurement model) were implemented. The LISREL syntax is found in Appendix Q and the covariance matrix analyzed is presented in Appendix R.

As a result of these modifications, model fit improved to $\chi^{2}(3,698, N=713)=$ 14,932.96 $(p<.01), R M S E A=.07, C F I=.96$, and $S R M R=.17$. The chi-square difference between the revised model and the initial model was significant, $p<.01$, the $C F I$ index was within the acceptable range, and the RMSEA index was very close to the acceptable cutoff value of .06 . The hypotheses and research questions were then evaluated based on this model. The results are presented below, with unstandardized path coefficient values.

H1 predicted that higher relational quality leads to a lesser extent of internal attributions (H1a), and to a greater extent of external attributions (H1b). H1a was not supported in its initial formulation; a significant path existed from relational quality to internal attributions, $\beta=0.10, p<.01$, but this path was positive, not negative, as initially hypothesized. Satisfied partners tended to attribute a transgression to dispositional factors or the personality of their partners. H1b was supported, $\beta=0.26, p<.01$. Satisfied
partners were more inclined to believe that their partner's behavior was due to some external, uncontrollable reasons. Thus, H1 received partial support.

H 2 proposed that higher relational quality increases the perceived importance of positive feelings (H2a), self-positive face (H2b), other-positive face (H2c), and relationship-oriented goals (H2d). A significant positive path from relational quality to positive feelings, $\beta=0.60, p<.01$, supported H 2 a . A significant positive path from relational quality to self-positive face, $\beta=0.41, p<.01$, supported H2b. The path from relational quality to other-positive face was also significant, $\beta=0.56, p<.01$, supporting H2c. Finally, the path from relational quality to relationship-oriented goals was significant, $\beta=0.66, p<.01$, supporting H2d. Overall, H2 was supported. In the aftermath of a relational transgression, satisfied partners perceive these four goals as important. In other words, higher relational quality leads to the adoption of positive goals to pursue for the management of a transgression.

H3 posited that one's role in the transgression affects the type of attributions partners make about a relational transgression. More specifically, victims are expected to make internal attributions to a greater extent than transgressors (H3a), and transgressors are expected to make external attributions to a greater extent than victims (H3b). H3a was not supported, $\beta=0.07, p>.05$, indicating that simply being in the role of victim does not indicate what attributions a person makes. H3b was supported, $\beta=0.22, p<.01$, indicating that transgressors tend to attribute their behavior to external causes more than to internal causes.

H4 proposed that one's role in a transgression affects the perceived importance of all eight goals. H4a investigated the effect of one's role on the perceived importance of
negative feelings. Indeed, the path from relational quality to the perceived importance of negative feelings was significant, $\beta=-1.16, p<.01$, with the negative sign of the coefficient supporting the prediction that victims perceive this goal as important more than transgressors do. H4b investigated the effect of one's role on the perceived importance of dominance. This hypothesis was also supported, $\beta=-0.52, p<.01$, indicating victims perceive dominating the other person to be more important than transgressors do. H4c proposed that victims also perceive self-positive face concerns to be important more than transgressors do. This hypothesis was not supported in its initial formulation, $\beta=0.40, p<.01$. Self-positive face concerns are important (the path was significant) but for transgressors rather than for victims. H4d proposed that victims also perceive self-negative face concerns as important more than transgressors do. This hypothesis was not supported, $\beta=-0.15, p>.05$. Although the coefficient's sign was in the hypothesized direction, the path was not significant. H4e posited that transgressors perceive positive feelings as more important than victims do. This prediction was supported, $\beta=0.42, p<.01$. H4f proposed that transgressors perceive other-positive face concerns to be more important than victims do. The significant positive path from one's role to other-positive face supported this hypothesis, $\beta=0.48, p<.01 \mathrm{H} 4 \mathrm{~g}$ analyzed the effect of one's role on other-negative face concerns and this hypothesis was also supported, $\beta=0.48, p<.01$, indicating transgressors perceive these face concerns as more important than victims do. Finally, H4h proposed that transgressors perceive relationship-oriented goals to be more important than victims do. A significant positive path supported this prediction, $\beta=0.20, p<.01$. Overall, all predictions proposed by H4 except those for self-oriented face concerns were supported.

H5 proposed that one's role in a transgression and the frequency of the transgressive behavior interact to affect the extent of internal attributions people make (H5a), and the perceived importance of negative feelings (H5b), dominance (H5c), positive feelings (H5d), self-positive face (H5e), self-negative face (H5f), and relationship-oriented goals $(\mathrm{H} 5 \mathrm{~g})$. None of these hypotheses were supported, $\beta=0.02$, $p>.05$ for $\mathrm{H} 5 \mathrm{a} ; \beta=0.04, p>.05$ for $\mathrm{H} 5 \mathrm{~b} ; \beta=0.05, p>.05$ for $\mathrm{H} 5 \mathrm{c} ; \beta=0.00, p>.05$ for $\mathrm{H} 5 \mathrm{~d} ; \beta=0.03, p>.05$ for $\mathrm{H} 5 \mathrm{e} ; \beta=0.05, p>.05$ for H 5 f ; and $\beta=-0.02, p>.05$ for H 5 g . So, H5 was not supported, indicating that one's role does not interact with the frequency of the transgressive behavior to affect attributions and the perceived importance of goals.

H6 predicted that a greater extent of internal attributions leads to more of an eristic dialogue orientation. This prediction was not supported, $\beta=0.05, p>.05$. Although the eristic dialogue permits voicing negativity and criticism, people are not inclined to use it if they've made internal attributions about their own behavior or their partners' behavior.

H7 proposed that a greater perceived importance of negative feelings leads to more of an eristic dialogue orientation (H7a), as does greater perceived importance of dominating the other person $(\mathrm{H} 7 \mathrm{~b})$. Both predictions were supported, $\beta=0.39, p<.01$ for H 7 a , and $\beta=0.60, p<.01$ for dominance. Therefore, H 7 was supported. Negative goals lead to a dialogue orientation that permits voicing this negativity.

H8 proposed that greater perceived importance of positive feelings leads to more of a persuasive dialogue orientation (H8a), and to more of an information-seeking dialogue orientation (H8b). Both predictions were supported, $\beta=0.16, p<.01$ for H 8 a and $\beta=0.09, p<.01$ for H8b. Therefore, H8 was supported. A positive approach to
managing the transgression tends to be expressed via dialogues that permit enacting such positive approaches.

H9 proposed that greater perceived importance of self-positive face concerns leads to more of a persuasive dialogue orientation (H9a), more of a negotiation dialogue orientation (H9b), and more of an information-seeking dialogue orientation (H9c). The path from self-positive face to persuasive dialogue orientation was significant, $\beta=0.14, p$ $<.01$, so H9a was supported. H9b was also supported, $\beta=0.17, p<.01$, indicating that higher self-positive face concerns lead a person toward adopting the negotiation dialogue. Finally, H9c was also supported, $\beta=0.14, p<.01$, suggesting higher self-positive face concerns lead to more information-seeking. Overall, H9 was supported. Concern for one's image is reflected in an orientation toward a positive dialogue type.

H10 predicted that greater perceived importance of self-negative face concerns leads people to favor a negotiation dialogue (H10a), and an eristic dialogue (H10b). H10a was not supported, $\beta=-0.06, p>.05$, but H10b was supported, $\beta=0.08, p<.05$. Thus, perceived importance of self-negative face orients people toward an eristic dialogue only. This dialogue type gives people who are concerned with maintaining their autonomy the opportunity to vent, blame and quarrel, which may be responses to the imposition the other partner has brought on through a transgression. Overall, H10 received partial support.

H11 posited that greater perceived importance of other-oriented positive face concerns leads to more of a persuasive dialogue orientation (H11a), and to more of an information-seeking dialogue orientation (H11b). H11a was not supported as initially proposed; the path was significant, $\beta=-0.32, p<.01$, but the coefficient was negative,
indicating that perceived importance of other-oriented positive makes people less inclined to rely on the persuasive dialogue. H11b was not supported, $\beta=-0.06, p>.05$. Overall, H11 was not supported as initially proposed.

H12 proposed that greater perceived importance of other-oriented negative face concerns leads to more of a persuasive dialogue orientation (H12a), and to more of a negotiation dialogue orientation (H12b). H12a was not supported, $\beta=-0.02, p>.05$. H12b, however, was supported, $\beta=0.13, p<.01$, indicating that other-oriented negative face concerns lead people to favor the negotiation dialogue. People who want to ensure they are not imposing on their partners seem to believe a negotiation dialogue type can accommodate this goal. Overall, H12 was partially supported.

H13 proposed that greater perceived importance of relationship-oriented goals leads to more of a persuasive dialogue orientation (H13a), more of a negotiation dialogue orientation (H13b), more of an information-seeking dialogue orientation (H13c), but to less of an eristic dialogue orientation (H13d). The first three predictions were supported: $\beta=0.62, p<.01$ for H13a; $\beta=0.59, p<.01$ for H 13 b ; and $\beta=0.46, p<.01$ for H13c. People who are concerned with their relationship tend to prefer a positive dialogue type that takes into account the other person and enables partners to manage the event together. H13d was not supported, $\beta=0.05, p>.05$. The path was not significant, and the coefficient sign was actually in the opposite direction from what was hypothesized. Overall, H13 was mostly supported in that three of its four predictions were supported.

H14 investigated the effect of the four dialogue types on the perceived resolvability of the transgression. H14a proposed that more persuasion increases
perceived resolvability, H14b stated that more negotiation increases perceived resolvability, H 14 c posited that more information-seeking increases resolvability, whereas H14d hypothesized that more eristic dialogue decreases perceived resolvability. The first three predictions were supported: $\beta=0.20, p<.01$ for $\mathrm{H} 14 \mathrm{a} ; \beta=0.37, p<.01$ for H 14 b ; and $\beta=0.14, p<.05$ for H14c. Discussing the transgression, be it in the form of trying to convince the other party of one's point of view, trying to negotiate behaviors, or trying to offer or obtain more information about what happened, makes the event seem more resolvable. H14d was not supported. Although the coefficient's sign was in the hypothesized direction, the path was not significant, $\beta=-0.03, p>.05$. So, H14 was mostly supported in that three of its four predictions were supported.

Finally, H15 proposed that dialogue orientations affect one's satisfaction with the management of the relational transgression. H15a proposed a positive path from persuasion to satisfaction but this hypothesis was not supported, $\beta=0.03, p>.05$. H15b proposed a positive path from negotiation to satisfaction, and this hypothesis was supported, $\beta=0.46, p<.01$. H15c proposed a positive path from information-seeking to satisfaction, whereas H15d proposed a positive path from the eristic dialogue to satisfaction. These latter two predictions were not supported, $\beta=0.04, p>.05$ for H 15 c , and $\beta=0.07, p>.05$ for H15d. Although the coefficients were in the hypothesized direction, the paths were not significant. Overall, H15 was supported somewhat in that one of its four predictions were supported. These results suggest only the negotiation dialogue type is able to make people satisfied with the management of a transgression.

The five research questions proposed analyzed the effect of type of transgression, sample type, the interaction of one's role and the sample type on attributions and
perceived goal importance, as well as the effect of attributions on several dialogue orientations. The specifics of each research question and its results are detailed below. The coefficients presented are unstandardized path coefficients from the structural equation model.

RQ1 asked whether type of transgression affects the extent of internal (RQ1a) and external attributions (RQ1b), and the perceived importance of negative feelings (RQ1c), dominance (RQ1d), positive feelings (RQ1e), self-positive face (RQ1f), self-negative face (RQ1g), other-positive face (RQ1h), other-negative face (RQ1i), and relationshiporiented goals (RQ1j). Results indicated that a significant path existed from type of transgression to internal attributions (RQ1a), $\beta=-0.35, p<.01$, and from type of transgression to the perceived importance of positive feelings (RQ1e), $\beta=0.16, p<.05$. Participants in the broken promises scenarios made internal attributions to a greater extent than participants in the insensitivity scenarios, whereas participants in the insensitivity scenarios perceived positive feelings to be more important than did participants in the broken promises scenarios.

RQ2 asked whether a greater extent of internal attributions leads to more of a persuasive dialogue orientation (RQ2a), more of a negotiation dialogue orientation (RQ2b), or more of an information-seeking dialogue orientation (RQ2c). The path from internal attributions to the persuasive dialogue orientation (RQ2a) was significant, $\beta=$ $0.15, p<.01$ and the path from internal attributions to the information-seeking dialogue (RQ2c) orientation was also significant, $\beta=0.09, p<.01$. Thus, internal attributions lead people to favor a persuasive dialogue, and an information-seeking dialogue, but not a negotiation dialogue.

RQ3 asked whether a greater extent of external attributions leads to more persuasion (RQ3a), more negotiation (RQ3b), or more information-seeking (RQ3c). The paths from external attributions to all three dialogue types were significant, $\beta=0.23, p<$ .01 for RQ3a; $\beta=0.20, p<.01$ for RQ3b; and $\beta=0.11, p<.05$ for RQ3c. So, external attributions are positively associated with the persuasive dialogue orientation, the negotiation dialogue orientation, and the information-seeking dialogue orientation.

Two more research questions were added based on the preliminary results of the MANOVA. RQ4 asked whether sample type (younger, dating undergraduates vs. older, married people) affected the extent of internal attributions (RQ4a), the extent of external attributions (RQ4b), and the perceived importance of negative feelings (RQ4c), dominance (RQ4d), positive feelings (RQ4e), self-positive face (RQ4f), self-negative face (RQ4g), other-positive face (RQ4h), other-negative face (RQ4i), or relationshiporiented goals (RQ4j). Results indicated that sample type affected internal attributions (RQ4a), $\beta=0.53, p<.01$, and external attributions (RQ4b), $\beta=-0.19, p<.05$. Older, married individuals made internal attributions to a greater extent and made external attributions to a lesser extent than did younger, dating individuals. Sample type also affected the perceived importance of negative feelings (RQ4c), $\beta=-0.21, p<.01$, and dominance (RQ4d), $\beta=-0.38, p<.01$, in that the younger, dating participants perceived expressing negative feelings and trying to dominate the other person as more important than the older, married participants did. Results also revealed that sample type affected the perceived importance of all face concerns: $\beta=-0.29, p<.01$ for RQ4f; $\beta=-0.52, p<$ .01 for RQ5g; $\beta=-0.19, p<.01$ for RQ4h; and $\beta=0.36, p<.01$ for RQ4i. Self-positive face, self-negative face, and other-positive face were perceived as more important by the
younger, dating participants than by the older, married participants, whereas othernegative face was perceived as more important by the older, married participants than by the younger, dating participants. Thus, sample type affects internal attributions, and the perceived importance of negative feelings, dominance, and face concerns. Finally, sample type affected the perceived importance of relationship-oriented goals, $\beta=-0.20, p<.01$ indicating that younger, dating people perceived relationship-oriented goals to be more important than older, married people did.

Finally, RQ5 asked whether the interaction of one's role in the transgression and sample type affected the extent of internal attributions (RQ5a), the extent of external attributions (RQ5b), and the perceived importance of negative feelings (RQ5c), dominance (RQ5d), positive feelings (RQ5e), self-positive face (RQ5f), self-negative face (RQ5g), other-positive face (RQ5h), other-negative face (RQ5i), or relationshiporiented goals (RQ5j). Results revealed seven significant paths. Negative feelings ( $\beta=$ $0.28, p<.01$ ) and dominance ( $\beta=0.10, p<.05$ ) were perceived as more important by younger, dating transgressors and by older, married victims than by younger, dating victims, and older, married transgressors. These latter two categories perceived selfpositive face, $\beta=-0.11, p<.01$; other-positive face, $\beta=-0.15, p<.01$; and other-negative face, $\beta=-0.17, p<.01$, as more important than did younger, dating transgressors and older, married victims. The same pattern emerged for the perceived importance of positive feelings, $\beta=-0.11, p<.01$, and the importance of relationship-oriented goals, $\beta=-0.12, p<.01$.

The significant paths from all hypotheses and research questions are included in Figure 3 below, along with values for the proportion of explained variance in each
dependent variable. These values ranged from .09 for external attributions to .60 for the eristic dialogue orientation. Table 14 contains a summary of the unstandardized path coefficients.

Attributions were predicted to a small extent $\left(R^{2}=.16\right.$ for internal attributions and $R^{2}=.09$ for external attributions) by relational quality, sample type, and type of transgression (internal attributions), or one's role in the transgression (external attributions). This result is not surprising given that this research did not focus on what factors predict attributions. The results do, however, indicate additional variables specific to relational transgressions, which affect the attribution-making process.

Goals were predicted by relational quality, one's role in the transgression, sample type, the interaction of sample and role, and transgression type to various extents. The independent variables functioned best to predict the perceived importance of negative feelings ( $R^{2}=.36$ ), positive feelings $\left(R^{2}=.40\right)$, other-positive face $\left(R^{2}=.36\right)$, and relationship-oriented goals $\left(R^{2}=.44\right)$. One's role in the transgression was the common predictor for all four goal types, whereas sample type predicted all goals but the perceived importance of positive feelings.

Dialogue orientations were well predicted by attributions and goals with $R^{2}$ values ranging from .34 (information-seeking dialogue orientation) to .60 (eristic dialogue orientation). The most variance was explained by the least number of paths; only three goals (importance of negative feelings, dominance, and self-negative face concerns) were responsible for explaining $60 \%$ of the variance in the eristic dialogue orientation.

Finally, perceived resolvability and satisfaction with the transgression's management were predicted fairly well by dialogue orientations. Three dialogue
orientations (all except the eristic one) accounted for $34 \%$ of the variance in perceived resolvability, but only one dialogue orientation mattered for making people satisfied with the management of the event: the negotiation dialogue orientation, which accounted for $25 \%$ of the variance in satisfaction. These results are detailed in the next section.

Note. Exogenous variables are allowed to covary.
$R E L Q=$ participants' relational quality, $\mathrm{ROL}=$ one's role in the scenario, TYP $=$ type of transgression described in the scenario, $S=$ sample type, $\mathrm{R} * \mathrm{~S}=$ negative feelings, DOM = perceived importance of dominance, POS = perceived importance of positive feelings, $\mathrm{SPF}=$ perceived importance of self-positive face, $\mathrm{SNF}=$ perceived importance of self-negative face, $\mathrm{OPF}=$ perceived importance of other-positive face, $\mathrm{ONF}=$ perceived importance of other-negative face, REL $=$ perceived importance of relationship-oriented goals, $\mathrm{PDO}=$ persuasive dialogue orientation, $\mathrm{NDO}=$ negotiation dialogue orientation, $\mathrm{ISDO}=$ information-seeking dialogue orientation, $\mathrm{EDO}=$ eristic dialogue orientation, RES = perceived resolvability of the situation, and SAT = satisfaction with the management of the transgression.
Study 2 and Study 3 Unstandardized Path Coefficients According to Hypotheses and Research Questions

| Predictors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DV | RELQ | ROL F*R | TYP | S | R*S | IA | EA | NEG | DOM POS | SPF | SNF | OPF | ONF | REL PDO | NDO | ISDO | EDO |
| IA | 0.10** | $0.07 \quad 0.02$ | -0.35** | 0.53** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EA | 0.26** | 0.22** |  | -0.19* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NEG |  | -1.16** 0.04 |  | -0.21** | 0.28** |  |  |  |  |  |  |  |  |  |  |  |  |
| DOM |  | -0.52 ** 0.05 |  | -0.38** | 0.10* |  |  |  |  |  |  |  |  |  |  |  |  |
| POS | 0.60** | 0.42** 0.00 | 0.16* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SPF | 0.41** | 0.40** 0.03 |  | -0.29** | -0.11 ** |  |  |  |  |  |  |  |  |  |  |  |  |
| SNF |  | -0.15 0.05 |  | -0.52** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OPF | 0.56** | 0.48** |  | -0.19** | -0.15** |  |  |  |  |  |  |  |  |  |  |  |  |
| ONF |  | 0.48** |  | 0.36** | -0.17** |  |  |  |  |  |  |  |  |  |  |  |  |
| REL | 0.66** | 0.20** -0.02 |  | -0.20** | -0.12** |  |  |  |  |  |  |  |  |  |  |  |  |
| PDO |  |  |  |  |  | 0.15** | 0.23** |  | 0.16** | 0.14** |  | $-0.32^{* *}$ | -0.02 | 0.62** |  |  |  |
| NDO |  |  |  |  |  |  | 0.20** |  |  | 0.17** | -0.06 |  | 0.13* | 0.59** |  |  |  |
| ISDO |  |  |  |  |  | 0.09** | 0.11* |  | 0.09** | 0.14** |  | -0.06 |  | 0.46** |  |  |  |
| EDO |  |  |  |  |  | 0.05 |  | 0.39** | 0.60** |  | 0.08* |  |  | 0.05 |  |  |  |
| RES |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.20** | 0.37** | 0.14 | -0.03 |
| SAT |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.03 | 0.46** | 0.04 |  |
| $\begin{aligned} & * p<.05 . \\ & * * p<.01 . \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Note. $\mathrm{DV}=$ dependent variables, $\mathrm{RELQ}=$ participants' relational quality, $\mathrm{ROL}=$ one's role in the scenario, $\mathrm{F} * \mathrm{R}=$ interaction term for freque the transgressive behavior and one's role in the scenario, TYP = type of transgression described in the scenario, IA = internal attributions, external attributions, NEG = perceived importance of negative feelings, DOM = perceived importance of dominance, POS = perceived im of positive feelings, SPF = perceived importance of self-positive face, SNF = perceived importance of self-negative face, OPF = perceive importance of other-positive face, $\mathrm{ONF}=$ perceived importance of other-negative face, $\mathrm{REL}=$ perceived importance of relationship-orien $\mathrm{PDO}=$ persuasive dialogue orientation, $\mathrm{NDO}=$ negotiation dialogue orientation, $\mathrm{ISDO}=$ information-seeking dialogue orientation, EDO dialogue orientation, RES = perceived resolvability of the situation, and SAT = satisfaction with the transgression's management. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## CHAPTER V

## Discussion

This chapter addresses several issues. First, the chapter provides a summary of the research conducted. Second, the chapter provides a detailed discussion of the current research results and their implications for relational transgressions and the interpersonal communication literature. Third, the chapter provides a discussion of the limitations of the research and highlights directions for future research. Finally, a conclusion to this research is presented.

## Research Summary

This research investigated the management of relational transgressions in romantic relationships. It proposed that in the aftermath of such an event partners make attributions about the transgressive behavior, and they establish several types of goals that they would pursue when addressing the issue. These attributions and goals set the scene for several dialogue orientations, which, in turn, affect the perceived resolvability of the transgression and partners' satisfaction with its management. The current research focused on several factors believed to affect this process: one's role in the transgression (victim or transgressor), the type of transgression (broken promises or insensitivity), the frequency of the transgressive behavior (whether the transgression occurred for the first time or whether it had occurred several times before), and partner's relationship stage, captured by using two samples of younger, dating individuals and older, married individuals.

In preparation for the main studies, two pilot studies were conducted to identify expectations and transgressions in romantic relationships and to identify factors people
take into account when evaluating a transgression, as well as the goals that they perceive important when addressing a transgression. The secondary goal of these pilot studies was to refine the scenarios to be employed in the main studies. In addition, Study 1 was conducted to assess the dimensionality and reliability of all scales to be employed in the main studies. This step was especially important because several of the scales used were created specifically for the current research.

The two main studies recruited 713 participants for Study 2 (437 undergraduate students most in dating relationships) and Study 3 (276 married individuals most of whom were over 30 years old) to complete an online questionnaire and answer questions about a hypothetical relational transgression scenario. Study 2 participants were randomly assigned to one of the eight experimental conditions (Role x Frequency of the transgressive behavior x Type of transgression), whereas Study 3 participants were randomly assigned to one of the four experimental conditions (Role x Frequency of the transgressive behavior) for the broken promises transgression.

Participants provided demographic data, including an assessment of their current relational quality. They then read a hypothetical relational transgression scenario and answered a series of questions measuring the extent to which the behavior depicted in the scenario was a negative violation of their expectations or their partner's expectations, the attributions they made about the behavior in question, the perceived importance of several goals, their preferred dialogue type orientation, the perceived resolvability of the situation, and their satisfaction with approaching the matter in the way they had indicated. Participants also assessed the realism of the scenario and responded to six manipulation checks. Magnitude scales were used for all continuous variables.

Data were winsorized, and then they were transformed. Confirmatory factor analyses for each scale were conducted as were models for variables in the same panel (i.e., the panel of attribution and goals, and the panel of dialogue orientations), as well as an overall measurement model. The hypotheses and research questions were tested based on a structural equation model in which relational quality, one's role in a transgression, the interaction of frequency and role, transgression type, sample type, and the interaction of role and sample were used as exogenous variables to predict attributions and goals, which predicted dialogue orientations, which predicted resolvability and satisfaction. An interpretation of the results is presented below.

## Main Studies Results

The current research proposed 15 hypotheses and five research questions to explicate the proposed model for the management of relational transgressions. Four of these hypotheses received full support in their initial formulation. Nine hypotheses received partial support and two hypotheses did not receive support. Detailed results are presented below.

Attributions and goals. The first five hypotheses and three of the research questions investigated the effects of the proposed independent variables (relational quality, role in the transgression, the interaction of the frequency of the transgressive behavior and one's role, type of transgression, sample type, and the interaction of sample type and one's role) on the first panel of dependent variables, attributions and goals.

First, relational quality functions as a reference point for evaluating transgressions. It predicts attributions, which is consistent with previous research findings (Fincham \& Bradbury, 1993; Fincham et al., 2002). The surprising result is that higher
relational quality leads people to make internal attributions to a greater extent. Perhaps satisfied people are more puzzled by a transgression, thus engaging in more elaborate cognitive processing of the transgressive behavior. More scrutiny may result in internal attributions, whereas less cognitive effort may result in external attributions. Another interpretation is that the relationship observed between relational quality and internal attributions may not be very strong given the small path coefficient (unstandardized value of .10). Additional investigations are recommended.

That higher relational quality leads people to make external attributions to a greater extent is as expected. Satisfied couples have a high relational quality, in part, because they are in a relationship in which the other person lives up to their expectations. When the other person does not, the behavior may be treated as an exception to an otherwise satisfying relationship, and hence attributed to other reasons besides who the other person is deep down inside. The same reasoning applies to why such people perceive positive goals as important. If they wish to maintain their current satisfaction level, they need to minimize the effects of the transgression, so other-oriented behaviors are needed (Cupach \& Metts, 1994). Thus, satisfaction appears to lead to the adoption of positive goals to pursue for the management of the transgression.

Second, one's role in a transgression is also an important predictor of attributions and goals. Transgressors make external attributions about the transgressive behavior to a greater extent than victims do. This result is consistent with findings in attribution research that have pointed towards a self-serving bias: People tend to attribute success, but not failure, to their internal dispositions (Kelley, 1967; Snyder, Stephan, \& Rosenfield, 1978). This bias is linked to concerns about one's public image and self-
esteem, because such external attributions for failure lead to more positive affective states than internal attributions (Nicholls, 1975; Riemer, 1975). In the case of relational transgressions, external attributions make transgressors feel better about themselves: One is not a bad person who would intentionally violate other people's expectations, but the circumstances made one do so.

With respect to goals, one's role in the transgression is also important. Consistent with previous research that had highlighted the negative responses from victims of transgressions (e.g., Roloff \& Cloven, 1994; Vangelisti et al., 2005), the current research found that victims tend to experience negativity, show frustration and disappointment, and try to dominate, control, and make their partner feel bad in the aftermath of a transgression. Transgressors, on the other hand, perceived positive goals (positive face concerns, positive feelings, and relationship-oriented goals) to be more important than victims. These results confirm previous findings that reported that transgressors are concerned with restoring and reaffirming their relationship in the aftermath of a transgression (Cameron et al., 2002; Metts et al., 1990). These results also suggest a need to compensate for the transgressive behavior and a need to repair the potential damage the transgression may have inflicted on the relationship via the pursuit of positive goals.

Third, the frequency of the transgressive behavior, by itself or in interaction with one's role in the transgression, does not influence the management of the transgression; other considerations are apparently more important. This result is consistent with the serial argument literature (Johnson \& Roloff, 1998, 2000a, 2000b), which had reported repeatedly that the frequency of a recurring argument did not affect its perceived resolvability.

Fourth, the type of transgression predicts the extent of internal attributions and the perceived importance of positive feelings. These results suggest that there are some differences in the management of various types of transgressions. Some transgressions result in more internal attributions and transgressors ought to be prepared to address such situations. These results also suggest that conclusions about the management of relational transgression must take into account the type of transgression. However, results for infidelity may not be applicable to results for broken promises and vice versa.

Fifth, sample type is an important predictor of attributions and goals; it affects the extent of both internal and external attributions and the perceived importance of all goals except positive feelings. There are clear differences between younger, dating romantic partners, and older, married romantic partners. Younger, dating people make external attributions about the transgressive behavior to a greater extent, are more concerned with their own face (whether positive or negative) and their partner's positive face as well as with their relationship. Older, married people make internal attributions about the transgressive behavior to a greater extent and are more concerned with their partner's negative face. This pattern points to interesting differences between the two samples. Younger, dating people seem more willing to believe their partner's behavior occurred due to situational factors than are older, married individuals. It is likely that, one year into their relationships, younger individuals are still trying to know and understand their partners. They may be more willing to believe their partner committed a transgression because the situation demanded it rather than because of some dispositional traits, which could question what they know about the other person (i.e., one didn't think one's partner was the type of person who would engage in such behaviors) and potentially threaten
their relationship.
Younger, dating partners also focus on the effects of the transgression on the relationship more than do older, married individuals. It is likely that in the incipient stages of a relationship a transgression poses more of a threat than in a committed relationship. In other words, dating couples may break up because of a broken promise, and partners seem aware of this fragile status of their relationship, which is why they try to minimize the transgression's effects. Older individuals who have been in their relationship for a while (an average of twelve years in the current study) are not as concerned with relationship-oriented goals not because they do not care about their relationship, but because they know that their relationship is strong enough to survive a transgression of this severity.

Finally, results also indicated that younger, dating individuals were more concerned with their own face (both positive and negative) and their partner's positive face, whereas older, married individuals were more concerned with their partner's negative face. These results indicate more concern with one's presentation and image in younger relationships than in older relationships. The relationship seems to be perceived as a public performance where one must control one's projected image (Goffman, 1959). Older, married individuals are probably more comfortable with the other person and do not feel the need to protect their face as much; such relationships may be perceived as a safe, backstage area where one's public image can be let down (Goffman, 1959). The concern of these older, married individuals is not to impose on their partner when addressing the transgression. So, in longer marriages an orientation toward the other person is prominent, whereas in shorter dating relationships an orientation toward the self
is prominent when it comes to face concerns.
The differences highlighted above in the management of a relational transgression suggest that research findings with undergraduate samples portray only a partial picture of how transgressions are managed, potentially offering an incomplete assessment of the phenomenon. Most undergraduates are in dating relationships, and their responses to interpersonal issues reflect their experiences and conceptualization of incipient romantic relationships. Undergraduate students are also part of a younger generation, and it is possible that some of the current research findings capture inter-generational differences in romantic relationships. Research on relational transgression with samples other than undergraduate students is needed.

Finally, one's role in a transgression also interacts with one's relationship type. Younger dating, victims and older, married transgressors share some commonalities, in that both are concerned with their own positive face, the other person's face (negative and positive), positive feelings, and relationship-oriented goals. For older, married transgressors, these concerns indicate an understanding of the negative effects of a transgression and an orientation towards positivity as a compensatory mechanism to repair the situation. For younger, dating victims these results are somewhat surprising. They reflect an orientation toward the other person and the relationship while being concerned with maintaining a positive image of the self and expressing positivity. One interpretation is that such individuals are more allocentric, putting the needs of the other person and their relationship before their own needs and feelings. They are also more likely to use positivity to approach the situation and manage the transgression. Another interpretation is that they may be suppressing how they feel, because they are more
concerned with maintaining a positive face and with the effect of the event on the relationship. Throwing a fit, yelling, or trying to make the other person feel bad may reveal aspects of their own selves that they do not wish disclosed in their relationship. Roloff and Cloven (1990) used the term "chilling effect" to designate the situations in some relationships in which partners do not speak their minds because they are afraid of losing the other person. This pattern deserves further investigation.

Results also indicate that older, married victims and younger, dating transgressors perceive negative goals to be important to pursue in the aftermath of a relational transgression. The results pertaining to older, married victims are consistent with previous literature that has identified several negative behaviors that victims adopt following a transgression: retribution, sarcasm, criticism, and reciprocation of the hurtful behavior (Bowman, 1990; Roloff \& Cloven, 1994). The results pertaining to younger, dating transgressors are interesting and suggest that such individuals respond to their own misdoing via forceful approaches. They try to dominate their partner and express negative feelings. A possible interpretation of this finding, and a potentially disturbing one, is that such transgressors are aggressively blaming their partners for their own transgression, potentially making the victims feel responsible for the transgressors’ behavior. Such an approach has been discussed by Buunk and Bringle (1987), and should be investigated further.

The results above offer a dual perspective (victims and transgressors) on the management of relational transgressions and permit comparing this process across groups with different relational statuses (dating and married). Next, results pertaining to the factors that predict one's dialogue orientation are discussed.

Dialogue type orientations. Hypotheses six through thirteen as well as research questions two and three offer insight into the process of managing a relational transgression from attributions and goals to orienting one's self toward a particular dialogue type. Contrary to expectations, a greater extent of internal attributions does not lead to the eristic dialogue orientation but to either the persuasive dialogue orientation or the information-seeking dialogue orientation. The first type of dialogue offers people the opportunity to argue their point and persuade their partner to think about an issue the same way. When people make internal attributions they may try to convince their partners to change, to abandon a behavior that is perceived to violate expectations or to establish new rules about behavior. Any of these approaches would be satisfied via a persuasive dialogue. The second type of dialogue offers people the opportunity to find out more information about the transgressive behavior. People may ask their partners for explanations regarding the motives for the transgressive behavior. It could be that internal attributions are tentative assessments that are followed afterwards with requests for more information that permits people to make a final assessment of their partner's reasons for engaging in a transgression.

A greater extent of external attributions leads to more of a persuasive dialogue orientation, or more of a negotiation dialogue orientation, or more of an informationseeking dialogue orientation. In other words, any of these dialogue types are plausible if people make external attributions, and these attributions are not sufficient in and of themselves to indicate the orientation that people prefer. Overall, attributions lead to some of the more positive dialogue types, regardless of whether they are internal or external.

In respect to goals, several patterns emerged. Negativity tends to be perpetuated from goals to a negative dialogue orientation (i.e., eristic), whereas positivity (i.e., positive feelings) tends to be expressed via dialogues that permit enacting a positive approach as well. Face concerns operate in complex ways. Both positive face concerns tend to make people prefer the persuasion dialogue, which seems to be perceived as less face-threatening. A concern for one's own autonomy and ability to make decisions is reflected in a preference for the eristic dialogue, whereas a concern with the other partner's autonomy and freedom to make decisions leads toward a negotiation dialogue. Negotiation implies a bargaining process in which each person can try to achieve what he or she wants. It is presumed that if one wants something, a negotiation permits one to pursue that goal more so than any of the other dialogues. Finally, people who are concerned with their relationship tend to prefer a positive dialogue that takes into account the other person and enables both partners to manage the event together.

What do these hypotheses reveal about people's orientation toward a particular dialogue type? The persuasive dialogue is predicted by most factors: attributions, the perceived importance of positive feelings, self- and other-positive face concerns, and relationship-oriented goals. The goals are all positive ones, suggesting this dialogue type is believed to accommodate a calm, reasoned discussion about the transgression in which partners focus on persuading each other about their position on the issues and in which the tone of the dialogue is infused with reassurance, support, and understanding. A similar pattern emerges for the information-seeking dialogue, which is predicted by attributions, the importance of positive feelings, self-positive face concerns, and relationship-oriented goals. What differentiates these two dialogue types is purely the
goal of the dialogue; persuasion's goal is to reach a stable agreement, whereas information seeking's goal is to ensure a satisfactory spread of information (Walton \& Krabbe, 1995). People who are inclined to use persuasion seem to have made up their minds about the transgression and focus on persuasive arguments about it during their dialogue. People who are inclined to use information-seeking seem to require more information about the transgression; they have probably not made up their minds about it, and it is plausible that they would continue the dialogue by switching to another dialogue type once they have acquired the desired level of knowledge about the situation.

The negotiation dialogue is predicted by external attributions, self-positive face concerns, other-negative face concerns, and relationship-oriented goals. This is the only dialogue type that accommodates concerns for the other person's autonomy to make decisions. People seem to believe that bargaining gives their partners a chance to bring forth interests and negotiate their goals without imposition. People also seem to believe they can maintain positive impressions about themselves by engaging in a negotiation, presumably because they can make concessions and try to satisfy mutual goals. Finally, negotiation is perceived to be a way to ensure that the transgression doesn't damage the relationship. Partners apparently believe negotiating relational rules and appropriate behaviors can enhance their relationship.

Finally, the eristic dialogue is predicted by three goals that highlight forceful approaches to conversations: negative feelings, dominance, and self-negative face. These results are consistent with previous research on negotiation and interpersonal conflict, which has found a connection between negative goals or competitive goals and the use of distributive tactics. Liu and Wang (2010), for example, found that anger was positively
associated with competitive goals, such as getting a better deal than the other party and attacking the other party's face in a negotiation setting. Hample and Krueger (2011) found that pursuing dominance led to the use of distributive tactics, whereas Bevan et al. (2008) found that the perceived importance of negative goals led people to rely on distributive tactics in serial arguments. The picture here is clear: Negativity leads to eristic dialogue, so negative goals are amplified through negative tactics, which is likely to increase tension when managing the relational transgression. Negativity tends to be reciprocated and has long-term destructive effects on the relationship (Gottman, 1994), so the effect of relational transgressions in relationships that follow this pattern is likely to be negative.

## Resolvability and satisfaction with the management of the transgression. As

 the final step in the proposed model for the management of relational transgressions, dialogue types were hypothesized to affect the perceived resolvability of a relational transgression, and one's satisfaction with its management. The results indicated that relational transgressions are perceived as more resolvable if any of the three positive dialogue types are employed: persuasion, negotiation, or information-seeking, but that only negotiation makes people satisfied with the management of the transgression. Participants seem to perceive that, of the four dialogue types, the negotiation dialogue is the most mutually involving: It permits both parties to express their opinions and present reasons for their positions, which participants may associate with constructively managing a transgression. Persuasion and information-seeking have a unilateral sense to them; they involve one party trying to convince the other, without an acknowledgement of the other party or the other party's needs. Similarly, the information-seeking dialogueinvolves the unilateral spread of information, which doesn't seem satisfactory to partners. Both these dialogue types increase the perceived resolvability of the situation but are not sufficient by themselves to make people satisfied with how they have managed the transgression.

Contrary to predictions, the eristic dialogue did not affect either of these two outcome measures. This result is surprising, but it is consistent with another finding in the serial arguments literature in which distributive tactics, although predicted well by goals, do not affect the perceived resolvability of the argument or partners' satisfaction with their relationship (Cionea \& Hopârtean, 2011). It may be that negativity and an eristic dialogue orientation are short-lived emotional responses to the transgressive behavior. They may serve a cathartic function and nothing more. Once catharsis has been accomplished via this emotional release, partners reorient toward other options for addressing the transgression.

Summary. Overall, the model proposed for the management of relational transgressions suggests the following processes are at work in the aftermath of a relational transgression. Partners' relational quality serves as a reference frame that affects the attributions partners make and the goals that they perceive as important to pursue when addressing the transgression. A person's role affects these attributions and goals as well, with a different pattern emerging for victims and for transgressors. Victims tend to focus on the goals of negative feelings and dominance, whereas transgressors tend to focus on an array of goals, most of them positive: positive feelings, relationshiporiented goals, own negative face concerns, and other-oriented face concerns.

Transgressors also seem to fall prey to a self-serving bias when making attributions: They
tend to make external attributions about their behavior to a greater extent than victims do. This bias is likely caused by the embarrassing predicament of a transgression (Cupach \& Metts, 1994; Goffman, 1959) and the threat that a transgression poses to their face (as reflected by their concern with their own negative face).

A second important factor that affects how transgressions are managed is the type of relationship partners have. Younger, dating individuals focus on a wider range of goals (several of them negative) and they place a greater importance on face issues than do older, married individuals, especially if they are the victims of a transgression. Older, married individuals place greater importance on the other party's negative face, but they also make internal attributions to a greater extent and external attributions to a lesser extent. Younger, dating individuals, especially victims, pursue more goals, which suggests a concern with the effects of the transgression on multiple levels. At an individual level, asserting one's self and maintaining one's image is important, as reflected by the negative goals and self-face concerns. At a relational level, maintaining the other party's positive face and ensuring the transgression does not damage the relationship is important to partners. This pattern is similar for older, married transgressors who seem to recognize that they need to repair the situation created by the transgression at the multiple levels of their relationship.

Incipient relationships seem to require multiple approaches at different levels for the management of a relational transgression, probably because partners have not yet established their relational identities, relational boundaries, and functioning rules. Older, married individuals, who have been together for some time, have probably been in similar situations. They have pre-existing scripts for dealing with situations of relational
tension (Honeycutt, Woods, \& Fontenot, 1993; Jones \& Gallois, 1989), and they know the effect that such situations have on their relationship. They are not as concerned about relationship-oriented goals not because they don't care about the relationship, but because they recognize they can handle such a situation.

In respect to dialogue orientations, the clear pattern that emerges is that attributions, self-positive and other-oriented face concerns, positive feelings, and relationship-oriented goals lead people towards a positive dialogue type, such as persuasion, negotiation, or information-seeking. Negative, forceful goals, such as negative feelings, dominance, and one's concern with not appearing weak in front of the other person, lead to the eristic dialogue orientation, amplifying the negativity of goals via dialogue choices. Such choices do not affect one's satisfaction with the management of the transgression nor the perceived resolvability of the transgression, but they probably have other negative consequences not captured in the outcome measures of the current research. Positive dialogues all make the transgression seem more resolvable, and the negotiation dialogue also makes partners satisfied with their approach. So, to manage a relational transgression, partners should rely on a positive dialogue, whereas to manage a relational transgression and be satisfied with its management, partners should rely on the negotiation dialogue.

## Limitations and Directions for Future Research

The current research is not without limitations. The first limitation concerns the use of scenarios to study the management of relational transgressions in romantic relationships. There are advantages and disadvantages to using scenarios for conducting research. Converse and Presser (1986) have argued that scenarios are useful for keeping
participants focused on the specific variables studied. A scenario also allows researchers to manipulate the variables they wish to study, which can minimize the influence of other extraneous variables (Martin, 2006). For example, the scenarios in the present research permit manipulating the role a person has in a relational transgression and the frequency of the transgressive behavior. In the case of relational transgressions, face-to-face interactions would be difficult to employ. Ethical considerations caution about asking people to enact different types of transgressions in a laboratory, so a great deal of studies rely on recall procedures, which are also problematic.

One of the concerns regarding the use of scenarios is that the situations depicted may not be realistic, which makes it hard for participants to imagine themselves in those situations, especially situations in which they were asked to behave in a negative way. Informal feedback and realism scores indicated participants assigned to the role of transgressors had more difficulty imagining themselves in the scenarios than did participants assigned to the role of victims. Some transgressors indicated they would not behave in their relationship in the manner the scenario described them as behaving. This indication is, in and of itself, consistent with the attribution bias observed for transgressors. The difficulty to imagine engaging in a transgression is, however, reasonable given that most participants in the studies were in satisfied relationships, so they probably do not engage in transgressive behaviors frequently. However, the transgressions depicted in the scenarios are also low in social desirability. Some responses may have been motivated by the fact that transgressors did not like being asked to imagine that they had engaged in a socially undesirable behavior. In other words, people transgress, but it is other people who do it, not those assigned to the role of
transgressors in the current studies even though those assigned to the role of victims can imagine being at the receiving end of such behaviors.

The scenarios used in the current research studies were developed based on participants' responses, and they were edited several times based on participants' feedback. Their realism was assessed several times in a series of pilot studies. These revisions yielded final scenarios that were perceived, in general, as credible and reflective of a situation that could occur in everyday life.

Future research should rely on different approaches that can bypass this problem. For example, assigning participants to their respective role based on past relational experiences (e.g., one has committed a transgression) may facilitate their ability to imagine themselves in the situation. However, this approach would sacrifice the benefit of random assignment of participants to experimental conditions (Cameron et al., 2002). Another possibility is to recruit participants who have experienced a relational transgression recently and rely on recall procedures for examining how the transgression was managed. Finally, actual interactions in which people violate their partners' expectations can be used to study the management of transgressions. This approach would eliminate another limitation of hypothetical scenario research, which is the fact that participants imagine how they would behave but do not necessarily enact those behaviors. It is quite possible that how people plan on approaching a dialogue with their partner is radically different from how the dialogue ends up unfolding.

A second limitation of this research concerns the demographic characteristics of participants in the main studies. Out of the 437 undergraduates in dating relationships, $68 \%$ were white, and approximately $62 \%$ of them were women. Due to unforeseen
problems in data collection, a snowball sample had to be assembled for recruiting married people 30 years old or older for Study 3. Out of the 276 resulting participants, $77 \%$ were women, and $83 \%$ were white. The results of the present research must be interpreted in light of these sample demographics. The patterns observed are likely to characterize white women's approach to the management of relational transgressions. Although the model proposed can adequately capture the processes involved in the management of relational transgressions, it is possible that there are specific relationships among variables in the model that are affected by one's ethnicity and age. Members of different ethnic groups and age groups acquire group-specific knowledge and approaches for the management of conflict and interpersonal relationships, and these social and cultural influences may result in differences in the perceived importance of some goals and preferred dialogue types.

In addition, both samples were composed of educated individuals. Undergraduate students engage in intellectual activities on a daily basis, and they may have been exposed to research about interpersonal relationships as part of their Communication courses. Approximately half of the sample of older, married participants $(n=133)$ reported that they worked in education or intellectual labor, and approximately $70 \%$ of them $(n=196)$ had a graduate degree. Education may affect how people manage relational transgressions. For example, arguing skill deficiency has been studied in relation to violence in married couples. People who do not know how to argue end up attacking the other person (i.e., verbal aggressiveness) rather than attacking the ideas presented (i.e., argumentativeness), which increases violence (Infante, Chandler, \& Rudd, 1989). It may be the case that in samples with different levels of education the patterns of attributions,
goals, and dialogue orientations observed in the current research may change.
A third limitation of the current research concerns the fit indices in several confirmatory factor analyses and models. More specifically, the RMSEA index was above the recommended fit value for several models in the confirmatory factor analyses. In some cases, the model fit would have been acceptable based on different fit criteria. For example, Browne and Cudek (1993) and MacCallum, Browne, and Sugawara (1996) proposed .08 as the cutoff value for the RMSEA index, not .06 as Bentler and Hu (1999) proposed. Several models (including the main process model for the management of relational transgressions) would have had acceptable based on Browne and Cudek's recommendations.

A more pressing issue, however, is the extent to which the values of the RMSEA index are evidence of model misspecification. The index is a population-based measure that takes into account the discrepancy between the proposed model covariance matrix and the estimate of the population covariance matrix (Brown, 2006; Kline, 2005). The poor fit may indicate that the proposed model is not a good fit for the data. In light of other fit indices that were within acceptable values, however, this conclusion is less probable. Hu and Bentler (1999) have argued that the $S R M R$ is the index most sensitive to model misspecifications and in most cases, the $S R M R$ index was acceptable for the models tested in this research.

Some authors have pointed out that the RMSEA is affected by the number of parameters in a model (Brown, 2006) and that larger samples are needed to obtain more precise results (Kline, 2005). Kenny, Kaniskan, and McCoach (2001) have adopted an even stronger position, arguing that, due to a bias in the index, the RMSEA should not be
calculated when samples have a small number of degrees of freedom. These considerations may explain the problematic RMSEA values in the individual scales' confirmatory factor analyses when the number of degrees of freedom was relatively small. In the measurement models and the process model for the management of relational transgressions the number of degrees of freedom is large. The sample size is also large by comparison to some of the guidelines offered in the literature, which indicate 500 cases or more constitute a large sample size (Kline, 2005). However, the ratio of sample size to the number of parameters estimated was small. In the main studies, for example, 307 parameters were estimated with a sample of 713 cases. The most lenient recommendations have proposed a 5:1 ratio (Bentler \& Chou, 1987). The ratio of sample size to the number of parameters estimated could be another cause of the larger RMSEA values. Future research should not only consider the possibility of model misspecification but also ensure an adequate sample size is used to test the model.

There are several directions to pursue for future research. First, research should refine the proposed model for the management of relational transgressions. The question of whether the proposed goals could be reduced to a smaller set of factors deserves further attention given the potential to increase the model's parsimony. In addition, other outcome variables, not measured in this research, may be able to capture better the spiraling effect of negative goals into eristic dialogue orientations. Finally, future research could accommodate the possibility of mixed dialogue types in the management of transgressions. Walton and Krabbe (1995) explained that in everyday arguments people probably mix the dialogue dialogue types they proposed. Further investigations of this possibility would elucidate the relationship between dialogue types and clarify which
dialogue people rely on at different stages in their management of a transgression.
A second direction for future research involves testing more types of relational transgressions with varying degrees of severity. The differences between the type of transgression and the severity of the violation could not be clearly parsed in the current research. Additional research could elucidate whether transgressions of different types elicit different response patterns or whether the severity of the violation, regardless of the type of transgression, is what causes one response over another. The next step in this line of research would be the development of a theoretical classification of transgression types to replace the various lists of transgressions that are found in the literature.

Finally, additional research would be welcomed in respect to the management of transgressions in different romantic relationships (not only relationships at different stages, but also different types of relationships, such as inter-ethnic, intercultural, and same-sex relationships). In light of the results obtained in the current research for the two samples, it is plausible that there are several other relationship characteristics that affect the process through which transgressions are managed. Given that participants' age and their relational status were confounded in the current study, future research should be conducted to clarify whether age, relationship type, or generational differences are responsible for the different approaches to the management of a transgression. Furthermore, the management of transgressions in a wider range of interpersonal relationships (e.g., friendships and work relationships) could be investigated.

## Conclusion

The goal of the current research was to analyze the management of relational transgressions in romantic relationships via a model that captures the cognitive and
communicative processes at work in the aftermath of a transgression. It was argued that such processes set the tone for how the event is handled, framing the transgression, which has implications for the well-being of the relationship. The data provided reasonable support for the proposed model, revealing important factors that affect how a transgression is managed: one's relational quality, one's role in the transgression, and one's relationship status or age. These factors influence the attributions people make about the transgressive behavior and the goals they perceive as important to pursue, which, in turn, affect people's orientation toward a dialogue type. It was also argued that the four dialogue orientations provide partners with different argumentative moves; some of these moves lead to constructive dialogues, which are essential for the well-being of the relationship. The data supported this claim; the perceived importance of goals led to a particular dialogue type. For example, the desire to express negativity led people toward an eristic dialogue, whereas the desire to express concern for the relationship led people toward a persuasive or negotiation dialogue. Constructive dialogues are essential for the maintenance of a relationship. Persuasion, negotiation, and information-seeking dialogue were predictive of the perceived resolvability of a transgression, whereas the eristic dialogue was not.

This research contributes to research on relational transgressions and the interpersonal communication literature in several ways. First, the research adds knowledge regarding transgressions that have been understudied. It was argued that such transgressions, although less severe than infidelity, are important and should be examined. The current research analyzed two types of transgressions, broken promises and insensitivity. The results of the present research indicate that both transgressions are
managed similarly. In other words, the proposed model for the management of relational transgressions can be applied to these transgressions, and potentially to others as well. There are, however, some differences, and future research can delineate the extent of similarity between kinds of transgressions.

Second, the current research helps explain the management of relational transgressions from the perspective of both victims and transgressors. One's role in the transgression was found to affect the attributions made about the event and the perceived importance of several goals. Victims focus on negativity, whereas transgressors tend to make external attributions to a greater extent and tend to focus on positivity and relationship-oriented goals. These results highlight differences between partners in the management of a transgression, which can explain their different approaches in dealing with a transgression.

Third, this research contributes to knowledge about the management of relational events from the perspective of romantic partners at different stages of their relationship. Younger, dating individuals and older, married individuals frame transgressions differently; they do not focus on the same goals and do not make the same attributions. Older, married individuals are concerned with identifying causes for their partner's behavior, whereas younger, dating individuals are concerned with expressive goals and face needs. These results also indicate that research pertaining to romantic relationships must use samples other than undergraduate students. The applicability of results concerning romantic relationships obtained from undergraduate samples to other populations is questionable.

Fourth, this research contributes to the interpersonal communication literature via
the process model proposed for the management of relational transgressions. The model maps out the cognitive and communicative processes at work in the aftermath of a transgression, detailing the possible responses partners have available and the effects of such responses on conversation. Despite modifications implemented in the measurement model to achieve acceptable model fit, the structural model proposed has received support and indicates a promising avenue of theory development in respect to relational transgressions. The model not only sheds light on the differences between partners in framing the event but also indicates how partners can solve such events in a constructive manner: by focusing on positive dialogue orientations and by negotiating the issue with their partners. The model also traces the causal effects partners' approaches have: For example, goals are reflected in a dialogue orientation, and a dialogue orientation leads to more or less satisfaction and affects how resolvable the issue seems. In other words, the process model illustrates the spiraling effect that perpetuates one's approach to the management of a transgression. One's initial views about the event affect how one approaches a dialogue about the transgression, which sets the tone for verbal exchanges in which these initial cognitive and communicative preferences are enacted.

Finally, this research contributes to the interpersonal communication literature and the informal logic literature by adapting the normative dialogue framework to the predictive domain of empirical research. This process highlights the potential for interdisciplinary research and provides empirical results that assess the theoretical conceptualizations of dialogues and their normative rules.

Relational transgressions do not always take the form of infidelity, and they do not always lead to hurt feelings, betrayal, and relational termination. They do, however,
affect the trajectory of a romantic relationship. As the current research has found, their successful management depends on partners' ability to focus on positive approaches and constructive dialogues. This ability may be the crucial difference that explains why the effects of transgressions are so widely different in romantic couples.

## Appendix A Pilot Study 1 Scenarios and Questions

Please provide the following demographic information:

1. Your age, in years:
$\qquad$ Years
2. What is your year in school?
___ Freshman
__Sophomore
__Junior
__Senior
___ Graduate student
___ Other (please specify)
3. What is your ethnicity?
__ European-American
__ Asian-American
__ African-American
__ Hispanic-American
___ European
__ Asian
__ African
__ South/Central American
__ A combination of some of the above
__ I prefer not to answer
___ Other (please specify) $\qquad$
4. Your sex:

Male
__ Female
Please read the following scenario carefully:
Scenario I: You and your boyfriend/girlfriend have been dating for six months. $\mathrm{He} /$ She finally has a night off from work and you are excited to spend some time with him/her. It turns out, though, that his/her former girlfriend/boyfriend has come to town. Your boyfriend/girlfriend has not seen this person in quite some time and he/she decides to reschedules your plans for the night in order to get together with his former girlfriend/boyfriend.

Scenario II: You and your best friend made plans to hang out tonight. You haven't seen him/her in a while as he/she got a new job and he/she is very busy. So you're excited about it. However, at the last minute, your friend calls to reschedule your evening plans because one of his/her good friends from out of town is visiting. So, he/she has decided to get together with the other person instead of you.

Scenario III: You and your boyfriend/girlfriend are celebrating your one year anniversary. You're planning a special evening for the two of you at home. The evening is approaching and your boyfriend/girlfriend calls to say he/she will be getting home late that night. Based on the conversation, it is clear that he/she forgot that today was your anniversary.

Scenario IV: You and your best friend decide to have lunch together. There is one restaurant that you usually go to, but you feel like trying something new. Your friend, however, is a picky eater and would prefer to go to a place where she/he knows the menu. You manage to convince her/him to try out the new restaurant. The whole time you are there, your friend complains about the food and the fact that he/she doesn't like the place

Scenario V: You recently began dating another person. You made plans to hang out this weekend, but as the weekend approached the other person said he/she was sick and needed to rest. So, you made other plans with your friends. While you are out, you run into the other person, who is hanging out with his/her friends as well.

Scenario VI: You and your best friend made plans to hang out this weekend, but as the weekend approached he/she said he/she was sick and needed to rest. So, you made other plans with some other friends. While you are out, you run into your friend, who is hanging out with some other people.

Scenario VII: You loaned your car to one of your friends for the day. It turns out your friend received a parking ticket while he/she had your car. He/She doesn't seem to want to pay the ticket, but you believe it's his/her responsibility as he/she had the car that day.

Scenario VIII: You and your roommate get along pretty well. He/She is good about respecting your space, has a similar lifestyle, and is good about paying bills on time. Your roommate, however, has this habit of leaving his stuff all over the place. You are a pretty neat person and his/her mess is beginning to get to you.

Scenario IX: You suspect your girlfriend/boyfriend may be cheating on you. One evening, she/he received a text message while in the bathroom. Although you know it's not OK, you read the text. It's from another person of the opposite sex, asking him/her to get coffee the next day.

Scenario X: You've been friends with another person for a long time. You would probably consider this person your best friend. You recently found out that he/she made some mean remarks about you behind your back.

Scenario XI: You and your girlfriend/boyfriend have been together for more than a year. One night when you're hanging out with other people, your boyfriend/girlfriend makes a mean remark about you in front of the others.

Scenario XII: You have recently gotten married and are about to move into a new house. You and your partner are trying to decide what color to paint. It turns out that your
choices don't match at all - one of you wants the colors to be fun and lively, the other wants the colors to be slightly more traditional and not stand out as much. One day, when you're talking about it again, your partner says your choice just reflects your boring personality.

Scenario XIII: You've been married for a few years and your anniversary is coming up. You're planning a special evening for your husband/wife at home. The evening is approaching and your husband/wife calls to say he/she will be getting home late that night. Based on the conversation, it is clear that he/she forgot that today was your anniversary.

Scenario XIV: You have been married for a couple of years. You live in a small but comfortable apartment in the suburbs. You and your husband/wife talked about saving money and started doing so about a year ago. You didn't talk about what the money would be used for, but rather assumed you'd decide once you've reached your goal. One day, your husband/wife decided to go ahead and spend a large portion of that money without consulting with you.

Scenario XV: You suspect your husband/wife may be cheating on you. One evening, she/he received a text message while in the bathroom. Although you know it's not OK, you read the text. It's from another person of the opposite sex who says she enjoyed the last weekend they spent together.

Please answer the following questions about the scenario:

1. Would the other person's comments or behavior bother you?
2. If you've answered yes to the previous question, pleased indicate on a scale from $0=$ not at all to $100=$ extremely, how much it would bother you.
3. Why would the other person's behavior bother you?
4. How does the situation make you feel?
5. Would you do anything about the situation?
6. What would determine you to confront the other person about the situation?
7. What would keep you from confronting the other person about the situation?
8. Please indicate on a scale from a scale from $0=$ not at all to $100=$ extremely, how likely you would be to say something to the other person.
9. Please indicate on a scale from $0=$ not at all likely to $100=$ extremely likely, how likely are you to just drop the issue all together.
10. If you confronted the other person, what would you say?
11. If you confronted the other person, how do you think he/she would respond?
12. If you decided NOT to confront the other person, would you do anything else about the situation?
13. Please gives us an estimate for the following statements using a scale from $0=$ not at all to $100=$ extremely.
a. The scenario was credible.
b. The scenario was realistic.
c. The scenario reflects a situation that could occur in everyday life.
d. I had no difficulty imagining myself in the scenario described.

For the following questions, please list as many things as possible for each answer.

1. In a friendship,
a. What are some of the things you expect from your friends?
2. Which one matters most to you?
3. Which one matters least to you?
b. What are some of the things you expect your friends NOT to do?
4. Which one matters most to you?
5. Which one matters least to you?
6. In a romantic relationship,
a. What are some of the things you expect from your romantic partner?
7. Which one matters most to you?
8. Which one matters least to you?
b. What are some of the things you expect your romantic partner NOT to do?
9. Which one matters most to you?
10. Which one matters least to you?

## Appendix B Pilot Study 1 Coding Scheme

Question: What are some of the things you expect from your romantic partner? Codes:
1 = Honesty \& trust (partner should be honest, tell the truth, be faithful, loyal, and trustworthy)
$2=$ Reliability and support (partner should be reliable, mature, should stand by me, support me, be there for me)
3 = Emotional support (partner should be caring, affectionate, understanding, empathetic, sensitive to my needs)
4 = Love, sex \& intimacy (partner should love me, share my feelings, appreciate me, be romantic, be compatible, be attracted to me)
$5=$ Well-mannered (partner should be kind, respectful, polite, nice, thoughtful, helpful, attentive)
6 = Fun \& unique (partner should be fun, unpredictable, unique, silly, someone who makes me laugh)
7 = Communication (partner should be easy to talk to, open and talkative)
$8=$ Prioritize relationship (partner should want to spend time together, make time for me, put me first)
$9=$ Other traits (partner should be determined, thankful, a good listener, determined, hard-working, independent, wild, etc.)
$10=$ Other (some other expectation - e.g., bring me gifts, gets along with my friends)
$11=$ Missing data
Question: Which one matters most?
Codes:
1 = Honesty \& trust (partner should be honest, tell the truth, be faithful, loyal, and trustworthy)
$2=$ Reliability and support (partner should be reliable, mature, should stand by me, support me, be there for me)
3 = Love, sex \& intimacy (partner should love me, share my feelings, appreciate me, be romantic, be compatible, be attracted to me)
$4=$ Other (other expectations that matter most)
$5=$ Missing data
Question: Which one matters least?
Codes:
$1=$ All are important
2 = Fun \& unique (partner should be fun, unpredictable, unique, silly, someone who makes me laugh)
3 = Communication (partner should be easy to talk to, open and talkative)
$4=$ Sex, intimacy, passion (partner should be attracted to me, passionate about me)
5 = Manners (be kind, nice)
$6=$ Other (other expectations that matter least)
$5=$ Missing data

Question: What are some of the things you expect your romantic partner NOT to do?

## Codes:

1 = Cheat or betray (partner should not cheat, betray, be unfaithful)
$2=$ Be dishonest or lie (partner should not lie, should not go behind my back, should not be dishonest)
3 = Be rude or insensitive (partner should not be rude, talk down to me, criticize me, be mean to me, tease me)
$4=$ Neglect relationship (partner doesn't spend enough time with me, doesn't put in an equal amount of effort, doesn't pay attention to me, doesn't listen to me)
$5=$ Other (expect partner not to do some other behavior)
$6=$ Missing data
Question: Which one matters most?
Codes:
1 = Cheat or betray (partner should not cheat, betray, be unfaithful)
$2=$ Be dishonest or lie (partner should not lie, should not go behind my back, should not lie)
$3=$ Other (expect partner not to do some other behavior)
$4=$ Missing data
Question: Which one matters least?
Codes:
1 = All are important
$2=$ Be dishonest or lie (partner should not lie, should not go behind my back, should not lie)
3 = Be rude or insensitive (partner should not be rude, talk down to me, criticize me, be mean to me, tease me)
4 = Support (partner being there for me, supporting me, sticking up for me)
$5=$ Other (some other expectation that matters least)
$6=$ Missing data

## Appendix C Pilot Study 2 Scenarios and Questions

Please provide the following demographic information:

1. What is your age, in years?
2. What is your sex?
3. What is your ethnicity?
4. What is your religious affiliation, if any?
5. What type of romantic relationship are you in at this point?
6. How long have you been in this relationship? (years, months, days)
7. If you were to describe your relationship to someone, what would you say about it?
8. How satisfied with your relationship are you?
$\begin{array}{llllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10\end{array}$
Not at all satisfied
Extremely satisfied

Please imagine that you are in the scenario that you are about to read and that the situation refers to your current romantic relationship.

Scenario 1: You and your romantic partner are out to dinner with friends. You just had an argument before coming to the restaurant. During dinner, your partner makes several remarks that you believe are rude. You tell him/her that you wish he/she stopped embarrassing you in front of your friends.

Scenario 2: You and your romantic partner are out to dinner with friends. You just had an argument before coming to the restaurant. During dinner, you make several remarks that your partner interprets as rude. He/She tells you she/he wishes that you stopped embarrassing her in front of your friends.

Scenario 3: You and your romantic partner have been planning to set aside some time for yourselves this weekend. The last few weeks have been very busy, you had a lot of things to do, and didn't really have enough time for each other. As the weekend approaches, your partner says that he/she wants to spend the time you had initially planned to spend together with his/her friends.

Scenario 4: You and your romantic partner have been planning to set aside some time for yourselves this weekend. The last few weeks have been very busy, you had a lot of things to do, and didn't really have enough time for each other. As the weekend approaches, you tell your partner that you want to spend the time you had initially planned to spend together with your friends.

Scenario 5: There is an important event coming up for which you have asked your partner to make sure he/she would be present. Your partner promises that he/she would be there and reassures you that nothing could stop him/her from attending. It is the day before the event and your partner tells you something has come up at work and he/she will not be able to attend the event the next day.

Scenario 6: There is an important event coming up for which your partner asked you to
make sure you would be present. You have promised that you would be there and reassured your partner that nothing could stop you from attending. It is the day before the event and you tell your partner that something has come up at work and you will not be able to attend the event the next day.

Scenario 7: Your romantic partner has some friends you do not particularly like because you believe they are a bad influence on him/her. You have talked about this issue with your partner and he/she has agreed to not spend as much time with these friends as he/she used to. On Friday evening your partner said he was having dinner with some colleagues but as you are driving home you see him/her entering a restaurant with this group of friends you do not like. You are pretty sure your partner saw that you saw him/her.

Scenario 8: You have some friends that your romantic partner you does not particularly like because he/she believes they are a bad influence on you. You have talked about this issue with your partner and you have agreed to not spend as much time with these friends as you used to. On Friday evening you told your partner that you were having dinner with some colleagues. You are in fact going to a restaurant with these friends your partner doesn't like. As you are entering the restaurant you notice your partner driving by and you are pretty sure she saw you.

Scenario 9: Your partner has received an important promotion, which is a great opportunity, but which would also require him/her to work longer hours. He/She received this offer two weeks ago and has been decided to accept the promotion. $\mathrm{He} / \mathrm{She}$ is sharing the news about this promotion with you now.

Scenario 10: You have received an important promotion, which is a great opportunity, but which would also require you to work longer hours. You have received this offer two weeks ago and have decided to accept the promotion. Now you are sharing the news about this promotion with your romantic partner.

1. Please write your first thoughts after reading this situation.
2. Is this situation a pleasant, neutral, or unpleasant event? Please explain why.
3. Is this situation surprising? Please explain why.
4. Does this situation violate any expectations or rules about how partners should behave in a relationship?
5. If so, what is that expectation or rule?
6. If the situation violates an expectation or a rule, is this an expectation that you have of your partner and that he/she has of you?
7. What aspects would you take into account when evaluating this situation? Please list all things that you would consider.
8. Which aspects are the most important? Please explain why.
9. Would you bring up this issue so that you can talk about it with your partner? Please explain why.
10. Do you think your partner would your partner bring up this issue? Please explain what makes you think that.
11. If you've answered yes to question 9 (if not skip this question),
a. How would you bring it up (that is, what would you do)?
b. What do you want to accomplish if you brought up the issue?
12. If you've answered yes to question 10 (if not, skip this question),
a. How do you think he/she would bring it up (that is, what would he/she do)?
b. What do you think he/she would want to accomplish if he/she brought up the issue?
13. Let's assume you had some sort of talk with your partner about this situation...
a. How likely is it that you would have a calm discussion with your partner about the situation?
i. If this were the case, what would be the most important goal you wanted to accomplish in this discussion?
b. How likely is it that you would have a quarrel or a fight with your partner about the situation?
i. If this were the case, what would be the most important goal you wanted to accomplish in this discussion?
14. Do you think that this situation threatens you in any way? Please explain in what way.
15. Do you think that this situation threatens your relationship in any way? Please explain in what way.
16. Do you think this scenario is realistic?
17. Were you able to imagine yourself in the scenario? Please explain any difficulties you may have had.
18. What would you change about the scenario (if anything) to make it seem more realistic?

## Appendix D Pilot 2 Study Coding Scheme

Scenario 1
Question: What aspects would you take into account when evaluating this situation?
Please list all things that you would consider.
Codes:
1 = partner's (past) behavior and/or intentions (whether the partner intended the comments, whether the partner has behaved in this manner previously in the past)
$2=$ nature of the argument (what the argument was about)
$3=$ contextual factors (relationship with friends at dinner, whose friends they are)
$4=$ other (other factors are taken into account)
$5=$ missing data (cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?

## Codes:

1 = resolve issue
$2=$ avoid such situations in the future
$3=$ maintain relationship (ensure relationship is not damaged by situation)
$4=$ other (other goal in mind)
$5=$ missing data (cells for responses are empty or participants don't understand the question)

Scenario 2
Question: What aspects would you take into account when evaluating this situation?
Please list all things that you would consider.
Codes:
$1=$ contextual factors (who the friends are)
$2=$ personal factors (are the partners tired, did the other person have a bad day)
$3=$ nature of the argument
4 = intentionality of behavior
$5=$ other factors
$6=$ missing data cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?
Codes:
1 = resolve issue
2 = avoid such situations in the future
3 = understand the other person
$4=$ other (other goal in mind)
$5=$ missing data (cells for responses are empty or participants don't understand the question)

Scenario 3
Question: What aspects would you take into account when evaluating this situation?

Please list all things that you would consider.
Codes:
1= partner's (past) behavior (has this happened before?)
$2=$ nature of plans (can they be rescheduled, are the important)
$3=$ contextual factors (is the situation really important)
$4=$ other factors
$5=$ missing data cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?
Codes:
1 = understanding (the other person, person's motives, the situation)
$2=$ express won feelings
$3=$ other (other goal in mind)
$4=$ missing data (cells for responses are empty or participants don't understand the question)

Scenario 4
Question: What aspects would you take into account when evaluating this situation?
Please list all things that you would consider.
Codes:
$1=$ relationship with partner (what's the status of the relationship, level of commitment)
$2=$ nature of plans with partner (can they be reschedules, are they important)
$3=$ contextual factors (nature of situation, is it really important)
4 = other factors
$5=$ missing data cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?

## Codes:

1 = resolve issue
2 = explain situation/decision to partner
$3=$ receive forgiveness/understanding from partner
4 = other (other goal in mind)
$5=$ missing data (cells for responses are empty or participants don't understand the question)

Scenario 5
Question: What aspects would you take into account when evaluating this situation?
Please list all things that you would consider.
Codes:
$1=$ partner's (past) behavior (has this happened before?)
$2=$ nature of plans (can they be rescheduled, are the important)
$3=$ contextual factors (is the situation really important, is it out of partner's control, is it unexpected)
$4=$ management of situation (did partner communicate issue in advance, how partner
communicated issue, whether the partner has an intention to make it up)
$5=$ other factors
$6=$ missing data cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?

## Codes:

1 = resolve issue
2 = understand issue/partner
3 = express own feelings
$4=$ other (other goal in mind)
$5=$ missing data (cells for responses are empty or participants don't understand the question)

Scenario 6
Question: What aspects would you take into account when evaluating this situation?
Please list all things that you would consider.
Codes:
$1=$ nature of plans (is the event important, can it be rescheduled)
$2=$ nature of work situation that came up (is it important, can it be postponed)
3 = other factors
$4=$ missing data cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?

## Codes:

1 = resolve issue
$2=$ avoid such situations in the future
3 = explain situation/decision to partner
$4=$ other (other goal in mind)
$5=$ missing data (cells for responses are empty or participants don't understand the question)

Scenario 7
Question: What aspects would you take into account when evaluating this situation?
Please list all things that you would consider.
Codes:
1 = partner's (past) behavior and/or reasons for behavior
$2=$ contextual factors (what are the circumstances, possibility of a misunderstanding)
$3=$ feelings towards partner (love, trust, respect)
$4=$ other factors
$5=$ missing data cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?
Codes:

1 = understand partner's behavior and motives for engaging in behavior
$2=$ resolve issue
$3=$ avoid such situations in the future
$4=$ other (other goal in mind)
$5=$ missing data (cells for responses are empty or participants don't understand the question)

Scenario 8
Question: What aspects would you take into account when evaluating this situation?
Please list all things that you would consider.
Codes:
$1=$ reasons for engaging in behavior
$2=$ relationship (importance of truth, honesty, length of relationship)
$3=$ contextual factors (who the friends are, possibility of misunderstanding)
4 = other factors
$5=$ missing data cells for responses are empty or participants don't understand the question)

Question: What do you want to accomplish if you brought up this issue?
Codes:
1 = resolve issue
$2=$ relationship maintenance (being honest, communicating with the other person)
3 = express own feelings, thinking
$4=$ other (other goal in mind)
$5=$ missing data (cells for responses are empty or participants don't understand the question)
Appendix E Pilot Study 2 Coding Scheme Results

| Lack of sensitivity /Rudeness |  | Disregard for primary relationship |  |  | Broken promises |  |  |  | Deception/Lying |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Victim | Transgressor | Victim |  | Transgressor | Victim |  | Transgressor |  | Victim |  | Transgresso <br> r |  |
| $n=21$ | $n=14$ | $n=12$ |  | $n=8$ | $n=14$ |  | $n=13$ |  | $n=19$ |  | $n=14$ |  |
| Factors taken into account to assess transgression |  |  |  |  |  |  |  |  |  |  |  |  |
| Code No. | Code No. | Code | No. | Code No. | Code | No. | Code | No. | Code | No. | Code | No. |
| Code1 12 | Code1 6 | Code 1 | 10 | Code1 7 | Code 1 | 4 | Code1 | 8 | Code 1 | 8 | Code 1 | 4 |
| Code2 13 | Code2 7 | Code2 | 5 | Code2 3 | Code2 | 9 | Code2 | 13 | Code2 | 14 | Code 2 | 17 |
| Code3 8 | Code3 11 | Code 3 | 7 | Code3 7 | Code 3 | 11 | Code3 | 9 | Code3 | 5 | Code 3 | 7 |
| Code4 14 | Code 410 | Code 4 | 7 | Code4 5 | Code 4 | 10 | Code 4 | 0 | Code 4 | 16 | Code 4 | 7 |
| Code5 5 | Code5 9 | Code5 | 2 | Code5 0 | Code5 | 7 |  |  | Code5 | 2 | Code5 | 0 |
|  | Code6 0 |  |  |  | Code6 | 0 |  |  |  |  |  |  |
| Goals for a conversation with partner |  |  |  |  |  |  |  |  |  |  |  |  |
| Code1 12 | Code1 3 | Code1 | 6 | Code1 1 | Code1 | 5 | Code1 | 2 | Code1 | 6 | Code 1 | 6 |
| Code2 7 | Code2 6 | Code2 | 2 | Code2 0 | Code2 | 2 | Code2 | 1 | Code2 | 11 | Code2 | 6 |
| Code3 5 | Code3 5 | Code 3 | 5 | Code3 6 | Code3 | 3 | Code3 | 7 | Code3 | 3 | Code3 | 5 |
| Code4 10 | Code4 2 | Code 4 | 3 | Code 42 | Code 4 | 5 | Code4 | 3 | Code 4 | 11 | Code 4 | 2 |
| Code5 0 | Code5 1 |  |  | Code5 2 | Code5 | 3 | Code5 | 2 | Code5 | 2 | Code5 | 2 |

Please answer the following demographic questions:

1. What is your age (in years)?
2. What is your sex?

Male
__Female
3. What is your ethnicity/race?

American-Indian or Alaska native
Asian
Black or African-American
Native Hawaiian or other Pacific Islander
Hispanic or Latino/Latina
White
___A combination of the above
___I prefer not to answer
__Other
4. What is your class?
___Freshman
Sophomore
Junior
Senior
Other
5. Are you currently involved in a romantic relationship?
___Yes (continue to next page)
___No (disqualified from questionnaire)
Before you continue, we want to make sure you are familiar with the scales you will be using throughout the study.

For every question you will be asked to use a specific number from 0 (zero) to infinity. Zero means not at all, 100 means a moderate amount, and you may use any number from zero to infinity.

For example, suppose the question asked "How much do you like chocolate?"
If you don't like chocolate at all, you would answer 0 .
If you like chocolate moderately, you would answer 100.
If you like chocolate only a little bit (less than moderately), you could answer 20 or 40.
If you really liked chocolate, you may answer something like 300, or 400, depending on how much you really like it.

So, let's practice this scale a little bit:
$\left.\begin{array}{|l|l|l|}\hline \text { Question } & \text { Scale } & \begin{array}{l}\text { Your } \\ \text { answer }\end{array} \\ \hline \text { How much do you like the food offered } & 0=\text { not at all } & \\ \text { in the Stamp Student Union? } & 100=\text { moderate amount } & \\ & \text { Use any number from zero on up }\end{array}\right]$

What's the lowest number you can use for answering questions according to this scale?
What does 100 indicate when using this scale?
Can you use a number such as 245 to answer a question?
Please tell us a little bit about your current romantic relationship:

1. What type of relationship is it?
__Heterosexual
__Homosexual
__Other
2. What is the approximate length of your relationship? (Indicate years or months (if less than a year) or days (if less than a month)).
__Years
__Months
_Days
3. How would you describe your relationship?
___Casual dating
_Exclusive dating
___Committed to each other
_Seriously committed to each other
Engaged
Married
_In a civil union/partnership
___Other (please specify)
Also please answer the following questions about your relationship:
[Note. RELQ = relational quality]

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How good is your relationship? <br> (RELQ1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How stable is your relationship? | $0=$ not at all |  |


| (RELQ2) | $100=$ moderate amount <br> Use any number from zero on up |  |
| :--- | :--- | :--- |
| How strong is your relationship? <br> (RELQ3) | $0=$ not at all |  |
|  | $100=$ moderate amount |  |
| Use any number from zero on up |  |  |$\quad$.

Now please read the following situation. While reading it, please imagine that this happened to you. We understand that it may not actually happen in your current relationship, but do your best to imagine it did.

Scenario 1: Broken promises, low frequency, victim
Next weekend there is an important family event coming up. Your favorite cousin is celebrating her sweet sixteen and you and your partner have prepared a special surprise for her. The party has been on your calendar for a few months now, your partner has promised he/she would make sure he/she will be there, and you are looking forward to both of you going. At dinner tonight your partner said he won't be able to make it because he it would be better if he/she went to work that day. He/She really needs to catch up on all the work from the past several weeks when he/she has been simply too busy to finish all the paperwork. You've been thinking about this because you don't remember your partner cancelling on something that you and your partner were supposed to do together in the past.

Scenario 2: Broken promises, low frequency, transgressor Next weekend there is a family event coming up that is important to your partner. His/Her favorite cousin is celebrating her sweet sixteen and you and your partner have prepared a special surprise for her. The party has been on your calendar for a few months now, you've promised your partner that you would be there, and you are looking forward to both of you going. At dinner tonight you told your partner that you won't be able to make it because it would be better if you went to work that day. You really need to catch up on all the work from the past several weeks when you have been simply too busy to finish all the paperwork. You've been thinking about this because you don't remember having to cancel on something that you and your partner were supposed to do together.

Scenario 3: Broken promises, high frequency, victim
Next weekend there is an important family event coming up. Your favorite cousin is celebrating her sweet sixteen and you and your partner have prepared a special surprise for her. The party has been on your calendar for a few months now, your partner has promised he/she would make sure he/she will be there, and you are looking forward to both of you going. At dinner tonight your partner said he won't be able to make it because he it would be better if he/she went to work that day. He/She really needs to
catch up on all the work from the past several weeks when he/she has been simply too busy to finish all the paperwork. You've been thinking about this because you remember your partner cancelling several times before in the past on something that you and your partner were supposed to do together.

Scenario 4: Broken promises, high frequency, transgressor Next weekend there is a family event coming up that is important to your partner. His/Her favorite cousin is celebrating her sweet sixteen and you and your partner have prepared a special surprise for her. The party has been on your calendar for a few months now, you've promised your partner that you would be there, and you are looking forward to both of you going. At dinner tonight you told your partner that you won't be able to make it because it would be better if you went to work that day. You really need to catch up on all the work from the past several weeks when you have been simply too busy to finish all the paperwork. You've been thinking about this because you remember having to cancel several times before in the past on something that you and your partner were supposed to do together.

Scenario 5: Insensitivity, low frequency, victim
Today has been just one of those days. You were late for work this morning and things just kept getting worse as the day progressed. You had a tough meeting with your boss and didn't accomplish nearly as much as you had planned. You've finally gotten home and all you want to do is have a quiet and relaxing evening. You start telling your partner about your day and he/she tells you after a while that you should just get over it and focus on getting ready as you are going out for dinner. You start thinking about this because you don't remember your partner being insensitive before in the past.

Scenario 6: Insensitivity, low frequency, transgressor
Today has been just one of those days. You were late for work this morning and things just kept getting worse as the day progressed. You had a tough meeting with your boss and didn't accomplish nearly as much as you had planned. You've finally gotten home and you are in a rush to get ready for dinner. Your partner starts telling you about his/her day but after a while you tell him/her that he/she tells should just get over it and focus on getting ready to go out for dinner. You start thinking about this because you don't remember being insensitive to your partner before in the past.

Scenario 7: Insensitivity, high frequency, victim
Today has been just one of those days. You were late for work this morning and things just kept getting worse as the day progressed. You had a tough meeting with your boss and didn't accomplish nearly as much as you had planned. You've finally gotten home and all you want to do is have a quiet and relaxing evening. You start telling your partner about your day and he/she tells you after a while that you should just get over it and focus on getting ready as you are going out for dinner. You start thinking about this because you remember your partner being insensitive several times before in the past.

Scenario 8: Insensitivity, high frequency, transgressor
Today has been just one of those days. You were late for work this morning and things
just kept getting worse as the day progressed. You had a tough meeting with your boss and didn't accomplish nearly as much as you had planned. You've finally gotten home and you are in a rush to get ready for dinner. Your partner starts telling you about his/her day but after a while you tell him/her that he/she tells should just get over it and focus on getting ready to go out for dinner. You start thinking about this because you remember being insensitive to your partner several times before in the past.

Again, imagine that this has happened to you. With that in mind, please answer the following questions:
[Note. $\mathrm{EV}=$ expectancy violation, $\mathrm{IA}=$ internal attributions, $\mathrm{EA}=$ external attributions, $\mathrm{V}=$ victim, $\mathrm{T}=$ transgressor]

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| To what extent is your partner's <br> behavior surprising? (EV1, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your partner's <br> behavior unexpected? (EV2, V) | $0=$ not at all |  |
|  | $100=$ moderate amount |  |
| Use any number from zero on up |  |  |$\quad$.


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| To what extent does this matter reflect <br> something about your partner as a <br> person? (IA2, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> some of the things that define who your <br> partner is a person? (IA3, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent did who your partner is <br> as a person cause this matter? (IA4, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent did who our partner truly <br> is deep down inside cause this matter? <br> (IA5, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your partner | $0=$ not at all |  |
| responsible for this matter? (IA6, V) | $100=$ moderate amount |  |
| Use any number from zero on up |  |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| which your partner was cause this <br> matter? (EA3, V) | $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> something about other people? (EA4, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent did some unfortunate <br> circumstances cause this matter? (EA5, <br> V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is this matter due to the <br> circumstances in which your partner <br> was in? (EA6, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> something about the situation in which <br> you were? (EA1, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> something about other people? (EA2, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> some things that are not characteristic of <br> who you are as a person? (EA3, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> something about other people? (EA4, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent did some unfortunate <br> circumstances cause this matter? (EA5, <br> T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is this matter due to the <br> circumstances in which you were in? <br> (EA6, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |

Again, please imagine that the situation described in the scenario actually happened to you. Now imagine that you had some sort of conversation with your partner about this matter. Answer the following questions with this assumption in mind.
[Note. $\mathrm{NEG}=$ negative feelings, $\mathrm{DOM}=$ dominance, $\mathrm{SPF}=$ self-positive face, $\mathrm{SNF}=$ self-negative face, POS = positive feelings, $\mathrm{OPF}=$ other-positive face, $\mathrm{ONF}=$ othernegative face, $\mathrm{REL}=$ relationship-oriented goals, $\mathrm{PDO}=$ persuasive dialogue orientation, NDO = negotiation dialogue orientation, ISDO = information-seeking dialogue orientation, $\mathrm{EDO}=$ eristic dialogue orientation]

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How important would it be for you to <br> express negative feelings about your <br> partner? (NEG1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How important would it be for you to <br> show your anger at your partner? <br> (NEG2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show your frustration with your partner? <br> (NEG3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show your disappointment in your <br> partner? (NEG4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> make sure your partner understands how <br> you feel? (NEG5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to dominate your partner? (DOM1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to make your partner feel bad? (DOM2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to control your partner? (DOM3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to put down your partner? (DOM4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to make your partner feel insecure? <br> (DOM5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you not to <br> damage your partner's impression of <br> you? (SPF1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> make sure your partner still thinks highly <br> of you? (SPF2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> make sure your partner still respects you? <br> (SPF3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to not <br> appear weak in front of your partner? <br> (SNF1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you not to <br> put yourself at the mercy of your partner? <br> (SNF2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to be | $0=$ not at all |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| able to make your own decisions about <br> this matter? (SNF3) | $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> express positive feelings about your <br> partner? (POS1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show support for your partner? (POS2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show that you cared about your partner? <br> (POS3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show love for your partner? (POS4) | $0=$ not at all |  |
| How important would it be for you to let <br> your partner know you understand how <br> he/she feels? (POS5) | Use any number from zero on up all |  |
| How important would it be for you to let <br> your partner know you still respect | Use any number amount from zero on up |  |
| him/her? (OPF1) | $100=$ moderate amount |  |
| How important would it be for you to let <br> your partner know you still think highly <br> of him/her? (OPF2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you not to <br> embarrass your partner? (OPF3) | $0=$ not at all | $100=$ moderate amount |,


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| relationship? (REL3) | Use any number from zero on up |  |
| How important would it be for you to let <br> your partner know you value your <br> relationship? (RELA) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> continue your relationship with your <br> partner? (REL5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to explain your <br> position to your partner? (PDO1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to give reasons <br> for your position? (PDO2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make a case <br> for your position about this matter? <br> (PDO3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to convince <br> your partner to see things your way? <br> (PDO4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to talk your <br> partner into thinking about this matter the <br> way you do? (PDO5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> you and your partner are on the same <br> page about this matter? (PDO6) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to reach a <br> compromise with your partner? (NDO1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make a deal <br> with your partner? (NDO2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to come up <br> with an agreement that both of you could <br> live with? (NDO3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make <br> concessions hoping your partner would <br> make some concessions too? (NDO4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> what both of you wanted was <br> accomplished? (NDO5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| $0=$ not at |  |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| matter? (NDO6) | $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to find out <br> more information about this matter from <br> your partner? (ISDO1, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to get all the <br> details of this matter? (ISDO2, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to ask your <br> partner for the whole story on this <br> matter? (ISDO3, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> you know everything about this matter? <br> (ISDO4, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to let your <br> partner know more about this matter? <br> (ISDO1, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to give your <br> partner all the details of this matter? <br> (ISDO2, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to offer your <br> partner the whole story on this matter? <br> (ISDO3, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> your partner knew everything about this <br> matter? (T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to just get this <br> matter over with for now? (EDO1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to use words to <br> attack your partner? (EDO2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to vent about <br> this situation? (EDO3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to take the <br> opposite position from your partner? <br> (EDO4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| feelings out? (EDO5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How much would you try to blame your <br> partner? (EDO6) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to quarrel with <br> your partner? (EDO7) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |

Now let's assume that you had a conversation with your partner in which you tried to do the things you indicated above. Please think that you actually did that and answer the following questions with this in mind.
[Note. $\mathrm{RES}=$ resolvability, SAT = satisfaction with the transgression's management]
$\left.\begin{array}{|l|l|l|}\hline \text { Question } & \text { Scale } & \begin{array}{l}\text { Your } \\ \text { answer }\end{array} \\ \hline \begin{array}{l}\text { How confident are you that you would } \\ \text { be able to remedy the situation? } \\ \text { (RES1) }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array} & \\ \hline \begin{array}{l}\text { How confident are you that you would } \\ \text { agree about this matter? (RES2) }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array} & \\ \hline \begin{array}{l}\text { How confident are you that you would } \\ \text { resolve the situation in the immediate } \\ \text { future? (RES3) }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array} & \\ \hline \begin{array}{l}\text { How confident are you that you would } \\ \text { able to find a really good solution? } \\ \text { (RES4) }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount }\end{array} & \\ \hline \text { How confident are you that you would } & 0=\text { not at all } & \\ \text { work through this with your partner? } & 100=\text { moderate amount } & \\ \text { (RES5) } & \text { Use any number from zero on up } & \\ \hline \begin{array}{l}\text { How confident are you that you and } \\ \text { your partner would be able to get } \\ \text { through this? (RES6) }\end{array} & 0=\text { not at all } & 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array}\right]$

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| more would you appreciate your | $100=$ moderate amount |  |
| partner? (SAT4) | Use any number from zero on up |  |
| If you did things this way, how much | $0=$ not at all |  |
| more would you respect your partner? | $100=$ moderate amount |  |
| (SAT5) | Use any number from zero on up |  |
| If you did things this way, how much | $0=$ not at all |  |
| stronger would your relationship be? | $100=$ moderate amount |  |
| (SAT6) | Use any number from zero on up |  |
| If you did things this way, how much | $0=$ not at all |  |
| better would your relationship be? | $100=$ moderate amount |  |
| (SAT7) | Use any number from zero on up |  |

Now please tell us your impression of the scenario you have just read.
[Note. REAL = realism)

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How much were you able to imagine <br> yourself in the situation described? <br> (REAL1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much does this scenario reflect a <br> situation that could happen in life? <br> (REAL2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much does this scenario reflect a <br> credible situation? (REAL3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |

Is there anything that you would suggest we change about the scenario to make it more realistic?

Appendix G Study 1 LISREL Syntax for the Goals Measurement Model with
Modification Indices
!GOALS WITHOUT SELF ITEM 5 CFA AND WITH MIS
RAW DATA FROM FILE 'C:LLISREL 8.8 Examples\Ale mele\Diss pilots\Pilot 3
data.PSF'
LATENT VARIABLES
SELF1 SELF2 SELF3 SELF4 OTHER1 OTHER2 OTHER3 REL
RELATIONSHIPS
SELF1TR SELF2TR SELF3TR SELF4TR = SELF1
SELF6TR SELF7TR SELF8TR SELF9TR SELF10TR = SELF2
SELF11TR SELF12TR SELF13TR = SELF3
SELF14TR SELF15TR SELF16TR = SELF4
OTHR1TR OTHR2TR OTHR3TR OTHR4TR OTHR5TR = OTHER1
OTHR6TR OTHR7TR OTHR8TR = OTHER2
OTHR9TR OTHR10TR OTHR11TR = OTHER3
REL1TR REL2TR REL3TR REL4TR REL5TR = REL
LET THE ERRORS OF SELF9TR AND SELF10TR CORRELATE
LET THE ERRORS OF SELF6TR AND SELF8TR CORRELATE
LET THE ERRORS OF OTHR3TR AND OTHR5TR CORRELATE
LET THE ERRORS OF OTHR1TR AND OTHR2TR CORRELATE
PATH DIAGRAM
END OF PROBLEM

Appendix H Study 1 LISREL Syntax for the Dialogue Orientations Measurement Model with Modification Indices
!DIALOGUES WITHOUT EDO1 ITEM CFA AND WITH MIS
RAW DATA FROM FILE 'C:LLISREL 8.8 Examples\Ale mele\Diss pilots\Pilot 3 data.PSF'
LATENT VARIABLES
PDO NDO ISDO EDO
RELATIONSHIPS
PDO1TR PDO2TR PDO3TR PDO4TR PDO5TR PDO6TR = PDO NDO1TR NDO2TR NDO3TR NDO4TR NDO5TR NDO6TR = NDO ISDO1TR ISDO2TR ISDO3TR ISDO4TR = ISDO
EDO2TR EDO3TR EDO4TR EDO5TR EDO6TR EDO7TR = EDO
LET THE ERRORS OF PDO1TR AND PDO2TR CORRELATE
LET THE ERRORS OF PDO4TR AND PDO5TR CORRELATE
LET THE ERRORS OF NDO1TR AND NDO6TR CORRELATE
LET THE ERRORS OF NDO1TR AND NDO3TR CORRELATE
LET THE ERRORS OF NDO2TR AND NDO4TR CORRELATE
LET THE ERRORS OF ISDO1TR AND ISDO2TR CORRELATE
LET THE ERRORS OF EDO3TR AND EDO5TR CORRELATE
PATH DIAGRAM
END OF PROBLEM

Appendix I Study 1 LISREL Syntax for the Measurement Model with Modification
Indices
!MEASUREMENT MODEL
RAW DATA FROM FILE 'C:\LISREL 8.8 Examples\Ale mele\Diss pilots\Pilot 3 data.PSF'
LATENT VARIABLES
IA EA NEG DOMIN SFACE1 SFACE2 POS OFACE1 OFACE2 REL PDO NDO ISDO
EDO RESOLV SATISF RELQ
RELATIONSHIPS
IA1TR IA2TR IA3TR IA4TR IA5TR IA6TR = IA
EA1TR EA3TR EA5TR EA6TR = EA
SELF1TR SELF2TR SELF3TR SELF4TR = NEG
SELF7TR SELF8TR SELF9TR SELF10TR = DOMIN
SELF11TR SELF12TR SELF13TR =SFACE1
SELF14TR SELF15TR SELF16TR = SFACE2
OTHR1TR OTHR2TR OTHR3TR OTHR4TR OTHR5TR $=$ POS
OTHR6TR OTHR7TR OTHR8TR = OFACE1
OTHR9TR OTHR10TR OTHR11TR =OFACE2
REL1TR REL2TR REL3TR REL4TR REL5TR = REL
PDO1TR PDO2TR PDO3TR PDO4TR PDO5TR PDO6TR = PDO
NDO1TR NDO2TR NDO3TR NDO4TR NDO5TR NDO6TR $=$ NDO
ISDO1TR ISDO2TR ISDO3TR ISDO4TR = ISDO
EDO2TR EDO3TR EDO4TR EDO5TR EDO6TR EDO7TR = EDO
RES1TR RES2TR RES3TR RES4TR RES5TR RES6TR = RESOLV
SAT1TR SAT2TR SAT3TR SAT4TR SAT5TR SAT6TR SAT7TR = SATISF
RELQ1TR RELQ2TR RELQ3TR RELQ4TR RELQ5TR = RELQ
LET THE ERRORS OF IA2TR AND IA1TR CORRELATE
LET THE ERRORS OF IA3TR AND IA1TR CORRELATE
LET THE ERRORS OF IA2TR AND IA3TR CORRELATE
LET THE ERRORS OF EA5TR AND EA6TR CORRELATE
LET THE ERRORS OF SELF9TR AND SELF10TR CORRELATE
LET THE ERRORS OF SELF6TR AND SELF8TR CORRELATE
LET THE ERRORS OF OTHR3TR AND OTHR5TR CORRELATE
LET THE ERRORS OF OTHR1TR AND OTHR2TR CORRELATE
LET THE ERRORS OF PDO1TR AND PDO2TR CORRELATE
LET THE ERRORS OF PDO4TR AND PDO5TR CORRELATE
LET THE ERRORS OF NDO1TR AND NDO6TR CORRELATE
LET THE ERRORS OF NDO1TR AND NDO3TR CORRELATE
LET THE ERRORS OF NDO2TR AND NDO4TR CORRELATE
LET THE ERRORS OF ISDO1TR AND ISDO2TR CORRELATE
LET THE ERRORS OF EDO3TR AND EDO5TR CORRELATE
LET THE ERRORS OF RES2TR AND RES4TR CORRELATE
LET THE ERRORS OF SAT4TR AND SAT5TR CORRELATE
LET THE ERRORS OF SAT1TR AND SAT2TR CORRELATE

LET THE ERRORS OF SAT2TR AND SAT3TR CORRELATE LET THE ERRORS OF SAT1TR AND SAT3TR CORRELATE LET THE ERRORS OF SAT6TR AND SAT7TR CORRELATE LET THE ERRORS OF RELQ4TR AND RELQ5TR CORRELATE LET THE ERRORS OF RELQ1TR AND RELQ3TR CORRELATE LET THE ERRORS OF SELF11TR AND SELF12TR CORRELATE LET THE ERRORS OF SELF11TR AND SELF13TR CORRELATE LET THE ERRORS OF SELF14TR AND SELF15TR CORRELATE LET THE ERRORS OF SELF15TR AND SELF16TR CORRELATE LET THE ERRORS OF OTHR6TR AND OTHR7TR CORRELATE LET THE ERRORS OF OTHR9TR AND OTHR10TR CORRELATE LET THE ERRORS OF PDO2TR AND PDO3TR CORRELATE
LET THE ERRORS OF OTHR2TR AND OTHR3TR CORRELATE PATH DIAGRAM
END OF PROBLEM

## Appendix J Study 2 and Study 3 Scenarios and Questions

## Study 2 and Study 3 Demographic Questions

Please answer the following demographic questions:

1. Are you currently involved in a romantic relationship?
___Yes (continue to next page)
__No (disqualified from questionnaire)
2. What is your age (please enter numeric years - e.g., 20)?
__I prefer not to answer
3. What is your sex?
__Male
___Female
__I prefer not to answer
4. What is your ethnicity/race?
__American-Indian or Alaska native
Asian
Black or African-American
Native Hawaiian or other Pacific Islander
Hispanic or Latino/Latina
White
A combination of the above
_Other
___I prefer not to answer
5. (Study 2 participants) What is your class?

Freshman
Sophomore
Junior
Senior
Other
I prefer not to answer
(Study 3 participants)
What is your occupation?
I prefer not to answer
6. What area do you currently live in?
__Village
__Small town, not near a city
__Small town, near a city
Suburb of a small or medium city
Suburb of a large city
Small or medium city
Large city
___I prefer not to answer
(Study 3 participants only)
7. What region of the United States do you live in?
__ New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont)
___Middle Atlantic (New Jersey, New York, and Pennsylvania)
East North Central (Indiana, Illinois, Michigan, Ohio, and Wisconsin)
West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota)
South Central (Delaware, D.C., Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia)
East South Central (Alabama, Kentucky, Mississippi, and Tennessee)
West South Central (Arkansas, Louisiana, Oklahoma, and Texas)
__Mountain (Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, and Wyoming)
__ Pacific (Alaska, California, Hawaii, Oregon, and Washington)
Other
__I prefer not to answer
8. What is your total annual income?
___Less than \$20,000
\$20,001-\$39,999
\$40,000 - \$59,999
\$60,000 - \$79,999
\$80,000 - \$99,999
\$100,000 - \$119,000
\$120,000-\$140,000
More than \$140,000
I prefer not to answer
9. Do you have any children?
__Yes
No
___I prefer not to answer
10. How big is your immediate family (i.e., mother, father, siblings)?
$\qquad$ (enter number here)
11. What is the highest level of education you have completed as of now?
$\ldots$ Less than $9^{\text {th }}$ grade
$\ldots 9^{\text {th }}$ grade to $12^{\text {th }}$ grade, no diploma
High school graduate (includes equivalency) Some college, not degree
Associate's degree
Bachelor's degree
Master's degree
Professional degree
Doctorate degree
Other
I prefer not to answer
12. What would you say best characterizes the type of work you do on a daily basis?
__Manual labor
Intellectual labor
A combination of the two
Other
I prefer not to answer
13. In your everyday activities, how often do you come in contact with other people?
__Almost never
Not very often
Often
Very often
Almost all the time
14. In your everyday activities, how often do you argue (e.g., explain your ideas, convince others of something, sell something) with others?

Almost never
Not very often
Often
Very often
Almost all the time
15. In your everyday activities, how often do you supervise other people?

Almost never
Not very often
Often
Very often
Almost all the time
16. In your everyday activities, how often do you have to make decisions?

Almost never
Not very often
Often
_Very often
Almost all the time
17. In your everyday activities, how often do you have to deal with conflicts?
__Almost never
_Not very often
Often
Very often
___Almost all the time

## Magnitude Scales Training Questions

Before you continue, we want to make sure you are familiar with the scales you will be using throughout the study.

For every question you will be asked to use a specific number from 0 (zero) to infinity. Zero means not at all, 100 means a moderate amount, and you may use any number from zero to infinity.

For example, suppose the question asked "How much do you like chocolate?" If you don't like chocolate at all, you would answer 0 .
If you like chocolate moderately, you would answer 100.
If you like chocolate only a little bit (less than moderately), you could use a number such as 20 or 40 (again, you will make the choice of what number to use).
If you really liked chocolate, you could use a number such as like 245 , or 400 , depending on how much you really like it (again, you will make the choice of what number to use).

So, let's practice this scale a little bit:
Study 2 questions:

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How much do you like the food offered <br> in the Stamp Student Union? | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important is it for you to do well <br> on your next COMM exam? | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on <br> up |  |

Study 3 questions:

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How much do you like fast food? | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important is it for you to spend the <br> winter holidays with your family? | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |

(Loop questions - participants will need to answer the three questions correctly in order to proceed to the next page).
What's the lowest number you can use for answering questions according to this scale?
What number would you use to indicate a moderate amount?
Can you use a number such as 245 to answer a question?

## Study 2 and Study 3 Relationship Information

Please tell us a little bit about your current romantic relationship:

1. What type of relationship is it?
__Heterosexual
Homosexual
Other
2. What is the approximate length of your relationship? Indicate years or months (if less than a year) or days (if less than a month).
__Years
__Months
__Days
3. How would you describe your relationship?
___Casual dating
Exclusive dating
Committed to each other
Seriously committed to each other
Engaged
Married
_In a civil union/partnership
__Other (please specify)
Also please answer the following questions about your relationship:
[Note. $\mathrm{RELQ}=$ relational quality]
$\left.\begin{array}{|l|l|l|}\hline \text { Question } & \text { Scale } & \begin{array}{l}\text { Your } \\ \text { answer }\end{array} \\ \hline \text { How good is your relationship? } & 0=\text { not at all } & \\ \text { (RELQ1) } & 100=\text { moderate amount } & \\ & \text { Use any number from zero on up } & \\ \hline \begin{array}{l}\text { How stable is your relationship? } \\ \text { (RELQ2) }\end{array} & 0=\text { not at all } & \\ & 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array}\right]$

| relationship? (RELQ5) | $100=$ moderate amount <br> Use any number from zero on up |  |
| :--- | :--- | :--- |

## Study 2 and Study 3 Scenarios and Questions

Now please read the following situation. While reading it, please imagine that this happened to you. We understand that it may not actually happen in your current relationship, but do your best to imagine it did.

Scenario 1: Broken promises, low frequency, victim (Study 2 and Study 3 participants) Your sister's graduation is next weekend. The ceremony is Saturday morning and your parents are throwing a party for your sister on Saturday afternoon. A couple of weeks ago you and your partner talked about this and decided to drive over Friday night and spend the whole weekend at your parents' house. Your partner has promised he/she would help you set up for the party Saturday morning as there is a lot to do and you two have also prepared a special surprise for your sister. At dinner tonight your partner said he/she won't be able to drive with you on Friday night. He/She has remembered today that on Saturday morning his buddies/her girlfriends are getting together for brunch and he/she wants to go. You've been thinking about this because this means you'll have to set up for the party by yourself. You don't remember your partner cancelling in the past on things that he/she promised he/she would help you out with.

Scenario 2: Broken promises, low frequency, transgressor (Study 2 and Study 3 participants)
Your partner's sister graduation is next weekend. The ceremony is Saturday morning and your partner's parents are throwing a party for her sister on Saturday afternoon. A couple of weeks ago you and your partner talked about this and decided to drive over Friday night and spend the whole weekend at his/her parents' house. You promised your partner that you would help him/her set up for the party Saturday morning as there is a lot to do and you two have also prepared a special surprise for your sister. But today you remembered that your buddies/your girlfriends are getting together for brunch on Saturday morning. So at dinner tonight you told your partner that you won't be able to drive with him/her on Friday night because you want to go to brunch with your buddies/girlfriends. You've been thinking about this because this means you won't be there to set up for the party with your partner. You don't remember cancelling in the past on things that you've promised to help out with.

Scenario 3: Broken promises, high frequency, victim (Study 2 and Study 3 participants) Your sister's graduation is next weekend. The ceremony is Saturday morning and your parents are throwing a party for your sister on Saturday afternoon. A couple of weeks ago you and your partner talked about this and decided to drive over Friday night and spend the whole weekend at your parents' house. Your partner has promised he/she would help you set up for the party Saturday morning as there is a lot to do and you two have also prepared a special surprise for your sister. At dinner tonight your partner said he/she won't be able to drive with you on Friday night. He/She has remembered today that on Saturday morning his buddies/her girlfriends are getting together for brunch and he/she
wants to go. You've been thinking about this because this means you'll have to set up for the party by yourself. You remember your partner cancelling a few other times in the past on things that he/she promised he/she would help you out with.

Scenario 4: Broken promises, high frequency, transgressor (Study 2 and Study 3 participants)
Your partner's sister graduation is next weekend. The ceremony is Saturday morning and your partner's parents are throwing a party for her sister on Saturday afternoon. A couple of weeks ago you and your partner talked about this and decided to drive over Friday night and spend the whole weekend at his/her parents' house. You promised your partner that you would help him/her set up for the party Saturday morning as there is a lot to do and you two have also prepared a special surprise for your sister. But today you remembered that your buddies/your girlfriends are getting together for brunch on Saturday morning. So at dinner tonight you told your partner that you won't be able to drive with him/her on Friday night because you want to go to brunch with your buddies/girlfriends. You've been thinking about this because this means you won't be there to set up for the party with your partner. You've been thinking about this because this means you won't be there to set up for the party with your partner. You remember cancelling a few other times in the past on things that you've promised you would help out with.

Scenario 5: Insensitivity, low frequency, victim (Study 2 participants only) Today has been just one of those days. You overslept and the whole day got off track. You were late for your first class so you missed a quiz, then had a terrible meeting about your midterm with one of your professors. You had to skip lunch because you were running late and so you're tired and have a headache. You've finally gotten home and all you want to do is have a quiet and relaxing evening. You start venting to your partner about your day but he/she says that you should just get over it; it'd be better to focus on figuring out some food for dinner because he/she is super-hungry and has a lot of work to do. This seems insensitive to you and you start thinking about this because you don't remember your partner being insensitive before in the past.

Scenario 6: Insensitivity, low frequency, transgressor (Study 2 participants only) Today has been just one of those days. You overslept and the whole day got off track. You were late for your first class so you missed a quiz, then had a terrible meeting about your midterm with one of your professors. You had to skip lunch because you were running late and so you're tired and have a headache. You've finally gotten home and all you want to do is have a quiet and relaxing evening. Your partner starts venting to you about his/her day but you just can't listen to it; you tell him/her to just get over it; it'd be better to focus on figuring out some food for dinner because you're super-hungry and you have a lot of work to do. What you've just said seems insensitive and you start thinking about this because you don't remember being insensitive to your partner before in the past.

Scenario 7: Insensitivity, high frequency, victim (Study 2 participants only) Today has been just one of those days. You overslept and the whole day got off track.

You were late for your first class so you missed a quiz, then had a terrible meeting about your midterm with one of your professors. You had to skip lunch because you were running late and so you're tired and have a headache. You've finally gotten home and all you want to do is have a quiet and relaxing evening. You start venting to your partner about your day but he/she says that you should just get over it; it'd be better to focus on figuring out some food for dinner because he/she is super-hungry and has a lot of work to do. This seems insensitive to you and you start thinking about this because you remember your partner being insensitive several times before in the past.

Scenario 8: Insensitivity, high frequency, transgressor (Study 2 participants only) Today has been just one of those days. You overslept and the whole day got off track. You were late for your first class so you missed a quiz, then had a terrible meeting about your midterm with one of your professors. You had to skip lunch because you were running late and so you're tired and have a headache. You've finally gotten home and all you want to do is have a quiet and relaxing evening. Your partner starts venting to you about his/her day but you just can't listen to it; you tell him/her to just get over it; it'd be better to focus on figuring out some food for dinner because you're super-hungry and you have a lot of work to do. What you've just said seems insensitive and you start thinking about this because you remember being insensitive to your partner several times before in the past.

Again, imagine that this has happened to you. With that in mind, please answer the following questions:
[Note. $\mathrm{EV}=$ expectancy violation, $\mathrm{VAL}=$ violation valence, $\mathrm{IA}=$ internal attributions, EA = external attributions, $\mathrm{V}=$ victim, $\mathrm{T}=$ transgressor]

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| To what extent is your partner's behavior <br> surprising? (EV1, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your partner's behavior <br> unexpected? (EV2, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your partner's behavior <br> unusual? (EV3, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your partner's behavior <br> unforeseen for your relationship? (EV4, | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your partner's behavior <br> unanticipated? (EV5, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your partner's behavior <br> unpleasant? (VAL1, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent did your partner behave in | $0=$ not at all |  |


| Question | Scale | Your answer |
| :---: | :---: | :---: |
| an undesirable manner in this situation? (VAL2, V) | $100=$ moderate amount Use any number from zero on up |  |
| To what extent is your partner's behavior a negative violation of the expectations you have of him/her? (VAL3, V) | $0=$ not at all $100=$ moderate amount Use any number from zero on up |  |
| To what extent is your behavior surprising? (EV1, T) | $0=$ not at all $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your behavior unexpected? (EV2, T) | $0=\text { not at all }$ <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your behavior unusual? $(\mathrm{EV} 3, \mathrm{~T})$ | $0=$ not at all $100=$ moderate amount Use any number from zero on up |  |
| To what extent is your behavior unforeseen? (EV4, T) | $0=$ not at all $100=$ moderate amount Use any number from zero on up |  |
| To what extent is your behavior unanticipated? (EV5, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your behavior unpleasant (VAL1, T) | $0=\text { not at all }$ <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent did you behave in an undesirable manner in this situation? (VAL2, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent is your behavior a violation of the expectations your partner has of you? (VAL3, T) | $0=\text { not at all }$ <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect something about your personality? (IA1, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect something about you as a person? (IA2, T) | $0=\text { not at all }$ <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect some of the things that define who you are as a person? (IA3, T) | $\begin{aligned} & 0=\text { not at all } \\ & 100=\text { moderate amount } \\ & \text { Use any number from zero on up } \end{aligned}$ |  |
| To what extent was this matter caused by who you are, as a person? (IA4, T) | $0=\text { not at all }$ <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent did who you truly are deep down inside cause this matter? (IA5, T) | $0=\text { not at all }$ <br> $100=$ moderate amount <br> Use any number from zero on up |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
|  |  |  |
| To what extent are you responsible for <br> this matter? (IA6, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> something about your partner's <br> personality? (IA1, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| To what extent does this matter reflect <br> something about your partner as a <br> person? (IA2, V) | $0=$ not at all <br> $100=$ moderate amount |  |
| To what extent does this matter reflect <br> some of the things that define who your <br> partner is as person? (IA3, V) | Use any number from zero on up |  |
| To what extent was this matter caused by <br> who your partner is, as a person? (IA4, | Use any number amount from zero on up <br> wh |  |
| V) $100=$ moderate amount |  |  |
| Use any number from zero on up |  |  |,

$\left.\begin{array}{|l|l|l|}\hline \text { Question } & \text { Scale } & \begin{array}{l}\text { Your } \\ \text { answer }\end{array} \\ \hline \text { your partner was? (EA1, V) } & \text { Use any number from zero on up } & \\ \hline \begin{array}{l}\text { To what extent does this matter reflect } \\ \text { some things that do not characterize who } \\ \text { your partner is as a person? (EA2, V) }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array} & \\ \hline \begin{array}{l}\text { To what extent did the situation in which } \\ \text { your partner was cause this matter? (EA3, }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount } \\ \text { V) }\end{array} & \\ \hline \begin{array}{l}\text { To what extent did other people cause } \\ \text { this situation? (EA4, V) }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount }\end{array} & \\ \hline \begin{array}{l}\text { To what extent did some unfortunate } \\ \text { circumstances cause this matter? (EA5, }\end{array} & \begin{array}{l}0=\text { not at all } \\ \text { V) }\end{array} & 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array}\right]$

Again, please imagine that the situation described in the scenario actually happened to you. Now imagine that you had some sort of conversation with your partner about this matter. Answer the following questions with this assumption in mind.
[Note. NEG = negative feelings, $\mathrm{DOM}=$ dominance, $\mathrm{SPF}=$ self-positive face, $\mathrm{SNF}=$ self-negative face, POS = positive feelings, $\mathrm{OPF}=$ other-positive face, $\mathrm{ONF}=$ othernegative face, $\mathrm{REL}=$ relationship-oriented goals, $\mathrm{PDO}=$ persuasive dialogue orientation, NDO = negotiation dialogue orientation, ISDO = information-seeking dialogue orientation, $\mathrm{EDO}=$ eristic dialogue orientation]

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How important would it be for you to <br> express negative feelings about your <br> partner? (NEG1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show your anger at your partner? (NEG2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show your frustration with your partner? <br> (NEG3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> show your disappointment in your <br> partner? (NEG4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to dominate your partner? (DOM1) | $0=$ not at all $100=$ moderate amount |  |
| How important would it be for you to try | $0=$ not at all |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| to make your partner feel bad? (DOM2) | $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to control your partner? (DOM3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to put down your partner? (DOM4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to try <br> to make your partner feel insecure? | $0=$ not at all <br> (DOM5) | Use any number from zero on up |
| How important would it be for you not to <br> damage your partner's impression of you? | $10=$ not at all <br> (SPF1) |  |
| How important would it be for you to amount <br> make sure your partner still thinks highly <br> of you? (SPF2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How important would it be for you to <br> make sure your partner still respects you? | $0=$ not at all <br> $100=$ moderate amount |  |
| (SPF3) | Use any number from zero on up |  |

$\left.\begin{array}{|l|l|l|}\hline \text { Question } & \text { Scale } & \begin{array}{l}\text { Your } \\ \text { answer }\end{array} \\ \hline \begin{array}{l}\text { your partner know you understand how } \\ \text { he/she feels? (POS5) }\end{array} & \begin{array}{l}100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array} & \\ \hline \begin{array}{l}\text { How important would it be for you to let } \\ \text { your partner know you still respect } \\ \text { him/her? (OPF1) }\end{array} & \begin{array}{l}0=\text { not at all } \\ 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array} & \\ \hline \begin{array}{l}\text { How important would it be for you to let } \\ \text { your partner know you still think highly of } \\ \text { him/her? (OPF2) }\end{array} & \begin{array}{l}0=\text { not at all } \\ \text { Use any numberate amount from zero on up }\end{array} & \\ \hline \begin{array}{l}\text { How important would it be for you not to } \\ \text { embarrass your partner? (OPF3) }\end{array} & \begin{array}{l}0=\text { not at all } \\ \\ \end{array} 100=\text { moderate amount } \\ \text { Use any number from zero on up }\end{array}\right]$

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| (PDO3) | Use any number from zero on up |  |
| How much would you try to convince your <br> partner to see things your way? (PDO4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to talk your <br> partner into thinking about this matter the <br> way you do? (PDO5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> you and your partner are on the same page <br> about this matter? (PDO6) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to reach a <br> compromise with your partner? (NDO1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make a deal <br> with your partner? (NDO2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to come up with <br> an agreement that both of you could live <br> with? (NDO3) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make <br> concessions hoping your partner would <br> make some concessions too? (NDO4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> what both of you wanted was <br> accomplished? (NDO5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to settle this <br> matter? (NDO6) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to find out more <br> information about this matter from your <br> partner? (ISDO1, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to get all the <br> details of this matter? (ISDO2, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to ask your <br> partner for the whole story on this matter? <br> (ISDO3, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> you know everything about this matter? <br> (ISDO4, V) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to let your <br> partner know more about this matter? | $0=$ not at all <br> $100=$ moderate amount |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| (ISDO1, T) | Use any number from zero on up |  |
| How much would you try to give your <br> partner all the details of this matter? <br> (ISDO2, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to offer your <br> partner the whole story on this matter? <br> (ISDO3, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to make sure <br> your partner knew everything about this <br> matter? (ISDO4, T) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much would you try to use words to <br> attack your partner? (EDO2) | $0=$ not at all <br> $100=$ moderate amount |  |
| How much would you try to vent about <br> this situation? (EDO3) | $0=$ not at all |  |
| $100=$ moderate amount <br> How much would you try to take the <br> opposite position from your partner? <br> (EDO4) | Use any number from zero on up |  |
| How much would you try to let all your <br> feelings out? (EDO5) | Use any number from zero on up |  |
| 100 not all all <br> $100=$ moderate amount <br> How much would you try to blame your <br> partner? (EDO6) | $0=$ not at all <br> $100=$ moderate amount |  |
| How much would you try to quarrel with <br> your partner? (EDO7) | Use any number from zero on up |  |
| $100=$ moderate amount |  |  |

Now let's assume that you had a conversation with your partner in which you tried to do the things you indicated above. Please think that you actually did that and answer the following questions with this in mind.
[Note. RES = resolvability, SAT = satisfaction with the transgression's management]

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How confident are you that you would be <br> able to remedy the situation? (RES1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How confident are you that you would <br> agree about this matter? (RES2) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How confident are you that you would | $0=$ not at all |  |


| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| resolve the situation in the immediate <br> future? (RES3) | $100=$ moderate amount <br> Use any number from zero on up |  |
| How confident are you that you would <br> able to find a really good solution? <br> (RES4) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How confident are you that you would <br> work through this with your partner? <br> (RES5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How confident are you that you and your <br> partner would be able to get through this? | $0=$ not at all <br> $100=$ moderate amount <br> (RES6) |  |
| If you did things this way, how satisfied <br> would you be? (SAT1) | $0=$ not at all <br> $100=$ moderate amount |  |
| If you did things this way, how happy <br> would you be? (SAT2) | $0=$ not at all <br> $100=$ moderate amount |  |
| If you did things this way, how good <br> would you feel? (SAT3) | $0=$ not at all <br> $100=$ moderate amount |  |
| If you did things this way, how much <br> more would you appreciate your partner? | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| (SAT4) |  |  |
| If you did things this way, how much <br> more would you respect your partner? <br> (SAT5) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| If you did things this way, how much <br> stronger would your relationship be? <br> (SAT6) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| If you did things this way, how much <br> better would your relationship be? <br> (SAT7) | $=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |

Now please tell us your impression of the scenario you have just read.
[Note. REAL = realism]

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| How much were you able to imagine <br> yourself in the situation described? <br> (REAL1) | $0=$ not at all <br> $100=$ moderate amount <br> Use any number from zero on up |  |
| How much does this scenario reflect a <br> situation that could happen in life? | $0=$ not at all <br> $100=$ moderate amount |  |


| (REAL2) | Use any number from zero on up |  |
| :--- | :--- | :--- |
| How much does this scenario reflect a | $0=$ not at all |  |
| credible situation? (REAL3) | $100=$ moderate amount |  |
|  | Use any number from zero on up |  |

Please answer the following questions thinking about situation described in the scenario (and not necessarily about the way you felt about the situation).
[Note. $\mathrm{MC}=$ manipulation check)

| Question | Scale | Your <br> answer |
| :--- | :--- | :--- |
| Scenarios 1-4 |  |  |

## Appendix K Study 3 Occupations Coding Scheme

Codes:<br>$1=$ Education and intellectual labor<br>$2=$ Legal, legislative and policy work<br>3 = Administration, management, and financial operations<br>4 = Healthcare<br>5 = Homemaker<br>$6=$ Other

Appendix L Study 2 and Study 3 LISREL Syntax for the Attributions and Goals
Measurement Model with Modification Indices
!MODEL: ATTRIBUTIONS AND GOALS WITH MIS
RAW DATA FROM FILE 'C:\LISREL 8.8 Examples\Ale mele\Diss main studies\Main studies.Inter2.PSF'
LATENT VARIABLES
IA EA NEG DOMIN SPFACE SNFACE POS OPFACE ONFACE REL
RELATIONSHIPS
IA1T IA2T IA3T IA4T IA5T IA6T = IA
EA1T EA2T EA3T EA4T EA5T EA6T = EA
NEG1T NEG2T NEG3T NEG4T = NEG
NEG6T NEG7T NEG8T NEG9T NEG10T = DOMIN
SFACE1T SFACE2T SFACE3T = SPFACE
SFACE4T SFACE5T SFACE6T =SNFACE
POS1T POS2T POS3T POS4T POS5T = POS
OFACE1T OFACE2T OFACE3T =OPFACE
OFACE4T OFACE5T OFACE6T = ONFACE
REL1T REL2T REL3T REL4T REL5T = REL
LET THE ERRORS OF IA1T AND IA2T CORRELATE
LET THE ERRORS OF IA1T AND IA3T CORRELATE
LET THE ERRORS OF IA2T AND IA3T CORRELATE
LET THE ERRORS OF IA4T AND IA5T CORRELATE
LET THE ERRORS OF EA5T AND EA6T CORRELATE
LET THE ERRORS OF NEG9T AND NEG10T CORRELATE
LET THE ERRORS OF NEG6T AND NEG8T CORRELATE
LET THE ERRORS OF POS1T AND POS2T CORRELATE
LET THE ERRORS OF POS3T AND POS4T CORRELATE
LET THE ERRORS OF POS2T AND POS4T CORRELATE
LET THE ERRORS OF REL2T AND REL3T CORRELATE
LET THE ERRORS OF REL4T AND REL3T CORRELATE
LET THE ERRORS OF SFACE1T AND SFACE2T CORRELATE
LET THE ERRORS OF SFACE4T AND SFACE5T CORRELATE
LET THE ERRORS OF OFACE1T AND OFACE2T CORRELATE
LET THE ERRORS OF OFACE4T AND OFACE5T CORRELATE
LET THE ERRORS OF EA4T AND IA6T CORRELATE
LET THE ERRORS OF SFACE6T AND OFACE6T CORRELATE
PATH DIAGRAM
END OF PROBLEM

Appendix M Study 2 and Study 3 LISREL Syntax for the Dialogue Orientations
Measurement Model with Modification Indices
!DIALOGUES WITH MIS
RAW DATA FROM FILE 'C:\LISREL 8.8 Examples\Ale mele\Diss main studies\Main studies.Inter2.PSF'
LATENT VARIABLES
PDO NDO ISDO EDO
RELATIONSHIPS
PDO1T PDO2T PDO3T PDO4T PDO5T PDO6T = PDO
NDO1T NDO2T NDO3T NDO4T NDO5T NDO6T = NDO
ISDO1T ISDO2T ISDO3T ISDO4T = ISDO
EDO2T EDO3T EDO4T EDO5T EDO6T EDO7T = EDO
LET THE ERRORS OF PDO1T AND PDO2T CORRELATE
LET THE ERRORS OF PDO4T AND PDO5T CORRELATE
LET THE ERRORS OF PDO1T AND PDO3T CORRELATE
LET THE ERRORS OF PDO2T AND PDO3T CORRELATE
LET THE ERRORS OF NDO2T AND NDO4T CORRELATE
LET THE ERRORS OF NDO1T AND NDO2T CORRELATE
LET THE ERRORS OF NDO1T AND NDO3T CORRELATE
LET THE ERRORS OF NDO1T AND NDO6T CORRELATE
LET THE ERRORS OF ISDO1T AND ISDO2T CORRELATE
LET THE ERRORS OF EDO3T AND EDO5T CORRELATE
LET THE ERRORS OF EDO6T AND EDO7T CORRELATE
LET THE ERRORS OF PDO5T AND PDO6T CORRELATE
LET THE ERRORS OF EDO2T AND EDO5T CORRELATE
LET THE ERRORS OF NDO3T AND NDO5T CORRELATE
PATH DIAGRAM
END OF PROBLEM

Appendix N Study 2 and Study 3 LISREL Syntax for the Measurement Model with

## Modification Indices

!MEASUREMENT MODEL WITH MIS
RAW DATA FROM FILE 'C:\LISREL 8.8 Examples\Ale mele\Diss main studies\Main studies.Inter2.PSF'
LATENT VARIABLES
IA EA NEG DOM POS SPF SNF OPF ONF REL PDO NDO ISDO EDO RES SAT
RELQ
RELATIONSHIPS
IA1T IA2T IA3T IA4T IA5T IA6T = IA
EA1T EA2T EA3T EA4T EA5T EA6T = EA
NEG1T NEG2T NEG3T NEG4T = NEG
NEG6T NEG7T NEG8T NEG9T NEG10T = DOM
SFACE1T SFACE2T SFACE3T = SPF
SFACE4T SFACE5T SFACE6T = SNF
POS1T POS2T POS3T POS4T POS5T = POS
OFACE1T OFACE2T OFACE3T = OPF
OFACE4T OFACE5T OFACE6T = ONF
REL1T REL2T REL3T REL4T REL5T = REL
PDO1T PDO2T PDO3T PDO4T PDO5T PDO6T = PDO
NDO1T NDO2T NDO3T NDO4T NDO5T NDO6T = NDO
ISDO1T ISDO2T ISDO3T ISDO4T = ISDO
EDO2T EDO3T EDO4T EDO5T EDO6T EDO7T = EDO
RES1T RES2T RES3T RES4T RES5T RES6T = RES
SAT1T SAT2T SAT3T SAT4T SAT5T SAT6T SAT7T = SAT
RQ1T RQ2T RQ3T RQ4T RQ5T = RELQ
LET THE ERRORS OF IA2T AND IA1T CORRELATE
LET THE ERRORS OF IA3T AND IA1T CORRELATE
LET THE ERRORS OF IA2T AND IA3T CORRELATE
LET THE ERRORS OF EA5T AND EA6T CORRELATE
LET THE ERRORS OF SELF9T AND SELF10T CORRELATE
LET THE ERRORS OF SELF6T AND SELF8T CORRELATE
LET THE ERRORS OF OTHR3T AND OTHR5T CORRELATE
LET THE ERRORS OF OTHR1T AND OTHR2T CORRELATE
LET THE ERRORS OF PDO1T AND PDO2T CORRELATE
LET THE ERRORS OF PDO4T AND PDO5T CORRELATE
LET THE ERRORS OF PDO1T AND PDO3T CORRELATE
LET THE ERRORS OF PDO2T AND PDO3T CORRELATE
LET THE ERRORS OF NDO2T AND NDO4T CORRELATE
LET THE ERRORS OF NDO1T AND NDO2T CORRELATE
LET THE ERRORS OF NDO1T AND NDO3T CORRELATE
LET THE ERRORS OF NDO1T AND NDO6T CORRELATE
LET THE ERRORS OF ISDO1T AND ISDO2T CORRELATE
LET THE ERRORS OF EDO3T AND EDO5T CORRELATE

LET THE ERRORS OF EDO6T AND EDO7T CORRELATE LET THE ERRORS OF PDO5T AND PDO6T CORRELATE LET THE ERRORS OF EDO2T AND EDO5T CORRELATE LET THE ERRORS OF NDO3T AND NDO5T CORRELATE LET THE ERRORS OF RES5T AND RES6T CORRELATE LET THE ERRORS OF RES2T AND RES4T CORRELATE LET THE ERRORS OF RES1T AND RES6T CORRELATE LET THE ERRORS OF SAT1T AND SAT2T CORRELATE LET THE ERRORS OF SAT1T AND SAT3T CORRELATE LET THE ERRORS OF SAT2T AND SAT3T CORRELATE LET THE ERRORS OF SAT4T AND SAT5T CORRELATE LET THE ERRORS OF SAT6T AND SAT7T CORRELATE LET THE ERRORS OF RQ1T AND RQ2T CORRELATE LET THE ERRORS OF RQ1T AND RQ3T CORRELATE LET THE ERRORS OF RQ2T AND RQ3T CORRELATE PATH DIAGRAM
END OF PROBLEM

## Appendix O Study 2 and Study 3 LISREL Syntax for the Initial Model for the

Management of Relational Transgressions
!MODEL 1 WITH Hs AND RQs AS INITIALLY SPECIFIED
RAW DATA FROM FILE 'C:\LISREL 8.8 Examples\Ale mele\Diss main studies\Main studies.Inter2.PSF'
LATENT VARIABLES
ROLE TYPE FREQ SAMPLE RSAMINT RFINT RELQ IA EA NEG DOMIN SPF SNF OPF ONF POS REL PDO NDO ISDO EDO RES SAT
RELATIONSHIPS
Roles $=1 *$ ROLE
Freqs $=1 *$ FREQ
Types $=1 *$ TYPE
Samples $=1 *$ SAMPLE
RSamInts= 1*RSAMINT
RFInts $=1$ * RFINT
IA1T IA2T IA3T IA4T IA5T IA6T = IA
EA1T EA2T EA3T EA4T EA5T EA6T $=\mathrm{EA}$
NEG1T NEG2T NEG3T NEG4T = NEG
NEG6T NEG7T NEG8T NEG9T NEG10T = DOMIN
SFACE1T SFACE2T SFACE3T = SPF
SFACE4T SFACE5T SFACE6T =SNF
POS1T POS2T POS3T POS4T POS5T = POS
OFACE1T OFACE2T OFACE3T =OPF
OFACE4T OFACE5T OFACE6T = ONF
REL1T REL2T REL3T REL4T REL5T = REL
PDO1T PDO2T PDO3T PDO4T PDO5T PDO6T = PDO
NDO1T NDO2T NDO3T NDO4T NDO5T NDO6T = NDO
ISDO1T ISDO2T ISDO3T ISDO4T = ISDO
EDO2T EDO3T EDO4T EDO5T EDO6T EDO7T = EDO
RES1T RES2T RES3T RES4T RES5T RES6T = RES
SAT1T SAT2T SAT3T SAT4T SAT5T SAT6T SAT7T = SAT
RQ1T = 1*RELQ
RQ2T RQ3T RQ4T RQ5T = RELQ
EA = RELQ ROLE TYPE SAMPLE RSAMINT
IA = RELQ ROLE RFINT TYPE SAMPLE RSAMINT
NEG = ROLE RFINT TYPE SAMPLE RSAMINT
DOMIN = ROLE RFINT TYPE SAMPLE RSAMINT
SPF= RELQ ROLE RFINT TYPE SAMPLE RSAMINT
SNF = ROLE RFINT TYPE SAMPLE RSAMINT
OPF = RELQ ROLE TYPE SAMPLE RSAMINT
ONF = ROLE TYPE SAMPLE RSAMINT
POS = RELQ ROLE RFINT TYPE SAMPLE RSAMINT
REL $=$ RELQ ROLE RFINT TYPE SAMPLE RSAMINT
$\mathrm{PDO}=\mathrm{POS}$ SPF OPF ONF REL IA EA

NDO = SPF SNF ONF REL IA EA<br>ISDO = POS SPF OPF REL IA EA<br>EDO = IA NEG DOMIN SNF REL<br>RES = PDO NDO ISDO EDO<br>SAT = PDO NDO ISDO EDO<br>SET THE ERROR VARIANCE OF Roles TO 0<br>SET THE ERROR VARIANCE OF Types TO 0<br>SET THE ERROR VARIANCE OF Freqs TO 0<br>SET THE ERROR VARIANCE OF Samples TO 0<br>SET THE ERROR VARIANCE OF RSamInts TO 0<br>SET THE ERROR VARIANCE OF RFInts TO 0<br>PATH DIAGRAM<br>END OF PROBLEM

Appendix P Study 2 and Study 3 Covariance Matrix for the Initial Model for the
Management of Relational Transgressions

|  | IA1T | IA2T | IA3T | IA4T | IA5T | IA6T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| IA1T | 4.20 |  |  |  |  |  |
| IA2T | 3.86 | 4.33 |  |  |  |  |
| IA3T | 3.79 | 3.93 | 4.53 |  |  |  |
| IA4T | 3.11 | 3.27 | 3.50 | 4.42 |  |  |
| IA5T | 3.16 | 3.28 | 3.59 | 3.68 | 4.70 |  |
| IA6T | 2.39 | 2.44 | 2.28 | 2.27 | 2.16 | 4.00 |
| EA1T | 1.34 | 1.37 | 1.41 | 1.30 | 1.07 | 1.38 |
| EA2T | 0.50 | 0.60 | 0.54 | 0.46 | 0.18 | 1.12 |
| EA3T | 0.61 | 0.62 | 0.63 | 0.54 | 0.43 | 1.00 |
| EA4T | 0.09 | 0.11 | 0.16 | 0.12 | 0.14 | -0.51 |
| EA5T | -0.29 | -0.33 | -0.21 | -0.35 | -0.50 | -0.35 |
| EA6T | -0.01 | -0.16 | -0.05 | -0.01 | -0.29 | 0.23 |
| NEG1T | 0.55 | 0.55 | 0.60 | 0.43 | 0.42 | 0.34 |
| NEG2T | 0.53 | 0.44 | 0.56 | 0.39 | 0.51 | -0.01 |
| NEG3T | 0.74 | 0.59 | 0.70 | 0.49 | 0.60 | 0.22 |
| NEG4T | 0.57 | 0.48 | 0.57 | 0.35 | 0.50 | 0.17 |
| NEG6T | -0.05 | -0.11 | 0.02 | 0.04 | 0.02 | -0.53 |
| NEG7T | 0.51 | 0.57 | 0.62 | 0.54 | 0.62 | 0.04 |
| NEG8T | 0.02 | 0.05 | 0.15 | 0.16 | 0.24 | -0.33 |
| NEG9T | 0.03 | 0.10 | 0.15 | 0.18 | 0.26 | -0.27 |
| NEG10T | 0.01 | 0.06 | 0.07 | 0.11 | 0.25 | -0.16 |
| SFACE1T | 0.72 | 0.58 | 0.69 | 0.52 | 0.67 | 0.91 |
| SFACE2T | 0.69 | 0.70 | 0.73 | 0.65 | 0.70 | 1.00 |
| SFACE3T | 0.90 | 0.91 | 0.81 | 0.79 | 0.73 | 1.21 |
| SFACE4T | 0.35 | 0.31 | 0.44 | 0.19 | 0.39 | -0.12 |
| SFACE5T | 0.65 | 0.63 | 0.59 | 0.21 | 0.50 | 0.45 |
| SFACE6T | 1.24 | 1.28 | 1.02 | 1.05 | 1.03 | 1.37 |
| POS1T | 0.61 | 0.56 | 0.47 | 0.33 | 0.23 | 0.89 |
| POS2T | 0.51 | 0.50 | 0.43 | 0.34 | 0.16 | 0.76 |
| POS3T | 0.85 | 0.83 | 0.78 | 0.64 | 0.54 | 1.19 |
| POS4T | 0.83 | 0.75 | 0.66 | 0.58 | 0.41 | 1.24 |
| POS5T | 0.66 | 0.62 | 0.54 | 0.47 | 0.23 | 1.07 |
| OFACE1T | 0.59 | 0.55 | 0.49 | 0.35 | 0.24 | 1.07 |
| OFACE2T | 0.59 | 0.59 | 0.54 | 0.35 | 0.34 | 0.95 |
| OFACE3T | 0.89 | 0.91 | 0.75 | 0.69 | 0.68 | 1.25 |
| OFACE4T | 0.87 | 0.97 | 0.90 | 0.90 | 0.87 | 1.14 |
| OFACE5T | 0.81 | 0.88 | 0.89 | 0.87 | 0.70 | 1.08 |
| OFACE6T | 0.86 | 0.83 | 0.75 | 0.63 | 0.46 | 1.19 |
| REL1T | 0.97 | 0.95 | 0.90 | 0.77 | 0.63 | 1.37 |
| REL2T | 0.79 | 0.76 | 0.73 | 0.79 | 0.61 | 1.25 |
| REL3T | 0.75 | 0.59 | 0.56 | 0.65 | 0.47 | 0.98 |
|  |  |  |  |  |  |  |


| REL4T | 0.84 | 0.81 | 0.77 | 0.63 | 0.49 | 1.26 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| REL5T | 0.92 | 0.86 | 0.70 | 0.66 | 0.60 | 1.50 |
| PDO1T | 1.00 | 1.01 | 0.95 | 0.95 | 0.74 | 1.57 |
| PDO2T | 1.05 | 1.02 | 1.01 | 1.01 | 0.76 | 1.62 |
| PDO3T | 0.91 | 0.88 | 0.82 | 0.88 | 0.67 | 1.47 |
| PDO4T | 1.01 | 0.85 | 0.94 | 1.12 | 0.93 | 1.24 |
| PDO5T | 0.93 | 0.80 | 0.82 | 1.05 | 0.83 | 1.16 |
| PDO6T | 0.98 | 0.84 | 0.90 | 0.83 | 0.73 | 1.34 |
| NDO1T | 0.60 | 0.64 | 0.54 | 0.53 | 0.34 | 1.23 |
| NDO2T | 0.42 | 0.36 | 0.36 | 0.37 | 0.25 | 0.73 |
| NDO3T | 0.62 | 0.62 | 0.60 | 0.62 | 0.42 | 1.15 |
| NDO4T | 0.49 | 0.55 | 0.53 | 0.56 | 0.37 | 0.84 |
| NDO5T | 0.67 | 0.75 | 0.69 | 0.64 | 0.36 | 1.03 |
| NDO6T | 0.86 | 0.87 | 0.85 | 0.73 | 0.61 | 1.23 |
| ISDO1T | 0.72 | 0.74 | 0.67 | 0.77 | 0.51 | 1.21 |
| ISDO2T | 0.76 | 0.80 | 0.77 | 0.81 | 0.56 | 1.24 |
| ISDO3T | 0.80 | 0.85 | 0.74 | 0.83 | 0.56 | 1.34 |
| ISDO4T | 0.74 | 0.86 | 0.71 | 0.78 | 0.55 | 1.30 |
| EDO2T | 0.12 | 0.29 | 0.24 | 0.24 | 0.38 | -0.13 |
| EDO3T | 0.21 | 0.25 | 0.11 | 0.10 | 0.04 | 0.38 |
| EDO4T | 0.38 | 0.40 | 0.30 | 0.31 | 0.33 | 0.15 |
| EDO5T | 0.72 | 0.82 | 0.67 | 0.63 | 0.50 | 0.92 |
| EDO6T | 0.61 | 0.60 | 0.60 | 0.58 | 0.64 | 0.25 |
| EDO7T | 0.31 | 0.34 | 0.40 | 0.36 | 0.37 | -0.08 |
| RES1T | 0.39 | 0.29 | 0.21 | 0.17 | 0.02 | 0.80 |
| RES2T | 0.33 | 0.28 | 0.19 | 0.04 | -0.12 | 0.47 |
| RES3T | 0.34 | 0.29 | 0.15 | 0.07 | -0.03 | 0.83 |
| RES4T | 0.30 | 0.23 | 0.13 | 0.00 | -0.02 | 0.69 |
| RES5T | 0.52 | 0.45 | 0.33 | 0.23 | 0.08 | 1.13 |
| RES6T | 0.76 | 0.66 | 0.56 | 0.56 | 0.43 | 1.32 |
| SAT1T | 0.33 | 0.15 | 0.09 | -0.02 | -0.02 | 0.49 |
| SAT2T | 0.36 | 0.12 | 0.05 | -0.08 | -0.06 | 0.49 |
| SAT3T | 0.30 | 0.12 | 0.11 | -0.15 | -0.01 | 0.34 |
| SAT4T | 0.30 | 0.20 | 0.17 | 0.10 | 0.01 | 0.27 |
| SAT5T | 0.27 | 0.12 | 0.14 | 0.00 | -0.03 | 0.19 |
| SAT6T | 0.12 | -0.09 | -0.09 | -0.19 | -0.16 | -0.08 |
| SAT7T | 0.00 | -0.10 | -0.16 | -0.28 | -0.26 | -0.21 |
| Samples | 0.31 | 0.33 | 0.31 | 0.32 | 0.31 | 0.41 |
| Roles | -0.03 | -0.01 | -0.01 | 0.04 | 0.01 | 0.12 |
| Freqs | 0.09 | 0.06 | 0.05 | 0.02 | 0.04 | 0.03 |
| RFInts | 0.13 | 0.08 | 0.05 | 0.06 | 0.08 | 0.02 |
| RSamInts | -0.11 | -0.14 | -0.17 | -0.15 | -0.05 | 0.07 |
| Types | -0.20 | -0.24 | -0.23 | -0.22 | -0.26 | -0.30 |
| RQ1T | 0.68 | 0.69 | 0.56 | 0.54 | 0.47 | 1.12 |
| RQ2T | 0.68 | 0.74 | 0.60 | 0.57 | 0.48 | 1.24 |
| RQ3T | 0.69 | 0.74 | 0.59 | 0.59 | 0.47 | 1.18 |
|  |  |  |  |  |  |  |


| RQ4T | 0.63 | 0.60 | 0.47 | 0.44 | 0.36 | 1.04 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| RQ5T | 0.66 | 0.63 | 0.50 | 0.47 | 0.36 | 1.09 |
|  |  |  |  |  |  |  |
|  | EA1T | EA2T | EA3T | EA4T | EA5T | EA6T |
| EA1T | 3.54 |  |  |  |  |  |
| EA2T | 1.61 | 4.09 |  |  |  |  |
| EA3T | 2.08 | 2.02 | 3.74 |  |  |  |
| EA4T | 1.05 | 0.82 | 1.44 | 4.58 |  |  |
| EA5T | 1.34 | 1.26 | 1.87 | 2.13 | 5.12 |  |
| EA6T | 1.73 | 1.67 | 2.34 | 2.05 | 3.35 | 4.18 |
| NEG1T | 0.60 | 0.39 | 0.19 | 0.99 | 0.36 | 0.30 |
| NEG2T | 0.18 | 0.13 | 0.19 | 0.94 | 0.22 | 0.08 |
| NEG3T | 0.44 | 0.39 | 0.25 | 0.94 | 0.22 | 0.26 |
| NEG4T | 0.40 | 0.41 | 0.18 | 0.89 | 0.20 | 0.16 |
| NEG6T | 0.08 | 0.07 | 0.33 | 0.94 | 0.46 | 0.45 |
| NEG7T | 0.06 | -0.01 | 0.00 | 0.75 | -0.04 | 0.05 |
| NEG8T | 0.07 | 0.11 | 0.24 | 0.87 | 0.46 | 0.43 |
| NEG9T | -0.05 | -0.04 | 0.14 | 0.57 | 0.27 | 0.18 |
| NEG10T | -0.01 | -0.13 | 0.09 | 0.46 | 0.23 | 0.21 |
| SFACE1T | 0.59 | 0.60 | 0.57 | 0.27 | 0.55 | 0.66 |
| SFACE2T | 0.70 | 0.68 | 0.59 | 0.42 | 0.68 | 0.73 |
| SFACE3T | 0.80 | 0.86 | 0.52 | 0.33 | 0.70 | 0.71 |
| SFACE4T | 0.48 | 0.28 | 0.66 | 1.06 | 0.78 | 0.98 |
| SFACE5T | 0.58 | 0.27 | 0.70 | 0.60 | 0.56 | 0.79 |
| SFACE6T | 0.80 | 0.66 | 0.40 | 0.22 | 0.36 | 0.53 |
| POS1T | 0.94 | 1.01 | 0.65 | 0.26 | 0.86 | 0.88 |
| POS2T | 0.99 | 0.90 | 0.80 | 0.30 | 0.99 | 0.92 |
| POS3T | 1.05 | 1.03 | 0.69 | 0.19 | 0.64 | 0.72 |
| POS4T | 0.97 | 0.97 | 0.70 | 0.17 | 0.58 | 0.67 |
| POS5T | 1.02 | 0.80 | 0.83 | 0.25 | 0.83 | 0.84 |
| OFACE1T | 1.00 | 0.85 | 0.82 | 0.29 | 0.86 | 0.90 |
| OFACE2T | 1.01 | 1.00 | 0.73 | 0.37 | 0.89 | 0.94 |
| OFACE3T | 0.88 | 0.84 | 0.64 | 0.18 | 0.57 | 0.69 |
| OFACE4T | 0.73 | 0.90 | 0.48 | 0.03 | 0.29 | 0.46 |
| OFACE5T | 0.97 | 0.74 | 0.71 | 0.27 | 0.53 | 0.54 |
| OFACE6T | 0.92 | 0.92 | 0.50 | 0.11 | 0.60 | 0.70 |
| REL1T | 0.89 | 0.83 | 0.52 | 0.23 | 0.50 | 0.55 |
| REL2T | 0.93 | 0.95 | 0.74 | 0.43 | 0.84 | 0.92 |
| REL3T | 0.90 | 0.85 | 0.69 | 0.37 | 0.68 | 0.82 |
| REL4T | 0.97 | 0.88 | 0.61 | 0.31 | 0.60 | 0.65 |
| REL5T | 0.84 | 0.89 | 0.61 | 0.09 | 0.36 | 0.52 |
| PDO1T | 1.03 | 0.95 | 0.81 | 0.28 | 0.46 | 0.70 |
| PDO2T | 1.06 | 0.91 | 0.83 | 0.30 | 0.46 | 0.69 |
| PDO3T | 1.19 | 1.11 | 0.97 | 0.44 | 0.61 | 0.89 |
| PDO4T | 0.88 | 0.85 | 0.64 | 0.53 | 0.49 | 0.85 |
| PDO5T | 0.83 | 0.75 | 0.47 | 0.42 | 0.44 | 0.67 |
|  |  |  |  |  |  |  |


| PDO6T | 0.86 | 0.89 | 0.59 | 0.32 | 0.43 | 0.65 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NDO1T | 0.88 | 0.87 | 0.58 | 0.36 | 0.79 | 0.95 |
| NDO2T | 0.69 | 0.66 | 0.62 | 0.43 | 0.74 | 0.89 |
| NDO3T | 0.88 | 0.88 | 0.57 | 0.36 | 0.79 | 0.96 |
| NDO4T | 0.98 | 0.89 | 0.74 | 0.47 | 0.69 | 0.87 |
| NDO5T | 1.04 | 0.89 | 0.75 | 0.36 | 0.89 | 0.93 |
| NDO6T | 1.05 | 0.83 | 0.62 | 0.35 | 0.55 | 0.61 |
| ISDO1T | 0.90 | 0.81 | 0.56 | 0.34 | 0.46 | 0.65 |
| ISDO2T | 0.87 | 0.77 | 0.55 | 0.36 | 0.53 | 0.64 |
| ISDO3T | 0.93 | 0.76 | 0.49 | 0.29 | 0.36 | 0.60 |
| ISDO4T | 0.70 | 0.56 | 0.44 | 0.21 | 0.25 | 0.50 |
| EDO2T | -0.08 | -0.18 | -0.03 | 0.54 | 0.02 | 0.13 |
| EDO3T | 0.25 | 0.38 | 0.34 | 0.62 | 0.45 | 0.67 |
| EDO4T | 0.31 | 0.30 | 0.34 | 0.70 | 0.30 | 0.37 |
| EDO5T | 0.38 | 0.31 | 0.27 | 0.26 | 0.05 | 0.32 |
| EDO6T | 0.21 | 0.17 | 0.06 | 0.82 | -0.16 | 0.11 |
| EDO7T | 0.04 | -0.01 | 0.18 | 0.80 | 0.08 | 0.17 |
| RES1T | 0.67 | 0.66 | 0.69 | 0.29 | 0.64 | 0.79 |
| RES2T | 0.54 | 0.49 | 0.40 | 0.44 | 0.63 | 0.49 |
| RES3T | 0.49 | 0.64 | 0.56 | 0.13 | 0.55 | 0.60 |
| RES4T | 0.61 | 0.62 | 0.56 | 0.14 | 0.59 | 0.52 |
| RES5T | 0.66 | 0.77 | 0.52 | 0.09 | 0.50 | 0.50 |
| RES6T | 0.87 | 0.84 | 0.59 | -0.08 | 0.41 | 0.54 |
| SAT1T | 0.57 | 0.58 | 0.50 | 0.40 | 0.53 | 0.74 |
| SAT2T | 0.59 | 0.51 | 0.43 | 0.35 | 0.52 | 0.68 |
| SAT3T | 0.67 | 0.53 | 0.49 | 0.39 | 0.70 | 0.72 |
| SAT4T | 0.78 | 0.62 | 0.72 | 0.80 | 0.82 | 0.93 |
| SAT5T | 0.80 | 0.52 | 0.72 | 0.64 | 0.89 | 0.96 |
| SAT6T | 0.80 | 0.52 | 0.77 | 0.97 | 1.07 | 1.10 |
| SAT7T | 0.75 | 0.45 | 0.74 | 1.01 | 1.03 | 0.96 |
| Samples | 0.10 | 0.06 | -0.04 | -0.25 | -0.22 | -0.16 |
| Roles | 0.09 | 0.08 | 0.15 | -0.08 | 0.12 | 0.13 |
| Freqs | -0.07 | -0.07 | -0.03 | -0.10 | -0.03 | -0.08 |
| RFInts | 0.09 | -0.14 | 0.04 | -0.20 | -0.07 | 0.02 |
| RSamInts | 0.10 | 0.07 | 0.12 | 0.17 | 0.21 | 0.18 |
| Types | -0.03 | 0.01 | 0.03 | 0.12 | 0.28 | 0.17 |
| RQ1T | 0.64 | 0.66 | 0.30 | -0.12 | 0.22 | 0.26 |
| RQ2T | 0.57 | 0.69 | 0.20 | -0.30 | 0.06 | 0.12 |
| RQ3T | 0.59 | 0.69 | 0.21 | -0.25 | 0.11 | 0.14 |
| RQ4T | 0.65 | 0.64 | 0.38 | 0.05 | 0.29 | 0.33 |
| RQ5T | 0.63 | 0.68 | 0.33 | 0.00 | 0.24 | 0.32 |
|  |  |  |  |  |  |  |


|  | NEG1T | NEG2T | NEG3T | NEG4T | NEG6T | NEG7T |
| :--- | ---: | ---: | :---: | :---: | ---: | ---: |
| NEG1T | 5.53 |  |  |  |  |  |
| NEG2T | 3.85 | 4.98 |  |  |  |  |
| NEG3T | 3.92 | 4.20 | 4.90 |  |  |  |


| NEG4T | 4.06 | 4.20 | 4.43 | 5.46 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NEG6T | 1.48 | 2.12 | 1.83 | 1.77 | 3.87 |  |
| NEG7T | 2.04 | 2.51 | 2.39 | 2.51 | 2.42 | 4.24 |
| NEG8T | 1.22 | 1.63 | 1.40 | 1.36 | 2.66 | 2.61 |
| NEG9T | 1.07 | 1.33 | 1.05 | 1.11 | 1.90 | 2.01 |
| NEG10T | 0.68 | 0.90 | 0.64 | 0.70 | 1.42 | 1.48 |
| SFACE1T | -0.10 | -0.38 | -0.30 | -0.38 | 0.30 | -0.05 |
| SFACE2T | -0.07 | -0.38 | -0.33 | -0.29 | 0.12 | -0.20 |
| SFACE3T | 0.33 | 0.09 | 0.27 | 0.29 | 0.12 | -0.07 |
| SFACE4T | 0.93 | 1.00 | 0.86 | 0.76 | 1.44 | 0.91 |
| SFACE5T | 1.25 | 1.03 | 1.15 | 1.19 | 0.94 | 0.78 |
| SFACE6T | 1.01 | 0.89 | 1.05 | 1.05 | 0.13 | 0.35 |
| POS1T | -0.03 | -0.31 | -0.23 | -0.30 | -0.21 | -0.57 |
| POS2T | -0.47 | -0.81 | -0.71 | -0.83 | -0.41 | -0.98 |
| POS3T | 0.10 | -0.23 | 0.06 | -0.07 | -0.51 | -0.66 |
| POS4T | 0.13 | -0.16 | 0.06 | -0.07 | -0.48 | -0.58 |
| POS5T | -0.10 | -0.48 | -0.29 | -0.41 | -0.47 | -0.72 |
| OFACE1T | -0.24 | -0.56 | -0.34 | -0.41 | -0.45 | -0.93 |
| OFACE2T | -0.21 | -0.52 | -0.33 | -0.36 | -0.41 | -0.87 |
| OFACE3T | -0.29 | -0.58 | -0.37 | -0.37 | -0.56 | -0.98 |
| OFACE4T | -0.13 | -0.21 | 0.05 | -0.22 | -0.34 | -0.51 |
| OFACE5T | -0.48 | -0.65 | -0.45 | -0.68 | -0.46 | -0.49 |
| OFACE6T | 0.14 | -0.31 | -0.06 | -0.17 | -0.57 | -0.67 |
| REL1T | 0.30 | -0.03 | 0.25 | 0.18 | -0.34 | -0.36 |
| REL2T | -0.08 | -0.44 | -0.29 | -0.37 | -0.43 | -0.58 |
| REL3T | 0.25 | -0.10 | 0.07 | -0.06 | -0.02 | -0.27 |
| REL4T | 0.31 | -0.13 | 0.13 | 0.11 | -0.33 | -0.46 |
| REL5T | 0.24 | 0.08 | 0.33 | 0.23 | -0.37 | -0.21 |
| PDO1T | 0.99 | 0.73 | 0.89 | 0.91 | 0.12 | 0.33 |
| PDO2T | 1.04 | 0.76 | 0.90 | 0.97 | 0.23 | 0.38 |
| PDO3T | 1.25 | 1.00 | 1.14 | 1.14 | 0.37 | 0.51 |
| PDO4T | 1.12 | 1.29 | 1.41 | 1.18 | 0.78 | 0.85 |
| PDO5T | 1.10 | 1.19 | 1.27 | 1.02 | 0.79 | 0.98 |
| PDO6T | 0.62 | 0.70 | 0.84 | 0.74 | 0.26 | 0.45 |
| NDO1T | 0.31 | 0.18 | 0.30 | 0.29 | -0.10 | -0.07 |
| NDO2T | 0.15 | 0.23 | 0.25 | 0.14 | 0.21 | 0.09 |
| NDO3T | 0.16 | -0.05 | 0.22 | 0.20 | -0.20 | -0.25 |
| NDO4T | 0.18 | 0.12 | 0.21 | 0.30 | 0.01 | -0.01 |
| NDO5T | 0.08 | -0.23 | 0.01 | -0.01 | -0.20 | -0.46 |
| NDO6T | 0.58 | 0.32 | 0.53 | 0.57 | 0.00 | -0.02 |
| ISDO1T | 0.58 | 0.38 | 0.51 | 0.56 | -0.04 | 0.07 |
| ISDO2T | 0.51 | 0.29 | 0.43 | 0.40 | -0.21 | -0.09 |
| ISDO3T | 0.47 | 0.29 | 0.44 | 0.39 | -0.14 | 0.01 |
| ISDO4T | 0.33 | 0.22 | 0.35 | 0.31 | -0.14 | 0.03 |
| EDO2T | 1.68 | 1.87 | 1.60 | 1.68 | 2.01 | 1.99 |
| EDO3T | 1.57 | 1.91 | 1.75 | 1.76 | 1.33 | 1.61 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |


| EDO4T | 1.77 | 2.08 | 1.98 | 2.09 | 1.73 | 1.90 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| EDO5T | 1.14 | 1.41 | 1.43 | 1.44 | 0.82 | 1.02 |
| EDO6T | 2.17 | 2.50 | 2.33 | 2.51 | 2.00 | 2.80 |
| EDO7T | 1.78 | 2.13 | 1.93 | 2.00 | 1.93 | 2.17 |
| RES1T | 0.44 | 0.34 | 0.54 | 0.53 | -0.06 | -0.02 |
| RES2T | 0.66 | 0.57 | 0.70 | 0.73 | 0.19 | 0.21 |
| RES3T | 0.41 | 0.31 | 0.47 | 0.45 | -0.12 | -0.08 |
| RES4T | 0.49 | 0.31 | 0.53 | 0.49 | -0.07 | -0.14 |
| RES5T | 0.20 | 0.05 | 0.37 | 0.32 | -0.32 | -0.24 |
| RES6T | 0.30 | 0.05 | 0.36 | 0.36 | -0.35 | -0.17 |
| SAT1T | 0.65 | 0.74 | 0.90 | 0.92 | 0.32 | 0.27 |
| SAT2T | 0.69 | 0.65 | 0.89 | 0.93 | 0.28 | 0.36 |
| SAT3T | 0.73 | 0.77 | 0.96 | 1.02 | 0.24 | 0.30 |
| SAT4T | 0.36 | 0.33 | 0.50 | 0.48 | 0.20 | 0.07 |
| SAT5T | 0.30 | 0.31 | 0.47 | 0.48 | 0.23 | 0.06 |
| SAT6T | 0.70 | 0.71 | 0.78 | 0.81 | 0.44 | 0.30 |
| SAT7T | 0.68 | 0.66 | 0.74 | 0.84 | 0.38 | 0.21 |
| Samples | -0.11 | -0.13 | -0.09 | -0.13 | -0.24 | -0.09 |
| Roles | -0.52 | -0.51 | -0.52 | -0.60 | -0.18 | -0.37 |
| Freqs | 0.06 | 0.05 | 0.07 | 0.05 | 0.02 | 0.06 |
| RFInts | -0.01 | -0.02 | 0.07 | 0.02 | 0.08 | 0.09 |
| RSamInts | 0.30 | 0.29 | 0.33 | 0.30 | 0.05 | 0.06 |
| Types | 0.07 | 0.07 | 0.06 | 0.04 | 0.15 | 0.00 |
| RQ1T | 0.14 | -0.06 | 0.11 | 0.02 | -0.40 | -0.26 |
| RQ2T | 0.03 | -0.15 | 0.01 | -0.07 | -0.52 | -0.32 |
| RQ3T | 0.01 | -0.12 | 0.05 | -0.02 | -0.49 | -0.26 |
| RQ4T | 0.13 | -0.03 | 0.16 | 0.04 | -0.33 | -0.22 |
| RQ5T | 0.15 | -0.07 | 0.11 | 0.00 | -0.39 | -0.21 |


|  | NEG8T | NEG9T | NEG10T | SFACE1T | SFACE2T | SFACE3T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NEG8T | 3.52 |  |  |  |  |  |
| NEG9T | 1.99 | 2.50 |  |  |  |  |
| NEG10T | 1.53 | 1.84 | 2.06 |  |  |  |
| SFACE1T | 0.20 | 0.09 | 0.15 | 5.97 |  |  |
| SFACE2T | 0.06 | -0.15 | -0.10 | 2.97 | 4.08 |  |
| SFACE3T | -0.06 | -0.28 | -0.30 | 2.45 | 3.08 | 3.61 |
| SFACE4T | 0.97 | 0.71 | 0.52 | 1.55 | 1.56 | 1.36 |
| SFACE5T | 0.70 | 0.56 | 0.42 | 1.11 | 1.18 | 1.14 |
| SFACE6T | 0.12 | -0.07 | -0.07 | 1.05 | 1.03 | 1.47 |
| POS1T | -0.35 | -0.47 | -0.39 | 1.73 | 2.05 | 2.03 |
| POS2T | -0.61 | -0.67 | -0.41 | 1.76 | 2.13 | 1.98 |
| POS3T | -0.57 | -0.72 | -0.58 | 1.72 | 1.96 | 2.20 |
| POS4T | -0.55 | -0.74 | -0.58 | 1.59 | 1.94 | 2.16 |
| POS5T | -0.55 | -0.58 | -0.47 | 1.46 | 1.83 | 2.05 |
| OFACE1T | -0.61 | -0.67 | -0.53 | 1.62 | 1.96 | 2.15 |
| OFACE2T | -0.55 | -0.71 | -0.52 | 1.72 | 2.25 | 2.24 |


| OFACE3T | -0.69 | -0.75 | -0.51 | 1.85 | 2.02 | 1.95 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OFACE4T | -0.55 | -0.36 | -0.29 | 1.14 | 1.20 | 1.26 |
| OFACE5T | -0.53 | -0.40 | -0.32 | 1.52 | 1.66 | 1.65 |
| OFACE6T | -0.76 | -0.62 | -0.63 | 1.16 | 1.43 | 1.63 |
| REL1T | -0.49 | -0.59 | -0.59 | 1.51 | 1.82 | 2.07 |
| REL2T | -0.45 | -0.44 | -0.35 | 1.60 | 1.87 | 1.81 |
| REL3T | -0.23 | -0.37 | -0.28 | 1.60 | 2.01 | 1.92 |
| REL4T | -0.50 | -0.63 | -0.52 | 1.56 | 1.92 | 2.15 |
| REL5T | -0.42 | -0.57 | -0.53 | 1.00 | 1.28 | 1.59 |
| PDO1T | 0.00 | -0.12 | -0.17 | 0.99 | 1.11 | 1.45 |
| PDO2T | 0.11 | -0.02 | -0.12 | 1.05 | 1.18 | 1.47 |
| PDO3T | 0.24 | 0.05 | -0.04 | 1.18 | 1.30 | 1.49 |
| PDO4T | 0.57 | 0.29 | 0.13 | 0.94 | 1.15 | 1.43 |
| PDO5T | 0.67 | 0.31 | 0.17 | 0.85 | 1.06 | 1.27 |
| PDO6T | 0.16 | -0.02 | -0.12 | 1.05 | 1.29 | 1.47 |
| NDO1T | -0.24 | -0.22 | -0.25 | 1.17 | 1.51 | 1.73 |
| NDO2T | 0.17 | 0.02 | 0.02 | 0.98 | 1.16 | 1.40 |
| NDO3T | -0.38 | -0.36 | -0.41 | 1.22 | 1.51 | 1.79 |
| NDO4T | -0.21 | -0.15 | -0.22 | 1.15 | 1.36 | 1.48 |
| NDO5T | -0.35 | -0.35 | -0.34 | 1.19 | 1.42 | 1.58 |
| NDO6T | -0.15 | -0.31 | -0.35 | 1.06 | 1.51 | 1.70 |
| ISDO1T | -0.08 | -0.06 | -0.11 | 1.07 | 1.40 | 1.51 |
| ISDO2T | -0.20 | -0.15 | -0.15 | 0.99 | 1.34 | 1.50 |
| ISDO3T | -0.19 | -0.15 | -0.15 | 1.05 | 1.49 | 1.63 |
| ISDO4T | -0.11 | -0.08 | -0.09 | 0.93 | 1.32 | 1.46 |
| EDO2T | 1.79 | 1.62 | 1.25 | 0.29 | -0.06 | -0.06 |
| EDO3T | 1.11 | 0.89 | 0.63 | 0.57 | 0.50 | 0.63 |
| EDO4T | 1.50 | 1.19 | 0.87 | 0.40 | 0.40 | 0.37 |
| EDO5T | 0.67 | 0.44 | 0.29 | 0.72 | 0.81 | 0.89 |
| EDO6T | 1.95 | 1.64 | 1.20 | -0.02 | -0.29 | -0.12 |
| EDO7T | 1.83 | 1.53 | 1.15 | 0.11 | -0.20 | -0.08 |
| RES1T | -0.26 | -0.36 | -0.33 | 0.65 | 0.91 | 1.18 |
| RES2T | -0.04 | -0.11 | -0.15 | 0.62 | 0.81 | 1.04 |
| RES3T | -0.27 | -0.34 | -0.29 | 0.65 | 0.80 | 1.10 |
| RES4T | -0.27 | -0.34 | -0.33 | 0.62 | 0.84 | 1.15 |
| RES5T | -0.41 | -0.54 | -0.49 | 0.84 | 0.95 | 1.27 |
| RES6T | -0.49 | -0.59 | -0.58 | 0.88 | 0.88 | 1.18 |
| SAT1T | 0.06 | -0.16 | -0.15 | 0.74 | 0.74 | 1.03 |
| SAT2T | 0.04 | -0.15 | -0.18 | 0.90 | 0.91 | 1.14 |
| SAT3T | -0.02 | -0.16 | -0.15 | 0.81 | 0.85 | 1.14 |
| SAT4T | -0.01 | -0.21 | -0.27 | 1.01 | 1.29 | 1.46 |
| SAT5T | 0.00 | -0.19 | -0.27 | 0.83 | 1.24 | 1.44 |
| SAT6T | 0.12 | -0.02 | -0.10 | 0.72 | 1.11 | 1.29 |
| SAT7T | 0.12 | -0.05 | -0.17 | 0.67 | 1.00 | 1.18 |
| Samples | -0.13 | -0.13 | -0.08 | -0.01 | -0.04 | -0.01 |
| Roles | -0.15 | -0.14 | -0.05 | 0.16 | 0.22 | 0.12 |


| Freqs | 0.02 | 0.01 | 0.00 | 0.05 | 0.03 | 0.05 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| RFInts | 0.01 | 0.07 | 0.03 | 0.07 | 0.09 | 0.13 |
| RSamInts | 0.12 | 0.02 | 0.09 | -0.11 | -0.15 | -0.15 |
| Types | 0.07 | 0.07 | 0.05 | 0.02 | 0.03 | 0.01 |
| RQ1T | -0.39 | -0.47 | -0.38 | 0.66 | 0.75 | 0.94 |
| RQ2T | -0.45 | -0.52 | -0.41 | 0.54 | 0.63 | 0.84 |
| RQ3T | -0.46 | -0.48 | -0.39 | 0.56 | 0.68 | 0.91 |
| RQ4T | -0.40 | -0.49 | -0.37 | 0.75 | 0.88 | 1.07 |
| RQ5T | -0.39 | -0.45 | -0.36 | 0.69 | 0.81 | 0.97 |


|  | SFACE4T | SFACE5T | SFACE6T | POS1T | POS2T | POS3T | POS4T |
| :--- | ---: | ---: | :--- | :--- | :--- | :--- | :--- |
| SFACE4T | 5.06 |  |  |  |  |  |  |
| SFACE5T | 2.99 | 5.44 |  |  |  |  |  |
| SFACE6T | 0.93 | 1.60 | 3.13 |  |  |  |  |
| POS1T | 0.74 | 0.67 | 1.04 | 3.16 |  |  |  |
| POS2T | 0.59 | 0.44 | 0.72 | 2.75 | 3.65 |  |  |
| POS3T | 0.61 | 0.58 | 1.13 | 2.30 | 2.57 | 3.01 |  |
| POS4T | 0.49 | 0.43 | 1.01 | 2.23 | 2.42 | 2.80 | 3.03 |
| POS5T | 0.49 | 0.36 | 0.81 | 2.27 | 2.70 | 2.49 | 2.48 |
| OFACE1T | 0.61 | 0.29 | 0.89 | 2.31 | 2.61 | 2.61 | 2.60 |
| OFACE2T | 0.86 | 0.45 | 0.80 | 2.32 | 2.61 | 2.55 | 2.55 |
| OFACE3T | 0.66 | 0.73 | 0.96 | 2.04 | 2.20 | 2.30 | 2.25 |
| OFACE4T | 0.35 | 0.51 | 0.88 | 1.45 | 1.65 | 1.77 | 1.67 |
| OFACE5T | 0.50 | 0.82 | 0.82 | 1.78 | 2.08 | 1.92 | 1.84 |
| OFACE6T | 0.49 | 0.76 | 1.24 | 1.68 | 1.82 | 1.99 | 1.91 |
| REL1T | 0.60 | 0.57 | 1.10 | 1.87 | 1.91 | 2.41 | 2.42 |
| REL2T | 0.45 | 0.37 | 0.95 | 1.71 | 1.87 | 2.00 | 2.00 |
| REL3T | 0.81 | 0.77 | 0.94 | 1.94 | 1.96 | 2.04 | 2.11 |
| REL4T | 0.72 | 0.57 | 1.09 | 1.99 | 2.10 | 2.44 | 2.47 |
| REL5T | -0.01 | 0.26 | 1.10 | 1.41 | 1.51 | 1.94 | 2.04 |
| PDO1T | 0.36 | 0.68 | 1.27 | 1.34 | 1.29 | 1.54 | 1.58 |
| PDO2T | 0.49 | 0.67 | 1.31 | 1.36 | 1.22 | 1.53 | 1.54 |
| PDO3T | 0.67 | 0.78 | 1.35 | 1.30 | 1.08 | 1.46 | 1.52 |
| PDO4T | 0.88 | 0.72 | 1.26 | 1.08 | 0.87 | 1.18 | 1.16 |
| PDO5T | 0.86 | 0.79 | 1.11 | 1.13 | 0.92 | 1.13 | 1.15 |
| PDO6T | 0.49 | 0.68 | 1.09 | 1.46 | 1.35 | 1.52 | 1.53 |
| NDO1T | 0.31 | 0.39 | 1.14 | 1.65 | 1.75 | 1.78 | 1.77 |
| NDO2T | 0.70 | 0.72 | 0.85 | 1.18 | 1.31 | 1.33 | 1.40 |
| NDO3T | 0.31 | 0.43 | 1.04 | 1.61 | 1.74 | 1.90 | 1.88 |
| NDO4T | 0.47 | 0.54 | 0.85 | 1.34 | 1.60 | 1.51 | 1.56 |
| NDO5T | 0.27 | 0.37 | 0.85 | 1.63 | 1.95 | 1.89 | 1.82 |
| NDO6T | 0.38 | 0.57 | 1.09 | 1.56 | 1.59 | 1.84 | 1.80 |
| ISDO1T | 0.57 | 0.55 | 1.02 | 1.37 | 1.31 | 1.47 | 1.50 |
| ISDO2T | 0.37 | 0.45 | 1.01 | 1.42 | 1.47 | 1.54 | 1.57 |
| ISDO3T | 0.47 | 0.50 | 1.06 | 1.45 | 1.49 | 1.57 | 1.63 |
|  |  |  |  |  |  |  |  |


| ISDO4T | 0.39 | 0.43 | 1.00 | 1.35 | 1.40 | 1.39 | 1.48 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| EDO2T | 1.00 | 0.75 | 0.33 | -0.45 | -0.67 | -0.55 | -0.50 |
| EDO3T | 0.92 | 0.89 | 0.74 | 0.51 | 0.39 | 0.41 | 0.40 |
| EDO4T | 1.10 | 1.13 | 0.54 | -0.04 | -0.31 | 0.06 | 0.13 |
| EDO5T | 0.55 | 0.78 | 0.95 | 0.70 | 0.52 | 0.86 | 0.93 |
| EDO6T | 0.80 | 0.79 | 0.62 | -0.62 | -0.95 | -0.63 | -0.59 |
| EDO7T | 0.88 | 0.72 | 0.40 | -0.40 | -0.55 | -0.42 | -0.40 |
| RES1T | 0.05 | 0.22 | 0.88 | 1.18 | 1.21 | 1.42 | 1.48 |
| RES2T | -0.01 | 0.31 | 0.62 | 1.11 | 1.15 | 1.25 | 1.37 |
| RES3T | -0.01 | 0.16 | 0.86 | 1.21 | 1.23 | 1.42 | 1.53 |
| RES4T | 0.00 | 0.19 | 0.86 | 1.21 | 1.24 | 1.43 | 1.49 |
| RES5T | -0.26 | 0.13 | 0.91 | 1.32 | 1.36 | 1.65 | 1.71 |
| RES6T | -0.17 | 0.17 | 0.94 | 1.14 | 1.21 | 1.60 | 1.63 |
| SAT1T | 0.29 | 0.34 | 0.88 | 0.89 | 0.93 | 1.14 | 1.17 |
| SAT2T | 0.44 | 0.41 | 0.99 | 0.91 | 0.89 | 1.14 | 1.17 |
| SAT3T | 0.47 | 0.45 | 0.85 | 0.86 | 0.90 | 1.13 | 1.12 |
| SAT4T | 0.52 | 0.17 | 0.72 | 1.06 | 1.39 | 1.41 | 1.38 |
| SAT5T | 0.57 | 0.28 | 0.71 | 1.20 | 1.42 | 1.36 | 1.36 |
| SAT6T | 0.80 | 0.45 | 0.67 | 1.07 | 1.27 | 1.25 | 1.24 |
| SAT7T | 0.72 | 0.48 | 0.59 | 1.09 | 1.30 | 1.19 | 1.18 |
| Samples | -0.37 | -0.22 | 0.07 | 0.06 | 0.05 | 0.11 | 0.11 |
| Roles | -0.02 | -0.07 | -0.07 | 0.19 | 0.30 | 0.15 | 0.15 |
| Freqs | 0.05 | 0.07 | 0.04 | -0.01 | -0.03 | -0.01 | 0.01 |
| RFInts | 0.09 | 0.06 | 0.06 | 0.06 | 0.08 | 0.05 | 0.08 |
| RSamInts | -0.01 | 0.03 | 0.03 | -0.10 | -0.14 | -0.14 | -0.12 |
| Types | 0.23 | 0.14 | -0.02 | 0.02 | 0.05 | -0.01 | -0.03 |
| RQ1T | -0.33 | -0.07 | 0.59 | 1.03 | 1.00 | 1.32 | 1.39 |
| RQ2T | -0.50 | -0.11 | 0.67 | 0.99 | 0.95 | 1.25 | 1.31 |
| RQ3T | -0.43 | -0.19 | 0.61 | 0.99 | 1.02 | 1.31 | 1.37 |
| RQ4T | -0.18 | -0.08 | 0.57 | 1.09 | 1.14 | 1.45 | 1.54 |
| RQ5T | -0.27 | -0.08 | 0.58 | 1.07 | 1.08 | 1.35 | 1.48 |


|  | POS5T | OFACE1T | OFACE2T | OFACE3T | OFACE4T | OFACE5T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| POS5T | 3.43 |  |  |  |  |  |
| OFACE1T | 2.78 | 3.45 |  |  |  |  |
| OFACE2T | 2.56 | 3.11 | 3.51 |  |  |  |
| OFACE3T | 2.16 | 2.39 | 2.64 | 4.41 |  |  |
| OFACE4T | 1.66 | 1.86 | 1.89 | 2.16 | 3.88 |  |
| OFACE5T | 1.93 | 2.00 | 2.06 | 2.17 | 2.33 | 3.78 |
| OFACE6T | 1.86 | 1.94 | 1.94 | 2.09 | 2.02 | 2.03 |
| REL1T | 2.12 | 2.26 | 2.33 | 2.27 | 1.75 | 1.84 |
| REL2T | 1.93 | 2.08 | 2.19 | 1.99 | 1.50 | 1.78 |
| REL3T | 1.96 | 2.05 | 2.19 | 1.93 | 1.36 | 1.81 |
| REL4T | 2.21 | 2.41 | 2.49 | 2.21 | 1.65 | 1.88 |
| REL5T | 1.67 | 1.79 | 1.71 | 1.74 | 1.41 | 1.36 |


| PDO1T | 1.36 | 1.35 | 1.29 | 1.14 | 1.10 | 1.11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PDO2T | 1.36 | 1.34 | 1.31 | 1.19 | 1.01 | 1.03 |
| PDO3T | 1.26 | 1.34 | 1.31 | 1.10 | 1.02 | 0.95 |
| PDO4T | 0.90 | 0.94 | 0.91 | 0.77 | 0.79 | 0.66 |
| PDO5T | 0.95 | 0.83 | 0.90 | 0.77 | 0.88 | 0.78 |
| PDO6T | 1.34 | 1.27 | 1.37 | 1.23 | 1.22 | 1.24 |
| NDO1T | 1.72 | 1.92 | 1.79 | 1.48 | 1.27 | 1.46 |
| NDO2T | 1.23 | 1.37 | 1.36 | 1.16 | 0.99 | 1.15 |
| NDO3T | 1.78 | 1.96 | 1.85 | 1.62 | 1.40 | 1.46 |
| NDO4T | 1.60 | 1.67 | 1.64 | 1.28 | 1.28 | 1.43 |
| NDO5T | 1.95 | 2.04 | 2.00 | 1.61 | 1.47 | 1.56 |
| NDO6T | 1.64 | 1.61 | 1.54 | 1.40 | 1.13 | 1.23 |
| ISDO1T | 1.64 | 1.52 | 1.47 | 1.38 | 1.25 | 1.15 |
| ISDO2T | 1.69 | 1.58 | 1.52 | 1.39 | 1.22 | 1.23 |
| ISDO3T | 1.73 | 1.58 | 1.63 | 1.41 | 1.21 | 1.30 |
| ISDO4T | 1.60 | 1.46 | 1.41 | 1.19 | 1.03 | 1.12 |
| EDO2T | -0.67 | -0.58 | -0.54 | -0.71 | -0.45 | -0.35 |
| EDO3T | 0.34 | 0.25 | 0.24 | -0.03 | 0.11 | 0.07 |
| EDO4T | -0.19 | -0.07 | 0.00 | -0.23 | 0.00 | 0.01 |
| EDO5T | 0.61 | 0.66 | 0.71 | 0.58 | 0.58 | 0.56 |
| EDO6T | -0.87 | -0.88 | -0.74 | -0.74 | -0.32 | -0.50 |
| EDO7T | -0.56 | -0.42 | -0.44 | -0.66 | -0.23 | -0.41 |
| RES1T | 1.33 | 1.41 | 1.31 | 1.05 | 0.87 | 1.06 |
| RES2T | 1.22 | 1.24 | 1.22 | 1.05 | 0.98 | 1.03 |
| RES3T | 1.29 | 1.43 | 1.33 | 1.18 | 1.04 | 1.07 |
| RES4T | 1.32 | 1.38 | 1.30 | 1.17 | 1.00 | 1.08 |
| RES5T | 1.43 | 1.56 | 1.44 | 1.38 | 1.10 | 1.40 |
| RES6T | 1.39 | 1.46 | 1.40 | 1.43 | 1.16 | 1.24 |
| SAT1T | 1.09 | 1.15 | 1.02 | 0.82 | 0.57 | 0.73 |
| SAT2T | 1.13 | 1.14 | 1.01 | 0.85 | 0.56 | 0.77 |
| SAT3T | 1.04 | 1.15 | 1.12 | 0.91 | 0.59 | 0.81 |
| SAT4T | 1.47 | 1.58 | 1.55 | 1.09 | 0.72 | 1.08 |
| SAT5T | 1.54 | 1.66 | 1.45 | 1.10 | 0.64 | 0.98 |
| SAT6T | 1.26 | 1.45 | 1.43 | 1.06 | 0.63 | 0.92 |
| SAT7T | 1.23 | 1.44 | 1.43 | 1.04 | 0.67 | 0.99 |
| Samples | 0.09 | 0.05 | 0.03 | 0.17 | 0.17 | 0.07 |
| Roles | 0.24 | 0.19 | 0.20 | 0.19 | 0.13 | 0.20 |
| Freqs | -0.03 | -0.01 | -0.02 | 0.02 | 0.01 | 0.01 |
| RFInts | 0.10 | 0.04 | 0.02 | 0.01 | 0.00 | 0.03 |
| RSamInts | -0.17 | -0.22 | -0.20 | -0.12 | -0.16 | -0.22 |
| Types | -0.01 | 0.02 | 0.02 | -0.06 | -0.09 | -0.04 |
| RQ1T | 1.16 | 1.31 | 1.23 | 1.31 | 1.10 | 0.99 |
| RQ2T | 1.09 | 1.22 | 1.14 | 1.26 | 1.09 | 0.99 |
| RQ3T | 1.14 | 1.26 | 1.21 | 1.29 | 1.11 | 1.04 |
| RQ4T | 1.27 | 1.40 | 1.34 | 1.41 | 1.07 | 1.08 |
| RQ5T | 1.20 | 1.35 | 1.27 | 1.32 | 1.10 | 1.10 |


|  | OFACE6T | REL1T | REL2T | REL3T | REL4T | REL5T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| OFACE6T | 3.06 |  |  |  |  |  |
| REL1T | 2.09 | 2.94 |  |  |  |  |
| REL2T | 1.72 | 2.04 | 3.10 |  |  |  |
| REL3T | 1.64 | 2.13 | 2.29 | 3.25 |  |  |
| REL4T | 1.91 | 2.64 | 2.10 | 2.41 | 3.05 |  |
| REL5T | 1.59 | 2.09 | 1.71 | 1.74 | 2.06 | 2.76 |
| PDO1T | 1.26 | 1.53 | 1.36 | 1.34 | 1.58 | 1.59 |
| PDO2T | 1.33 | 1.53 | 1.37 | 1.43 | 1.57 | 1.54 |
| PDO3T | 1.17 | 1.46 | 1.29 | 1.36 | 1.50 | 1.46 |
| PDO4T | 0.81 | 1.21 | 1.10 | 1.10 | 1.26 | 1.15 |
| PDO5T | 0.85 | 1.12 | 1.06 | 1.09 | 1.14 | 1.06 |
| PDO6T | 1.26 | 1.57 | 1.30 | 1.41 | 1.64 | 1.51 |
| NDO1T | 1.47 | 1.56 | 1.67 | 1.47 | 1.71 | 1.61 |
| NDO2T | 1.15 | 1.15 | 1.21 | 1.19 | 1.34 | 1.21 |
| NDO3T | 1.59 | 1.72 | 1.80 | 1.58 | 1.86 | 1.71 |
| NDO4T | 1.30 | 1.39 | 1.52 | 1.34 | 1.51 | 1.33 |
| NDO5T | 1.68 | 1.68 | 1.77 | 1.62 | 1.80 | 1.55 |
| NDO6T | 1.36 | 1.68 | 1.52 | 1.61 | 1.77 | 1.67 |
| ISDO1T | 1.30 | 1.51 | 1.42 | 1.34 | 1.50 | 1.44 |
| ISDO2T | 1.28 | 1.50 | 1.43 | 1.35 | 1.54 | 1.43 |
| ISDO3T | 1.36 | 1.58 | 1.45 | 1.46 | 1.64 | 1.51 |
| ISDO4T | 1.13 | 1.39 | 1.32 | 1.22 | 1.49 | 1.37 |
| EDO2T | -0.52 | -0.39 | -0.37 | -0.36 | -0.43 | -0.40 |
| EDO3T | 0.19 | 0.41 | 0.23 | 0.33 | 0.41 | 0.46 |
| EDO4T | -0.13 | 0.19 | 0.07 | 0.25 | 0.13 | 0.09 |
| EDO5T | 0.64 | 1.02 | 0.72 | 0.86 | 0.94 | 0.91 |
| EDO6T | -0.42 | -0.34 | -0.59 | -0.37 | -0.47 | -0.16 |
| EDO7T | -0.32 | -0.32 | -0.46 | -0.38 | -0.45 | -0.24 |
| RES1T | 1.25 | 1.24 | 1.09 | 1.27 | 1.39 | 1.37 |
| RES2T | 1.12 | 1.26 | 0.97 | 1.15 | 1.35 | 1.21 |
| RES3T | 1.28 | 1.39 | 1.09 | 1.27 | 1.45 | 1.46 |
| RES4T | 1.37 | 1.34 | 1.08 | 1.21 | 1.38 | 1.37 |
| RES5T | 1.39 | 1.68 | 1.43 | 1.48 | 1.73 | 1.82 |
| RES6T | 1.45 | 1.65 | 1.40 | 1.35 | 1.62 | 1.97 |
| SAT1T | 0.94 | 1.01 | 0.85 | 0.86 | 1.09 | 1.13 |
| SAT2T | 0.95 | 1.07 | 0.93 | 0.89 | 1.11 | 1.14 |
| SAT3T | 1.00 | 1.04 | 0.94 | 0.83 | 1.07 | 1.11 |
| SAT4T | 0.98 | 1.26 | 1.31 | 1.28 | 1.45 | 1.15 |
| SAT5T | 1.05 | 1.21 | 1.20 | 1.23 | 1.35 | 1.04 |
| SAT6T | 0.88 | 1.19 | 1.16 | 1.25 | 1.33 | 0.97 |
| SAT7T | 0.85 | 1.15 | 1.02 | 1.14 | 1.28 | 0.88 |
| Samples | 0.15 | 0.09 | 0.09 | -0.04 | 0.04 | 0.23 |
| Roles | 0.12 | 0.07 | 0.17 | 0.12 | 0.09 | 0.02 |
|  |  |  |  |  |  |  |


| Freqs | 0.00 | 0.00 | -0.04 | 0.02 | 0.00 | -0.03 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| RFInts | 0.05 | -0.01 | -0.04 | 0.05 | 0.07 | 0.04 |
| RSamInts | -0.14 | -0.20 | -0.17 | -0.18 | -0.21 | -0.07 |
| Types | -0.05 | -0.05 | -0.03 | 0.03 | -0.03 | -0.12 |
| RQ1T | 1.13 | 1.34 | 1.11 | 1.11 | 1.36 | 1.55 |
| RQ2T | 1.13 | 1.31 | 1.09 | 0.96 | 1.28 | 1.53 |
| RQ3T | 1.17 | 1.34 | 1.16 | 1.02 | 1.34 | 1.55 |
| RQ4T | 1.14 | 1.44 | 1.21 | 1.19 | 1.45 | 1.62 |
| RQ5T | 1.16 | 1.39 | 1.16 | 1.11 | 1.40 | 1.55 |
|  |  |  |  |  |  |  |
|  | PDO1T | PDO2T | PDO3T | PDO4T | PDO5T | PDO6T |
| PDO1T | 2.66 |  |  |  |  |  |
| PDO2T | 2.44 | 2.78 |  |  |  |  |
| PDO3T | 2.35 | 2.51 | 3.10 |  |  |  |
| PDO4T | 1.94 | 2.10 | 2.46 | 3.32 |  |  |
| PDO5T | 1.86 | 2.06 | 2.34 | 2.95 | 3.51 |  |
| PDO6T | 1.98 | 2.05 | 2.03 | 2.19 | 2.33 | 3.12 |
| NDO1T | 1.94 | 1.88 | 1.97 | 1.78 | 1.77 | 2.17 |
| NDO2T | 1.53 | 1.60 | 1.61 | 1.60 | 1.84 | 1.80 |
| NDO3T | 1.81 | 1.77 | 1.69 | 1.63 | 1.56 | 2.00 |
| NDO4T | 1.50 | 1.44 | 1.63 | 1.48 | 1.46 | 1.58 |
| NDO5T | 1.62 | 1.61 | 1.51 | 1.33 | 1.30 | 1.68 |
| NDO6T | 1.97 | 2.02 | 1.91 | 1.71 | 1.67 | 1.94 |
| ISDO1T | 1.73 | 1.81 | 1.86 | 1.71 | 1.74 | 1.80 |
| ISDO2T | 1.76 | 1.77 | 1.80 | 1.58 | 1.63 | 1.77 |
| ISDO3T | 1.83 | 1.82 | 1.83 | 1.57 | 1.69 | 1.86 |
| ISDO4T | 1.68 | 1.67 | 1.70 | 1.50 | 1.63 | 1.71 |
| EDO2T | 0.26 | 0.23 | 0.46 | 0.82 | 0.90 | 0.25 |
| EDO3T | 1.02 | 1.03 | 1.32 | 1.50 | 1.57 | 1.11 |
| EDO4T | 0.71 | 0.78 | 1.05 | 1.24 | 1.34 | 0.80 |
| EDO5T | 1.50 | 1.48 | 1.70 | 1.56 | 1.60 | 1.33 |
| EDO6T | 0.53 | 0.60 | 0.67 | 0.97 | 1.04 | 0.58 |
| EDO7T | 0.50 | 0.53 | 0.74 | 1.00 | 1.03 | 0.43 |
| RES1T | 1.45 | 1.38 | 1.34 | 1.09 | 1.12 | 1.46 |
| RES2T | 1.29 | 1.21 | 1.16 | 1.01 | 1.06 | 1.33 |
| RES3T | 1.42 | 1.35 | 1.22 | 0.99 | 1.01 | 1.35 |
| RES4T | 1.31 | 1.29 | 1.12 | 0.87 | 0.95 | 1.23 |
| RES5T | 1.56 | 1.49 | 1.39 | 1.11 | 1.13 | 1.57 |
| RES6T | 1.50 | 1.50 | 1.36 | 1.01 | 1.04 | 1.31 |
| SAT1T | 1.18 | 1.15 | 1.11 | 1.09 | 1.04 | 1.19 |
| SAT2T | 1.18 | 1.16 | 1.16 | 1.05 | 1.05 | 1.19 |
| SAT3T | 1.10 | 1.07 | 1.04 | 0.94 | 0.93 | 1.13 |
| SAT4T | 1.17 | 1.09 | 1.22 | 1.22 | 1.23 | 1.19 |
| SAT5T | 1.06 | 1.00 | 1.11 | 1.18 | 1.12 | 1.07 |
| SAT6T | 1.06 | 1.00 | 1.15 | 1.19 | 1.18 | 1.16 |
| SAT7T | 1.01 | 0.96 | 1.07 | 1.04 | 1.14 | 1.11 |
|  |  |  |  |  |  |  |


| Samples | 0.15 | 0.16 | 0.14 | 0.09 | 0.11 | 0.12 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Roles | -0.01 | -0.02 | -0.04 | -0.09 | -0.08 | -0.01 |
| Freqs | -0.02 | -0.02 | -0.01 | -0.01 | 0.01 | -0.04 |
| RFInts | 0.10 | 0.11 | 0.08 | 0.01 | 0.07 | 0.08 |
| RSamInts | -0.04 | -0.05 | -0.04 | -0.05 | -0.01 | -0.06 |
| Types | -0.08 | -0.09 | -0.07 | -0.03 | -0.01 | -0.06 |
| RQ1T | 1.08 | 1.07 | 1.05 | 0.75 | 0.80 | 1.00 |
| RQ2T | 1.08 | 1.03 | 1.01 | 0.71 | 0.76 | 1.02 |
| RQ3T | 1.09 | 1.04 | 0.96 | 0.72 | 0.80 | 1.02 |
| RQ4T | 1.09 | 1.06 | 1.06 | 0.78 | 0.82 | 1.05 |
| RQ5T | 1.09 | 1.04 | 1.05 | 0.72 | 0.78 | 1.06 |


|  | NDO1T | NDO2T | NDO3T | NDO4T | NDO5T | NDO6T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NDO1T | 3.45 |  |  |  |  |  |
| NDO2T | 2.52 | 4.08 |  |  |  |  |
| NDO3T | 2.71 | 2.30 | 3.08 |  |  |  |
| NDO4T | 2.29 | 2.34 | 2.32 | 3.29 |  |  |
| NDO5T | 2.30 | 2.04 | 2.48 | 2.29 | 3.13 |  |
| NDO6T | 2.10 | 1.81 | 2.23 | 1.92 | 2.16 | 2.94 |
| ISDO1T | 2.06 | 1.83 | 1.89 | 1.80 | 1.79 | 2.01 |
| ISDO2T | 2.05 | 1.75 | 1.91 | 1.68 | 1.86 | 2.01 |
| ISDO3T | 2.09 | 1.80 | 1.95 | 1.79 | 1.87 | 2.02 |
| ISDO4T | 2.00 | 1.84 | 1.82 | 1.70 | 1.70 | 1.84 |
| EDO2T | 0.05 | 0.41 | -0.11 | 0.14 | -0.12 | -0.12 |
| EDO3T | 1.09 | 1.08 | 0.78 | 0.89 | 0.55 | 0.76 |
| EDO4T | 0.42 | 0.59 | 0.18 | 0.55 | 0.03 | 0.43 |
| EDO5T | 1.23 | 1.15 | 0.98 | 1.12 | 0.90 | 1.42 |
| EDO6T | -0.07 | 0.18 | -0.19 | 0.02 | -0.34 | 0.17 |
| EDO7T | 0.10 | 0.34 | -0.05 | 0.15 | -0.04 | 0.09 |
| RES1T | 1.45 | 1.14 | 1.37 | 1.19 | 1.44 | 1.45 |
| RES2T | 1.52 | 1.20 | 1.38 | 1.15 | 1.50 | 1.52 |
| RES3T | 1.57 | 1.21 | 1.35 | 1.15 | 1.42 | 1.40 |
| RES4T | 1.44 | 1.25 | 1.36 | 1.13 | 1.46 | 1.50 |
| RES5T | 1.74 | 1.30 | 1.61 | 1.27 | 1.60 | 1.67 |
| RES6T | 1.47 | 1.06 | 1.53 | 1.19 | 1.48 | 1.56 |
| SAT1T | 1.22 | 0.96 | 1.13 | 0.81 | 1.04 | 1.23 |
| SAT2T | 1.21 | 0.93 | 1.15 | 0.84 | 1.04 | 1.20 |
| SAT3T | 1.17 | 0.98 | 1.14 | 0.95 | 1.06 | 1.15 |
| SAT4T | 1.66 | 1.51 | 1.57 | 1.55 | 1.58 | 1.48 |
| SAT5T | 1.50 | 1.41 | 1.48 | 1.38 | 1.45 | 1.37 |
| SAT6T | 1.42 | 1.44 | 1.43 | 1.36 | 1.34 | 1.33 |
| SAT7T | 1.36 | 1.42 | 1.31 | 1.32 | 1.30 | 1.29 |
| Samples | 0.12 | 0.02 | 0.09 | 0.04 | 0.10 | 0.12 |
| Roles | 0.06 | 0.05 | 0.07 | 0.05 | 0.12 | 0.04 |
| Freqs | -0.05 | 0.03 | -0.04 | -0.02 | -0.05 | -0.04 |
| RFInts | 0.03 | 0.00 | 0.05 | 0.00 | 0.05 | 0.05 |
|  |  |  |  |  |  |  |


| RSamInts | -0.09 | -0.06 | -0.15 | -0.22 | -0.17 | -0.10 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Types | -0.03 | -0.03 | -0.04 | -0.03 | -0.04 | -0.06 |
| RQ1T | 1.11 | 0.84 | 1.12 | 0.81 | 1.11 | 1.17 |
| RQ2T | 1.09 | 0.78 | 1.08 | 0.76 | 1.10 | 1.13 |
| RQ3T | 1.10 | 0.84 | 1.11 | 0.77 | 1.12 | 1.15 |
| RQ4T | 1.20 | 0.96 | 1.23 | 0.92 | 1.19 | 1.24 |
| RQ5T | 1.17 | 0.93 | 1.16 | 0.85 | 1.14 | 1.21 |


|  | ISDO1T | ISDO2T | ISDO3T | ISDO4T | EDO2T | EDO3T |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ISDO1T | 3.29 |  |  |  |  |  |
| ISDO2T | 2.90 | 3.25 |  |  |  |  |
| ISDO3T | 2.74 | 2.99 | 3.34 |  |  |  |
| ISDO4T | 2.68 | 2.88 | 3.00 | 3.37 |  |  |
| EDO2T | 0.23 | 0.09 | 0.16 | 0.34 | 4.22 |  |
| EDO3T | 0.99 | 0.94 | 0.93 | 1.02 | 1.87 | 4.58 |
| EDO4T | 0.60 | 0.32 | 0.44 | 0.42 | 2.24 | 2.26 |
| EDO5T | 1.42 | 1.36 | 1.45 | 1.48 | 1.05 | 1.99 |
| EDO6T | 0.35 | 0.11 | 0.11 | 0.10 | 2.52 | 1.86 |
| EDO7T | 0.33 | 0.26 | 0.19 | 0.17 | 2.42 | 1.92 |
| RES1T | 1.38 | 1.37 | 1.44 | 1.29 | -0.12 | 0.55 |
| RES2T | 1.49 | 1.42 | 1.47 | 1.35 | 0.07 | 0.54 |
| RES3T | 1.35 | 1.37 | 1.46 | 1.29 | -0.06 | 0.59 |
| RES4T | 1.33 | 1.31 | 1.41 | 1.24 | -0.20 | 0.43 |
| RES5T | 1.41 | 1.47 | 1.58 | 1.42 | -0.23 | 0.61 |
| RES6T | 1.36 | 1.35 | 1.38 | 1.16 | -0.35 | 0.48 |
| SAT1T | 1.16 | 1.09 | 1.10 | 1.00 | 0.19 | 0.66 |
| SAT2T | 1.17 | 1.11 | 1.12 | 0.99 | 0.16 | 0.71 |
| SAT3T | 1.17 | 1.06 | 1.08 | 0.93 | 0.10 | 0.67 |
| SAT4T | 1.47 | 1.38 | 1.38 | 1.26 | 0.05 | 0.74 |
| SAT5T | 1.42 | 1.33 | 1.28 | 1.16 | -0.06 | 0.67 |
| SAT6T | 1.27 | 1.22 | 1.20 | 1.00 | 0.20 | 0.68 |
| SAT7T | 1.31 | 1.24 | 1.17 | 1.05 | 0.17 | 0.61 |
| Samples | 0.14 | 0.16 | 0.13 | 0.14 | -0.12 | -0.14 |
| Roles | 0.04 | 0.07 | 0.10 | 0.09 | -0.23 | -0.16 |
| Freqs | -0.02 | -0.02 | -0.03 | -0.01 | 0.05 | 0.04 |
| RFInts | 0.03 | 0.00 | 0.02 | 0.04 | 0.06 | -0.06 |
| RSamInts | -0.03 | -0.05 | -0.05 | -0.10 | 0.10 | 0.13 |
| Types | -0.07 | -0.09 | -0.09 | -0.08 | 0.10 | 0.16 |
| RQ1T | 0.95 | 1.04 | 1.10 | 0.94 | -0.20 | 0.17 |
| RQ2T | 0.97 | 1.05 | 1.12 | 0.98 | -0.23 | 0.11 |
| RQ3T | 1.00 | 1.07 | 1.12 | 0.99 | -0.20 | 0.17 |
| RQ4T | 1.01 | 1.09 | 1.16 | 0.98 | -0.22 | 0.28 |
| RQ5T | 1.03 | 1.09 | 1.16 | 0.96 | -0.26 | 0.17 |
|  | EDO4T | EDO5T | EDO6T | EDO7T | RES1T | RES2T |
| EDO4T | 4.64 |  |  |  |  |  |


| EDO5T | 1.76 | 3.96 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EDO6T | 2.40 | 1.36 | 4.56 |  |  |  |
| ED07T | 2.33 | 1.22 | 3.20 | 4.08 |  |  |
| RES1T | 0.51 | 1.14 | 0.10 | -0.05 | 3.07 |  |
| RES2T | 0.47 | 1.36 | 0.00 | -0.05 | 2.28 | 3.52 |
| RES3T | 0.43 | 1.14 | -0.09 | -0.10 | 2.55 | 2.50 |
| RES4T | 0.27 | 1.10 | -0.13 | -0.13 | 2.38 | 2.52 |
| RES5T | 0.25 | 1.15 | -0.15 | -0.23 | 2.16 | 2.08 |
| RES6T | 0.09 | 0.89 | 0.04 | -0.15 | 1.89 | 1.53 |
| SAT1T | 0.42 | 0.98 | 0.27 | 0.21 | 1.96 | 2.02 |
| SAT2T | 0.53 | 0.97 | 0.25 | 0.13 | 1.97 | 1.97 |
| SAT3T | 0.44 | 0.87 | 0.20 | 0.18 | 1.94 | 2.04 |
| SAT4T | 0.55 | 0.98 | -0.07 | 0.03 | 1.79 | 1.85 |
| SAT5T | 0.47 | 0.82 | -0.17 | 0.01 | 1.76 | 1.72 |
| SAT6T | 0.64 | 0.97 | 0.15 | 0.17 | 1.66 | 1.94 |
| SAT7T | 0.54 | 1.00 | 0.12 | 0.15 | 1.57 | 1.96 |
| Samples | -0.23 | -0.01 | -0.04 | -0.11 | 0.04 | 0.04 |
| Roles | -0.24 | -0.09 | -0.44 | -0.27 | 0.03 | -0.04 |
| Freqs | 0.03 | 0.02 | 0.07 | 0.03 | -0.06 | -0.02 |
| RFInts | 0.00 | 0.01 | 0.12 | 0.11 | 0.08 | -0.01 |
| RSamInts | 0.07 | 0.06 | 0.10 | 0.03 | 0.00 | -0.01 |
| Types | 0.10 | 0.00 | 0.00 | 0.04 | 0.02 | 0.01 |
| RQ1T | -0.11 | 0.63 | -0.14 | -0.23 | 1.18 | 1.21 |
| RQ2T | -0.16 | 0.62 | -0.18 | -0.32 | 1.09 | 1.14 |
| RQ3T | -0.09 | 0.64 | -0.12 | -0.31 | 1.13 | 1.18 |
| RQ4T | -0.04 | 0.65 | -0.17 | -0.19 | 1.24 | 1.19 |
| RQ5T | -0.05 | 0.65 | -0.12 | -0.24 | 1.22 | 1.24 |
|  | RES3T | RES4T | RES5T | RES6T | SAT1T | SAT2T |
| RES3T | 3.20 |  |  |  |  |  |
| RES4T | 2.61 | 3.16 |  |  |  |  |
| RES5T | 2.44 | 2.24 | 3.00 |  |  |  |
| RES6T | 1.98 | 1.83 | 2.34 | 2.74 |  |  |
| SAT1T | 2.02 | 2.06 | 1.78 | 1.57 | 3.46 |  |
| SAT2T | 1.95 | 2.05 | 1.77 | 1.57 | 3.19 | 3.56 |
| SAT3T | 1.90 | 2.12 | 1.66 | 1.58 | 3.20 | 3.36 |
| SAT4T | 1.71 | 1.87 | 1.53 | 1.22 | 2.33 | 2.43 |
| SAT5T | 1.57 | 1.86 | 1.34 | 1.17 | 2.23 | 2.37 |
| SAT6T | 1.56 | 1.83 | 1.32 | 1.05 | 2.53 | 2.64 |
| SAT7T | 1.60 | 1.79 | 1.27 | 0.96 | 2.40 | 2.57 |
| Samples | 0.05 | 0.05 | 0.14 | 0.22 | 0.04 | 0.02 |
| Roles | 0.01 | 0.01 | -0.01 | -0.01 | -0.10 | -0.12 |
| Freqs | -0.04 | -0.02 | -0.03 | -0.04 | -0.05 | -0.03 |
| RFInts | 0.03 | 0.08 | 0.05 | 0.09 | 0.07 | 0.07 |
| RSamInts | -0.01 | 0.04 | 0.01 | -0.02 | 0.05 | 0.06 |
| Types | 0.01 | -0.01 | -0.04 | -0.07 | 0.03 | 0.05 |


| RQ1T | 1.31 | 1.29 | 1.56 | 1.53 | 1.09 | 1.05 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| RQ2T | 1.27 | 1.20 | 1.55 | 1.52 | 0.97 | 0.92 |
| RQ3T | 1.29 | 1.24 | 1.60 | 1.59 | 1.04 | 1.01 |
| RQ4T | 1.31 | 1.33 | 1.63 | 1.60 | 1.16 | 1.15 |
| RQ5T | 1.36 | 1.38 | 1.65 | 1.57 | 1.10 | 1.11 |
|  |  |  |  |  |  |  |
|  | SAT3T | SAT4T | SAT5T | SAT6T | SAT7T | Samples |
| SAT3T | 3.85 |  |  |  |  |  |
| SAT4T | 2.59 | 4.10 |  |  |  |  |
| SAT5T | 2.54 | 3.62 | 3.99 |  |  |  |
| SAT6T | 2.87 | 3.46 | 3.52 | 4.61 |  |  |
| SAT7T | 2.80 | 3.41 | 3.43 | 4.31 | 4.64 |  |
| Samples | 0.03 | -0.04 | -0.07 | -0.12 | -0.12 | 0.24 |
| Roles | -0.14 | 0.02 | 0.02 | -0.07 | -0.07 | 0.00 |
| Freqs | -0.05 | -0.04 | -0.03 | -0.06 | -0.05 | 0.00 |
| RFInts | 0.07 | 0.08 | 0.10 | 0.10 | 0.13 | 0.00 |
| RSamInts | 0.02 | -0.05 | -0.06 | 0.03 | 0.02 | 0.00 |
| Types | 0.06 | 0.04 | 0.06 | 0.10 | 0.12 | -0.10 |
| RQ1T | 1.00 | 0.94 | 0.82 | 0.83 | 0.80 | 0.26 |
| RQ2T | 0.87 | 0.81 | 0.67 | 0.68 | 0.64 | 0.33 |
| RQ3T | 0.99 | 0.92 | 0.78 | 0.77 | 0.77 | 0.31 |
| RQ4T | 1.12 | 1.15 | 1.02 | 1.04 | 1.01 | 0.19 |
| RQ5T | 1.05 | 1.04 | 0.93 | 0.92 | 0.91 | 0.23 |
|  |  |  |  |  |  |  |
|  | Roles | Freqs | RFInts | RSamInts | Types | RQ1T |
| Roles | 0.25 |  |  |  |  |  |
| Freqs | -0.02 | 0.25 |  |  |  |  |
| RFInts | 0.01 | 0.00 | 0.99 |  |  |  |
| RSamInts | 0.10 | -0.01 | -0.02 | 0.98 |  | 0.20 |
| Types | 0.00 | 0.00 | -0.01 | 0.00 | 0.20 |  |
| RQ1T | 0.03 | -0.01 | 0.06 | -0.05 | -0.12 | 2.27 |
| RQ2T | 0.03 | -0.01 | 0.05 | -0.04 | -0.15 | 2.16 |
| RQ3T | 0.03 | 0.01 | 0.07 | -0.04 | -0.13 | 2.16 |
| RQ4T | 0.03 | 0.00 | 0.10 | -0.05 | -0.10 | 2.18 |
| RQ5T | 0.03 | 0.01 | 0.10 | -0.05 | -0.11 | 2.20 |
|  |  |  |  |  |  |  |


|  | RQ2T | RQ3T | RQ4T | RQ5T |
| :--- | ---: | ---: | ---: | ---: |
| RQ2T | 2.43 |  |  |  |
| RQ3T | 2.25 | 2.39 |  |  |
| RQ4T | 2.11 | 2.15 | 2.48 |  |
| RQ5T | 2.17 | 2.21 | 2.35 | 2.55 |

Appendix Q Study 2 and Study 3 LISREL Syntax for the Revised Model for the
Management of Relational Transgressions with Modification Indices
!MODEL 2 WITH RQS AND WITH MODIFICATION INDICES PERMITTING ERRORS TO COVARY
RAW DATA FROM FILE 'C:\LISREL 8.8 Examples\Ale mele\Diss main studies\Main studies.Inter2.PSF'
LATENT VARIABLES
ROLE TYPE FREQ SAMPLE RSAMINT RFINT RELQ IA EA NEG DOMIN SPF
SNF OPF ONF POS REL PDO NDO ISDO EDO RES SAT
RELATIONSHIPS
Roles $=1 *$ ROLE
Freqs $=1 *$ FREQ
Types $=1 *$ TYPE
Samples $=1 *$ SAMPLE
RSamInts $=1 *$ RSAMINT
RFInts = 1* RFINT
IA1T IA2T IA3T IA4T IA5T IA6T = IA
EA1T EA2T EA3T EA4T EA5T EA6T = EA
NEG1T NEG2T NEG3T NEG4T = NEG
NEG6T NEG7T NEG8T NEG9T NEG10T = DOMIN
SFACE1T SFACE2T SFACE3T = SPF
SFACE4T SFACE5T SFACE6T =SNF
POS1T POS2T POS3T POS4T POS5T = POS
OFACE1T OFACE2T OFACE3T =OPF
OFACE4T OFACE5T OFACE6T = ONF
REL1T REL2T REL3T REL4T REL5T = REL
PDO1T PDO2T PDO3T PDO4T PDO5T PDO6T = PDO
NDO1T NDO2T NDO3T NDO4T NDO5T NDO6T = NDO
ISDO1T ISDO2T ISDO3T ISDO4T = ISDO
EDO2T EDO3T EDO4T EDO5T EDO6T EDO7T = EDO
RES1T RES2T RES3T RES4T RES5T RES6T = RES
SAT1T SAT2T SAT3T SAT4T SAT5T SAT6T SAT7T = SAT
RQ1T RQ2T RQ3T RQ4T RQ5T = RELQ
EA = RELQ ROLE TYPE SAMPLE RSAMINT
IA = RELQ ROLE RFINT TYPE SAMPLE RSAMINT
NEG = ROLE RFINT TYPE SAMPLE RSAMINT
DOMIN = ROLE RFINT TYPE SAMPLE RSAMINT
SPF= RELQ ROLE RFINT TYPE SAMPLE RSAMINT
SNF = ROLE RFINT TYPE SAMPLE RSAMINT
OPF = RELQ ROLE TYPE SAMPLE RSAMINT
ONF = ROLE TYPE SAMPLE RSAMINT
POS = RELQ ROLE RFINT TYPE SAMPLE RSAMINT
REL = RELQ ROLE RFINT TYPE SAMPLE RSAMINT
PDO $=$ POS SPF OPF ONF REL IA EA

NDO = SPF SNF ONF REL IA EA
ISDO = POS SPF OPF REL IA EA
EDO $=$ IA NEG DOMIN SNF REL
RES = PDO NDO ISDO EDO
SAT = PDO NDO ISDO EDO
SET THE ERROR VARIANCE OF Roles TO 0
SET THE ERROR VARIANCE OF Types TO 0
SET THE ERROR VARIANCE OF Freqs TO 0
SET THE ERROR VARIANCE OF Samples TO 0
SET THE ERROR VARIANCE OF RSamInts TO 0
SET THE ERROR VARIANCE OF RFInts TO 0
LET THE ERRORS OF IA2T AND IA1T CORRELATE
LET THE ERRORS OF IA3T AND IA1T CORRELATE
LET THE ERRORS OF IA2T AND IA3T CORRELATE
LET THE ERRORS OF EA5T AND EA6T CORRELATE
LET THE ERRORS OF SELF9T AND SELF10T CORRELATE
LET THE ERRORS OF SELF6T AND SELF8T CORRELATE
LET THE ERRORS OF OTHR3T AND OTHR5T CORRELATE
LET THE ERRORS OF OTHR1T AND OTHR2T CORRELATE
LET THE ERRORS OF PDO1T AND PDO2T CORRELATE
LET THE ERRORS OF PDO4T AND PDO5T CORRELATE
LET THE ERRORS OF PDO1T AND PDO3T CORRELATE
LET THE ERRORS OF PDO2T AND PDO3T CORRELATE
LET THE ERRORS OF NDO2T AND NDO4T CORRELATE
LET THE ERRORS OF NDO1T AND NDO2T CORRELATE
LET THE ERRORS OF NDO1T AND NDO3T CORRELATE
LET THE ERRORS OF NDO1T AND NDO6T CORRELATE
LET THE ERRORS OF ISDO1T AND ISDO2T CORRELATE
LET THE ERRORS OF EDO3T AND EDO5T CORRELATE
LET THE ERRORS OF EDO6T AND EDO7T CORRELATE
LET THE ERRORS OF PDO5T AND PDO6T CORRELATE
LET THE ERRORS OF EDO2T AND EDO5T CORRELATE
LET THE ERRORS OF NDO3T AND NDO5T CORRELATE
LET THE ERRORS OF RES5T AND RES6T CORRELATE
LET THE ERRORS OF RES2T AND RES4T CORRELATE
LET THE ERRORS OF RES1T AND RES6T CORRELATE
LET THE ERRORS OF SAT1T AND SAT2T CORRELATE
LET THE ERRORS OF SAT1T AND SAT3T CORRELATE
LET THE ERRORS OF SAT2T AND SAT3T CORRELATE
LET THE ERRORS OF SAT4T AND SAT5T CORRELATE
LET THE ERRORS OF SAT6T AND SAT7T CORRELATE
LET THE ERRORS OF RQ1T AND RQ2T CORRELATE
LET THE ERRORS OF RQ1T AND RQ3T CORRELATE
LET THE ERRORS OF RQ2T AND RQ3T CORRELATE
LISREL OPTIONS: SC
PATH DIAGRAM

## END OF PROBLEM

Appendix R Study 2 and Study 3 Covariance Matrix for the Revised Model for the
Management of Relational Transgressions with Modification Indices

|  | IA1T | IA2T | IA3T | IA4T | IA5T | IA6T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| IA1T | 4.20 |  |  |  |  |  |
| IA2T | 3.86 | 4.33 |  |  |  |  |
| IA3T | 3.79 | 3.93 | 4.53 |  |  |  |
| IA4T | 3.11 | 3.27 | 3.50 | 4.42 |  |  |
| IA5T | 3.16 | 3.28 | 3.59 | 3.68 | 4.70 |  |
| IA6T | 2.39 | 2.44 | 2.28 | 2.27 | 2.16 | 4.00 |
| EA1T | 1.34 | 1.37 | 1.41 | 1.30 | 1.07 | 1.38 |
| EA2T | 0.50 | 0.60 | 0.54 | 0.46 | 0.18 | 1.12 |
| EA3T | 0.61 | 0.62 | 0.63 | 0.54 | 0.43 | 1.00 |
| EA4T | 0.09 | 0.11 | 0.16 | 0.12 | 0.14 | -0.51 |
| EA5T | -0.29 | -0.33 | -0.21 | -0.35 | -0.50 | -0.35 |
| EA6T | -0.01 | -0.16 | -0.05 | -0.01 | -0.29 | 0.23 |
| NEG1T | 0.55 | 0.55 | 0.60 | 0.43 | 0.42 | 0.34 |
| NEG2T | 0.53 | 0.44 | 0.56 | 0.39 | 0.51 | -0.01 |
| NEG3T | 0.74 | 0.59 | 0.70 | 0.49 | 0.60 | 0.22 |
| NEG4T | 0.57 | 0.48 | 0.57 | 0.35 | 0.50 | 0.17 |
| NEG6T | -0.05 | -0.11 | 0.02 | 0.04 | 0.02 | -0.53 |
| NEG7T | 0.51 | 0.57 | 0.62 | 0.54 | 0.62 | 0.04 |
| NEG8T | 0.02 | 0.05 | 0.15 | 0.16 | 0.24 | -0.33 |
| NEG9T | 0.03 | 0.10 | 0.15 | 0.18 | 0.26 | -0.27 |
| NEG10T | 0.01 | 0.06 | 0.07 | 0.11 | 0.25 | -0.16 |
| SFACE1T | 0.72 | 0.58 | 0.69 | 0.52 | 0.67 | 0.91 |
| SFACE2T | 0.69 | 0.70 | 0.73 | 0.65 | 0.70 | 1.00 |
| SFACE3T | 0.90 | 0.91 | 0.81 | 0.79 | 0.73 | 1.21 |
| SFACE4T | 0.35 | 0.31 | 0.44 | 0.19 | 0.39 | -0.12 |
| SFACE5T | 0.65 | 0.63 | 0.59 | 0.21 | 0.50 | 0.45 |
| SFACE6T | 1.24 | 1.28 | 1.02 | 1.05 | 1.03 | 1.37 |
| POS1T | 0.61 | 0.56 | 0.47 | 0.33 | 0.23 | 0.89 |
| POS2T | 0.51 | 0.50 | 0.43 | 0.34 | 0.16 | 0.76 |
| POS3T | 0.85 | 0.83 | 0.78 | 0.64 | 0.54 | 1.19 |
| POS4T | 0.83 | 0.75 | 0.66 | 0.58 | 0.41 | 1.24 |
| POS5T | 0.66 | 0.62 | 0.54 | 0.47 | 0.23 | 1.07 |
| OFACE1T | 0.59 | 0.55 | 0.49 | 0.35 | 0.24 | 1.07 |
| OFACE2T | 0.59 | 0.59 | 0.54 | 0.35 | 0.34 | 0.95 |
| OFACE3T | 0.89 | 0.91 | 0.75 | 0.69 | 0.68 | 1.25 |
| OFACE4T | 0.87 | 0.97 | 0.90 | 0.90 | 0.87 | 1.14 |
| OFACE5T | 0.81 | 0.88 | 0.89 | 0.87 | 0.70 | 1.08 |
| OFACE6T | 0.86 | 0.83 | 0.75 | 0.63 | 0.46 | 1.19 |
| REL1T | 0.97 | 0.95 | 0.90 | 0.77 | 0.63 | 1.37 |
| REL2T | 0.79 | 0.76 | 0.73 | 0.79 | 0.61 | 1.25 |
| REL3T | 0.75 | 0.59 | 0.56 | 0.65 | 0.47 | 0.98 |
|  |  |  |  |  |  |  |


| REL4T | 0.84 | 0.81 | 0.77 | 0.63 | 0.49 | 1.26 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| REL5T | 0.92 | 0.86 | 0.70 | 0.66 | 0.60 | 1.50 |
| PDO1T | 1.00 | 1.01 | 0.95 | 0.95 | 0.74 | 1.57 |
| PDO2T | 1.05 | 1.02 | 1.01 | 1.01 | 0.76 | 1.62 |
| PDO3T | 0.91 | 0.88 | 0.82 | 0.88 | 0.67 | 1.47 |
| PDO4T | 1.01 | 0.85 | 0.94 | 1.12 | 0.93 | 1.24 |
| PDO5T | 0.93 | 0.80 | 0.82 | 1.05 | 0.83 | 1.16 |
| PDO6T | 0.98 | 0.84 | 0.90 | 0.83 | 0.73 | 1.34 |
| NDO1T | 0.60 | 0.64 | 0.54 | 0.53 | 0.34 | 1.23 |
| NDO2T | 0.42 | 0.36 | 0.36 | 0.37 | 0.25 | 0.73 |
| NDO3T | 0.62 | 0.62 | 0.60 | 0.62 | 0.42 | 1.15 |
| NDO4T | 0.49 | 0.55 | 0.53 | 0.56 | 0.37 | 0.84 |
| NDO5T | 0.67 | 0.75 | 0.69 | 0.64 | 0.36 | 1.03 |
| NDO6T | 0.86 | 0.87 | 0.85 | 0.73 | 0.61 | 1.23 |
| ISDO1T | 0.72 | 0.74 | 0.67 | 0.77 | 0.51 | 1.21 |
| ISDO2T | 0.76 | 0.80 | 0.77 | 0.81 | 0.56 | 1.24 |
| ISDO3T | 0.80 | 0.85 | 0.74 | 0.83 | 0.56 | 1.34 |
| ISDO4T | 0.74 | 0.86 | 0.71 | 0.78 | 0.55 | 1.30 |
| EDO2T | 0.12 | 0.29 | 0.24 | 0.24 | 0.38 | -0.13 |
| EDO3T | 0.21 | 0.25 | 0.11 | 0.10 | 0.04 | 0.38 |
| EDO4T | 0.38 | 0.40 | 0.30 | 0.31 | 0.33 | 0.15 |
| EDO5T | 0.72 | 0.82 | 0.67 | 0.63 | 0.50 | 0.92 |
| EDO6T | 0.61 | 0.60 | 0.60 | 0.58 | 0.64 | 0.25 |
| EDO7T | 0.31 | 0.34 | 0.40 | 0.36 | 0.37 | -0.08 |
| RES1T | 0.39 | 0.29 | 0.21 | 0.17 | 0.02 | 0.80 |
| RES2T | 0.33 | 0.28 | 0.19 | 0.04 | -0.12 | 0.47 |
| RES3T | 0.34 | 0.29 | 0.15 | 0.07 | -0.03 | 0.83 |
| RES4T | 0.30 | 0.23 | 0.13 | 0.00 | -0.02 | 0.69 |
| RES5T | 0.52 | 0.45 | 0.33 | 0.23 | 0.08 | 1.13 |
| RES6T | 0.76 | 0.66 | 0.56 | 0.56 | 0.43 | 1.32 |
| SAT1T | 0.33 | 0.15 | 0.09 | -0.02 | -0.02 | 0.49 |
| SAT2T | 0.36 | 0.12 | 0.05 | -0.08 | -0.06 | 0.49 |
| SAT3T | 0.30 | 0.12 | 0.11 | -0.15 | -0.01 | 0.34 |
| SAT4T | 0.30 | 0.20 | 0.17 | 0.10 | 0.01 | 0.27 |
| SAT5T | 0.27 | 0.12 | 0.14 | 0.00 | -0.03 | 0.19 |
| SAT6T | 0.12 | -0.09 | -0.09 | -0.19 | -0.16 | -0.08 |
| SAT7T | 0.00 | -0.10 | -0.16 | -0.28 | -0.26 | -0.21 |
| Samples | 0.31 | 0.33 | 0.31 | 0.32 | 0.31 | 0.41 |
| Roles | -0.03 | -0.01 | -0.01 | 0.04 | 0.01 | 0.12 |
| Freqs | 0.09 | 0.06 | 0.05 | 0.02 | 0.04 | 0.03 |
| RFInts | 0.13 | 0.08 | 0.05 | 0.06 | 0.08 | 0.02 |
| RSamInts | -0.11 | -0.14 | -0.17 | -0.15 | -0.05 | 0.07 |
| Types | -0.20 | -0.24 | -0.23 | -0.22 | -0.26 | -0.30 |
| RQ1T | 0.68 | 0.69 | 0.56 | 0.54 | 0.47 | 1.12 |
| RQ2T | 0.68 | 0.74 | 0.60 | 0.57 | 0.48 | 1.24 |
| RQ3T | 0.69 | 0.74 | 0.59 | 0.59 | 0.47 | 1.18 |
|  |  |  |  |  |  |  |


| RQ4T | 0.63 | 0.60 | 0.47 | 0.44 | 0.36 | 1.04 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| RQ5T | 0.66 | 0.63 | 0.50 | 0.47 | 0.36 | 1.09 |


|  | EA1T | EA2T | EA3T | EA4T | EA5T | EA6T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| EA1T | 3.54 |  |  |  |  |  |
| EA2T | 1.61 | 4.09 |  |  |  |  |
| EA3T | 2.08 | 2.02 | 3.74 |  |  |  |
| EA4T | 1.05 | 0.82 | 1.44 | 4.58 |  |  |
| EA5T | 1.34 | 1.26 | 1.87 | 2.13 | 5.12 |  |
| EA6T | 1.73 | 1.67 | 2.34 | 2.05 | 3.35 | 4.18 |
| NEG1T | 0.60 | 0.39 | 0.19 | 0.99 | 0.36 | 0.30 |
| NEG2T | 0.18 | 0.13 | 0.19 | 0.94 | 0.22 | 0.08 |
| NEG3T | 0.44 | 0.39 | 0.25 | 0.94 | 0.22 | 0.26 |
| NEG4T | 0.40 | 0.41 | 0.18 | 0.89 | 0.20 | 0.16 |
| NEG6T | 0.08 | 0.07 | 0.33 | 0.94 | 0.46 | 0.45 |
| NEG7T | 0.06 | -0.01 | 0.00 | 0.75 | -0.04 | 0.05 |
| NEG8T | 0.07 | 0.11 | 0.24 | 0.87 | 0.46 | 0.43 |
| NEG9T | -0.05 | -0.04 | 0.14 | 0.57 | 0.27 | 0.18 |
| NEG10T | -0.01 | -0.13 | 0.09 | 0.46 | 0.23 | 0.21 |
| SFACE1T | 0.59 | 0.60 | 0.57 | 0.27 | 0.55 | 0.66 |
| SFACE2T | 0.70 | 0.68 | 0.59 | 0.42 | 0.68 | 0.73 |
| SFACE3T | 0.80 | 0.86 | 0.52 | 0.33 | 0.70 | 0.71 |
| SFACE4T | 0.48 | 0.28 | 0.66 | 1.06 | 0.78 | 0.98 |
| SFACE5T | 0.58 | 0.27 | 0.70 | 0.60 | 0.56 | 0.79 |
| SFACE6T | 0.80 | 0.66 | 0.40 | 0.22 | 0.36 | 0.53 |
| POS1T | 0.94 | 1.01 | 0.65 | 0.26 | 0.86 | 0.88 |
| POS2T | 0.99 | 0.90 | 0.80 | 0.30 | 0.99 | 0.92 |
| POS3T | 1.05 | 1.03 | 0.69 | 0.19 | 0.64 | 0.72 |
| POS4T | 0.97 | 0.97 | 0.70 | 0.17 | 0.58 | 0.67 |
| POS5T | 1.02 | 0.80 | 0.83 | 0.25 | 0.83 | 0.84 |
| OFACE1T | 1.00 | 0.85 | 0.82 | 0.29 | 0.86 | 0.90 |
| OFACE2T | 1.01 | 1.00 | 0.73 | 0.37 | 0.89 | 0.94 |
| OFACE3T | 0.88 | 0.84 | 0.64 | 0.18 | 0.57 | 0.69 |
| OFACE4T | 0.73 | 0.90 | 0.48 | 0.03 | 0.29 | 0.46 |
| OFACE5T | 0.97 | 0.74 | 0.71 | 0.27 | 0.53 | 0.54 |
| OFACE6T | 0.92 | 0.92 | 0.50 | 0.11 | 0.60 | 0.70 |
| REL1T | 0.89 | 0.83 | 0.52 | 0.23 | 0.50 | 0.55 |
| REL2T | 0.93 | 0.95 | 0.74 | 0.43 | 0.84 | 0.92 |
| REL3T | 0.90 | 0.85 | 0.69 | 0.37 | 0.68 | 0.82 |
| REL4T | 0.97 | 0.88 | 0.61 | 0.31 | 0.60 | 0.65 |
| REL5T | 0.84 | 0.89 | 0.61 | 0.09 | 0.36 | 0.52 |
| PDO1T | 1.03 | 0.95 | 0.81 | 0.28 | 0.46 | 0.70 |
| PDO2T | 1.06 | 0.91 | 0.83 | 0.30 | 0.46 | 0.69 |
| PDO3T | 1.19 | 1.11 | 0.97 | 0.44 | 0.61 | 0.89 |
| PDO4T | 0.88 | 0.85 | 0.64 | 0.53 | 0.49 | 0.85 |
|  |  |  |  |  |  |  |


| PDO5T | 0.83 | 0.75 | 0.47 | 0.42 | 0.44 | 0.67 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| PDO6T | 0.86 | 0.89 | 0.59 | 0.32 | 0.43 | 0.65 |
| NDO1T | 0.88 | 0.87 | 0.58 | 0.36 | 0.79 | 0.95 |
| NDO2T | 0.69 | 0.66 | 0.62 | 0.43 | 0.74 | 0.89 |
| NDO3T | 0.88 | 0.88 | 0.57 | 0.36 | 0.79 | 0.96 |
| NDO4T | 0.98 | 0.89 | 0.74 | 0.47 | 0.69 | 0.87 |
| NDO5T | 1.04 | 0.89 | 0.75 | 0.36 | 0.89 | 0.93 |
| NDO6T | 1.05 | 0.83 | 0.62 | 0.35 | 0.55 | 0.61 |
| ISDO1T | 0.90 | 0.81 | 0.56 | 0.34 | 0.46 | 0.65 |
| ISDO2T | 0.87 | 0.77 | 0.55 | 0.36 | 0.53 | 0.64 |
| ISDO3T | 0.93 | 0.76 | 0.49 | 0.29 | 0.36 | 0.60 |
| ISDO4T | 0.70 | 0.56 | 0.44 | 0.21 | 0.25 | 0.50 |
| EDO2T | -0.08 | -0.18 | -0.03 | 0.54 | 0.02 | 0.13 |
| EDO3T | 0.25 | 0.38 | 0.34 | 0.62 | 0.45 | 0.67 |
| EDO4T | 0.31 | 0.30 | 0.34 | 0.70 | 0.30 | 0.37 |
| EDO5T | 0.38 | 0.31 | 0.27 | 0.26 | 0.05 | 0.32 |
| EDO6T | 0.21 | 0.17 | 0.06 | 0.82 | -0.16 | 0.11 |
| EDO7T | 0.04 | -0.01 | 0.18 | 0.80 | 0.08 | 0.17 |
| RES1T | 0.67 | 0.66 | 0.69 | 0.29 | 0.64 | 0.79 |
| RES2T | 0.54 | 0.49 | 0.40 | 0.44 | 0.63 | 0.49 |
| RES3T | 0.49 | 0.64 | 0.56 | 0.13 | 0.55 | 0.60 |
| RES4T | 0.61 | 0.62 | 0.56 | 0.14 | 0.59 | 0.52 |
| RES5T | 0.66 | 0.77 | 0.52 | 0.09 | 0.50 | 0.50 |
| RES6T | 0.87 | 0.84 | 0.59 | -0.08 | 0.41 | 0.54 |
| SAT1T | 0.57 | 0.58 | 0.50 | 0.40 | 0.53 | 0.74 |
| SAT2T | 0.59 | 0.51 | 0.43 | 0.35 | 0.52 | 0.68 |
| SAT3T | 0.67 | 0.53 | 0.49 | 0.39 | 0.70 | 0.72 |
| SAT4T | 0.78 | 0.62 | 0.72 | 0.80 | 0.82 | 0.93 |
| SAT5T | 0.80 | 0.52 | 0.72 | 0.64 | 0.89 | 0.96 |
| SAT6T | 0.80 | 0.52 | 0.77 | 0.97 | 1.07 | 1.10 |
| SAT7T | 0.75 | 0.45 | 0.74 | 1.01 | 1.03 | 0.96 |
| Samples | 0.10 | 0.06 | -0.04 | -0.25 | -0.22 | -0.16 |
| Roles | 0.09 | 0.08 | 0.15 | -0.08 | 0.12 | 0.13 |
| Freqs | -0.07 | -0.07 | -0.03 | -0.10 | -0.03 | -0.08 |
| RFInts | 0.09 | -0.14 | 0.04 | -0.20 | -0.07 | 0.02 |
| RSamInts | 0.10 | 0.07 | 0.12 | 0.17 | 0.21 | 0.18 |
| Types | -0.03 | 0.01 | 0.03 | 0.12 | 0.28 | 0.17 |
| RQ1T | 0.64 | 0.66 | 0.30 | -0.12 | 0.22 | 0.26 |
| RQ2T | 0.57 | 0.69 | 0.20 | -0.30 | 0.06 | 0.12 |
| RQ3T | 0.59 | 0.69 | 0.21 | -0.25 | 0.11 | 0.14 |
| RQ4T | 0.65 | 0.64 | 0.38 | 0.05 | 0.29 | 0.33 |
| RQ5T | 0.63 | 0.68 | 0.33 | 0.00 | 0.24 | 0.32 |
|  |  |  |  |  |  |  |


|  | NEG1T | NEG2T | NEG3T | NEG4T | NEG6T |
| :--- | ---: | :--- | ---: | ---: | ---: |
| NEG1T | 5.53 |  |  |  |  |


| NEG2T | 3.85 | 4.98 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NEG3T | 3.92 | 4.20 | 4.90 |  |  |  |
| NEG4T | 4.06 | 4.20 | 4.43 | 5.46 |  |  |
| NEG6T | 1.48 | 2.12 | 1.83 | 1.77 | 3.87 |  |
| NEG7T | 2.04 | 2.51 | 2.39 | 2.51 | 2.42 | 4.24 |
| NEG8T | 1.22 | 1.63 | 1.40 | 1.36 | 2.66 | 2.61 |
| NEG9T | 1.07 | 1.33 | 1.05 | 1.11 | 1.90 | 2.01 |
| NEG10T | 0.68 | 0.90 | 0.64 | 0.70 | 1.42 | 1.48 |
| SFACE1T | -0.10 | -0.38 | -0.30 | -0.38 | 0.30 | -0.05 |
| SFACE2T | -0.07 | -0.38 | -0.33 | -0.29 | 0.12 | -0.20 |
| SFACE3T | 0.33 | 0.09 | 0.27 | 0.29 | 0.12 | -0.07 |
| SFACE4T | 0.93 | 1.00 | 0.86 | 0.76 | 1.44 | 0.91 |
| SFACE5T | 1.25 | 1.03 | 1.15 | 1.19 | 0.94 | 0.78 |
| SFACE6T | 1.01 | 0.89 | 1.05 | 1.05 | 0.13 | 0.35 |
| POS1T | -0.03 | -0.31 | -0.23 | -0.30 | -0.21 | -0.57 |
| POS2T | -0.47 | -0.81 | -0.71 | -0.83 | -0.41 | -0.98 |
| POS3T | 0.10 | -0.23 | 0.06 | -0.07 | -0.51 | -0.66 |
| POS4T | 0.13 | -0.16 | 0.06 | -0.07 | -0.48 | -0.58 |
| POS5T | -0.10 | -0.48 | -0.29 | -0.41 | -0.47 | -0.72 |
| OFACE1T | -0.24 | -0.56 | -0.34 | -0.41 | -0.45 | -0.93 |
| OFACE2T | -0.21 | -0.52 | -0.33 | -0.36 | -0.41 | -0.87 |
| OFACE3T | -0.29 | -0.58 | -0.37 | -0.37 | -0.56 | -0.98 |
| OFACE4T | -0.13 | -0.21 | 0.05 | -0.22 | -0.34 | -0.51 |
| OFACE5T | -0.48 | -0.65 | -0.45 | -0.68 | -0.46 | -0.49 |
| OFACE6T | 0.14 | -0.31 | -0.06 | -0.17 | -0.57 | -0.67 |
| REL1T | 0.30 | -0.03 | 0.25 | 0.18 | -0.34 | -0.36 |
| REL2T | -0.08 | -0.44 | -0.29 | -0.37 | -0.43 | -0.58 |
| REL3T | 0.25 | -0.10 | 0.07 | -0.06 | -0.02 | -0.27 |
| REL4T | 0.31 | -0.13 | 0.13 | 0.11 | -0.33 | -0.46 |
| REL5T | 0.24 | 0.08 | 0.33 | 0.23 | -0.37 | -0.21 |
| PDO1T | 0.99 | 0.73 | 0.89 | 0.91 | 0.12 | 0.33 |
| PDO2T | 1.04 | 0.76 | 0.90 | 0.97 | 0.23 | 0.38 |
| PDO3T | 1.25 | 1.00 | 1.14 | 1.14 | 0.37 | 0.51 |
| PDO4T | 1.12 | 1.29 | 1.41 | 1.18 | 0.78 | 0.85 |
| PDO5T | 1.10 | 1.19 | 1.27 | 1.02 | 0.79 | 0.98 |
| PDO6T | 0.62 | 0.70 | 0.84 | 0.74 | 0.26 | 0.45 |
| NDO1T | 0.31 | 0.18 | 0.30 | 0.29 | -0.10 | -0.07 |
| NDO2T | 0.15 | 0.23 | 0.25 | 0.14 | 0.21 | 0.09 |
| NDO3T | 0.16 | -0.05 | 0.22 | 0.20 | -0.20 | -0.25 |
| NDO4T | 0.18 | 0.12 | 0.21 | 0.30 | 0.01 | -0.01 |
| NDO5T | 0.08 | -0.23 | 0.01 | -0.01 | -0.20 | -0.46 |
| NDO6T | 0.58 | 0.32 | 0.53 | 0.57 | 0.00 | -0.02 |
| ISDO1T | 0.58 | 0.38 | 0.51 | 0.56 | -0.04 | 0.07 |
| ISDO2T | 0.51 | 0.29 | 0.43 | 0.40 | -0.21 | -0.09 |
| ISDO3T | 0.47 | 0.29 | 0.44 | 0.39 | -0.14 | 0.01 |
| ISDO4T | 0.33 | 0.22 | 0.35 | 0.31 | -0.14 | 0.03 |


| EDO2T | 1.68 | 1.87 | 1.60 | 1.68 | 2.01 | 1.99 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| EDO3T | 1.57 | 1.91 | 1.75 | 1.76 | 1.33 | 1.61 |
| EDO4T | 1.77 | 2.08 | 1.98 | 2.09 | 1.73 | 1.90 |
| EDO5T | 1.14 | 1.41 | 1.43 | 1.44 | 0.82 | 1.02 |
| EDO6T | 2.17 | 2.50 | 2.33 | 2.51 | 2.00 | 2.80 |
| EDO7T | 1.78 | 2.13 | 1.93 | 2.00 | 1.93 | 2.17 |
| RES1T | 0.44 | 0.34 | 0.54 | 0.53 | -0.06 | -0.02 |
| RES2T | 0.66 | 0.57 | 0.70 | 0.73 | 0.19 | 0.21 |
| RES3T | 0.41 | 0.31 | 0.47 | 0.45 | -0.12 | -0.08 |
| RES4T | 0.49 | 0.31 | 0.53 | 0.49 | -0.07 | -0.14 |
| RES5T | 0.20 | 0.05 | 0.37 | 0.32 | -0.32 | -0.24 |
| RES6T | 0.30 | 0.05 | 0.36 | 0.36 | -0.35 | -0.17 |
| SAT1T | 0.65 | 0.74 | 0.90 | 0.92 | 0.32 | 0.27 |
| SAT2T | 0.69 | 0.65 | 0.89 | 0.93 | 0.28 | 0.36 |
| SAT3T | 0.73 | 0.77 | 0.96 | 1.02 | 0.24 | 0.30 |
| SAT4T | 0.36 | 0.33 | 0.50 | 0.48 | 0.20 | 0.07 |
| SAT5T | 0.30 | 0.31 | 0.47 | 0.48 | 0.23 | 0.06 |
| SAT6T | 0.70 | 0.71 | 0.78 | 0.81 | 0.44 | 0.30 |
| SAT7T | 0.68 | 0.66 | 0.74 | 0.84 | 0.38 | 0.21 |
| Samples | -0.11 | -0.13 | -0.09 | -0.13 | -0.24 | -0.09 |
| Roles | -0.52 | -0.51 | -0.52 | -0.60 | -0.18 | -0.37 |
| Freqs | 0.06 | 0.05 | 0.07 | 0.05 | 0.02 | 0.06 |
| RFInts | -0.01 | -0.02 | 0.07 | 0.02 | 0.08 | 0.09 |
| RSamInts | 0.30 | 0.29 | 0.33 | 0.30 | 0.05 | 0.06 |
| Types | 0.07 | 0.07 | 0.06 | 0.04 | 0.15 | 0.00 |
| RQ1T | 0.14 | -0.06 | 0.11 | 0.02 | -0.40 | -0.26 |
| RQ2T | 0.03 | -0.15 | 0.01 | -0.07 | -0.52 | -0.32 |
| RQ3T | 0.01 | -0.12 | 0.05 | -0.02 | -0.49 | -0.26 |
| RQ4T | 0.13 | -0.03 | 0.16 | 0.04 | -0.33 | -0.22 |
| RQ5T | 0.15 | -0.07 | 0.11 | 0.00 | -0.39 | -0.21 |


|  | NEG8T | NEG9T | NEG10T | SFACE1T | SFACE2T | SFACE3T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NEG8T | 3.52 |  |  |  |  |  |
| NEG9T | 1.99 | 2.50 |  |  |  |  |
| NEG10T | 1.53 | 1.84 | 2.06 |  |  |  |
| SFACE1T | 0.20 | 0.09 | 0.15 | 5.97 |  |  |
| SFACE2T | 0.06 | -0.15 | -0.10 | 2.97 | 4.08 |  |
| SFACE3T | -0.06 | -0.28 | -0.30 | 2.45 | 3.08 | 3.61 |
| SFACE4T | 0.97 | 0.71 | 0.52 | 1.55 | 1.56 | 1.36 |
| SFACE5T | 0.70 | 0.56 | 0.42 | 1.11 | 1.18 | 1.14 |
| SFACE6T | 0.12 | -0.07 | -0.07 | 1.05 | 1.03 | 1.47 |
| POS1T | -0.35 | -0.47 | -0.39 | 1.73 | 2.05 | 2.03 |
| POS2T | -0.61 | -0.67 | -0.41 | 1.76 | 2.13 | 1.98 |
| POS3T | -0.57 | -0.72 | -0.58 | 1.72 | 1.96 | 2.20 |
| POS4T | -0.55 | -0.74 | -0.58 | 1.59 | 1.94 | 2.16 |


| POS5T | -0.55 | -0.58 | -0.47 | 1.46 | 1.83 | 2.05 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OFACE1T | -0.61 | -0.67 | -0.53 | 1.62 | 1.96 | 2.15 |
| OFACE2T | -0.55 | -0.71 | -0.52 | 1.72 | 2.25 | 2.24 |
| OFACE3T | -0.69 | -0.75 | -0.51 | 1.85 | 2.02 | 1.95 |
| OFACE4T | -0.55 | -0.36 | -0.29 | 1.14 | 1.20 | 1.26 |
| OFACE5T | -0.53 | -0.40 | -0.32 | 1.52 | 1.66 | 1.65 |
| OFACE6T | -0.76 | -0.62 | -0.63 | 1.16 | 1.43 | 1.63 |
| REL1T | -0.49 | -0.59 | -0.59 | 1.51 | 1.82 | 2.07 |
| REL2T | -0.45 | -0.44 | -0.35 | 1.60 | 1.87 | 1.81 |
| REL3T | -0.23 | -0.37 | -0.28 | 1.60 | 2.01 | 1.92 |
| REL4T | -0.50 | -0.63 | -0.52 | 1.56 | 1.92 | 2.15 |
| REL5T | -0.42 | -0.57 | -0.53 | 1.00 | 1.28 | 1.59 |
| PDO1T | 0.00 | -0.12 | -0.17 | 0.99 | 1.11 | 1.45 |
| PDO2T | 0.11 | -0.02 | -0.12 | 1.05 | 1.18 | 1.47 |
| PDO3T | 0.24 | 0.05 | -0.04 | 1.18 | 1.30 | 1.49 |
| PDO4T | 0.57 | 0.29 | 0.13 | 0.94 | 1.15 | 1.43 |
| PDO5T | 0.67 | 0.31 | 0.17 | 0.85 | 1.06 | 1.27 |
| PDO6T | 0.16 | -0.02 | -0.12 | 1.05 | 1.29 | 1.47 |
| NDO1T | -0.24 | -0.22 | -0.25 | 1.17 | 1.51 | 1.73 |
| NDO2T | 0.17 | 0.02 | 0.02 | 0.98 | 1.16 | 1.40 |
| NDO3T | -0.38 | -0.36 | -0.41 | 1.22 | 1.51 | 1.79 |
| NDO4T | -0.21 | -0.15 | -0.22 | 1.15 | 1.36 | 1.48 |
| NDO5T | -0.35 | -0.35 | -0.34 | 1.19 | 1.42 | 1.58 |
| NDO6T | -0.15 | -0.31 | -0.35 | 1.06 | 1.51 | 1.70 |
| ISDO1T | -0.08 | -0.06 | -0.11 | 1.07 | 1.40 | 1.51 |
| ISDO2T | -0.20 | -0.15 | -0.15 | 0.99 | 1.34 | 1.50 |
| ISDO3T | -0.19 | -0.15 | -0.15 | 1.05 | 1.49 | 1.63 |
| ISDO4T | -0.11 | -0.08 | -0.09 | 0.93 | 1.32 | 1.46 |
| EDO2T | 1.79 | 1.62 | 1.25 | 0.29 | -0.06 | -0.06 |
| EDO3T | 1.11 | 0.89 | 0.63 | 0.57 | 0.50 | 0.63 |
| EDO4T | 1.50 | 1.19 | 0.87 | 0.40 | 0.40 | 0.37 |
| EDO5T | 0.67 | 0.44 | 0.29 | 0.72 | 0.81 | 0.89 |
| EDO6T | 1.95 | 1.64 | 1.20 | -0.02 | -0.29 | -0.12 |
| EDO7T | 1.83 | 1.53 | 1.15 | 0.11 | -0.20 | -0.08 |
| RES1T | -0.26 | -0.36 | -0.33 | 0.65 | 0.91 | 1.18 |
| RES2T | -0.04 | -0.11 | -0.15 | 0.62 | 0.81 | 1.04 |
| RES3T | -0.27 | -0.34 | -0.29 | 0.65 | 0.80 | 1.10 |
| RES4T | -0.27 | -0.34 | -0.33 | 0.62 | 0.84 | 1.15 |
| RES5T | -0.41 | -0.54 | -0.49 | 0.84 | 0.95 | 1.27 |
| RES6T | -0.49 | -0.59 | -0.58 | 0.88 | 0.88 | 1.18 |
| SAT1T | 0.06 | -0.16 | -0.15 | 0.74 | 0.74 | 1.03 |
| SAT2T | 0.04 | -0.15 | -0.18 | 0.90 | 0.91 | 1.14 |
| SAT3T | -0.02 | -0.16 | -0.15 | 0.81 | 0.85 | 1.14 |
| SAT4T | -0.01 | -0.21 | -0.27 | 1.01 | 1.29 | 1.46 |
| SAT5T | 0.00 | -0.19 | -0.27 | 0.83 | 1.24 | 1.44 |
| SAT6T | 0.12 | -0.02 | -0.10 | 0.72 | 1.11 | 1.29 |


| SAT7T | 0.12 | -0.05 | -0.17 | 0.67 | 1.00 | 1.18 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Samples | -0.13 | -0.13 | -0.08 | -0.01 | -0.04 | -0.01 |
| Roles | -0.15 | -0.14 | -0.05 | 0.16 | 0.22 | 0.12 |
| Freqs | 0.02 | 0.01 | 0.00 | 0.05 | 0.03 | 0.05 |
| RFInts | 0.01 | 0.07 | 0.03 | 0.07 | 0.09 | 0.13 |
| RSamInts | 0.12 | 0.02 | 0.09 | -0.11 | -0.15 | -0.15 |
| Types | 0.07 | 0.07 | 0.05 | 0.02 | 0.03 | 0.01 |
| RQ1T | -0.39 | -0.47 | -0.38 | 0.66 | 0.75 | 0.94 |
| RQ2T | -0.45 | -0.52 | -0.41 | 0.54 | 0.63 | 0.84 |
| RQ3T | -0.46 | -0.48 | -0.39 | 0.56 | 0.68 | 0.91 |
| RQ4T | -0.40 | -0.49 | -0.37 | 0.75 | 0.88 | 1.07 |
| RQ5T | -0.39 | -0.45 | -0.36 | 0.69 | 0.81 | 0.97 |


|  | SFACE4T | SFACE5T | SFACE6T | POS1T | POS2T | POS3T |
| :--- | ---: | ---: | ---: | :---: | ---: | ---: |
| SFACE4T | 5.06 |  |  |  |  |  |
| SFACE5T | 2.99 | 5.44 |  |  |  |  |
| SFACE6T | 0.93 | 1.60 | 3.13 |  |  |  |
| POS1T | 0.74 | 0.67 | 1.04 | 3.16 |  |  |
| POS2T | 0.59 | 0.44 | 0.72 | 2.75 | 3.65 |  |
| POS3T | 0.61 | 0.58 | 1.13 | 2.30 | 2.57 | 3.01 |
| POS4T | 0.49 | 0.43 | 1.01 | 2.23 | 2.42 | 2.80 |
| POS5T | 0.49 | 0.36 | 0.81 | 2.27 | 2.70 | 2.49 |
| OFACE1T | 0.61 | 0.29 | 0.89 | 2.31 | 2.61 | 2.61 |
| OFACE2T | 0.86 | 0.45 | 0.80 | 2.32 | 2.61 | 2.55 |
| OFACE3T | 0.66 | 0.73 | 0.96 | 2.04 | 2.20 | 2.30 |
| OFACE4T | 0.35 | 0.51 | 0.88 | 1.45 | 1.65 | 1.77 |
| OFACE5T | 0.50 | 0.82 | 0.82 | 1.78 | 2.08 | 1.92 |
| OFACE6T | 0.49 | 0.76 | 1.24 | 1.68 | 1.82 | 1.99 |
| REL1T | 0.60 | 0.57 | 1.10 | 1.87 | 1.91 | 2.41 |
| REL2T | 0.45 | 0.37 | 0.95 | 1.71 | 1.87 | 2.00 |
| REL3T | 0.81 | 0.77 | 0.94 | 1.94 | 1.96 | 2.04 |
| REL4T | 0.72 | 0.57 | 1.09 | 1.99 | 2.10 | 2.44 |
| REL5T | -0.01 | 0.26 | 1.10 | 1.41 | 1.51 | 1.94 |
| PDO1T | 0.36 | 0.68 | 1.27 | 1.34 | 1.29 | 1.54 |
| PDO2T | 0.49 | 0.67 | 1.31 | 1.36 | 1.22 | 1.53 |
| PDO3T | 0.67 | 0.78 | 1.35 | 1.30 | 1.08 | 1.46 |
| PDO4T | 0.88 | 0.72 | 1.26 | 1.08 | 0.87 | 1.18 |
| PDO5T | 0.86 | 0.79 | 1.11 | 1.13 | 0.92 | 1.13 |
| PDO6T | 0.49 | 0.68 | 1.09 | 1.46 | 1.35 | 1.52 |
| NDO1T | 0.31 | 0.39 | 1.14 | 1.65 | 1.75 | 1.78 |
| NDO2T | 0.70 | 0.72 | 0.85 | 1.18 | 1.31 | 1.33 |
| NDO3T | 0.31 | 0.43 | 1.04 | 1.61 | 1.74 | 1.90 |
| NDO4T | 0.47 | 0.54 | 0.85 | 1.34 | 1.60 | 1.51 |
| NDO5T | 0.27 | 0.37 | 0.85 | 1.63 | 1.95 | 1.89 |
| NDO6T | 0.38 | 0.57 | 1.09 | 1.56 | 1.59 | 1.84 |


| ISDO1T | 0.57 | 0.55 | 1.02 | 1.37 | 1.31 | 1.47 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| ISDO2T | 0.37 | 0.45 | 1.01 | 1.42 | 1.47 | 1.54 |
| ISDO3T | 0.47 | 0.50 | 1.06 | 1.45 | 1.49 | 1.57 |
| ISDO4T | 0.39 | 0.43 | 1.00 | 1.35 | 1.40 | 1.39 |
| EDO2T | 1.00 | 0.75 | 0.33 | -0.45 | -0.67 | -0.55 |
| EDO3T | 0.92 | 0.89 | 0.74 | 0.51 | 0.39 | 0.41 |
| EDO4T | 1.10 | 1.13 | 0.54 | -0.04 | -0.31 | 0.06 |
| EDO5T | 0.55 | 0.78 | 0.95 | 0.70 | 0.52 | 0.86 |
| EDO6T | 0.80 | 0.79 | 0.62 | -0.62 | -0.95 | -0.63 |
| EDO7T | 0.88 | 0.72 | 0.40 | -0.40 | -0.55 | -0.42 |
| RES1T | 0.05 | 0.22 | 0.88 | 1.18 | 1.21 | 1.42 |
| RES2T | -0.01 | 0.31 | 0.62 | 1.11 | 1.15 | 1.25 |
| RES3T | -0.01 | 0.16 | 0.86 | 1.21 | 1.23 | 1.42 |
| RES4T | 0.00 | 0.19 | 0.86 | 1.21 | 1.24 | 1.43 |
| RES5T | -0.26 | 0.13 | 0.91 | 1.32 | 1.36 | 1.65 |
| RES6T | -0.17 | 0.17 | 0.94 | 1.14 | 1.21 | 1.60 |
| SAT1T | 0.29 | 0.34 | 0.88 | 0.89 | 0.93 | 1.14 |
| SAT2T | 0.44 | 0.41 | 0.99 | 0.91 | 0.89 | 1.14 |
| SAT3T | 0.47 | 0.45 | 0.85 | 0.86 | 0.90 | 1.13 |
| SAT4T | 0.52 | 0.17 | 0.72 | 1.06 | 1.39 | 1.41 |
| SAT5T | 0.57 | 0.28 | 0.71 | 1.20 | 1.42 | 1.36 |
| SAT6T | 0.80 | 0.45 | 0.67 | 1.07 | 1.27 | 1.25 |
| SAT7T | 0.72 | 0.48 | 0.59 | 1.09 | 1.30 | 1.19 |
| Samples | -0.37 | -0.22 | 0.07 | 0.06 | 0.05 | 0.11 |
| Roles | -0.02 | -0.07 | -0.07 | 0.19 | 0.30 | 0.15 |
| Freqs | 0.05 | 0.07 | 0.04 | -0.01 | -0.03 | -0.01 |
| RFInts | 0.09 | 0.06 | 0.06 | 0.06 | 0.08 | 0.05 |
| RSamInts | -0.01 | 0.03 | 0.03 | -0.10 | -0.14 | -0.14 |
| Types | 0.23 | 0.14 | -0.02 | 0.02 | 0.05 | -0.01 |
| RQ1T | -0.33 | -0.07 | 0.59 | 1.03 | 1.00 | 1.32 |
| RQ2T | -0.50 | -0.11 | 0.67 | 0.99 | 0.95 | 1.25 |
| RQ3T | -0.43 | -0.19 | 0.61 | 0.99 | 1.02 | 1.31 |
| RQ4T | -0.18 | -0.08 | 0.57 | 1.09 | 1.14 | 1.45 |
| RQ5T | -0.27 | -0.08 | 0.58 | 1.07 | 1.08 | 1.35 |
|  |  |  |  |  |  |  |


|  | POS4T | POS5T |  |  |  | OFACE4T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  | OFACE1T | OFACE2T | OFACE3T |  |
| POS4T | 3.03 |  |  |  |  |  |
| POS5T | 2.48 | 3.43 |  |  |  |  |
| OFACE1T | 2.60 | 2.78 | 3.45 |  |  |  |
| OFACE2T | 2.55 | 2.56 | 3.11 | 3.51 |  |  |
| OFACE3T | 2.25 | 2.16 | 2.39 | 2.64 | 4.41 | 3.88 |
| OFACE4T | 1.67 | 1.66 | 1.86 | 1.89 | 2.16 | 2.33 |
| OFACE5T | 1.84 | 1.93 | 2.00 | 2.06 | 2.17 | 2.02 |


| REL1T |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| REL2T | 2.42 | 2.12 | 2.26 | 2.33 | 2.27 | 1.75 |
| REL3T | 2.00 | 1.93 | 2.08 | 2.19 | 1.99 | 1.50 |
| REL4T | 2.11 | 1.96 | 2.05 | 2.19 | 1.93 | 1.36 |
| REL5T | 2.47 | 2.21 | 2.41 | 2.49 | 2.21 | 1.65 |
| PDO1T | 2.04 | 1.67 | 1.79 | 1.71 | 1.74 | 1.41 |
| PDO2T | 1.58 | 1.36 | 1.35 | 1.29 | 1.14 | 1.10 |
| PDO3T | 1.54 | 1.36 | 1.34 | 1.31 | 1.19 | 1.01 |
| PDO4T | 1.52 | 1.26 | 1.34 | 1.31 | 1.10 | 1.02 |
| PDO5T | 1.16 | 0.90 | 0.94 | 0.91 | 0.77 | 0.79 |
| PDO6T | 1.15 | 0.95 | 0.83 | 0.90 | 0.77 | 0.88 |
| NDO1T | 1.53 | 1.34 | 1.27 | 1.37 | 1.23 | 1.22 |
| NDO2T | 1.77 | 1.72 | 1.92 | 1.79 | 1.48 | 1.27 |
| NDO3T | 1.40 | 1.23 | 1.37 | 1.36 | 1.16 | 0.99 |
| NDO4T | 1.88 | 1.78 | 1.96 | 1.85 | 1.62 | 1.40 |
| NDO5T | 1.56 | 1.60 | 1.67 | 1.64 | 1.28 | 1.28 |
| NDO6T | 1.82 | 1.95 | 2.04 | 2.00 | 1.61 | 1.47 |
| ISDO1T | 1.80 | 1.64 | 1.61 | 1.54 | 1.40 | 1.13 |
| ISDO2T | 1.50 | 1.64 | 1.52 | 1.47 | 1.38 | 1.25 |
| ISDO3T | 1.57 | 1.69 | 1.58 | 1.52 | 1.39 | 1.22 |
| ISDO4T | 1.63 | 1.73 | 1.58 | 1.63 | 1.41 | 1.21 |
| EDO2T | 1.48 | 1.60 | 1.46 | 1.41 | 1.19 | 1.03 |
| EDO3T | -0.50 | -0.67 | -0.58 | -0.54 | -0.71 | -0.45 |
| EDO4T | 0.40 | 0.34 | 0.25 | 0.24 | -0.03 | 0.11 |
| EDO5T | 0.13 | -0.19 | -0.07 | 0.00 | -0.23 | 0.00 |
| EDO6T | 0.93 | 0.61 | 0.66 | 0.71 | 0.58 | 0.58 |
| EDO7T | -0.59 | -0.87 | -0.88 | -0.74 | -0.74 | -0.32 |
| RES1T | -0.40 | -0.56 | -0.42 | -0.44 | -0.66 | -0.23 |
| RES2T | 1.48 | 1.33 | 1.41 | 1.31 | 1.05 | 0.87 |
| RES3T | 1.37 | 1.22 | 1.24 | 1.22 | 1.05 | 0.98 |
| RES4T | 1.53 | 1.29 | 1.43 | 1.33 | 1.18 | 1.04 |
| RES5T | 1.49 | 1.32 | 1.38 | 1.30 | 1.17 | 1.00 |
| RES6T | 1.71 | 1.43 | 1.56 | 1.44 | 1.38 | 1.10 |
| SAT1T | 1.63 | 1.39 | 1.46 | 1.40 | 1.43 | 1.16 |
| SAT2T | 1.17 | 1.09 | 1.15 | 1.02 | 0.82 | 0.57 |
| SAT3T | 1.17 | 1.13 | 1.14 | 1.01 | 0.85 | 0.56 |
| SAT4T | 1.12 | 1.04 | 1.15 | 1.12 | 0.91 | 0.59 |
| SAT5T | 1.38 | 1.47 | 1.58 | 1.55 | 1.09 | 0.72 |
| SAT6T | 1.36 | 1.54 | 1.66 | 1.45 | 1.10 | 0.64 |
| SAT7T | 1.24 | 1.26 | 1.45 | 1.43 | 1.06 | 0.63 |
| Samples | 1.18 | 1.23 | 1.44 | 1.43 | 1.04 | 0.67 |
| Roles | 0.11 | 0.09 | 0.05 | 0.03 | 0.17 | 0.17 |
| Freqs | 0.15 | 0.24 | 0.19 | 0.20 | 0.19 | 0.13 |
| RFInts | 0.01 | -0.03 | -0.01 | -0.02 | 0.02 | 0.01 |
| RSamInts | 0.08 | 0.10 | 0.04 | 0.02 | 0.01 | 0.00 |
| Types | -0.12 | -0.17 | -0.22 | -0.20 | -0.12 | -0.16 |
|  | -0.03 | -0.01 | 0.02 | 0.02 | -0.06 | -0.09 |
|  |  |  |  |  |  |  |


| RQ1T | 1.39 | 1.16 | 1.31 | 1.23 | 1.31 | 1.10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| RQ2T | 1.31 | 1.09 | 1.22 | 1.14 | 1.26 | 1.09 |
| RQ3T | 1.37 | 1.14 | 1.26 | 1.21 | 1.29 | 1.11 |
| RQ4T | 1.54 | 1.27 | 1.40 | 1.34 | 1.41 | 1.07 |
| RQ5T | 1.48 | 1.20 | 1.35 | 1.27 | 1.32 | 1.10 |


|  | OFACE5T | OFACE6T | REL1T | REL2T | REL3T | REL4T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| OFACE5T | 3.78 |  |  |  |  |  |
| OFACE6T | 2.03 | 3.06 |  |  |  |  |
| REL1T | 1.84 | 2.09 | 2.94 |  |  |  |
| REL2T | 1.78 | 1.72 | 2.04 | 3.10 |  |  |
| REL3T | 1.81 | 1.64 | 2.13 | 2.29 | 3.25 |  |
| REL4T | 1.88 | 1.91 | 2.64 | 2.10 | 2.41 | 3.05 |
| REL5T | 1.36 | 1.59 | 2.09 | 1.71 | 1.74 | 2.06 |
| PDO1T | 1.11 | 1.26 | 1.53 | 1.36 | 1.34 | 1.58 |
| PDO2T | 1.03 | 1.33 | 1.53 | 1.37 | 1.43 | 1.57 |
| PDO3T | 0.95 | 1.17 | 1.46 | 1.29 | 1.36 | 1.50 |
| PDO4T | 0.66 | 0.81 | 1.21 | 1.10 | 1.10 | 1.26 |
| PDO5T | 0.78 | 0.85 | 1.12 | 1.06 | 1.09 | 1.14 |
| PDO6T | 1.24 | 1.26 | 1.57 | 1.30 | 1.41 | 1.64 |
| NDO1T | 1.46 | 1.47 | 1.56 | 1.67 | 1.47 | 1.71 |
| NDO2T | 1.15 | 1.15 | 1.15 | 1.21 | 1.19 | 1.34 |
| NDO3T | 1.46 | 1.59 | 1.72 | 1.80 | 1.58 | 1.86 |
| NDO4T | 1.43 | 1.30 | 1.39 | 1.52 | 1.34 | 1.51 |
| NDO5T | 1.56 | 1.68 | 1.68 | 1.77 | 1.62 | 1.80 |
| NDO6T | 1.23 | 1.36 | 1.68 | 1.52 | 1.61 | 1.77 |
| ISDO1T | 1.15 | 1.30 | 1.51 | 1.42 | 1.34 | 1.50 |
| ISDO2T | 1.23 | 1.28 | 1.50 | 1.43 | 1.35 | 1.54 |
| ISDO3T | 1.30 | 1.36 | 1.58 | 1.45 | 1.46 | 1.64 |
| ISDO4T | 1.12 | 1.13 | 1.39 | 1.32 | 1.22 | 1.49 |
| EDO2T | -0.35 | -0.52 | -0.39 | -0.37 | -0.36 | -0.43 |
| EDO3T | 0.07 | 0.19 | 0.41 | 0.23 | 0.33 | 0.41 |
| EDO4T | 0.01 | -0.13 | 0.19 | 0.07 | 0.25 | 0.13 |
| EDO5T | 0.56 | 0.64 | 1.02 | 0.72 | 0.86 | 0.94 |
| EDO6T | -0.50 | -0.42 | -0.34 | -0.59 | -0.37 | -0.47 |
| EDO7T | -0.41 | -0.32 | -0.32 | -0.46 | -0.38 | -0.45 |
| RES1T | 1.06 | 1.25 | 1.24 | 1.09 | 1.27 | 1.39 |
| RES2T | 1.03 | 1.12 | 1.26 | 0.97 | 1.15 | 1.35 |
| RES3T | 1.07 | 1.28 | 1.39 | 1.09 | 1.27 | 1.45 |
| RES4T | 1.08 | 1.37 | 1.34 | 1.08 | 1.21 | 1.38 |
| RES5T | 1.40 | 1.39 | 1.68 | 1.43 | 1.48 | 1.73 |
| RES6T | 1.24 | 1.45 | 1.65 | 1.40 | 1.35 | 1.62 |
| SAT1T | 0.73 | 0.94 | 1.01 | 0.85 | 0.86 | 1.09 |
| SAT2T | 0.77 | 0.95 | 1.07 | 0.93 | 0.89 | 1.11 |
|  |  |  |  |  |  |  |


| SAT3T | 0.81 | 1.00 | 1.04 | 0.94 | 0.83 | 1.07 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| SAT4T | 1.08 | 0.98 | 1.26 | 1.31 | 1.28 | 1.45 |
| SAT5T | 0.98 | 1.05 | 1.21 | 1.20 | 1.23 | 1.35 |
| SAT6T | 0.92 | 0.88 | 1.19 | 1.16 | 1.25 | 1.33 |
| SAT7T | 0.99 | 0.85 | 1.15 | 1.02 | 1.14 | 1.28 |
| Samples | 0.07 | 0.15 | 0.09 | 0.09 | -0.04 | 0.04 |
| Roles | 0.20 | 0.12 | 0.07 | 0.17 | 0.12 | 0.09 |
| Freqs | 0.01 | 0.00 | 0.00 | -0.04 | 0.02 | 0.00 |
| RFInts | 0.03 | 0.05 | -0.01 | -0.04 | 0.05 | 0.07 |
| RSamInts | -0.22 | -0.14 | -0.20 | -0.17 | -0.18 | -0.21 |
| Types | -0.04 | -0.05 | -0.05 | -0.03 | 0.03 | -0.03 |
| RQ1T | 0.99 | 1.13 | 1.34 | 1.11 | 1.11 | 1.36 |
| RQ2T | 0.99 | 1.13 | 1.31 | 1.09 | 0.96 | 1.28 |
| RQ3T | 1.04 | 1.17 | 1.34 | 1.16 | 1.02 | 1.34 |
| RQ4T | 1.08 | 1.14 | 1.44 | 1.21 | 1.19 | 1.45 |
| RQ5T | 1.10 | 1.16 | 1.39 | 1.16 | 1.11 | 1.40 |


|  | REL5T | PDO1T | PDO2T | PDO3T | PDO4T | PDO5T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| REL5T | 2.76 |  |  |  |  |  |
| PDO1T | 1.59 | 2.66 |  |  |  |  |
| PDO2T | 1.54 | 2.44 | 2.78 |  |  |  |
| PDO3T | 1.46 | 2.35 | 2.51 | 3.10 |  |  |
| PDO4T | 1.15 | 1.94 | 2.10 | 2.46 | 3.32 |  |
| PDO5T | 1.06 | 1.86 | 2.06 | 2.34 | 2.95 | 3.51 |
| PDO6T | 1.51 | 1.98 | 2.05 | 2.03 | 2.19 | 2.33 |
| NDO1T | 1.61 | 1.94 | 1.88 | 1.97 | 1.78 | 1.77 |
| NDO2T | 1.21 | 1.53 | 1.60 | 1.61 | 1.60 | 1.84 |
| NDO3T | 1.71 | 1.81 | 1.77 | 1.69 | 1.63 | 1.56 |
| NDO4T | 1.33 | 1.50 | 1.44 | 1.63 | 1.48 | 1.46 |
| NDO5T | 1.55 | 1.62 | 1.61 | 1.51 | 1.33 | 1.30 |
| NDO6T | 1.67 | 1.97 | 2.02 | 1.91 | 1.71 | 1.67 |
| ISDO1T | 1.44 | 1.73 | 1.81 | 1.86 | 1.71 | 1.74 |
| ISDO2T | 1.43 | 1.76 | 1.77 | 1.80 | 1.58 | 1.63 |
| ISDO3T | 1.51 | 1.83 | 1.82 | 1.83 | 1.57 | 1.69 |
| ISDO4T | 1.37 | 1.68 | 1.67 | 1.70 | 1.50 | 1.63 |
| EDO2T | -0.40 | 0.26 | 0.23 | 0.46 | 0.82 | 0.90 |
| EDO3T | 0.46 | 1.02 | 1.03 | 1.32 | 1.50 | 1.57 |
| EDO4T | 0.09 | 0.71 | 0.78 | 1.05 | 1.24 | 1.34 |
| EDO5T | 0.91 | 1.50 | 1.48 | 1.70 | 1.56 | 1.60 |
| EDO6T | -0.16 | 0.53 | 0.60 | 0.67 | 0.97 | 1.04 |
| EDO7T | -0.24 | 0.50 | 0.53 | 0.74 | 1.00 | 1.03 |
| RES1T | 1.37 | 1.45 | 1.38 | 1.34 | 1.09 | 1.12 |
| RES2T | 1.21 | 1.29 | 1.21 | 1.16 | 1.01 | 1.06 |
| RES3T | 1.46 | 1.42 | 1.35 | 1.22 | 0.99 | 1.01 |
| RES4T | 1.37 | 1.31 | 1.29 | 1.12 | 0.87 | 0.95 |


| RES5T | 1.82 | 1.56 | 1.49 | 1.39 | 1.11 | 1.13 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| RES6T | 1.97 | 1.50 | 1.50 | 1.36 | 1.01 | 1.04 |
| SAT1T | 1.13 | 1.18 | 1.15 | 1.11 | 1.09 | 1.04 |
| SAT2T | 1.14 | 1.18 | 1.16 | 1.16 | 1.05 | 1.05 |
| SAT3T | 1.11 | 1.10 | 1.07 | 1.04 | 0.94 | 0.93 |
| SAT4T | 1.15 | 1.17 | 1.09 | 1.22 | 1.22 | 1.23 |
| SAT5T | 1.04 | 1.06 | 1.00 | 1.11 | 1.18 | 1.12 |
| SAT6T | 0.97 | 1.06 | 1.00 | 1.15 | 1.19 | 1.18 |
| SAT7T | 0.88 | 1.01 | 0.96 | 1.07 | 1.04 | 1.14 |
| Samples | 0.23 | 0.15 | 0.16 | 0.14 | 0.09 | 0.11 |
| Roles | 0.02 | -0.01 | -0.02 | -0.04 | -0.09 | -0.08 |
| Freqs | -0.03 | -0.02 | -0.02 | -0.01 | -0.01 | 0.01 |
| RFInts | 0.04 | 0.10 | 0.11 | 0.08 | 0.01 | 0.07 |
| RSamInts | -0.07 | -0.04 | -0.05 | -0.04 | -0.05 | -0.01 |
| Types | -0.12 | -0.08 | -0.09 | -0.07 | -0.03 | -0.01 |
| RQ1T | 1.55 | 1.08 | 1.07 | 1.05 | 0.75 | 0.80 |
| RQ2T | 1.53 | 1.08 | 1.03 | 1.01 | 0.71 | 0.76 |
| RQ3T | 1.55 | 1.09 | 1.04 | 0.96 | 0.72 | 0.80 |
| RQ4T | 1.62 | 1.09 | 1.06 | 1.06 | 0.78 | 0.82 |
| RQ5T | 1.55 | 1.09 | 1.04 | 1.05 | 0.72 | 0.78 |


|  | PDO6T | NDO1T | NDO2T | NDO3T | NDO4T | NDO5T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| PDO6T | 3.12 |  |  |  |  |  |
| NDO1T | 2.17 | 3.45 |  |  |  |  |
| NDO2T | 1.80 | 2.52 | 4.08 |  |  |  |
| NDO3T | 2.00 | 2.71 | 2.30 | 3.08 |  |  |
| NDO4T | 1.58 | 2.29 | 2.34 | 2.32 | 3.29 |  |
| NDO5T | 1.68 | 2.30 | 2.04 | 2.48 | 2.29 | 3.13 |
| NDO6T | 1.94 | 2.10 | 1.81 | 2.23 | 1.92 | 2.16 |
| ISDO1T | 1.80 | 2.06 | 1.83 | 1.89 | 1.80 | 1.79 |
| ISDO2T | 1.77 | 2.05 | 1.75 | 1.91 | 1.68 | 1.86 |
| ISDO3T | 1.86 | 2.09 | 1.80 | 1.95 | 1.79 | 1.87 |
| ISDO4T | 1.71 | 2.00 | 1.84 | 1.82 | 1.70 | 1.70 |
| EDO2T | 0.25 | 0.05 | 0.41 | -0.11 | 0.14 | -0.12 |
| EDO3T | 1.11 | 1.09 | 1.08 | 0.78 | 0.89 | 0.55 |
| EDO4T | 0.80 | 0.42 | 0.59 | 0.18 | 0.55 | 0.03 |
| EDO5T | 1.33 | 1.23 | 1.15 | 0.98 | 1.12 | 0.90 |
| EDO6T | 0.58 | -0.07 | 0.18 | -0.19 | 0.02 | -0.34 |
| EDO7T | 0.43 | 0.10 | 0.34 | -0.05 | 0.15 | -0.04 |
| RES1T | 1.46 | 1.45 | 1.14 | 1.37 | 1.19 | 1.44 |
| RES2T | 1.33 | 1.52 | 1.20 | 1.38 | 1.15 | 1.50 |
| RES3T | 1.35 | 1.57 | 1.21 | 1.35 | 1.15 | 1.42 |
| RES4T | 1.23 | 1.44 | 1.25 | 1.36 | 1.13 | 1.46 |
| RES5T | 1.57 | 1.74 | 1.30 | 1.61 | 1.27 | 1.60 |
| RES6T | 1.31 | 1.47 | 1.06 | 1.53 | 1.19 | 1.48 |


| SAT1T | 1.19 | 1.22 | 0.96 | 1.13 | 0.81 | 1.04 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| SAT2T | 1.19 | 1.21 | 0.93 | 1.15 | 0.84 | 1.04 |
| SAT3T | 1.13 | 1.17 | 0.98 | 1.14 | 0.95 | 1.06 |
| SAT4T | 1.19 | 1.66 | 1.51 | 1.57 | 1.55 | 1.58 |
| SAT5T | 1.07 | 1.50 | 1.41 | 1.48 | 1.38 | 1.45 |
| SAT6T | 1.16 | 1.42 | 1.44 | 1.43 | 1.36 | 1.34 |
| SAT7T | 1.11 | 1.36 | 1.42 | 1.31 | 1.32 | 1.30 |
| Samples | 0.12 | 0.12 | 0.02 | 0.09 | 0.04 | 0.10 |
| Roles | -0.01 | 0.06 | 0.05 | 0.07 | 0.05 | 0.12 |
| Freqs | -0.04 | -0.05 | 0.03 | -0.04 | -0.02 | -0.05 |
| RFInts | 0.08 | 0.03 | 0.00 | 0.05 | 0.00 | 0.05 |
| RSamInts | -0.06 | -0.09 | -0.06 | -0.15 | -0.22 | -0.17 |
| Types | -0.06 | -0.03 | -0.03 | -0.04 | -0.03 | -0.04 |
| RQ1T | 1.00 | 1.11 | 0.84 | 1.12 | 0.81 | 1.11 |
| RQ2T | 1.02 | 1.09 | 0.78 | 1.08 | 0.76 | 1.10 |
| RQ3T | 1.02 | 1.10 | 0.84 | 1.11 | 0.77 | 1.12 |
| RQ4T | 1.05 | 1.20 | 0.96 | 1.23 | 0.92 | 1.19 |
| RQ5T | 1.06 | 1.17 | 0.93 | 1.16 | 0.85 | 1.14 |


|  | NDO6T | ISDO1T | ISDO2T | ISDO3T | ISDO4T | EDO2T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NDO6T | 2.94 |  |  |  |  |  |
| ISDO1T | 2.01 | 3.29 |  |  |  |  |
| ISDO2T | 2.01 | 2.90 | 3.25 |  |  |  |
| ISDO3T | 2.02 | 2.74 | 2.99 | 3.34 |  |  |
| ISDO4T | 1.84 | 2.68 | 2.88 | 3.00 | 3.37 |  |
| EDO2T | -0.12 | 0.23 | 0.09 | 0.16 | 0.34 | 4.22 |
| EDO3T | 0.76 | 0.99 | 0.94 | 0.93 | 1.02 | 1.87 |
| EDO4T | 0.43 | 0.60 | 0.32 | 0.44 | 0.42 | 2.24 |
| EDO5T | 1.42 | 1.42 | 1.36 | 1.45 | 1.48 | 1.05 |
| EDO6T | 0.17 | 0.35 | 0.11 | 0.11 | 0.10 | 2.52 |
| EDO7T | 0.09 | 0.33 | 0.26 | 0.19 | 0.17 | 2.42 |
| RES1T | 1.45 | 1.38 | 1.37 | 1.44 | 1.29 | -0.12 |
| RES2T | 1.52 | 1.49 | 1.42 | 1.47 | 1.35 | 0.07 |
| RES3T | 1.40 | 1.35 | 1.37 | 1.46 | 1.29 | -0.06 |
| RES4T | 1.50 | 1.33 | 1.31 | 1.41 | 1.24 | -0.20 |
| RES5T | 1.67 | 1.41 | 1.47 | 1.58 | 1.42 | -0.23 |
| RES6T | 1.56 | 1.36 | 1.35 | 1.38 | 1.16 | -0.35 |
| SAT1T | 1.23 | 1.16 | 1.09 | 1.10 | 1.00 | 0.19 |
| SAT2T | 1.20 | 1.17 | 1.11 | 1.12 | 0.99 | 0.16 |
| SAT3T | 1.15 | 1.17 | 1.06 | 1.08 | 0.93 | 0.10 |
| SAT4T | 1.48 | 1.47 | 1.38 | 1.38 | 1.26 | 0.05 |
| SAT5T | 1.37 | 1.42 | 1.33 | 1.28 | 1.16 | -0.06 |
| SAT6T | 1.33 | 1.27 | 1.22 | 1.20 | 1.00 | 0.20 |
| SAT7T | 1.29 | 1.31 | 1.24 | 1.17 | 1.05 | 0.17 |
| Samples | 0.12 | 0.14 | 0.16 | 0.13 | 0.14 | -0.12 |


| Roles | 0.04 | 0.04 | 0.07 | 0.10 | 0.09 | -0.23 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Freqs | -0.04 | -0.02 | -0.02 | -0.03 | -0.01 | 0.05 |
| RFInts | 0.05 | 0.03 | 0.00 | 0.02 | 0.04 | 0.06 |
| RSamInts | -0.10 | -0.03 | -0.05 | -0.05 | -0.10 | 0.10 |
| Types | -0.06 | -0.07 | -0.09 | -0.09 | -0.08 | 0.10 |
| RQ1T | 1.17 | 0.95 | 1.04 | 1.10 | 0.94 | -0.20 |
| RQ2T | 1.13 | 0.97 | 1.05 | 1.12 | 0.98 | -0.23 |
| RQ3T | 1.15 | 1.00 | 1.07 | 1.12 | 0.99 | -0.20 |
| RQ4T | 1.24 | 1.01 | 1.09 | 1.16 | 0.98 | -0.22 |
| RQ5T | 1.21 | 1.03 | 1.09 | 1.16 | 0.96 | -0.26 |


|  | EDO3T | EDO4T | EDO5T | EDO6T | EDO7T | RES1T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| EDO3T | 4.58 |  |  |  |  |  |
| EDO4T | 2.26 | 4.64 |  |  |  |  |
| EDO5T | 1.99 | 1.76 | 3.96 |  |  |  |
| EDO6T | 1.86 | 2.40 | 1.36 | 4.56 |  |  |
| EDO7T | 1.92 | 2.33 | 1.22 | 3.20 | 4.08 |  |
| RES1T | 0.55 | 0.51 | 1.14 | 0.10 | -0.05 | 3.07 |
| RES2T | 0.54 | 0.47 | 1.36 | 0.00 | -0.05 | 2.28 |
| RES3T | 0.59 | 0.43 | 1.14 | -0.09 | -0.10 | 2.55 |
| RES4T | 0.43 | 0.27 | 1.10 | -0.13 | -0.13 | 2.38 |
| RES5T | 0.61 | 0.25 | 1.15 | -0.15 | -0.23 | 2.16 |
| RES6T | 0.48 | 0.09 | 0.89 | 0.04 | -0.15 | 1.89 |
| SAT1T | 0.66 | 0.42 | 0.98 | 0.27 | 0.21 | 1.96 |
| SAT2T | 0.71 | 0.53 | 0.97 | 0.25 | 0.13 | 1.97 |
| SAT3T | 0.67 | 0.44 | 0.87 | 0.20 | 0.18 | 1.94 |
| SAT4T | 0.74 | 0.55 | 0.98 | -0.07 | 0.03 | 1.79 |
| SAT5T | 0.67 | 0.47 | 0.82 | -0.17 | 0.01 | 1.76 |
| SAT6T | 0.68 | 0.64 | 0.97 | 0.15 | 0.17 | 1.66 |
| SAT7T | 0.61 | 0.54 | 1.00 | 0.12 | 0.15 | 1.57 |
| Samples | -0.14 | -0.23 | -0.01 | -0.04 | -0.11 | 0.04 |
| Roles | -0.16 | -0.24 | -0.09 | -0.44 | -0.27 | 0.03 |
| Freqs | 0.04 | 0.03 | 0.02 | 0.07 | 0.03 | -0.06 |
| RFInts | -0.06 | 0.00 | 0.01 | 0.12 | 0.11 | 0.08 |
| RSamInts | 0.13 | 0.07 | 0.06 | 0.10 | 0.03 | 0.00 |
| Types | 0.16 | 0.10 | 0.00 | 0.00 | 0.04 | 0.02 |
| RQ1T | 0.17 | -0.11 | 0.63 | -0.14 | -0.23 | 1.18 |
| RQ2T | 0.11 | -0.16 | 0.62 | -0.18 | -0.32 | 1.09 |
| RQ3T | 0.17 | -0.09 | 0.64 | -0.12 | -0.31 | 1.13 |
| RQ4T | 0.28 | -0.04 | 0.65 | -0.17 | -0.19 | 1.24 |
| RQ5T | 0.17 | -0.05 | 0.65 | -0.12 | -0.24 | 1.22 |
|  |  |  |  |  |  |  |
| RES2T | RES2T | RES3T | RES4T | RES5T | RES6T | SAT1T |
| RES3T | 3.52 |  |  |  |  |  |
| 2.50 | 3.20 |  |  |  |  |  |


| RES4T | 2.52 | 2.61 | 3.16 |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| RES5T | 2.08 | 2.44 | 2.24 | 3.00 |  |  |
| RES6T | 1.53 | 1.98 | 1.83 | 2.34 | 2.74 |  |
| SAT1T | 2.02 | 2.02 | 2.06 | 1.78 | 1.57 | 3.46 |
| SAT2T | 1.97 | 1.95 | 2.05 | 1.77 | 1.57 | 3.19 |
| SAT3T | 2.04 | 1.90 | 2.12 | 1.66 | 1.58 | 3.20 |
| SAT4T | 1.85 | 1.71 | 1.87 | 1.53 | 1.22 | 2.33 |
| SAT5T | 1.72 | 1.57 | 1.86 | 1.34 | 1.17 | 2.23 |
| SAT6T | 1.94 | 1.56 | 1.83 | 1.32 | 1.05 | 2.53 |
| SAT7T | 1.96 | 1.60 | 1.79 | 1.27 | 0.96 | 2.40 |
| Samples | 0.04 | 0.05 | 0.05 | 0.14 | 0.22 | 0.04 |
| Roles | -0.04 | 0.01 | 0.01 | -0.01 | -0.01 | -0.10 |
| Freqs | -0.02 | -0.04 | -0.02 | -0.03 | -0.04 | -0.05 |
| RFInts | -0.01 | 0.03 | 0.08 | 0.05 | 0.09 | 0.07 |
| RSamInts | -0.01 | -0.01 | 0.04 | 0.01 | -0.02 | 0.05 |
| Types | 0.01 | 0.01 | -0.01 | -0.04 | -0.07 | 0.03 |
| RQ1T | 1.21 | 1.31 | 1.29 | 1.56 | 1.53 | 1.09 |
| RQ2T | 1.14 | 1.27 | 1.20 | 1.55 | 1.52 | 0.97 |
| RQ3T | 1.18 | 1.29 | 1.24 | 1.60 | 1.59 | 1.04 |
| RQ4T | 1.19 | 1.31 | 1.33 | 1.63 | 1.60 | 1.16 |
| RQ5T | 1.24 | 1.36 | 1.38 | 1.65 | 1.57 | 1.10 |


|  | SAT2T | SAT3T | SAT4T | SAT5T | SAT6T | SAT7T |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| SAT2T | 3.56 |  |  |  |  |  |
| SAT3T | 3.36 | 3.85 |  |  |  |  |
| SAT4T | 2.43 | 2.59 | 4.10 |  |  |  |
| SAT5T | 2.37 | 2.54 | 3.62 | 3.99 |  |  |
| SAT6T | 2.64 | 2.87 | 3.46 | 3.52 | 4.61 |  |
| SAT7T | 2.57 | 2.80 | 3.41 | 3.43 | 4.31 | 4.64 |
| Samples | 0.02 | 0.03 | -0.04 | -0.07 | -0.12 | -0.12 |
| Roles | -0.12 | -0.14 | 0.02 | 0.02 | -0.07 | -0.07 |
| Freqs | -0.03 | -0.05 | -0.04 | -0.03 | -0.06 | -0.05 |
| RFInts | 0.07 | 0.07 | 0.08 | 0.10 | 0.10 | 0.13 |
| RSamInts | 0.06 | 0.02 | -0.05 | -0.06 | 0.03 | 0.02 |
| Types | 0.05 | 0.06 | 0.04 | 0.06 | 0.10 | 0.12 |
| RQ1T | 1.05 | 1.00 | 0.94 | 0.82 | 0.83 | 0.80 |
| RQ2T | 0.92 | 0.87 | 0.81 | 0.67 | 0.68 | 0.64 |
| RQ3T | 1.01 | 0.99 | 0.92 | 0.78 | 0.77 | 0.77 |
| RQ4T | 1.15 | 1.12 | 1.15 | 1.02 | 1.04 | 1.01 |
| RQ5T | 1.11 | 1.05 | 1.04 | 0.93 | 0.92 | 0.91 |
|  |  |  |  |  |  |  |
|  | Samples | Roles | Freqs | RFInts | RSamInts | Types |
| Samples | 0.24 |  |  |  |  |  |
| Roles | 0.00 | 0.25 |  |  |  |  |
| Freqs | 0.00 | -0.02 | 0.25 |  |  |  |


| RFInts | 0.00 | 0.01 | 0.00 | 0.99 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| RSamInts | 0.00 | 0.10 | -0.01 | -0.02 | 0.98 |  |
| Types | -0.10 | 0.00 | 0.00 | -0.01 | 0.00 | 0.20 |
| RQ1T | 0.26 | 0.03 | -0.01 | 0.06 | -0.05 | -0.12 |
| RQ2T | 0.33 | 0.03 | -0.01 | 0.05 | -0.04 | -0.15 |
| RQ3T | 0.31 | 0.03 | 0.01 | 0.07 | -0.04 | -0.13 |
| RQ4T | 0.19 | 0.03 | 0.00 | 0.10 | -0.05 | -0.10 |
| RQ5T | 0.23 | 0.03 | 0.01 | 0.10 | -0.05 | -0.11 |
|  |  |  |  |  |  |  |
|  |  | RQ1T | RQ2T |  | RQ3T | RQ4T |
| RQ1T | 2.27 |  |  |  |  | RQ5T |
| RQ2T | 2.16 | 2.43 |  |  |  |  |
| RQ3T | 2.16 | 2.25 | 2.39 |  |  |  |
| RQ4T | 2.18 | 2.11 | 2.15 | 2.48 |  |  |
| RQ5T | 2.20 | 2.17 | 2.21 | 2.35 | 2.55 |  |

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[^0]:    Note. All reliabilities were calculated using the transformed indicators.
    ${ }^{\text {a,c }} \alpha$ is the scale reliability (Cronbach's alpha).
    ${ }^{\mathrm{b}, \mathrm{d}} \mathrm{PC}$ is the scale reliability calculated based on the eigenvalue of the first principal component (Hampson, Goldberg, \& John, 1987; Serlin \& Kaiser, 1976).

[^1]:    Note. See Appendix F for item labels.

[^2]:    ${ }^{1}$ See Appendix F for item labels.

[^3]:    ${ }^{2}$ Given the high correlations between some items, multicollinearity was assessed. According to Green (1976), if the determinant of the correlation of variable vectors is nonzero, the column vectors of the matrix are linearly independent. The first principal component for each of the eight goals was calculated and the determinant of the correlation matrix of these eight principal components was calculated. Its value was .01 , suggesting a high degree of linear dependence, but not perfect multicollinearity.

[^4]:    ${ }^{3}$ Similar to the goals model, multicollinearity between the four dialogue orientations was assessed. The first principal component for each of the four dialogue orientations was calculated. The determinant of the correlation matrix of the four dialogue orientations principal components was.17, which meant multicollinearity should not be of concern.

[^5]:    * $p<.05$

    Note. RELQ $=$ participants' relational quality, $\mathrm{IA}=$ internal attributions, $\mathrm{EA}=$ external attributions, $\mathrm{NEG}=$ perceived importance of negative feelings, $\mathrm{DOM}=$ perceived importance of dominance, $\mathrm{POS}=$ perceived importance of positive feelings, $\mathrm{SPF}=$ perceived importance of self-positive face, $\mathrm{SNF}=$ perceived importance of self-negative face, $\mathrm{OPF}=$ perceived importance of other-positive face, $\mathrm{ONF}=$ perceived importance of other-negative face, $\mathrm{REL}=$ perceived importance of relationship-oriented goals, $\mathrm{PDO}=$ persuasive dialogue orientation, $\mathrm{NDO}=$ negotiation dialogue orientation, $\mathrm{ISDO}=$ information-seeking dialogue orientation, $\mathrm{EDO}=$ eristic dialogue orientation, $\mathrm{RES}=$ perceived resolvability of the situation, and SAT $=$ satisfaction with the transgression's management.

