CHEAP TALK, VALUABLE RESULTS?
A CAUSAL ATTRIBUTION MODEL OF THE IMPACT OF PROMISES AND APOLOGIES ON SHORT-TERM TRUST RECOVERY

DISSERTATION

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By

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ABSTRACT

Although prior work on trust has extensively studied the development of interpersonal trust in professional relationships, the benefits of trust, and the harmful consequences of trust violations, remarkably little research has been directed toward understanding the trust recovery process after a violation. Recent empirical work on trust has provided evidence that trust recovery can be facilitated by promises of future trustworthiness and apologies for prior trust violations (i.e., forms of “cheap talk” that are costless for the speaker and unverifiable by the receiver). Notably, cheap talk was related to the recovery of trust and cooperation even in the short-term, before the victim could see how the offender would actually behave in subsequent interactions. However, these studies did not examine theoretical mechanisms that account for this effect or the boundary conditions under which this effect is most likely to occur. Thus, it remains unclear why or when cheap talk can facilitate trust recovery.

This dissertation examines how promises and apologies relate to short-term trust recovery. Drawing upon Weiner’s (1986) causal attribution theory and the literature on social accounts, it is argued that these forms of cheap talk are negatively related to the victim’s attributions of stability regarding the cause of the violation. Lower stability attributions are posited to produce higher hope emotions and lower fear emotions, and result in higher trust expectancy, as the victim is likely to conclude that future violations are unlikely to recur due to unstable causes. In turn, emotional reactions and trust
expectancy are predicted to jointly affect short-term trust recovery. This study examines one possible boundary condition in testing whether the effects of cheap talk on stability attributions are moderated by offense severity. Finally, this study also considered the impact of message content versus gesture on short-term trust recovery in order to discern whether it is the words that are used or the polite gesture of speaking them that is related to stability attributions.

To test these hypotheses, participants were randomly assigned to one of eight experimental conditions in a 2 (promise) x 2 (apology) x 2 (offense severity) between-subjects factorial design, and played a modified version of the Trust Game. The results indicated that promises and apologies were not related to stability attributions, nor did these forms of cheap talk interact with offense severity on stability attributions. However, this study did find that the type of message interacted with offense severity such that content-free messages (i.e., garbled messages that contained neither a promise nor an apology) were associated with higher stability attributions relative to content messages (promises, apologies, promise-plus-apologies) when offense severity was high. This study also found support for Weiner’s (1986) attribution theory in the context of short-term trust recovery by highlighting the instrumental role of stability attributions and specific emotional reactions as key variables in the short-term trust recovery process. Furthermore, post hoc analyses revealed that although promises and apologies were not related to stability attributions, significant effects were found for these messages on perceptions of interactional justice. These results are discussed along with practical implications, study limitations, and directions for future research.
Dedicated to my fiancé, Beth Reiter,

my parents, Smiley and Linda Tomlinson,

and

my brother, Eric Tomlinson
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CHAPTER 1
INTRODUCTION

Overview

Trust is a critical element in building and sustaining interpersonal relationships embedded in organizational contexts (Granovetter, 1985), as it forms the basis for expectations surrounding future outcomes and allows individuals to facilitate enhanced decision-making processes with reduced uncertainty (Lewicki & Bunker, 1995; Lewis & Weigart, 1985; Shapiro, Sheppard, & Cheraskin, 1992). Prior research indicates that trust leads to a variety of beneficial outcomes, such as enhanced cooperation (Gambetta, 1988), successful negotiation and conflict resolution (Deutsch, 1958; Lewicki & Stevenson, 1998), and deference to authority (Tyler & Degoe, 1996). Accordingly, considerable scholarly effort has been devoted to articulating the nature of trust as a behavioral science construct and explicating its origins and growth over time within interpersonal relationships (Kramer, 1999; Kramer & Tyler, 1996; Rousseau, Sitkin, Burt, & Camerer, 1998).

Researchers have also begun to study the violation of trust as a variable of interest. It is widely acknowledged that trust violations within organizations are commonplace (Zemke, 2002), and research has confirmed that such violations are indeed the norm, not the exception (Robinson & Rousseau, 1994). In addition, a recent survey reported that a majority of U.S. workers do not trust their employer to treat them fairly
(AFL-CIO, 2001). Another survey of 13,000 employees across a variety of job levels and industries revealed that less than 40% of respondents trust their company’s senior management (Watson Wyatt, 2002).

Not surprisingly, it has been established that the betrayal of trust can have detrimental (if not devastating) effects on outcomes ranging from individual-level job performance, civic virtue, and intentions to remain with the employer (Robinson, 1996), to organizational-level profit (Simons & McLean Parks, 2002). For example, job performance may suffer when attentional resources are diverted away from tasks in order to cope with vulnerability and ensure self-protection (Mayer & Gavin, 1999). On an interpersonal level, individuals will resist cooperating with others who are regarded as untrustworthy (Dirks & Ferrin, 2001), and may even be inclined to terminate relationships with those who have violated their trust. Even if professional relationships are unable to be terminated due to situational constraints, what remains of a once-viable relationship may be recalibrated and reduced to a hollow, “shell” relationship: a façade of superficial cooperation may conceal deep distrust and resentment, and preclude the possibility of restoring a genuinely trusting relationship (Lewicki & Bunker, 1996).

Despite research indicating that trust can be beneficial and trust violations are frequent and harmful, there is little theoretical or empirical literature that informs whether and how trust can be rebuilt after it has been damaged or destroyed. Furthermore, whereas theoretical papers on trust repair have specified cognitive and affective reactions to trust violations (Lewicki & Bunker, 1996), the empirical work on trust has largely ignored the role of emotion (Jones & George, 1998). Thus, although organizations can draw upon a vast anthology that describes the nature and benefits of trust and the
deleterious effects of trust violations, there is scant prescriptive work to guide the healing of work relationships damaged by betrayal – both in cognitive and affective terms. The prevalence of trust violations and the dire consequences that accompany them establishes the issue of rebuilding broken trust as an important one to address. There is a pressing need for research that investigates the process of rebuilding trust after a violation so that individuals can resume the benefits of trust in professional interpersonal relationships.

“Cheap Talk” and Rebuilding Trust

Despite the sparse extant theory and empirical research on rebuilding broken trust (Ferrin, 2002), there are theoretically grounded insights from related literatures that may shed light on this phenomenon. Notably, social psychologists and organizational behavior researchers have begun to uncover the dynamics associated with trust violations and trust repair within professional relationships.

In many cases, the offender (trustee) will realize the harm he/she has inflicted by betraying the victim’s trust, and recognize that it portrays him/her as a person that is not trustworthy. In turn, the offender can expect that damaged trust will result in less future cooperation from the victim (Lewicki & Bunker, 1996) and a negative reputation (Bies, 1987), both of which are conditions most people prefer to avoid, particularly in an ongoing relationship. To the extent that the offender desires to resolve this predicament and reconcile the relationship with the victim, he/she will engage in reparative efforts in hopes of rebuilding the trust that has been damaged and restoring the relationship to vitality (Tedeschi & Norman, 1985).

Reparative efforts by the offender often begin with verbal communication, such as an apology, explanation, and/or a promise of future cooperation (Goffman, 1971; Lewicki
That offenders so frequently use these tactics raises an interesting question: even if this verbal communication is later supplemented with acts of subsequent cooperation and penance that signal trustworthiness, can simple words persuade a victim to trust the offender again? The theoretical perspectives of game theory and impression management offer some insight into this question.

Talk is Cheap

Economists have studied the effects of verbal communication on player beliefs and behaviors in game scenarios, and noted that mere talk is “cheap” for the speaker. Defined as “costless, nonbinding, nonverifiable messages that may affect a listener’s beliefs” (Farrell & Rabin, 1996, p. 116), “cheap talk” may offer several benefits for the speaker. If taken at his/her word alone, the speaker forgoes the need to substantiate verbal claims with formal contracts and monitoring systems, thus resulting in a low-cost option for the speaker. One recent review of this literature noted that cheap talk is a valuable method for signaling intentions and private information (Crawford, 1998). More specifically, talk paves the way for future (formal and binding) negotiations by communicating intentions for good faith dealing (Valley, Thompson, Gibbons, & Bazerman, 2002). It is particularly compelling and credible when the speaker is perceived as having no incentive to lie (Farrell & Rabin, 1996).

However, it should be acknowledged that this label carries with it the somewhat pejorative connotation that it is also of little value to the receiver – and perhaps even more so after trust has been violated. To this author, it seems precarious to assume that cheap talk can truly signal intentions after trust has been violated. Game theory suggests
that actions speak louder than words, and provide the critical litmus test of trustworthiness (Bottom et al., 2002; Farrell & Gibbons, 1989; Pillutla & Murnighan, 1995). After all, mere words come at virtually no cost to the offender and can be used to violate trust again by deceitful communication! Offenders may communicate lack of malevolent intentions in order to escape blame, not necessarily because that is the truth (Elsbach, 1994; Scott & Lyman, 1968). It is also used strategically in that what an individual says is strongly influenced by how he/she thinks the other party will respond (Farrell & Gibbons, 1989). Whereas talk may be particularly credible when there is no perceived reason to lie (Farrell & Rabin, 1996), a victim may be more likely to be skeptical of any mere words by the offender after a trust violation. Existing theory contends that trust is fragile in early-stage relationships (Lewicki & Bunker, 1995) and suggests that broken trust cannot be repaired (Rempel et al., 1985; Slovic, 1993). It seems that individuals would be averse to relying on mere verbal communication to re-establish their trust in an offender after a violation, because to do so would invite the addition of insult to injury – unsubstantiated verbal claims may not be trustworthy and may simply set the victim up to be exploited yet again. Hence, this literature seems to suggest that cheap talk may not be effective in stimulating trust recovery following a trust violation.

Talk is Valuable

The literature on impression management has proposed a more optimistic view of verbal communication after transgressions, arguing that it can promote beneficial reactions and mitigate negative reactions (Schwartz et al., 1978; Sitkin & Bies, 1993). Bies (1987) contends that it is not only the offender’s behavior that matters when individuals decide how to react to a violation (despite game theory predictions that only
actions matter; Bottom, Gibson, Daniels, & Murnighan, 2002), but also how the offender explains that behavior. Despite the notion by some scholars that individuals are fastidious bookkeepers who carefully compute the actions of another to determine the level and strength of trust (Kramer, 1996), intuitive auditing might be more a process of argumentation than calculation following a trust violation. Indeed, a trustee enjoys a unique position for managing the trustor’s attributions regarding the transgression because the trustee can provide a direct report of his/her intentions and any relevant contextual information (Tedeschi & Riess, 1981) – information that may be misperceived by others. In fact, Goffman (1971) even goes so far as to argue that it is essential for others to acquire information on one’s motive and intent so that others can make clear and accurate attributions. For example, pushing an individual to the ground to avoid being hit by a speeding car takes on a very different meaning compared to the same behavior to keep an individual from walking on a floor you just finished cleaning.

In addition, talk that provides adequate information and social sensitivity conveys respect and status for one who has been harmed; this may also carry the benefit of assuaging negative emotions, while promoting positive emotions (Bies, 1987). Finally, insofar as the victim is assured of future dealings with a trustworthy and respectful counterpart, the perceived need for terminating and replacing the relationship is nullified. That is, “cheap talk” affords the victim the low-cost option of salvaging the relationship with the offender instead of incurring the costs of searching for and cultivating a new relationship to satisfy his/her interests.

Social psychologists and organizational behavior researchers have developed a considerable body of theoretical and empirical literature on the post-violation verbal
communication that individuals use after they have committed some type of transgression within an interpersonal relationship. These accounts are designed to remedy the offender’s predicament of a spoiled social identity (Bies, 1987; Greenberg, 1990; Tedeschi & Norman, 1985), and researchers usually describe the benefits of such accounts in terms of how they affect the receiver (victim). Accounts are credited with mitigating negative reactions such as outrage and hostility (Bies, 1987; Ohbuchi et al., 1989), promoting forgiveness intentions and behaviors (Takaku, 2001), and managing an image of fairness (Greenberg, 1990). However, a review by Snyder and Higgins (1988) also points out that providing excuses may benefit the account-giver in terms of higher self-esteem and a more favorable public image, and the interpersonal relationship between the account-giver and the recipient in terms of lower conflict and hostility.

Even with the advantages of social accounts that have been identified by the impression management literature, mere words may not be enough to restore cooperation or rebuild trust. While such words may stimulate forgiveness (Gold & Weiner, 2000; Takaku, 2001; Takaku et al., 2001), this may be done as a way of coping with the painfulness associated with the violation (Bies & Tripp, 1996) without a willingness to trust the offender again in the future (Enright, Gassin, & Wu, 1992; Freedman, 1998). It should also be acknowledged that accounts may come with a side effect. For instance, conveying a remorseful apology and detailed excuse (e.g., mental illness) may be sufficient for one to escape conviction for a serious criminal offense, but this may come with the cost of being considered insane (Tedeschi & Norman, 1985). Excuses may actually backfire, causing others to view excuse-makers as individuals with flawed
character (Schlenker, Pontari, & Christopher, 2001) and hence not worthy of subsequent trust.

As reviewed above, it is common for offenders to engage in verbal communication to prompt trust recovery, despite existing theory that (1) trust is fragile (Lewicki & Bunker, 1995) and broken trust may be irreparable (Rempel et al., 1985; Slovic, 1993) and (2) verbal communication may be impotent in restoring trust (Bottom et al., 2002; Pillutla & Murnighan, 1995). Yet, the notion of verbal communication is not new to trust theory as several scholars have asserted that open communication and providing detailed accounts can mitigate threats to cooperative relationships after a trust violation has occurred (Lewicki & Weithoff, 2000; Sitkin & Bies, 1993). This guidance is also found in practitioner-oriented articles written to educate managers on how to restore trust (Caudron, 2002; France, 2002; Galford & Drapeau, 2003). Thus, it is important to examine the efficacy of verbal communication in rebuilding trust after a trust violation has occurred.

Focus of this Dissertation

To date, two recent empirical studies have investigated factors that initiate trust recovery and restored cooperation following a violation (Bottom et al., 2002; Schweitzer, Hershey, & Bradlow, 2002). In both studies, these researchers specifically examined the effect of certain forms of “cheap talk” from the offender, meaning that the verbal communications were virtually costless to the offender, and there was no way for the victim to formalize agreements that would substantiate these claims (Farrell & Rabin, 1996). They found that in early stage interpersonal relationships, mere verbal communication (in the form of promises and apologies) from the offender was sufficient
to restore some level of trust and cooperation immediately after a violation had occurred, and before any subsequent interaction with the offender could support or refute trustworthiness. This finding is contrary to the predictions of the ‘rational economic actor’ assumptions, based on game theory models, which argue that only actions matter (Bottom et al., 2002; Farrell & Gibbons, 1989; Pillutla & Murnighan, 1995).

In the wake of preliminary evidence that mere words can initiate short-term trust recovery (i.e., trust recovery in the next round of an experimental game before trustworthiness can be substantiated), a logical next step is for research to explicate how post-violation cheap talk can influence the receiver’s beliefs to the point that he/she re-engages in trusting behavior – a task well suited for impression management and causal attribution theories. More specifically, does post-violation verbal communication (e.g., promises, apologies) influence short-term trust recovery via specific causal attributions?

Important questions also remain about the possible boundary conditions under which cheap talk may lead to short-term trust recovery. That is, post-violation verbal communication may be sufficient to rebuild trust in some circumstances, but not in others. For research to provide practical guidance, it is necessary to identify important contextual variables that may moderate the effectiveness of talk in re-establishing trust (Whetten, 1989). One likely moderator is the severity of the offense. When a trust violation is viewed as a low cost to the offender, for example, verbal communication alone may suffice in rebuilding trust via the attributional mechanism examined in this dissertation. However, as the offense severity grows, cheap talk may become less effective in stimulating trust recovery.
As a final consideration, after a trust violation, is it the content of the post-violation verbal communication that leads to trust recovery, or is it simply that a verbal response from the offender is taken as a polite gesture that rebuilds trust?

The purpose of this dissertation is to develop a richer understanding of post-violation verbal communication (i.e., promises and apologies) in rebuilding short-term trust in early-stage interpersonal relationships. More specifically, this dissertation will:

1. Develop and test a conceptual model that specifies how post-violation promises and apologies lead to short-term trust recovery via causal attributions and specific emotional reactions, based on Weiner’s (1986) causal attribution theory and social accounts theory (Bies, 1987).

2. Determine whether offense severity moderates the effects of promises and apologies on causal attributions.

3. To compare the relative effect of content-free messages to promises and apologies as a function of the severity of the offense.

These research questions will be tested in a laboratory experiment using a modified version of the Trust Game (Berg, Dickhaut, & McCabe, 1995). The research setting will engage participants in an interdependent decision making task that is designed to capture trust dynamics.

This dissertation reports the research conducted to address the issues outlined above. Chapter 2 provides a review of the conceptual underpinnings for the study. Specifically, this chapter explains how trust develops in early-stage relationships, the impact of trust violations in these relationships, theories from social psychology that should illuminate trust recovery dynamics, and the two recent empirical studies that have
examined the use of post-violation promises and apologies to rebuild trust and cooperation. Chapter 3 will develop a model of how post-violation verbal communication (i.e., promises and apologies) affects trust recovery using Weiner’s (1986) causal attribution theory. The model will posit the moderating effects of offense severity, and consider the effects of message content versus message gesture in this process. Chapter 4 will describe the method used to test the hypotheses, and Chapter 5 presents the results of the analyses. Finally, Chapter 6 will conclude with a discussion of the findings, theoretical and practical implications, limitations, and suggested directions for future research.
CHAPTER 2

LITERATURE REVIEW

Trust is generally regarded as easier to destroy than create (Barber, 1983; Meyerson, Weick, & Kramer, 1996; Worchel, 1979). In fact, some scholars assert that once trust is broken, it may be impossible to rebuild (e.g., Rempel, 1985; Slovic, 1993). However, recent empirical work has suggested that mere post-violation verbal communication by the offender (i.e., “cheap talk”) can facilitate and enhance trust recovery following a trust violation (Bottom et al., 2002; Schweitzer et al., 2002).

This chapter provides the theoretical and empirical foundation for understanding the effectiveness of post-violation verbal communication (i.e., promises and apologies) and to identify the circumstances where it is most likely to facilitate rebuilding broken trust in early-stage relationships. This chapter begins by defining trust and distinguishing it from the closely related, yet separate, construct of cooperation. Next, the process of trust development in early-stage relationships will be described and a description of trust violations and their impact on early-stage relationships will be provided. The chapter proceeds to review recent empirical studies that have examined the efficacy of promises and apologies as verbal communications that lead to trust recovery. The chapter concludes by reviewing theories from social psychology that relate to the process of rebuilding broken trust.
Definition of Trust

As trust is a construct so intricately woven into the fabric of human existence, it is no wonder that it has undergone scholarly scrutiny from a number of disciplines, including economics (Williamson, 1975, 1993), psychology (Deutsch, 1958, 1962), and sociology (Granovetter, 1985). Understandably, the diverse nature of these approaches has produced confusion and controversy that has rendered a concise and universally accepted definition of trust elusive (Kramer, 1999; Rousseau et al., 1998). Nonetheless, there has been some general consensus on the basic elements of the construct (Rousseau et al., 1998), and many of these commonalities are reflected in the definition proposed by Rousseau and colleagues (1998) that is adopted in this study: “Trust is a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (p. 395).

There is often confusion between trust and the closely related construct of cooperation (Bateson, 1988). Much of the game theory research (usually based on a Prisoner’s Dilemma paradigm) concludes that trust in one’s counterpart develops iteratively from a pattern of their repeated cooperation and declines precipitously if they defect (Axelrod, 1984; Deutsch, 1958, 1973; Messick, Wilke, Brewer, Kramer, Zemke, & Lui, 1983). However, Mayer, Davis, and Schoorman (1995) caution against equating an individual’s trust with his/her level of cooperation. For example, they contend that cooperation can exist in the absence of trust when the trustor is not in a vulnerable position on an issue of importance (cf. Kee & Knox, 1970). In short, while trust usually produces cooperation, cooperation does not always occur due to trust (e.g., instances
where one is coerced into cooperation). Thus, these constructs should be considered to be related, yet distinct.

Before proceeding, it is also necessary to consider the alternative views of previous scholars, who have treated interpersonal trust as an individual difference (e.g., Rotter, 1967, 1971, 1980), and contrast that approach with the treatment of interpersonal trust given here. Derived from social learning theory, Rotter asserts that different individuals reacting to different situations would experience (directly or vicariously) varying experiences of promised positive or negative reinforcements. As a consequence, individuals will develop different generalized expectancies of trust as a function of the degree to which these reinforcements will occur when promised by other people. The result is a view of trust that is “something akin to a personality trait that a person would presumably carry from one situation to another” (Mayer et al., 1995, p. 715), sometimes referred to as a propensity to trust. In contrast, the present dissertation is focused on the effect of trust with regard to a specific referent.

Nonetheless, it is useful to consider the dynamics of propensity to trust after a trust violation when individuals receive a promise of future cooperation and an apology. Roberts (1967) conducted such a study, and examined the relationship between predisposition to trust and deception. Subjects were given tips to maximize their performance in several trials of a reading comprehension task by the experimenter. In the condition with correct (no deception) tips provided, both high and low trusters made increased use of these suggestions in subsequent trials. However, for those in the incorrect (deception) condition where erroneous tips were provided, low trusters rapidly ignored the experimenter’s advice, whereas high trusters showed a more gradual decline
in willingness to rely on the experimenter for guidance. It is noteworthy that after the experimenter gave faulty advice, he admitted this, apologized, and promised to give better guidance next time. Rotter (1971) summarizes this study as follows: “High trusters, in other words, will permit a mistake or two and still trust providing the mistake is admitted and an apology made” (p. 448).

In summary, trust is a unique psychological state distinguished from other states such as cooperation. This chapter next addresses the issue of how trust develops over time and reviews theory and research that have isolated elements that enable trust.

**Trust Development and Elements that Facilitate Trust**

This chapter reviews two closely interrelated sets of ideas regarding how trust evolves within professional relationships: trust development and the elements that facilitate trust. The former issue deals with how trust develops over time, whereas the latter focuses on the elements that facilitate trust in professional relationships.

**Trust Development**

Many professional interpersonal relationships exist at what may be considered an early stage of trust (Lewicki & Bunker, 1995). That is, trust in early stage relationships is generally arms-length (i.e., maintains professional distance), confined to specific transactions, and conferred on the basis of considerations including group membership (Brewer, 1981), reputation, prior history of interactions, and so on (Lewicki & Bunker, 1995). For instance, one may trust the clerk of a dry cleaner to clean and press an expensive suit, yet not trust the clerk to baby-sit one’s children. Entrusting the clerk with proper care of one’s clothing is enabled by confidence that one is dealing with a reputable firm, has been satisfied with their services before, and so on. One’s early-stage
relationship with the clerk, while perhaps cordial, exists only at a professional level (indicating that they are not close family members or friends, etc.).

Early-stage trust is crucial to understand for several reasons. First, this type of trust may describe a wide array of professional relationships (e.g., manager-subordinate, buyer-supplier, etc.), and serves the important function of allowing transactions to proceed among those people with whom we are not intimately familiar (Lewis & Weigert, 1985; Luhmann, 1979), as contracting all aspects of working relationships is impractical (Arrow, 1973; Parkhe, 1998). Indeed, many business transactions occur within the context of arms-length relationships, and are often conducted on the basis of unformalized, handshake deals (Shapiro et al., 1992). Second, this type of trust may be the most susceptible to permanent damage, as it is posited to be grounded in a predominantly cognitive assessment and thus lacking in the more emotional ties that bind more established relationships (Lewicki & Bunker, 1996). That is, early-stage, arms-length professional relationships may be more intolerant of trust violations, whereas more developed and emotionally grounded professional relationships may be more resilient to violations (Lewicki & Bunker, 1996).

Lewicki and his colleagues (Lewicki & Bunker, 1995, 1996; Lewicki & Wiethoff, 2000) have formulated the most comprehensive theoretical treatment of how trust develops over time in interpersonal relationships, and their work describes the characteristics of trust in early-stage relationships. Drawing from earlier work by Shapiro and her colleagues (1992), Lewicki and Bunker (1995) describe trust in early-stage relationships as a calculus-based trust (CBT). CBT occurs in working relationships that are based on arms-length, transaction-focused exchanges. Trust is enabled at this level
because the trustor believes that there are sufficient rewards and/or deterrents in place that motivate the other party to behave in a trustworthy fashion. Lewicki and Bunker (1995) specify that CBT is founded on “ensuring the other’s consistency through costs for inconsistency” (p. 153).

On the other hand, trust at the highest level of an interpersonal relationship is described as identification-based trust (IBT); it is derived from a richer and more complex understanding of the other, and an internalization of the other’s desires and intentions (Lewicki & Bunker, 1995; Shapiro et al., 1992). Compared to CBT relationships, IBT relationships are more emotionally grounded, relationship-focused, and derived from a sense of shared goals or values between the parties. IBT relationships are evident when individuals share the same values and attitudes, and have formed a close emotional bond with each other.

Lewicki and Bunker (1995, 1996) further extended the work of Shapiro and her colleagues (1992) by arguing that these forms of interpersonal trust build sequentially through these types, or stages, of trust. That is, these trust levels are hierarchical and sequential, such that as relationships develop, higher and more complex levels of trust can be attained. Similarly, Kramer (1999) describes the process of trust development as one of initial calibration and subsequent updating based on the degree to which progressively developed expectations are confirmed. As expectations of trustworthy behavior continue to be confirmed by subsequent acts that justify trust, a foundation is laid that permits trust to develop to higher stages.
As mentioned earlier, the focus of this dissertation is on early-stage (CBT) relationships, and scholars (Lewicki & Bunker, 1995; Shapiro et al., 1992) specify a number of prescriptions that strengthen or develop trust at this level:

1. **Engage in repeated interactions.** Shapiro and colleagues (1992) note that, “A partner is much less likely to act distrustfully in one transaction if future transactions, from which benefit may be derived, are likely to be jeopardized” (p. 367). Axelrod (1984) reached a similar conclusion, arguing that the “shadow of the future” is a powerful force that compels cooperative and trustworthy behavior. In short, the parties have more to gain by continuing to behave in a trustworthy manner (and more to lose if they do not).

2. **Cultivate interdependence.** The development of a multifaceted relationship results in many points of interdependence, such that a trust violation in one area of a relationship will carry over adverse consequences to another area of the relationship. So even as a trust violation jeopardizes future interactions, it “can also spread from one aspect of a multifaceted relationship to another” (Lewicki & Bunker, 1995, p. 147).

3. **Personal reputation as hostage.** A trustworthy reputation is a valuable asset, even for dishonest individuals. Hence, publicizing trust violations among the offender’s network can be very damaging, and this threat can be a powerful incentive that motivates trustworthy behavior.
As the current study focuses on trust in early stage professional relationships, the discussion above can be distilled into two primary points regarding CBT (or early-stage) relationships. First, early-stage trust requires a pattern of successful interactions to grow. Lewicki and Bunker (1995) assert that trust requires a series of interactions that confirm trust in order for it to continue to develop in an iterative, sequential manner, but a single trust violation has the potential to negate any gains in the level of trust (see also Kramer, 1996 for a brief review). Accordingly, trust is initially posited to be partial, tentative, and fragile.

Second, Lewicki and Bunker (1995) argue that CBT is a primarily cognitive assessment. While CBT has both cognitive and emotional components (Kramer, 1999; Lewis & Weigart, 1985; McAllister, 1995), the emphasis is placed on a predominantly cognitive assessment of trustworthiness.

Whereas this section has described the characteristics of trust in early-stage professional relationships and the forces that encourage its development over time, the next section considers the elements that facilitate trust.

Elements that Facilitate Trust

Aside from insight on the development of trust over time, it is helpful to understand what facilitates trust (regardless of its stage or level; cf. Lewicki & Bunker, 1995, 1996). According to the integrative model of organizational trust by Mayer, Davis, and Schoorman (1995), the level of trust in a relationship is derived (in part) by the perceived trustworthiness of the trustee. After completing a thorough review of the trust literature, these scholars offered a parsimonious summary of characteristics of a trustee that lead to trust. Specifically, they argued that trust develops because the trustee’s
perceived ability, benevolence, and integrity signal that the trustee will act in a trustworthy manner.

Ability is conceptualized as “that group of skills, competencies, and characteristics that enable a party to have influence within some specific domain” (p. 717). Benevolence “is the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive” (p. 718, emphasis in original). Integrity describes “the trustor’s perception that the trustee adheres to a set of principles that the trustor finds acceptable,” (p. 719) and may include characteristics such as a strong sense of fairness and being consistent and reliable. Mayer and colleagues posit that some acceptable level of each factor is necessary for trust to develop, but that integrity will be most important at the beginning of a relationship and benevolence will gain more importance in more established relationships. In early-stage relationships, the trustor is not likely to have had enough interaction with the trustee to form extensive perceptions regarding his/her benevolence. The information that is most available at this stage is that person’s integrity and ability.

The foregoing discussion has established the foundation that helps us understand how trust can grow over time within professional relationships, as well as elements that facilitate trust. The next section turns to an examination of how trust declines as a result of trust violations.

Trust Violations

A trust violation occurs when an individual has developed confident positive expectations regarding the intentions or behavior of a trustee, only to receive disconfirming evidence of these expectations (Lewicki & Bunker, 1996; Lewicki &
Wiethoff, 2000). Several theorists have posited that trust violations can be very damaging because they go beyond any isolated event that harms the trustor and strikes at the very foundation of the relationship itself (Lewicki & Bunker, 1995; Lewis & Weigart, 1985). Trustors may come to question not only the trustworthiness of the other, but also the veracity of their own perceptions and assumptions that allowed for trust in the first place. This leads us to consider the harmful consequences of trust violations.

Research on the consequences of trust violations has offered the robust conclusion that violations lead to a reduction in subsequent trust and cooperation. This finding dates back to the earliest and classic studies on trust and cooperation by Deutsch (1958, 1973), and remains a prominent finding covered in more recent reviews of the literature (Lewicki & Bunker, 1995, 1996; Kramer, 1996). Similarly, employees’ trust in their employer declines when they perceive that their employer has violated the psychological contract (i.e., employees’ beliefs about the reciprocal obligations between them and their organization; Morrison & Robinson, 1997; Robinson, 1996).

More specifically, trust violations often stifle mutual support and information sharing, and may even prompt employees to seek revenge, such as the sabotage of vital projects and change initiatives (Bies & Tripp, 1996; Reina & Reina, 1999). Broken trust is also associated with reduced organizational citizenship behaviors and job performance, and higher turnover intentions (Robinson, 1996; Robinson & Rousseau, 1994). Within organizations, low employee trust also carries serious consequences that extend to relationships with customers (Berry, 1999).

As if the foregoing consequences of trust are not compelling enough, perhaps an even more sobering outcome associated with low or broken trust is its negative effect on
an organization’s bottom line. Using data collected from a chain of hotels, Simons and McLean Parks (2002) found that a lack of behavioral integrity (the perceived alignment between managers’ words and actions) was associated with lower hotel profitability. That is, organizations whose managers were perceived as being less trustworthy via the disconnect between their words and their deeds were less profitable than organizations with managers who were more trustworthy.

Lewicki and Bunker (1996) presented a model outlining the dynamics of a trust violation from the victim’s perspective. This model is shown below as Figure 2.1, and indicates that a violation leads to a state of instability, negative affect, and uncertainty. The psychological states prompted by the trust violation result in (1) a cognitive appraisal of the discrepancy, and (2) a distressed emotional state. The cognitive appraisal refers to the victim’s assignment of culpability to the offender and the evaluation of the costs associated with the violation. The emotional reaction is likely to be composed of some mixture of anger, disappointment, and/or frustration at oneself for trusting and at the other party for exploiting that trust. Depending on these analyses, and the impact of the reparative efforts by the offender, the outcome of the relationship can range from restoration to recalibration to termination.

This dissertation focuses on the relationships on the right hand side of the model shown in Figure 2.1. Based on the theoretical lenses of attribution theory and social accounts, this dissertation investigates the outcomes that occur when victims receive certain forms of cheap talk. At issue are the specific attributional and affective changes that may be stimulated by post-violation messages by the offender, and establishing the
links between these changes and the victim’s subsequent trust in the offender (which has implications for the fate of the relationship).

Figure 2.1: The dynamics of a trust violation from the victim’s perspective

Note: Adapted from Lewicki & Bunker (1996)

To begin the work of understanding the dynamics of a trust violation more deeply, we can refer to the psychological contract literature. However, it should be noted that the term “violation” in the trust literature is defined differently from its usage in recent work on psychological contracts (Morrison & Robinson, 1997). The latter stream of work refers to a psychological contract breach as the cognitive analysis that expected obligations by the employer have not been met, whereas a violation is the affective (emotional) state that may arise from such cognitive perceptions. Nonetheless, this recent work may be relevant because it helps us understand how trust-damaging events come to be perceived by the receiver as trust violations.
Morrison and Robinson (1997) have developed a model of psychological contract violation that highlights the role of attributions and social accounts (i.e., verbal communication designed to mitigate negative attributions following a negative event) that may help facilitate our understanding of how post-violation communication from an offender affects the victim’s subsequent evaluations of trust. Their theoretical model indicates that a breach of the psychological contract is particularly likely to be perceived as a violation when employees attribute their unmet expectations to purposeful reneging (i.e., the organization knowingly and willingly breaks a promise). Moreover, Morrison and Robinson (1997) assert that the attributional process is likely to be affected by social accounts:

Attributions of responsibility will … be affected by social accounts (i.e., justifications or excuses) offered by agents of the organization. Social accounts often minimize the apparent severity of an outcome, which has been found to reduce the assignment of blame (Walster, 1966). Accounts can also convey that a breach was not the organization’s fault, thereby altering an employee’s perception of causality, control, forseeability, and intentionality (Bies, 1987). Given these effects, organizational agents often may use accounts intentionally as a way to minimize blame. In fact, we suspect that agents will rarely admit to purposeful reneging. Instead, they will often try to convince the employee that a perceived breach of contract resulted from factors beyond the organization’s control or that it was rooted in a mere misunderstanding. (p. 244)

Robinson and Morrison (2000) tested part of their theoretical model and found empirical support for the contention that breaches become violations when unmet
expectations are attributed to purposeful reneging and when employees feel they have been unfairly treated in the process.

Further support for the link between attributions and trust violations comes from Elangovan, Auer-Rizzi, and Szabo (2001). These researchers studied the effects of responsibility attributions and frequency of prior trust violations on the erosion of trust in a scenario study. They found that trust eroded more rapidly when trustees were perceived as not wanting to fulfill trust expectations compared to trustees perceived as unable to do so. In addition, the frequency of prior trust violations also had a significant effect on the erosion of trust in the relationship, such that trustors were only willing to give trustees a maximum of two chances.

Whereas this section has highlighted the decline of trust, and its relation to attributional processes, the next section reviews recent empirical research suggesting that broken trust can be rebuilt.

Recent Empirical Studies

The Bottom, Gibson, Daniels, and Murnighan (2002) Study

The research reported in this study was conducted using a Prisoner’s Dilemma (PD) experimental paradigm. A vast literature comprising much of the early work on trust, suspicion, cooperation, and competition has been conducted with this framework (Deutsch, 1973). The study reported here used a typical two-person game where players made a series of cooperative or competitive choices simultaneously; their payoffs were a function of each player’s own decision and the decision of his/her counterpart.

The game is based on a classic dilemma explained by Luce and Raiffa (1957):
Two suspects are taken into custody and separated. The district attorney is certain they are guilty of a specific crime, but he does not have adequate evidence to convict them at a trial. He points out to each prisoner that each has two alternatives: to confess to the crime the police are sure they have done or not to confess. If they both do not confess then the district attorney states that he will book them on some very minor trumped-up charge...; if they both confess, they will be prosecuted, but he will recommend less than the most severe sentence; but if one confesses and the other does not, then the confessor will receive lenient treatment for turning state’s evidence whereas the latter will get the “book slapped at him.” (p. 95)

The game can be illustrated mathematically by the matrix shown as Figure 2.2. Player 1 may choose between cooperation (X) or defection (Y), and Player 2 may choose between cooperation (A) or defection (B). The gains or losses incurred by the players are contingent on the choices they make and the choices of their counterpart. The first number in each cell is the payoff to Player 1 for that trial, and the second number is the payoff for Player 2.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
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<tr>
<td>X</td>
<td>+9, +9</td>
<td>-10, +10</td>
</tr>
<tr>
<td>Y</td>
<td>+10, -10</td>
<td>-9, -9</td>
</tr>
</tbody>
</table>

Figure 2.2: Prisoner’s dilemma matrix
Closer inspection of the matrix indicates that a player has the potential to maximize his/her gain by selecting the competitive choice (i.e., gain $10). This occurs if Player 1 selects Y, or if Player 2 selects B. However, if both players choose the competitive choice, they each lose. Mutual gain only occurs when both players choose cooperatively, but this is risky: choosing cooperatively will be beneficial for a player if the counterpart also cooperates, but will harm that player if the counterpart defects! As noted earlier, while this game is credited with much of the early work on trust, what is actually being measured is cooperation and competition. For example, a competitive move can be motivated by either a lack of trust, or a desire to harm the other player (Kee & Knox, 1970).

Nonetheless, this type of game does generalize to many actual social situations. As Deutsch (1973) explains: “Any social situation in which an individual may enhance his own satisfactions to the disadvantage of another by not adhering to the normalized expectations or social rules governing the situation is of this sort – e.g., buyer-seller transactions, husband-wife relationships, pedestrian-driver interactions, a crowd in a theater when there is a fire” (p. 181). Deutsch argues that cooperation can exist when mutual trust can be established. In other words, individuals are willing to make a (risky) cooperative choice when they can trust that the other party will cooperate and not exploit that trust. Accordingly, Bottom and colleagues (2002) deemed this paradigm to be appropriate for examining the conditions that allow for cooperation to be restored after a trust violation.

In contrast to traditional game theory predictions (where only action matters), Bottom and colleagues (2002) hypothesized that apologies and simple explanations that
denied intent to defect would restore cooperation following a trust violation, based on the literature on accounts and impression management. As reviewed above, verbal communication can mitigate negative reactions after a transgression (Bies, 1987; Sitkin & Bies, 1993). Moreover, they hypothesized that efforts to restore cooperation would be even more effective if such verbal tactics were supplemented with substantive penance, and reasoned that greater offers of penance would be associated with increased cooperation after a violation. Open-ended offers of penance (to be specified by the victim of the violation) were predicted to be more effective than fixed offers of penance (described below); additionally, it was predicted that victims would respond to open offers with requests that were lower than the harm they suffered from the trust violation. Finally, the study examined one type of contextual feature of the relationship: the length of its duration prior to a trust violation. The researchers reasoned that acknowledging intent would be more effective in restoring cooperation in a short-duration relationship, while denying intent would be more effective in restoring cooperation in a long-duration relationship.

Using a sample of 225 students from both undergraduate and MBA programs, these researchers conducted an experiment using a 2 (explanation) x 4 (apology/penance) x 2 (duration) between subjects factorial design. Although subjects believed they were playing against paired counterparts, they were actually interacting with programmed computer feedback that administered the experimental manipulations. The subjects were awarded points on the basis of each outcome, and informed that their accumulated point totals would determine their chances of winning a $10 payoff. That is, a 100-sided die would be rolled, and if the roll came up between zero and the number of points
accumulated, they would receive $10. Clearly, the chances of winning $10 improve with a higher number of accumulated points.

Trust was violated when the counterpart made a competitive move. The first verbal communication after the trust violation was an explanation that either acknowledged or denied intent for the act (“I didn’t mean to do that; the experimenter took the wrong card” versus “I must admit that I meant to do that; I was just trying to do a little better for myself.”).

Then, to extinguish cooperation, the subject encountered four additional, consecutive noncooperative choices. This was followed by an apology and request to return to cooperation: “I am sorry for doing this. I think we should go back to cooperation.” The penance manipulation accompanied this apology. In the mere talk (with no substantive penance) condition, the message said, “I would be willing to do this [return to cooperation] if you are.” In the small penance condition, the message offered to let the subject get one round of maximum payoffs. In the large penance condition, the message offered to let the subject get two rounds of maximum payoffs. In the open-ended offer of penance condition, the message asked, “what will it take for you to cooperate again?” [Note: Results indicated that this manipulation placed an implied burden on the subject and was later replaced with “What can I do to get you to cooperate again?”]

The duration of the relationship prior to the violation was also manipulated. Five rounds of cooperative play by the programmed counterpart preceded the violation in the short duration condition, while 15 rounds of cooperation took place before the violation in the long relationship duration condition. Finally, it should also be noted that the last five rounds were announced in advance, which changes the dynamics of the game from
one with a continuing and uncertain end to one with a definite end. Thus, there is no retribution possible after the last round, and using backward induction (Stahl, 1972), game theory suggests that rational players should not cooperate nor expect cooperation (Bottom et al., 2002). Hence, the last five rounds of the game provide a particularly stringent test of the efficacy of words and penance on restoring cooperation. Choices on the last five rounds were the primary dependent variables in the study; post-experimental survey data also tapped positive emotions (good, pleased, satisfied), negative emotions (distressed, angry, hostile, astonished, and surprised), and a more complex relationship factor (trust, liking, and desire for future interaction with respect to the other party).

The results of the study indicated that simple explanations and apologies could indeed restore cooperation to some extent (even though overall, denial of intent was not more effective than acknowledging intent). In fact, the mere talk condition (i.e., the apology with no penance offered) “even led to cooperative choices on the last round (24% cooperated)” (p. 506). This is noteworthy insofar as these verbal strategies are “cheap talk;” they come at virtually no cost to the offender (Farrell & Gibbons, 1989). It is interesting to note that the mere talk condition represented an unsubstantiated claim of remorse and desire to restore the damaged relationship – from an individual who had already demonstrated his/her untrustworthiness!

The study also provided evidence that making substantive amends (engaging in specific behaviors to compensate the victim for the direct consequences of the violation) further improve cooperation beyond the effects of verbal tactics alone. However, contrary to expectations, large amounts of penance were not more effective than small penance, and open offers of penance were not more effective than fixed offers of penance. In
addition, victims responding to open offers made requests that were less than the harm they endured from the violation. Finally, acknowledging intent to violate trust was more effective in restoring cooperation in relationships of short duration (trust violated after 5 trials); denying intent was more effective in restoring cooperation in relationships of long duration (trust violated after 15 trials).

This study represents an important contribution to understanding trust recovery by demonstrating that some level of cooperation can be restored by a mere apology and stated desire to return to cooperation, although substantive penance significantly enhances this restoration. The duration of the relationship prior to the trust violation was also examined and shown to be an important contextual influence.

The Schweitzer, Hershey, and Bradlow (2002) Study

A separate study by Schweitzer and colleagues (2002) also examined the effects of verbal communication following a trust violation. In contrast to the study by Bottom and colleagues (2002), these researchers used the Trust Game (Berg et al., 1995) instead of a PD paradigm. Both types of games create a condition where the subject can experience gain when trust is extended to and honored by the counterpart, yet experience loss if trust is exploited. Thus, both games also involve two players, with payoffs awarded as a function of mutual choices. However, as discussed above, because of the structure of PD games, a competitive choice can be due to either a lack of trust or a desire to beat the opponent (Kee & Knox, 1970). The Trust Game uses a structure that better captures the dynamics of trust (whereas the PD game format actually measures cooperation and competition). An explanation of the game will clarify this point.
In the study by Schweitzer and colleagues (2002), each round of the game begins when the subject (Player 1) receives an endowment of $6. Player 1 can choose to pass all $6, keep $3 and pass $3, or keep all $6. If Player 1 chooses to pass $6 to Player 2, the endowment triples (i.e., becomes $18), and then Player 2’s decision on how to allocate the $18 between them determines their respective payoffs for that round. The decision by Player 1 to pass $6 is a decision to trust that Player 2 will return at least $6. Note, for example, that if Player 2 returns half of the money ($9) on a given trial, Player 1 has recouped the original $6 plus a $3 profit as a result of a trusting choice. Passing $3 while keeping $3 is an option for subjects who do not trust their counterpart but wish to make an altruistic choice, and keeping all $6 is also a decision not to trust.

Importantly, in the variation of the game used by Schweitzer and his colleagues, Player 2 makes a decision on how to allocate $18 between both players on every round of the game, even when those decisions would be rendered moot by the choices of Player 1. This is so Player 1 can still obtain feedback on how trustworthy (or not) the actions of Player 2 are.

Figure 2.3 illustrates the game in a decision tree diagram. The first number in parentheses is the payoff to Player 1; the second number is Player 2’s payoff. To study trust, all players are assigned to the Player 1 role, and Player 2 choices are programmed.
Schweitzer and colleagues used a seven-trial Trust Game to examine the effects of deception, promises, and apologies on trust recovery after a violation. These researchers hypothesized that post-violation cooperative moves (i.e., the computer passing $9 to the subjects in each remaining trial) would increase long-term trust recovery, independent of the use of verbal communication by the offender. However, they also hypothesized that a promise of future cooperation would enhance both short-term (or initial) and long-term trust recovery. Further, the study had a promise-alone condition and a promise-plus-apology condition, with the latter expected to yield the greater increase in trust recovery. (The deception portion of the study is not directly relevant to the present investigation and is not reviewed here.)
Their sample consisted of 184 undergraduate students who played the game using a paper-and-pencil method against a fictitious Player 2. Trust was immediately broken in the first two trials, and then the three levels of the verbal communication condition were introduced immediately before the third trial. In the control condition, there was no message sent by Player 2. In the promise-alone condition, Player 2 sent a message that read, “I give you my word. I will always return $9 every round, including the last one.” In the promise-plus-apology condition, the message from Player 2 read, “I really screwed up. I shouldn’t have done that. I’m very sorry I tried taking so much these last 2 rounds. I give you my word. I will always return $9 every round, including the last one.” In every case, Player 2 actually returned $9 in each remaining trial of the game. Hypotheses were examined by analyzing mathematical models of trust recovery, both initially (the third round) and long-term (rounds 4-7). Trust was measured both behaviorally (passing money in trials 3-7) and as an attitude (survey measures collected after trials 3-7).

The findings of this study showed that acts of subsequent trustworthiness led to significant increases in the level of trust. In addition, they found that promises had a significant effect on initial trust recovery, but had no impact on long-term trust. However, the promise-plus-apology condition carried no more weight than the promise-alone condition. The authors explained the latter unexpected finding by suggesting that the apology may have been perceived as insincere or insufficient, or lacked a clear attribution for prior behavior.

The Schweitzer and colleagues study made an important contribution to the literature on rebuilding violated trust by demonstrating the positive effects of cheap talk.
on trust recovery. The results of their study indicate that cheap talk is important because it moderates the speed and total amount of trust recovery.

Summary. In both of these studies, a similar pattern of findings emerged: the use of verbal communication did restore at least some level of cooperation and trust. Bottom and colleagues (2002) found that apologies and a stated desire to return to cooperation led to a restoration of cooperative choices, even on the (pre-announced) final round of the game. Schweitzer and colleagues (2002) found that both promises and promises-plus-apologies significantly moderated the speed and total amount of trust recovery (although the promise-plus-apology was not more effective than the promise-alone condition). However, both of these studies share two primary limitations that justify the current study.

First, these studies do not allow us to understand how mere talk can re-establish one’s trustworthiness. Limited attention was given to the mechanisms that enable this effect; while these authors based their hypotheses in the literature on social accounts, no specific attributional variables were examined as explaining the effect of talk on restored trust and cooperation. For example, it would be helpful to know why such verbal communication is useful in re-establishing trust. Although Schweitzer and colleagues posited an explanation for why there was no difference between the promise-alone and the promise-plus-apology condition (that the apology was not perceived as sincere or sufficient), there are other potential explanations that have a basis in existing theory. These possibilities will be elaborated on in the next chapter.

Second, subjects did not report the severity of the trust violations they encountered. The extent to which cheap talk was effective in these studies may be a
function of the perceived severity of the offense. More specifically, cheap talk may become less effective in stimulating trust recovery as offense severity increases.

Accordingly, whereas this section has reviewed recent work suggesting the efficacy of cheap talk on trust recovery, the following section proceeds to review relevant theories from social psychology that may help us better understand why this effect occurs.

The Role of Attributions and Accounts in Rebuilding Trust

The present study deals with how individuals make sense of the world around them (a process that should become more salient after a negative event such as a trust violation; Heider, 1958), based on the verbal accounts provided by others that are intended to shape their perceptions and/or attributions (Goffman, 1971). Accordingly, this study draws upon two primary theoretical foundations to generate and test a model of trust recovery: attribution theory and social accounts theory. Each will be reviewed in turn.

Weiner’s Causal Attribution Theory

At the most basic level, forming judgments to trust (and re-trust) fundamentally involve the formation of attributions of the other party’s trustworthiness (e.g., Larzelere & Huston, 1980; Mayer et al., 1995; Rempel, Holmes, & Zanna, 1985). Note that the foregoing discussion has repeatedly referred to papers that have discussed the role of attributions (e.g., Lewicki & Bunker, 1996; Morrison & Robinson, 1997), but up to this point there has not been much explanation in terms of the exact attributional processes involved. Scholars have called for a more systematic integration of the attribution literature with the trust literature (e.g., Elangovan et al., 2001). This study contends that
post-violation verbal communication affects trust recovery via specific causal attributions. Identifying these attributions will enhance our insights on the trust recovery process (cf. Elangovan et al., 2001).

Weiner’s (1986) causal attribution theory can be drawn upon to develop these deeper insights. This theory was chosen for several reasons. First, this theory presents a specific causal attribution that is well suited for integration with the use of promises and apologies. Second, this theory incorporates the role of emotion. Prior theoretical work on trust has noted that trust, and particularly the process of rebuilding broken trust, involves emotional considerations (Lewicki & Bunker, 1996). Moreover, scholars have called for additional theoretical and empirical progress in explicating the role of emotion as it pertains to trust (Fichman, 2003; Jones & George, 1998). Third, the theory is amenable to measuring both attitudes and behaviors following the attributional process. This suggests that regardless of conceptual debates on whether trust is an attitude or behavior (cf. Mayer et al., 1995), this theory remains applicable. Finally, the theory has been used successfully in a variety of different contexts in which trust recovery is likely to be important. These contexts include: parole decisions (Carroll, 1978; Carroll & Payne, 1976, 1977), consumer reactions to product failure (Folkes, 1984), and forgiveness in interpersonal relationships (Gold & Weiner, 2000; Takaku, 2001; Takaku, Weiner, & Ohbuchi, 2001).

Attribution theory stipulates that following a negative event, there is a fundamental need to understand why it occurred (Heider, 1958). This knowledge is sought not only to come to a deeper understanding of the world, but to become more effective in managing oneself and the environment in the future: “Once a cause, or
causes, are assigned, effective management may be possible and a prescription or guide for future action can be suggested” (Weiner, 1985, p. 4). Thus, central attributional queries will focus on (a) understanding the factors that caused the event, and (b) predicting whether the event is likely to recur in the future (Elangovan et al., 2001).

Weiner (1995) argues that these queries are an essential element of everyday life, as individuals strive to understand the causes of events as varied as urban riots, homelessness, and the loss of our favorite sports team. Depending on the analysis, individuals can reach a variety of specific attributions regarding specific causes. To illustrate, Weiner (1995) describes a scenario where two cars are traveling in the same direction on the same road, when suddenly the first car has been suddenly hit in the rear. There are a number of specific attributions people would be likely to make depending on the results of their causal search, with strong implications regarding how they are likely to respond to the driver behind them.

One example would be to conclude that a rock fell from above and caused the damage. While the damage suffered by the first driver is the same, this would indicate that the driver of the second car would not be held accountable for the accident. Another example would include the discovery that the driver of the second car had indeed run into the back of the first, but that this driver had just had a heart attack. Again, this driver is not likely to be held accountable for the accident. It is important to note that such judgments are not always final – specific attributions can be invalidated or modified as additional information is received (Krull, 1993). This may even include verbal communication from others (Weiner, 1995, Chapter 8), which will be explored in greater detail later in this dissertation.
It turns out that across a wide variety of events, many of these different attributions can be classified by a relatively small number of dimensions. Weiner’s model of causal attribution has identified three primary dimensions that people use to make sense of the past and predict the future (Weiner, 1985, 1986). First, the construct of **locus of causality** makes the distinction between causes generated internally (by the person) or externally (by the situation) (cf. Heider, 1958; Rotter, 1966). Going back to the first example with the drivers provided above, the damage to the car was caused by events that were external to the second driver.

A second dimension of causal attributions is **controllability**. This refers to the degree of volitional control an individual has over his/her actions. This dimension recognizes that even when locus of causality resides within an actor (i.e., the cause is internal to the person), the event may be beyond volitional control (e.g., scoring poorly on a math test due to low quantitative aptitude). Referring to the second example above, when the second driver causes the accident due to a sudden heart attack, individuals are likely to note that this event is beyond that person’s control.

The third dimension of causal attributions is the degree of **stability**, or the degree to which the cause is perceived to fluctuate or remain constant (Jones & Davis, 1965; Kelley, 1967). This dimension will be reviewed in extensive detail later in this dissertation.

These three causal dimensions have been a focal part of a model of attribution, and applied to a variety of contexts such as achievement motivation and helping behaviors (see Weiner, 1986 for a review). An illustration of this model in an achievement context is shown as Figure 2.4. This figure shows that individuals perform a
task, and then evaluate their success or failure at that task, which leads to a general emotional reaction (either positive or negative). In turn, the general emotional reaction prompts a causal analysis along the locus, stability, and controllability dimensions. Expectations for future achievement (driven primarily by stability attributions) are then formulated, as well as more specific emotional reactions (e.g., such as pride for success, given an internal ascription, as noted in the figure). Finally, expectancies and specific emotions jointly lead to subsequent achievement-related performance.
Figure 2.4: Weiner’s (1986) causal attribution theory of achievement behavior

Note: Adapted from Fiske & Taylor (1991)
Much of the subsequent research derived from this model has focused on how causal attributions shape future expectancies, specific emotional reactions, and subsequent behavior (Fiske & Taylor, 1991). One critical influence on future expectancies and the ensuing specific emotional reactions is the perceived stability of the cause (Weiner, 1985, 1986). For example, if a student expects to succeed on an exam only to receive a failing grade, the expectancy for future success will still be high if stability attributions indicate that the cause was due to unstable factors such as effort or luck. On the other hand, when causal analysis indicates that the cause of the failure was due to stable factors such as lack of ability or task difficulty, future expectancies will be revised downward.

Accordingly, stability attributions give rise to two specific emotional reactions: hope and fear (Mowrer, 1960; Weiner, 1986). Mowrer (1960) conceptualizes hope as the continued anticipation of a positive reinforcer, and fear as the continued anticipation of a negative reinforcer. Weiner (1986) draws the connection of these specific emotional reactions to stability attributions by arguing, “In attributional language, hope should be experienced given success and an attribution to a stable cause, whereas fear should arise given failure and an attribution to a negative cause” (p. 154). For example, prior research has established that stability attributions for negative outcomes are associated with hopelessness and resignation (Weiner et al., 1978, 1979). Given a stable cause for a negative event (e.g., low ability or aptitude), the future is forecasted to look as bad as the past, causing one to feel fearful and hopeless regarding future expectancies. On the other hand, if the attribution is to an unstable cause (e.g., bad luck), then future failure may not be anticipated, and there may be more reason to be hopeful that the future will be more
positive than the past. That is, unstable causes (such as due to lack of effort or bad luck) can vary over time. Relative to stable causes, attributions to unstable causes for negative events should be associated with less fear and greater hope regarding the future.

Other causal dimensions are associated with their own specific emotional reactions (Weiner, 1985, 1986). For example, when causal analysis reveals an internal locus for success, one is likely to feel pride. When the causes of negative events for oneself and/or others are controllable, one is likely to feel guilty. When a positive event is ascribed to the volitional help of another individual (controllable, external), one is likely to feel grateful.

The final linkages in the theory posit that expectancy and affect jointly guide motivated behavior. Weiner (1985, 1986) draws the connection with this reasoning and the traditional views on motivation expressed by Expectancy x Value theorists – namely, that motivated behavior is a function of both the valued outcomes one can get and the likelihood of getting them (e.g., Vroom, 1964).

Weiner’s (1986) attribution theory has received support in a number of other studies that have conceptual similarities to the current investigation on trust recovery after a violation in an early-stage relationship. For example, in a study on parole decisions by Carroll and his colleagues (Carroll, 1978; Carroll & Payne, 1976, 1977), parole decision makers relied heavily on evidence such as criminal history to assess the stability of the cause of the crime, such that those who committed an extensively planned crime were less likely to be paroled than those who committed the same crime impulsively and without a prior record. Releasing a convicted criminal may be regarded as an act of trust, whereby parole decision makers are willing to become vulnerable to the
possibility of future exploitation (recidivism), with confident positive expectations that the convicted criminal’s behavior was not due to stable, enduring causes.

Similarly, consumer reactions to product failure (Folkes, 1984) are heavily influenced by stability attributions that, in turn, drive subsequent motivated behaviors. When product failure is attributed to stable factors (e.g., a “bad” company), individuals develop negative future expectancies in the form of future product dissatisfaction, and indicate a preference for a monetary refund. Conversely, a failure attributed to unstable causes (an anomalous bad shipment of parts) is associated with positive future expectancies (product satisfaction) and indicate a preference for product exchange. This finding may be re-framed to suggest that consumers are reluctant to trust a company again after a failure ascribed to stable causes, but are willing to trust a company again when the failure is due to unstable factors.

Another relevant application of Weiner’s theory deals with forgiveness of transgressions in interpersonal relationships (Gold & Weiner, 2000; Takaku, 2001; Takaku, Weiner, & Ohbuchi, 2001). A summary of this work indicates that remorseful apologies attempt to convey to the victim of a transgression that the cause of the transgression was unstable. In other words, it is asserted that a dispositionally ‘good’ person did an uncharacteristically ‘bad’ thing.

It is instructive to note that attribution theories have been used across a wide variety of contexts. Within the human resources literature, attribution theories are prominent in theory and research on performance management (Cardy & Dobbins, 1994; Murphy & Cleveland, 1991). For example, research has found that managers respond more harshly toward subordinates when poor performance is attributed to internal factors,
but this effect is moderated by impression management tactics of subordinates (Mitchell & Wood, 1980). Wood and Mitchell (1981) found evidence that when subordinates apologized for performance failures, managers were less likely to have expectations of future performance failures, and see less need for corrective action directed at the subordinate.

Another moderating factor may be the severity of the offense: “The same behavior might be evaluated differently, and different causes might be cited for that behavior, depending on the seriousness of the outcomes of that behavior” (Murphy & Cleveland, 1991, p. 186). Nonetheless, Cardy & Dobbins (1994) note that there has not been much work on the influences of attributions on performance ratings.

This section has provided a review of Weiner’s (1986) attribution theory and some of the empirical work that has provided support for the theory. The next section provides a detailed discussion of social accounts and how they can be used to alter causal attributions.

Social Accounts

Social psychologists have developed a vast literature on how individuals attempt to manage the impressions they make on other people (Cody & McLaughlin, 1990; Schlenker, 1980), and a significant portion of this work deals with social accounts. Social accounts refer to the ways in which individuals attempt to shape the perceptions of others following a negative event.

When an individual has harmed others, this gives rise to potentially threatening responses (e.g., a damaged reputation, reduced cooperation, retaliation), thus creating a predicament for this individual. The harmdoer can respond with “a social account that
attempts to correct the audience’s initial perceptions of the situation” (Bies, 1987, p. 295). The seminal work by Scott and Lyman (1968) refers to accounts as devices that provide context to unanticipated or untoward behavior in an effort to “verbally bridge the gap between action and expectation” (p. 46). Much work has examined the use of accounts in the context of promoting a sense of justice (Bies, 1987; Bobocel & Zdaniuk, 2003; Greenberg, 1990). In the face of negative events, the provision of adequate and sincere explanations is associated with more favorable reactions (e.g., higher fairness perceptions, lower anger and resentment) than when events are either not explained or explained inadequately (Bies & Shapiro, 1987; Shapiro, 1991).

Bies (1987) has provided a typology of social accounts individuals use when they are in a social predicament and wish to remove their negative identity and spare themselves from retaliation. His review, grounded in earlier work, identifies four types of social accounts: causal accounts, ideological accounts, referential accounts, and penitential accounts. Each will be reviewed in turn.

Commonly known as excuses, causal accounts consist of verbal claims that attempt to deny or minimize responsibility for negative events (Tedeschi & Norman, 1985). Examples include claims that the trustee did not commit the violation in question (such as attempting to shift blame elsewhere; Crant & Bateman, 1993), or that the violation was not intentional. Basically, the trustee using an excuse asks not to be held accountable because he/she is either (1) claiming to not be the perpetrator of an adverse event, or (2) claiming that certain mitigating circumstances attenuate his/her culpability.

Instead of lessening apparent responsibility, individuals may accept responsibility while simultaneously attempting to reframe their behavior (Tedeschi & Norman, 1985;
Tedeschi & Riess, 1981). Bies (1987) gives two examples. An ideological account is an appeal to some type of superordinate goal or more positive interpretation of the negative action or outcome. This type of account attempts to justify negative behavior by pointing to reasons that argue it is legitimate and consistent with moral values.

A referential account attempts to reframe the negative behavior by using referent standards to draw comparisons. This includes statements informing the receiver that the outcome could have been worse or may be better in the future. A “strong” form of referential accounting is a promise, which is an explicit pledge of better future outcomes.

Finally, penitential accounts attempt to reframe the account-giver. Commonly known as apologies, these accounts are confessions of responsibility that are normally accompanied by an expression of remorse for the harm inflicted on the victim (Tedeschi & Norman, 1985). Goffman (1971) claims that an apology splits the speaker into a person with two halves: one that is responsible for a terrible transgression, and one who has learned a valuable lesson never to repeat the violation.

Bies (1987) points out that his definition of penitential accounts contains a particular distinction that some scholars do not share. That is, there is no consensus among scholars with respect to the elements of an apology. Some researchers claim that complete apologies come with explicit promises of more desirable future behavior (Goffman, 1971; Schlenker, 1980), yet not all apologies include promises of future trustworthiness (Schlenker & Darby, 1981). Likewise, an individual can pledge future trustworthiness without ever explicitly admitting responsibility for inflicted harm and conveying remorse for that harm. Accordingly, Bies (1987) strictly adheres to defining
apologies (penitential account) as expressions of remorse to avoid confounding this construct with a promise (referential account).

Despite the conceptual confusion regarding the distinction between promises and apologies, it is most common to see studies on justifications and excuses in the accounts literature (Shaw, Wild, & Colquitt, 2003). Researchers are beginning to call for more studies on the use of other types of accounts, such as the ones included in this study (Bobocel & Zdaniuk, 2003; Greenberg & Roberge, 2003).

Driven by (1) the common themes of promises and apologies in recent empirical work on trust recovery (Bottom et al., 2002; Schweitzer et al., 2002), (2) the perplexing findings of promises alone versus promises-plus-apologies (Schweitzer et al., 2002), (3) the ambiguity noted above regarding the conceptual distinction between promises and apologies, and (4) the fact that scholars have noted the vast literature on justifications and explanations and called for more systematic research on apologies and promises in organizational contexts (Bobocel & Zdaniuk, 2003; Greenberg & Roberge, 2003), this dissertation focuses on these two specific social accounts.

**Synthesis**

This dissertation proposes that promises and apologies influence or relate to the attributions individuals make toward the cause of a trust violation. Weiner (1986, 1995) indicates that language can indeed shape attributions of an offender after a negative event. Hence, it is useful to return to Weiner’s (1986) attribution theory and specify how promises and apologies may affect specific attributions.

The occurrence of a trust violation is a negative event experienced by the victim, prompting causal search (Heider, 1958). Verbal communication by the offender frames
and shapes the victim’s interpretation of the trust violation (Goffman, 1971), assisting the victim in cognitive sensemaking (Heider, 1958). More specifically, verbal communication can shape the victim’s perceptions of the offender’s intentions and relevant contextual information (Mehlman & Snyder, 1985; Tedeschi & Riess, 1981; Weiner, Folkes, Amirkhan, & Verette, 1987) – information that would otherwise be unavailable. Specifically, the work of Weiner (1986) points to three causal dimensions that shape a victim’s attributions of trustworthiness in an offender after a trust violation: locus of causality, controllability, and stability.

Because attribution theory posits that individuals will focus on (1) understanding the factors that caused the violation, and (2) predicting whether the violation is likely to recur in the future (Weiner, 1986), it is important to examine how promises and apologies may create more favorable attributions. Earlier in this chapter, prior work was reviewed that has established that good (or exonerating) accounts tend to be those that assert that the cause of the violation has an external locus to the person, is beyond that person’s control, and is unstable (caused by reasons that are unlikely to recur) (Weiner, Figueroa-Muñoz, & Kakihara, 1991; Weiner et al., 1987). Promises (referential accounts) and apologies (penitential accounts), while differing in message content (discussed below), are similar in that they both communicate accounts that are internal and controllable.

Saying “I promise to …,” or “I apologize for …” conveys personal responsibility for the event in question (hence, internal to the offender). A promise in particular implies that the trust violation is controllable, or otherwise there would be no point in claiming that it will not recur in future interactions. Thus, these dimensions in Weiner’s (1986) theory are

However, recall that referential accounts are used to draw comparisons that place the negative event in a larger context in order to reduce how negatively the victim views the consequences of that event (Bies, 1987; Tedeschi & Riess, 1981). As mentioned earlier, a “strong” form of this type of account is a promise that the future will bring better outcomes than the past. It is a statement that looks to the future while (implicitly) acknowledging the past violation. It specifically gives assurance that the speaker will honor future agreements or look out for the trustor’s welfare. In so doing, the speaker is attempting to influence the receiver’s perceptions of stability. Specifically, the trust violation of the past should not be taken as a prediction of future outcomes because the violation is not due to stable or enduring causes.

In addition, penitential accounts (or apologies) also represent an effort by the speaker to manage the victim’s attributions of stability. If viewed as credible, apologies signal that the cause of the trust violation is unstable (i.e., not a result of an individual with a stable, malevolent disposition), and therefore the trust violation is unlikely to be repeated.

Several scholars have suggested that social accounts are beneficial insofar as they seek to convey to the victim that the transgression should be viewed as an isolated incident (e.g., Greenberg, 1990). Furthermore, according to Weiner’s (1986) theory, future expectancies are primarily derived from stability attributions, not locus or controllability.
In prior empirical work, stability has emerged as an important variable influencing the erosion of trust. For example, in the study by Elangovan and colleagues (2001) reviewed in Chapter 2, stability was indicated by the frequency of prior violations (that ostensibly provide a prologue for the future). Subjects in this scenario study were only willing to give a maximum of two chances before trust eroded significantly. These researchers explained their findings by noting, “While the net result may be the same, i.e., expectations were not met, the “didn’t want to” attribution signals a permanence and a sense of unwarranted personal victimization that is more troubling to the trustor” (p. 26). This is corroborated by a recent study showing that the probability of a future trust violation was significantly related to victim willingness to reconcile with the offender (Tomlinson, Dineen, & Lewicki, 2004). Stated another way, if our focal concern is on whether the victim will trust the offender again, it is stability (and not locus or controllability) that is the driver. Taken together, stability is implicated as a key variable in the relationship between cheap talk (i.e., promises and apologies) and trust recovery.

Chapter Summary

To summarize, this chapter has provided a basic conceptual foundation for this dissertation by defining trust and describing its growth and decline, reviewing two recent empirical studies showing that promises and apologies can stimulate short-term or initial trust recovery after a violation, and explaining relevant theories from social psychology that may explain this effect in greater detail. This information was synthesized to focus on promises and apologies in particular, and argue that these types of social accounts are most likely to facilitate trust recovery via the causal dimension of stability.
Before proceeding, it is important to recognize an important assumption regarding the integration of social accounts and attribution theory as developed in this chapter. Specifically, it is assumed that the receiver accepts the account at face value and deems it to be credible (see Bies & Shapiro, 1987). This is necessary for accounts to impact causal attributions in a manner that mitigates the offender’s predicament as specified here.

Chapter 3 presents the model and hypotheses (1) indicating in greater detail how promises and apologies affect trust recovery using Weiner’s (1986) attribution theory, (2) arguing that offense severity moderates the effect of cheap talk on causal attributions, and (3) specifying the effects of message content versus message gesture.
CHAPTER 3
MODEL DEVELOPMENT AND HYPOTHESES

As indicated in the previous chapter, certain forms of cheap talk may be related to the victim’s attribution of stability regarding the cause of the trust violation, and ultimately impact trust recovery. This chapter provides a more detailed analysis of how promises and apologies in particular are related to stability attributions, subsequent emotional reactions, expectancies, and behavior. Furthermore, the relationships of promises and apologies with attributions are hypothesized to be moderated by the severity of the offense. This dissertation also examines the effect of the content of the message in relation to the gesture of sending it on causal attributions of stability.

Model and Hypotheses

To illustrate these ideas, a conceptual model is presented as Figure 3.1 (page 56). This figure shows that the type of message by the offender (i.e., Content messages including promises, apologies, or promise-plus-apologies, or Content-free messages) is related to the victim’s causal analysis as represented by the stability attribution identified by Weiner (1986). In turn, the causal analysis (i.e., attributions regarding the stability of the cause of the violation) relates to expectancies for future interactions. The stability attribution relates to the specific emotional reactions of hope and fear. Expectancies, hope, and fear are predicted to be related to subsequent behavior in the form of short-term
trust recovery (or trusting behavior). Finally, the model posits offense severity as a moderator of the relationship between the type of message and stability attributions.

The present study tests for a subset of the relationships presented in the conceptual model. The first objective for this study will be to examine how Message Type (i.e., Content messages including promises, apologies, promise-plus-apologies; Content-free messages) is related to Attributions. Specifically, investigating the Message Content-Attribution link involves examining the relationships of promises and apologies with stability attributions. The relative and combined effects of promises and apologies on stability attributions will also be considered. Next, offense severity is predicted to moderate the direct effects of promises and apologies on stability attributions. Finally, this study also considers the effects of message content versus content-free messages by comparing the efficacy of these two types of messages on stability attributions when offense severity is low versus when offense severity is high.

There are several relationships shown in the conceptual model that are not tested in the present study. That is, the direct effect of content-free messages on stability attributions is not tested here, nor is the moderating effect of offense severity on the relationship between promise-plus-apologies on stability attributions. This decision will be addressed in Chapter 6.

The second objective for this study is to examine the relationship between Attribution and Affect (i.e., hope and fear), and whether stability attributions mediate the relationship between message content (i.e., promises and apologies) and specific emotional reactions (i.e., hope and fear). The third objective for this study is to examine the relationship between Attribution and Trust Expectancies, and whether stability
attributions mediate the relationship between message content (i.e., promises and apologies) and future expectancies. However, no hypotheses regarding the mediating role of stability with respect to the combination of a promise-plus-apology, or a content-free message, are examined in the current study.

The fourth objective is to examine the relationship between Affect (i.e., hope and fear) and Short-term Trust Recovery, and whether hope and fear mediate the relationship of stability attributions on trusting behavior. The fifth objective is to examine the relationship between Trust Expectancies and Short-term Trust Recovery, and whether trust expectancies mediate the relationship of stability attributions on trusting behavior. Theoretical and empirical evidence supporting each of these study objectives is discussed in the following sections.
Figure 3.1: Conceptual model of short-term trust recovery
The Message Type (Content)-Attribution Relationship

As reviewed in Chapter 2, promises represent a type of referential account following an offense, and explicitly pledge trustworthiness in future interactions, while only implicitly acknowledging the harm incurred by the offense that has occurred (Bies, 1987). On the other hand, apologies (or penitential accounts) serve to explicitly address the harm incurred by an offense that has taken place with an expression of responsibility and remorse, while implicitly pledging trustworthiness in future interactions (Bies, 1987).

This section addresses several aspects of how Message Type (Content messages including promises, apologies, promise-plus-apologies; Content-free messages) relates to attributions. Specifically, it examines how Message Content (promises, apologies, and the combination of promises and apologies) may relate to stability attributions.

Promises. Within the current context, a promise is a pledge of trustworthy behavior in future interactions that comes in the wake of a trust violation (Bies, 1987; Schweitzer et al., 2002). It is the trustee’s claim that his/her word is a credible bond, and signals that he/she will behave in a manner that is consistent, reliable, and dependable henceforth. Lewicki and Wiethoff (2000) argue that trust can be rebuilt in a relationship when the offender reaffirms commitment to and cooperation within that relationship. Note that this treatment of a promise is different from other usages in the literature, such as promises as the basis of a psychological contract between employee and employer (Kickul, Lester, & Finkl, 2002).

Research suggests that individuals have a basic need to be able to predict future events (Heider, 1958; Kelley, 1967), and the probability of a future trust violation is an important consideration for victims contemplating their willingness to reconcile with an
offender (Tomlinson et al., 2004). A promise is a statement of the offender’s intention to behave in a trustworthy fashion in the future, and hence a vital tool in managing the impressions of others. Such stated intentions are thought to be integral to the meaning attached to a transgression (Goffman, 1971). In fact, the effectiveness of social accounts (Bies, 1987; Greenberg, 1990) has been attributed to the fact that they seek to convey to the victim that the transgression should not be construed as typical behavior and that it should be viewed as an isolated incident. So while a promise may implicitly acknowledge that a trust violation has occurred because of the offender’s past actions, it explicitly points to the future with an emphatic claim that the harm-inflicting events of the past will not be repeated, as they are attributed to an unstable cause. As reviewed in the previous chapter, stability attributions have been linked to future expectancies (Weiner, 1985, 1986, 1995).

**Hypothesis 1:** Promises will be negatively related to the victim’s attributions of stability regarding the cause of the trust violation.

**Apologies.** Apologies are also considered to be tactics of impression management (Schlenker, 1985; Tedeschi & Riess, 1981) that are designed to influence the cognitive process of making attributions. Greenberg (1990) contends that apologies are designed to “convince an audience that although the actor accepts blame for the undesirable event, any attributions made on the basis of it would not be accurate” (p. 133). In addition, Bies (1987) includes apologies in his typology of social accounts, which as mentioned above, convey that the event is isolated and not a true representation of the offender’s character. Apologies can affect attributions insofar as they deal with (1) retributive issues and (2) utilitarian issues (Gold & Weiner, 2000).
Retributive issues deal with attempts to remedy the harm inflicted by the offender on the victim when a trust violation occurs. After a trust violation, the victim has suffered from a transgression that may merit punishment of the offender to restore justice (Rumsey, 1976; Walster, Berscheid, & Walster, 1973). It is noteworthy that because apologies explicitly constitute admissions of responsibility and remorse for an offense, they represent a form of self-punishment that may restore equity to a relationship: “During his apology the harm-doer may humble himself and exalt the victim” (Walster et al., 1973, p. 163). Viewed in this manner, an apology is a form of payment that helps correct the inequity of the trust violation and obviates the victim’s need to further punish the offender.

Utilitarian issues deal with predicting whether future violations are likely to recur. Victims are likely to be concerned with generating forward-looking expectations, and apologies may be useful with respect to this utilitarian concern. Taken as evidence of reform, the remorse conveyed in apologies implicitly signals that the offender has rehabilitated and reaffirms his/her moral character (Goffman, 1971) so that future violations will not recur.

Even in a recent popular press book on the use of apologies, the effectiveness of this type of verbal communication is credited to the assertion that it deals with the cause of the damage inflicted from a trust violation instead of the symptoms: “Trust doesn’t return until the person I’ve offended is convinced I have changed my behavior” (Blanchard & McBride, 2003, p. 71).

Recent empirical work suggests that apologies are associated with lower stability attributions of the cause of a transgression. For example, Weiner and colleagues (1991,
Experiment 2) found that a confession consisting of remorse, admission of personal responsibility, and reparation for a transgression led to lower attributions of causal stability compared to denial and control conditions. In a more recent study, Gold and Weiner (2000) found that as the degree of remorse expressed by an offender increased, the stability of the cause of the transgression decreased. Stability, in turn, significantly predicted expectancies of future transgressions.

In summary, apologies point to the offender’s remorse and rehabilitation, both of which are believed to mitigate the threat of recidivism. Such statements convey that, like the victim, the offender has also suffered as a result of the violation, and in a sense, has already been ‘punished’ for damaging trust. Further, the offender is seeking to convey that he/she has been rehabilitated and “is a ‘good’ and remorseful person who will be unlikely to repeat the offense” (Darby & Schlenker, 1989, p. 354).

Hypothesis 2: Apologies will be negatively related to the victim’s attributions of stability regarding the cause of the trust violation.

Relative effects of promises and apologies. Beyond the hypothesized relationship between message content (i.e., promises and apologies) and stability attributions, it is useful to consider which form of cheap talk may have the greatest effect on stability attributions. According to the literature reviewed above, apologies should be more effective than promises. Apologies explicitly acknowledge the damage incurred by a trust violation, accept responsibility for the transgression, and directly signal remorse and rehabilitation. Promises merely purport to provide the victim with forward-looking assurance of trustworthiness without explicitly acknowledging harm and expressing remorse for the violation that occurred (Fraser, 1981), and this assertion may lack
credibility in the absence of remorse (Gold & Weiner, 2000). Moreover, since the study by Schweitzer and colleagues (2002) had promise-alone and promise-plus-apology conditions, but did not have an apology-alone condition, the relative effects of promises and apologies could not be tested. Accordingly, it will be tested in this study.

**Hypothesis 3:** An apology will have a stronger, more negative relationship with stability attributions than a promise.

**Combined effects of promises and apologies.** Following the work of Bies (1987), promises are explicit assurances of trustworthiness in the future that implicitly acknowledge the harm from an offense, while apologies are explicit expressions of responsibility and remorse for an offense that implicitly pledge trustworthiness in future interactions. There is consensus among scholars that an apology consists of an explicit expression of responsibility and remorse for an offense (e.g., Fraser, 1981). However, some theorists also consider promises of future forbearance as a component of an apology (Goffman, 1971; Scher & Darley, 1997; Schlenker, 1980). The study by Schweitzer and colleagues (2002) found that, contrary to expectations, the promise-plus-apology condition was no better than the promise-alone condition in predicting trust recovery. These findings suggest that adding an apology to a promise sends redundant information, as a promise can be interpreted as an apology.

However, there are strong theoretical and empirical reasons to believe that combining a promise and apology will have the most beneficial reactions on the victim’s stability attributions. As stated above, promises are interesting insofar as they neither explicitly admit responsibility for the violation nor express regret for it. A promise thus forces the victim to infer an apology at best, as this information is not explicitly stated
(Fraser, 1981). Thus, adding an explicit apology to a promise would send additional, and presumably, meaningful information.

Similarly, apologies contain explicit expressions of responsibility and remorse, but do not necessarily provide explicit pledges of future trustworthiness (Bies, 1987). A number of studies have argued that apologies can be described along a continuum of elaborateness, ranging from the very perfunctory to the very extreme (e.g., Darby & Schlenker, 1982). In these studies, more extensive apologies were operationalized to also contain explicit promises of forbearance and future acceptable behavior, and were found to be more effective for more serious violations (Ohbuchi et al., 1989). Thus, adding an explicit promise to an apology would send additional, and presumably, meaningful information. Finally, Scher and Darley (1997) considered several strategies used by offenders after a transgression and found independent and roughly equivalent effects of an apology and a promise of forbearance on the victim’s evaluation of the offender.

Taken together, these arguments support the need to investigate the combined effect of promises-plus-apologies above and beyond their independent effects, specifically on stability attributions.

**Hypothesis 4a:** A promise-plus-apology will be more negatively related to the victim’s stability attributions than a promise alone.

**Hypothesis 4b:** A promise-plus-apology will be more negatively related to the victim’s stability attributions than an apology alone.
The Moderating Effects of Offense Severity

As the severity of a trust violation increases, it becomes more difficult for offenders to repair the damage they have inflicted on the victim. Research has indicated that individuals are more sensitive to negative events than positive events (Kahneman & Tversky, 1979). In addition, negative cognitive and emotional reactions will increase as the magnitude of a violation increases (Lewicki & Bunker, 1996). Recent work has shown that there will be a need for more extensive reparative effort as the severity of the offense increases (Ohbuchi et al., 1989; Schlenker & Darby, 1981), and that the beneficial effects of reparative efforts diminish as the magnitude of the violation increases (Bennett & Earwalker, 1994; Tomlinson et al., 2004). Further, even the most sincere of accounts may not be accepted if the offense is very serious (Blumstein, 1974; Shapiro et al., 1994). A study by Greenberg (1996) studied the efficacy of the frequent appeal, “Forgive me, I’m new.” Claiming that one is new improves assessments of one’s performance among those not adversely affected, but actually leads to more negative internal attributions and a rejection of the excuse for receivers who were adversely affected. As noted by Harvey and Weary (1981): “The more hedonically relevant… an act is for the perceiver, the more likely the perceiver will be to infer that the act reflects a particular intent or disposition” (p. 14). Individuals will qualify their attributions of offenders based on the degree to which they are adversely affected by the offender’s actions (Jones & Davis, 1965).

A recent study by Tomlinson and colleagues (2004) examined a number of antecedents to victim willingness to reconcile after a trust violation. They examined offense severity as a moderating variable and found that when offense severity is low,
willingness to reconcile increases as the probability of future violation decreases. But when the magnitude of violation is high, the beneficial effect of a low future probability of violation carries much less weight on willingness to reconcile. After a severe violation, it is likely that the victim is so preoccupied with the consequences of the violation that their relationship with the offender in the future carries little weight in the decision of whether to reconcile. Indeed, after a very severe trust violation, a relationship may terminate entirely, precluding the relevance of future interaction with the offender (Lewicki & Bunker, 1996).

Mixed support for this argument comes from Schwartz and colleagues (1978). In a scenario study of two boys tripping a girl, expressed remorse/pleasure and slight/severe offense severity were manipulated. Offense severity did not influence the ratings of aggressiveness, intentionality, or purposefulness of the two boys. On the other hand, “both boys were evaluated more negatively and were rated as more hostile when the amount of harm done to the little girl was severe rather than mild” (p. 297).

Finally, Gold and Weiner (2000) found that stability attributions were not affected by amount of harm: “that is, the amount of harm participants potentially could suffer did not affect their judgments of whether the transgressor would commit the crime again” (p. 297). It is interesting to note that this was a scenario study where harm was operationalized on two levels (present or absent).

Considering the theoretical rationale for the moderating effects of cheap talk on stability attributions in the face of somewhat mixed empirical support, these relationships will be tested in this dissertation.
**Hypothesis 5a:** The relationship between a promise and stability attributions will be moderated by offense severity, such that lower stability attributions will be more likely when offense severity is low than when offense severity is high.

**Hypothesis 5b:** The relationship between an apology and stability attributions will be moderated by offense severity, such that lower stability attributions will be more likely when offense severity is low than when offense severity is high.

**Content-Free Messages**

The previous hypotheses are grounded in a content analysis of promises and apologies, in an effort to discern how these specific forms of cheap talk may relate to stability attributions. However, the literature on post-violation verbal communication suggests that both content and gesture matter. This section explores the gesture of sending a content-free message. As it neither conveys an explicit pledge of future trustworthiness nor an explicit expression of responsibility or remorse, content-free messages may be interpreted by the victim as implicitly providing reparative information, and therefore be deemed to be sufficient under some circumstances. Specifically, under certain conditions, individuals may process the offender’s reply in a “mindless” manner.

A classic study by Langer, Blank, and Chanowitz (1978) showed that under certain conditions (i.e., low effort of compliance entailed), individuals complied with a request to use a copy machine just as often with either a legitimate or content-free explanation (“Excuse me, I have 5 pages. May I use the Xerox machine, because I’m in a rush?” versus “Excuse me, I have 5 pages. May I use the Xerox machine, because I have to make copies?”). In other words, the subjects appeared to be simply following a script without “conscious attention to relevant semantics” (p. 635). This mindless pattern of
cognitive processing obviously neglects the content of the message, and instead simply acknowledges that legitimate requests tend to take this form. A recent study by Greenberg and Roberge (2003) extended this work to perceptions of underpayment inequity and showed that for mildly underpaid subjects, the gesture of a content-free explanation is just as effective as the content (of an apology) in mitigating reactions to unfairness.

If the same phenomenon applies to the current case, then victims may mindlessly process a content-free message in a manner that reduces causal attributions of stability, which then enables short-term trust recovery. That is, under some circumstances, an individual may accept an offender’s verbal communication as sufficient evidence that trust can be restored without explicit understanding of the exact spoken words. As long as the individual believes that the offender is performing a polite ritual signifying intentions to behave appropriately in the future, the exact content of what is said may not be that important (cf. Bies, 1987). For example, if an individual is expecting an account (Greenberg & Roberge, 2003), a content-free account may be as effective as a promise or an apology. Stated differently, even a content-free message may be related to lower stability attributions in a manner similar to promises (Hypothesis 1) and apologies (Hypothesis 2) when offense severity is low.

However, individuals will pay closer attention to message content as the severity of an offense increases. In the study by Langer and colleagues (1978), subjects engaged in mindless processing when the request for compliance involved low effort, but they were much more attentive (and less likely to comply) when the request involved high effort. Greenberg and Roberge (2003) found that content-free explanations were only
effective for subjects in the mildly underpaid condition. With increasing levels of underpayment inequity, explanations were less likely to mitigate reactions to unfairness. In fact, there was no difference in reactions to unfairness between those highly underpaid in the content-free message condition and those highly underpaid in the control (no message) condition. In short, if nothing substantive is communicated after a severe offense, it is just as harmful as saying nothing at all!

Taken together, this suggests that when offense severity is low, content-free messages will not be significantly less effective in reducing stability attributions than messages with content (i.e., promises, apologies, promise-plus-apologies). But when offense severity is high, content-free messages will be significantly less effective in reducing stability attributions.

**Hypothesis 6:** The relationship between message type and stability attributions will be moderated by offense severity, such that content-free messages will be associated with higher stability attributions than content messages when offense severity is high than when offense severity is low.

**The Attribution-Affect Relationship**

Weiner’s (1986) model specifies that the outcome of causal analysis leads to more specific emotional reactions and generates future expectations. For example, when one performs well on an exam, and the causal search concludes that success was due to internal factors (e.g., aptitude), one is likely to feel a sense of pride.

Stability attributions are thought to lead to future expectancies of success or failure (explained more fully below), and thus also evoke specific emotions. Drawing from the work of Mowrer (1960), Weiner (1986) identifies the specific emotions of hope
and fear. “Hope… is the continued anticipation of a positive reinforcer; fear is the continued anticipation of a negative reinforcer” (p. 154).

**Hope.** To the extent that an offender can use verbal communication to convey that the violation is due to an unstable (unlikely to be repeated) cause, there is hope for the future. Conversely, when the victim believes the cause of the trust violation is stable, it is likely to evoke a sense of hopelessness (Weiner & Litman-Adizes, 1980). In partial support for this hypothesis, Weiner and colleagues (1978) found that stable and internal attributions for failure events led to affective reports of aimlessness, depression, helplessness, hopelessness, and resignation.

**Hypothesis 7:** Attributions of stability for the cause of the violation will be negatively related to hope.

**Fear.** Similarly, when verbal communication from the offender credibly portrays the cause of the trust violation as unstable, there is reduced reason to be fearful of future outcomes. On the other hand, when victims believe that trust violations are due to stable causes, there is considerable reason to fear. The notion that fear may arise when individuals are suspicious and distrustful of others dates back to the classic work by Deutsch (e.g., Deutsch, 1958). Specifically, Deutsch asserts, “one is afraid [of a malevolent event] to the extent that the consequences cannot be avoided” (p. 267). Later work by Deutsch (1973) defines trust as “confidence that one will find what is desired from another, rather than what is feared” (p. 148).

More contemporary trust scholars have also mentioned the construct of fear as an important affective consequence of broken trust. Whereas trust may be viewed as confident positive expectations regarding another’s conduct, distrust is considered
confident negative expectations regarding another’s conduct (Lewicki, McAllister, & Bies, 1998). Hence, distrust is grounded in relatively firm beliefs that trust violations are due to stable causes; this is theorized to result in “a fear of, a propensity to attribute sinister intentions to, and a desire to buffer oneself from the effects of another’s conduct” (Lewicki et al., 1998, p. 439, emphasis added).

**Hypothesis 8:** Attributions of stability for the cause of the violation will be positively related to fear.

Weiner’s (1986) theory also suggests that stability attributions mediate the relationship between cheap talk and specific emotional reactions (i.e., hope and fear). That is, cheap talk will not affect emotions directly, but work through attributions of causal stability. This position represents a cognitive approach to emotion: specific feelings are generated from how an event is construed (Weiner, 1985). Fiske and Taylor (1991) note that a number of studies with varied methodological approaches have supported Weiner’s (1986) predicted temporal sequence that success or failure events lead to causal attributions, which in turn produce specific emotional reactions. Similarly, psychological contract researchers have noted that the strength of emotional and behavioral reactions follow from the cognitive assessment of a broken promise (Morrison & Robinson, 1997).
Hypothesis 9a: Attributions of stability for the cause of the violation will fully mediate the relationship between promises and hope.

Hypothesis 9b: Attributions of stability for the cause of the violation will fully mediate the relationship between apologies and hope.

Hypothesis 10a: Attributions of stability for the cause of the violation will fully mediate the relationship between promises and fear.

Hypothesis 10b: Attributions of stability for the cause of the violation will fully mediate the relationship between apologies and fear.

The Attribution-Trust Expectancy Relationship

Another key assertion in Weiner’s theory is that causal attributions of stability drive expectancy change: “If conditions (the presence or absence of causes) are expected to remain the same, then the outcome(s) experienced in the past will be expected to recur” (Weiner, 1985, pp. 556-557). Conversely, when the causes of a failure event (trust violation) are believed to be unstable, there should be less reason to believe that there will be future failures.

Weiner (1985: Table 1, p. 54) presents a number of correlational studies showing that stability is positively correlated with high expectancies of future success after a success, and to low expectancies of future success after a failure. Even more compelling, however, are investigations drawing on Weiner’s theory that are similar in nature to the present investigation on trust recovery.

For example, in a study by Weiner and colleagues (1991, Experiment 2), a confession (consisting of an expression of remorse, and acknowledgement of responsibility, and reparation for the violation) was associated with lower expectancies of
future violations, and enhanced positive behavioral judgments (e.g., endorsing the offender in the future), compared to denial and control conditions.

In addition, work by Carroll and colleagues (Carroll, 1978; Carroll & Payne, 1976, 1977) demonstrated that a major factor in parole decisions is the perceived stability of the cause of the crime. When criminals are believed to have committed a crime due to stable factors such as a psychopathic personality, they are regarded as posing a much greater risk compared to crimes committed due to unstable factors such as being temporarily unemployed. Similarly, in cases of consumer reactions to product failure, attributions of stability (e.g., a bad company) are associated with future expectancies of product dissatisfaction. When the causal attribution is unstable (e.g., bad shipment of goods), then there are future expectancies of product satisfaction (Folkes, 1984). Finally, Schwartz and colleagues (1978) found evidence that expressed remorse reduced perceived intent and probability that the action would be repeated. Therefore, in the current study, attributions of causal stability should be negatively related to future expectancies of trustworthiness.

**Hypothesis 11:** Stability attributions will be negatively related to trust expectancy.

Weiner’s (1986) theory further suggests that the effect of cheap talk on trust expectancies will not be direct, but operate through stability attributions. This effect has been shown in studies on interpersonal forgiveness. For example, Gold and Weiner (2000) showed that expressed remorse by the offender affected stability attributions, which in turn affected expectancies regarding future negative acts.
**Hypothesis 12a:** Stability attributions will fully mediate the relationship between promises and trust expectancy.

**Hypothesis 12b:** Stability attributions will fully mediate the relationship between apologies and trust expectancy.

The Affect-Short Term Trust Recovery Relationship

This element of Weiner’s (1986) theory is derived from the traditional view that motivated behavior stems not only from what one believes will happen (expectancy), but how much that outcome is valued (specific emotional reactions). As noted above, Weiner contends that the subjective value of goal attainment is affected by causal attributions. A dollar received by good luck may result in feelings of surprise, while a dollar received by diligence may result in pride. In turn, specific emotional reactions give rise to specific types of motivated behavior. We would expect gratitude to lead to reciprocal helping behavior, but not pride.

Returning to the issue of trust recovery, specific emotional reactions are theoretically associated with trust behavior. Lewicki and colleagues (1998) argue that trust occurs when there are confident positive expectations regarding another’s conduct. This psychological state should lead one to be hopeful and optimistic for the future, and therefore to demonstrate a “willingness to act on the basis of [the trustee’s] conduct” (p. 439). Speaking on trust in close interpersonal relationships, Rempel and colleagues (1985) express a closely related argument that “faith reflects an emotional security on the part of individuals, which enables them to go beyond the available evidence and feel, with assurance, that their partner will be responsive and caring despite the vicissitudes of an uncertain future” (p. 97). However, as distrust connotes confident negative
expectations of another’s conduct, it is predicted to evoke a sense of fear, and hence the motivation to “buffer oneself from the effects of another’s conduct” (p. 439).

**Hypothesis 13:** Hope will be positively related to short-term trust recovery.

**Hypothesis 14:** Fear will be negatively related to short-term trust recovery.

Weiner’s (1986) theory also contends that specific emotional reactions mediate the effect of stability attributions on subsequent behavior. In two recent empirical studies, Takaku and colleagues (Takaku, 2001; Takaku et al., 2001) used a perspective-taking manipulation in a scenario study on forgiveness of transgressions. Faced with a transgression by another, the reasoning was that a perspective-taking manipulation (i.e., the subject was asked to recall a time when he/she had personally committed a transgression) would induce dissonance. After all, how can one be angry with and reluctant to forgive another when reminded of one’s own prior shortcomings? As predicted, subjects in the perspective-taking condition resolved their dissonance with more benevolent (i.e., less stable) attributions, which were associated with more benevolent emotional reactions. In turn, these emotional reactions were significantly related to behavioral intentions of forgiving the transgressor. Emotional reactions were more proximal determinants of forgiveness intentions than causal attributions (Takaku, 2001). However, actual behaviors were not measured in these studies.

**Hypothesis 15:** Hope will fully mediate the relationship between stability attributions and short-term trust recovery.

**Hypothesis 16:** Fear will fully mediate the relationship between stability attributions and short-term trust recovery.
The Trust Expectancy-Short Term Trust Recovery Relationship

In addition to motivated behavior being directed by specific emotional reactions, Weiner (1986) contends that future expectancies are also influential. The study of motivation has long recognized that the expectancy of goal attainment is a significant predictor of action. As noted above, the work by Carroll and colleagues showed that expectancies of future criminal conduct were determined by stability attributions. In turn, these expectancies significantly affected actual parole decisions. The findings by Folkes (1984) on consumer reactions to product failure indicated that expectancies of future product dissatisfaction were associated with a desire for a refund; expectancies of future satisfaction were associated with a desire for a product exchange.

Simply put, expectancies of future trustworthiness should predict actual trusting behavior.

**Hypothesis 17:** Trust expectancy will be positively related to short-term trust recovery.

Finally, Weiner’s (1986) theory posits that the effect of stability attributions on subsequent behavior is mediated by future expectancies. In other words, stability attributions lead to the development of expectancies regarding future outcomes, which in turn produce motivated behavior. Support for this hypothesis is evident in the studies reported by Carroll and colleagues (Carroll, 1978; Carroll & Payne, 1976, 1977) and Folkes (1984) noted above.

**Hypothesis 18:** Trust expectancy will fully mediate the relationship between stability attributions and short-term trust recovery.
A summary of the model and hypotheses is presented graphically as Figure 3.2. A summary of the hypotheses is also presented in tabular form as Table 3.1.
Figure 3.2: Study hypotheses shown in conceptual model

Note: Hypotheses that can be represented by direct arrows are identified above, as well as hypotheses predicting offense severity as a moderator (H5a, 5b).

However, the remaining hypotheses are not represented in this diagram. Hypothesis 6 predicts a moderated relationship, but is not represented in this figure. The following hypotheses are planned comparisons: H3, H4a, and H4b. The following hypotheses predict mediation and are implied in the above model: H9a, H9b, H10a, H10b, H12a, H12b, H15, H16, and H18.
<table>
<thead>
<tr>
<th>No.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Promises will be negatively related to the victim’s attributions of stability regarding the cause of the trust violation.</td>
</tr>
<tr>
<td>2</td>
<td>Apologies will be negatively related to the victim’s attributions of stability regarding the cause of the trust violation.</td>
</tr>
<tr>
<td>3</td>
<td>An apology will have a stronger, more negative relationship with stability attributions than a promise.</td>
</tr>
<tr>
<td>4a</td>
<td>A promise-plus-apology will be more negatively related to the victim’s stability attributions than a promise alone.</td>
</tr>
<tr>
<td>4b</td>
<td>A promise-plus-apology will be more negatively related to the victim’s stability attributions than an apology alone.</td>
</tr>
<tr>
<td>5a</td>
<td>The relationship between a promise and stability attributions will be moderated by offense severity, such that lower stability attributions will be more likely when offense severity is low than when offense severity is high.</td>
</tr>
<tr>
<td>5b</td>
<td>The relationship between an apology and stability attributions will be moderated by offense severity, such that lower stability attributions will be more likely when offense severity is low than when offense severity is high.</td>
</tr>
<tr>
<td>6</td>
<td>The relationship between message type and stability attributions will be moderated by offense severity, such that content-free messages will be associated with higher stability attributions than content messages when offense severity is high than when offense severity is low.</td>
</tr>
<tr>
<td>7</td>
<td>Attributions of stability for the cause of the violation will be negatively related to hope.</td>
</tr>
<tr>
<td>8</td>
<td>Attributions of stability for the cause of the violation will be positively related to fear.</td>
</tr>
<tr>
<td>9a</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between promises and hope.</td>
</tr>
<tr>
<td>9b</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between apologies and hope.</td>
</tr>
<tr>
<td>10a</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between promises and fear.</td>
</tr>
<tr>
<td>10b</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between apologies and fear.</td>
</tr>
<tr>
<td>11</td>
<td>Stability attributions will be negatively related to future expectancies of trustworthiness.</td>
</tr>
<tr>
<td>12a</td>
<td>Stability attributions will fully mediate the relationship between promises and trust expectancy.</td>
</tr>
<tr>
<td>12b</td>
<td>Stability attributions will fully mediate the relationship between apologies and trust expectancy.</td>
</tr>
</tbody>
</table>

Table 3.1: Summary of hypotheses
Table 3.1 continued

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Hope will be positively related to short-term trust recovery.</td>
</tr>
<tr>
<td>14</td>
<td>Fear will be negatively related to short-term trust recovery.</td>
</tr>
<tr>
<td>15</td>
<td>Hope will fully mediate the relationship between stability attributions and short-</td>
</tr>
<tr>
<td></td>
<td>term trust recovery.</td>
</tr>
<tr>
<td>16</td>
<td>Fear will fully mediate the relationship between stability attributions and short-</td>
</tr>
<tr>
<td></td>
<td>term trust recovery.</td>
</tr>
<tr>
<td>17</td>
<td>Trust expectancy will be positively related to short-term trust recovery.</td>
</tr>
<tr>
<td>18</td>
<td>Trust expectancy will fully mediate the relationship between stability attributions</td>
</tr>
<tr>
<td></td>
<td>and short-term trust recovery.</td>
</tr>
</tbody>
</table>
CHAPTER 4

METHOD

The purpose of this chapter is to describe the method used to test the hypotheses that were developed in Chapter 3. Accordingly, the following sections describe the power analyses, research participants, experimental design, procedures, manipulations, and measures used in this study. The chapter concludes with a description of the procedures used to debrief the experimental participants, and the plan for analyzing the data collected from the study.

Power Analyses

To assist in determining a target sample size for the study, a priori power analyses were conducted (Cohen, 1988), with an alpha set at .05 and power at .80. Given the alpha level, desired power, and effect size, one can calculate the necessary sample size. Accordingly, sample size estimates were based on calculations to detect small and medium effect sizes outlined by Cohen (1988).

To analyze Hypotheses 1 and 2, a 2 x 2 x 2 between-subjects ANOVA will be conducted to test for the main effects of promises and apologies, respectively. Results of the power analysis (Cohen, 1988, Chapter 8) indicated that a total of 17 participants in each cell would be needed (for a total of 134 participants) to detect medium effects. However, 95 participants would be needed in each cell to detect small effects (bringing the required sample size to 756 participants).
To analyze Hypotheses 3, 4a, and 4b, an independent-samples t-test will be conducted to test for significant mean differences between two groups. Results of the power analysis (Cohen, 1988, Chapter 2) indicated that a total of 310 participants for each group (for a total of 620 participants in those conditions) are required to detect a small effect and 50 per group (for a total of 100 participants in those conditions) are required to detect a medium effect.

To analyze Hypotheses 5a and 5b, a 2 x 2 x 2 between-subjects ANOVA will be conducted to test for the interaction of promises and apologies with offense severity, respectively. Results of the power analysis (Cohen, 1988, Chapter 8) indicated that a total of 17 participants in each cell would be needed (for a total of 134 participants) to detect medium effects. However, 95 participants would be needed in each cell to detect small effects (bringing the required sample size to 756 participants).

To analyze Hypothesis 6, a 2 x 2 between-subjects ANOVA will be conducted to test for the interaction of message (content, content-free) and offense severity. Results of the power analysis (Cohen, 1988, Chapter 8) indicated that a total of 33 participants in each cell would be needed (for a total of 130 participants) to detect medium effects. However, 188 participants would be needed in each cell to detect small effects (bringing the required sample size to 752 participants).

Table 4.1 presents a priori scenarios to assist in determining the number of subjects required for the hypotheses to be tested using multiple regression and correlation analysis. The first scenario calculates the power to detect both small and medium effects for regressions of one dependent variable on one independent variable (Hypotheses 7, 8, 11, 13, 14, and 17), as per Cohen’s (1988) Case 0 example. That is, the first scenario
examines the overall effect of one independent variable \((u = 1)\) on a single dependent variable for both small \((f^2 = .02)\) and medium \((f^2 = .15)\) effect sizes. Cohen (1988) uses \(f^2\) to refer to the population effect size, and it is equal to explained variance \((R^2)\) divided by unexplained variance \((1 - R^2)\). Accordingly, the \(f^2\) values of .02 and .15 in Table 4.1 correspond to total \(R^2\) values of .02 and .13 respectively (see Cohen, 1988, p. 413).

Following Cohen’s procedures, Table 4.1 shows that a sample size of 390 is needed to detect a small effect, but a sample size of 52 is needed to detect a medium effect.

Calculations for hypotheses predicting that one variable mediates the relationship of an independent variable on a dependent variable (Hypotheses 9a, 9b, 10a, 10b, 12a, 12b, 15, 16, and 18) were also calculated following Cohen’s (1988) Case 1 example, and are also shown in Table 4.1. For these analyses, \(w = 1\) and \(u = 2\). Again, four possible scenarios were computed: The change in \(R^2\) for step one is either a small or medium effect, and the change in \(R^2\) for step two is either a small or medium effect. These are represented in Table 4.1.

To supplement these a priori analyses, results of prior studies and pilot testing for this study were also considered. With respect to the effect of message type on stability attributions, prior work by Gold and Weiner (2000) found that the relationship between remorse and stability had an effect size of \(\eta^2\) (eta square) = .28 in Study 1 and \(\eta^2 = .18\) in Study 2. Eta square is an effect size statistic computed in ANOVA, it ranges in value between 0 and 1, and it represents the proportion of variance in the dependent variable accounted for by the independent variable. By convention, the effect sizes reported by Gold and Weiner (2000) would be interpreted as large effect sizes (Green & Salkind, 2003). In addition, pilot testing for this dissertation found medium effect sizes for most
remaining hypotheses. Taken together, the results of the a priori power analyses supplemented with the analyses from prior studies and pilot work for this study indicate that samples as high as 134 will detect most medium effects. However, much larger samples would be required to detect small effects. After considering the budget for the study, a target sample size of 230 was established for the main study.
### Table 4.1: Sample size estimates for small and medium effects

Note: Sample required to achieve power = .80 at alpha = .05 (see Cohen, 1988)

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>( w^a )</th>
<th>( u^b )</th>
<th>Effect of set ( w ) ((\Delta R^2 \text{ step 1)}^c )</th>
<th>Effect of set ( u ) ((\Delta R^2 \text{ step 2)}^d )</th>
<th>( f^{e, c} )</th>
<th>( N \text{ required} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>7, 8, 11, 13, 14, and 17</td>
<td>0</td>
<td>1</td>
<td>n/a</td>
<td>.02</td>
<td>.02</td>
<td>390</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>n/a</td>
<td>.13</td>
<td>.15</td>
<td>52</td>
</tr>
<tr>
<td>9a, 9b, 10a, 10b, 12a, 12b, 15, 16, and 18</td>
<td>1</td>
<td>2</td>
<td>.13</td>
<td>.02</td>
<td>.024</td>
<td>405</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>.02</td>
<td>.02</td>
<td>.021</td>
<td>463</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>.13</td>
<td>.13</td>
<td>.176</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>.02</td>
<td>.13</td>
<td>.153</td>
<td>65</td>
</tr>
</tbody>
</table>

\( a \) Number of control variables.

\( b \) Number of independent variables.

\( c \) Effect of variables in first step of regression equation (if applicable).

\( d \) Effect of variables in second step of regression equation.

\( e \) Effect size
Participants

Pilot testing was performed with undergraduate business students ($N = 133$) in order to ensure proper calibration of measures, manipulations, amount of time, and adequate incentives for the full study. Participants in both the pilot testing and main study were recruited from upper-level courses within the human resources department at a large midwestern university.

Participants in the main study were informed that their involvement in this research would enable them to earn a nominal amount of extra credit points in their courses (ranging from 1.25% to 5% of their grade, depending on the course instructor). Moreover, subjects were told that they would have the opportunity to earn money for their participation, and that the amount of money they could earn would be determined by their decisions, the decisions of others, and chance. The monetary incentive was provided as an additional incentive to sign up for the study, and to ensure that participants would be motivated to maximize their earnings from the experimental session (Bottom et al., 2002; Schweitzer et al., 2002).

Those not wishing to participate in the study were given an alternative extra credit assignment, which was awarded the same number of points. Specifically, these students were allowed to write a 2-page current-event summary paper related to course content – an assignment deemed to be comparable to the time and effort involved with research participation. However, monetary compensation was not awarded for this alternative. Twenty-three students chose this alternative assignment. A script of the initial solicitation and exposition of the study is provided in Appendix A.
To ensure that all participants were treated in an ethical manner, the study was reviewed and approved by the human subjects review board at The Ohio State University. In accordance with standard guidelines, all subjects were asked to provide their consent to participate in the research study. A copy of the letter of consent (that includes a detailed explanation of the research project and alternative extra credit opportunities) appears in Appendix B.

A total of 229 undergraduate students participated in the experiment, which closely approximated the desired sample size of 230 discussed in the previous section. Of this total, 23 students were enrolled in an introductory human resource class, 68 students were from an introductory organizational behavior class, 134 students were from a combined organizational behavior/human resources class for business minors, and 4 students were simultaneously enrolled in more than one of these courses.

Demographic data and other individual differences measures (see below) were collected in class surveys (also used by class instructors for instructional purposes) prior to the research sessions. Of the 229 research participants, 187 (82%) completed these surveys. Results from this survey indicated that 38% were male, and the average age was 22 years old.

Experimental Design

Upon arrival at the behavioral research laboratory, all participants were sent to one of two adjoining rooms and randomly assigned to one of eight experimental conditions representing a 2 (promise, no promise) x 2 (apology, no apology) x 2 (low offense severity, high offense severity) between-subjects factorial design during each experimental session. Content-free messages comprise the cells of the design where
participants receive neither a promise nor an apology. The experimental task engaged participants in the Trust Game, which will be described in further detail in the next section.

Procedure

Instructors for the courses used in this study distributed a brief survey to their students to collect various personality measures and demographic information. Instructors were able to draw from aggregate survey data for instructional purposes later during the course, and all students were assured that their responses would be kept confidential and would not affect their grade. Students were asked to provide their names on the surveys, which enabled their responses to be matched with data from those participating in the experiment. A copy of this survey is provided in Appendix C, and the specific measures collected in this survey will be discussed in the Measures section below.

Upon arriving at the laboratory for their experimental participation, participants were sent to one of two adjoining behavioral science computer labs, and were told that they would be participating in a decision making exercise where they had the opportunity to earn money for their participation. It was explained that the amount of money they could earn would depend partly on their decisions, partly on the decisions of others, and chance. The administrator proceeded to explain the instructions. At this point, participants (designated as “Player 1”) were told that they would be playing several rounds with an assigned partner (designated as “Player 2”) in the next room. In reality, all participants in both rooms were assigned to the Player 1 role, and Player 2’s choices were pre-programmed according to Player 1’s randomly assigned experimental condition. Furthermore, participants were not told the total number of rounds to be played; they
were only informed that there would be at least seven rounds of the exercise, and that the last round would be announced immediately beforehand (in order to disentangle any endgame effects). Ultimately, all participants completed seven rounds.

Each round of the exercise began with Player 1 receiving an endowment of $6. As in the study by Schweitzer and colleagues (2002), Player 1 could keep all the money, split it equally, or pass all of it to Player 2. If Player 1 chose keep all $6 or split the sum equally, Player 2’s earnings for that round were finalized (i.e., Player 2 would receive $0 or $3, respectively). If Player 1 chose to pass the entire endowment, the amount tripled to $18, and Player 2’s choice of how to allocate $18 among the two players determined the final payoff for both players on that particular round. Note that if Player 2 chooses to keep $9 and return $9 to Player 1 (i.e., behaves in a trustworthy manner), Player 1 can earn a $3 profit relative to what he/she would have earned by keeping the entire $6 endowment. Therefore, decisions by Player 1 regarding how much of the endowment to pass to Player 2 constitute trust; decisions by Player 2 regarding how much of the tripled endowment to return to Player 1 constitute trustworthiness.

As in the study by Schweitzer and colleagues (2002), a “strategy method” was employed, where both players make decisions in every round. This was done so participants would always discover their (pre-programmed) partner’s decision on each round (i.e., trustworthiness), even if it was moot. In addition, participants were told that after round 5, they might send and receive a computerized message from their counterpart; their instructions also make reference to a computer glitch that may possibly render the message from Player 2 incomprehensible (referring to the content-free message manipulation described below). Participants were informed that depending on
how their exercise progressed, play would be suspended in order for them and their counterpart to answer certain survey questions. The participants were told that their payment for participation would be drawn at random from one of their rounds’ earnings. They were also informed that only certain rounds were eligible for this random drawing, and that the computer would notify them of the block of eligible rounds.

Finally, a comprehension check was conducted to ensure that all participants understood the exercise, and to give them the impression that their (supposed) counterpart in the next room also understood the exercise. A full copy of the instructions is provided in Appendix D. The participants were also asked to fill out a “Player 1 Decision Sheet” to record their choices, as well as the choices of their counterpart, as the exercise progressed. A copy of the decision sheet appears in Appendix E.

After the instructions were given and comprehension checks were completed, participants “logged-in” to the experimental session by entering their name and an assigned pairing number (to reinforce the notion that there was an actual counterpart). In the first two trials of the exercise, the participant’s counterpart returned half of the (tripled sum of) money (i.e., to establish trust). Beginning in round 3, the computer notified all participants that this round would be the first eligible round for the random payoff drawing, and all rounds played after this round would also count toward the drawing.

In rounds 3 and 4 (the first two eligible rounds for the random drawing), the offense severity manipulation was administered (see details in Manipulations section below), followed by manipulation checks for this variable. Then, immediately before round 5, participants received the message manipulation (see wording in Manipulations
section below). After receiving this message, participants were asked to provide measures of their attributions, emotional reactions, and trust expectancies (described below). Then, participants continued with the exercise, and their counterpart always returned $9 in each round for the remainder of the game. Finally, participants responded to items on their perceptions of interactional justice (a possible control variable discussed below), manipulation checks for the message condition, and an open-ended suspicion check question (to determine whether participants suspected that Player 2 was fictitious).

**Manipulations**

**Message Type**

**Content-free message.** In this condition, participants received a message from their counterpart, but this message consisted of garbled characters that rendered it nonsensical and without any meaningful content (cf. Greenberg & Roberge, 2003; Langer et al., 1978). This message is as follows: “I re%^/{ #![@~+? %p.. I s{^*<#‘/ $<% @(!? =?~). I’ ve$% s#}§% ?+!* ’< @$&*), ]& =’~ ;[^%}) ‘?/>! {$#$@ &@@^.”

**Promise.** In this condition, participants received the following message: “I give you my word I will return $9 every round, including the last one” (cf. Schweitzer et al., 2002).

**Apology.** In this condition, participants received the following message: “I really screwed up. I shouldn’t have done that. I’m very sorry I tried taking so much these last two rounds” (cf. Schweitzer et al., 2002).

**Promise-plus-apology.** In this condition, participants received the following message: “I really screwed up. I shouldn’t have done that. I’m very sorry I tried taking so
much these last two rounds. I give you my word I will return $9 every round, including the last one” (cf. Schweitzer et al., 2002).

Finally, to enhance realism, promises and apologies were presented to participants with slight grammatical mistakes and spacing irregularities. This is a procedure that has been used in prior research employing a computer-based platform in order to provide participants with the impression that the messages had actually been written by another experimental participant (Conlon & Ross, 1997).

Offense Severity

Low severity. In the low severity condition, Player 2 returned money to Player 1 on rounds 3 and 4, but the amount of money returned was slightly less than the original endowment amount. That is, on rounds 3 and 4, Player 2 chose to return $5 and keep $13.

High severity. In the high severity condition, Player 2 did not return any money to Player 1 on rounds 3 and 4. On each of these rounds, Player 2 chose to return $0 and keep $18.

Measures

Dependent and Intervening Variables

The following measures were used in the study. All self-report measures were made on a 7-point Likert type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Stability attribution. Four items were used to measure the stability attribution and were specifically written for this study. Following Weiner (1986), these items were developed to tap attributions regarding the stability of the cause of the trust violation in rounds 3 and 4. These items were, “Player 2’s choices on Rounds 3 and 4 reflect a
fundamentally stable aspect of their personality,” “Player 2’s choices on Rounds 3 and 4 are caused by isolated circumstances that are unlikely to happen again” (reverse-scored), “Player 2’s choices on Rounds 3 and 4 were probably made randomly” (reverse-scored), and “If we were to re-play Rounds 3 and 4, I would expect Player 2 to make the same choices he/she did this time.” These items are found in Appendix F, Box 3, and listed as item numbers 23, 24, 27, and 28. Coefficient alpha in the present study was .58.

**Hope.** As reviewed earlier, hope is an emotional response that embodies optimism for the future (Mowrer, 1960; Weiner, 1986). Two items were used to represent the construct of hope in this dissertation. These items are, “I have faith that Player 2 will cooperate for the rest of the exercise,” and “I feel that there is no use in counting on Player 2 to pass at least $9 back to me” (reverse-scored). These items are also found in Appendix F, Box 3, and listed as item numbers 14 and 18. Coefficient alpha for this scale was .75.

**Fear.** As reviewed earlier, fear is an emotional response signaling suspicion and the need for protection (Mowrer, 1960; Weiner, 1986). Three items were used to tap the construct of fear. These items were, “I feel afraid that Player 2 will take advantage of me in the rest of the exercise,” “I am worried about my future earnings in the rest of this exercise,” and “There is no reason to be suspicious of Player 2 as we finish the exercise” (reverse-scored). These items are also found in Appendix F, Box 3, and listed as item numbers 13, 15, and 17. Coefficient alpha for this scale was .70.

**Trust expectancy.** Trust expectancy was measured with four items taken from McAllister, Lewicki, and Bies (2000). These items reflect an expressed confident positive expectation regarding another’s future conduct, largely based on the trustee’s “word” –
central to the types of messages examined in this dissertation. These items are, “I can use Player 2’s word as the basis for my decisions,” “Player 2’s word is his/her bond,” “Player 2 can be counted on to come through when needed,” and “I can count on Player 2’s word.” These items are also found in Appendix F, Box 3, and listed as item numbers 19, 20, 21, and 22. Coefficient alpha for this scale was .90.

Short-term trust behavior/recovery. In the Trust Game, passing all of the endowment to Player 2 in the fifth round is a behavioral measure of short-term trust recovery, whereas decisions to keep all of the endowment or split it equally do not constitute trust. This decision was made immediately after the message condition but before receiving feedback on whether the fictitious counterpart actually returned money to Player 1 or not.

Control Variables

A number of control variables were collected to assure the validity of this study. First, although random assignment is likely to ensure equivalency in individual difference measures across experimental conditions, a pre-experimental survey was used to capture responses on variables that may possibly be theoretically relevant but are not central to the current study. Propensity to trust was measured with Rotter’s (1967) Interpersonal Trust Scale, as trust may result in part from an individual’s predisposition (Mayer et al., 1995). Researchers have also posited that there is a relationship between trust and forgiveness (McCullough, Worthington, & Rachal, 1997), so a measure of dispositional forgivingness (Berry, Worthington, Parrott, O’Connor, & Wade, 2001) was included in the survey. Finally, age, gender, and the Big Five personality measures (Goldberg, 1992) were included solely for exploratory purposes. Tests were conducted on these variables to
ensure equivalency across experimental conditions. As mentioned above, a copy of these materials appears in Appendix C.

In addition, in the post-experimental questionnaire, participants were asked to provide responses regarding the degree of interactional justice they received from their counterpart. Perceptions of interactional justice have been found to consist of both adequate information surrounding the reasons for a negative event, and the social sensitivity conveyed to the recipient of the negative event (Colquitt, 2001; Greenberg, 1993). In addition to influencing stability attributions, it is possible that cheap talk restores justice by communicating information, respect and status to the injured party. “Cheap talk” may be valuable to victims because it is polite: it conveys adequate information in a socially sensitive manner (Greenberg, 1993). Nine items were drawn from Colquitt (2001) to tap both information adequacy and social sensitivity aspects of interactional justice. Examples include, “Has he/she been candid in his/her communications with you,” and “Has he/she treated you in a polite manner.” These items are also found in Appendix F, Box 4, and listed as item numbers 1-9. Coefficient alpha for the 9-item scale was .89.

**Manipulation Checks**

After the trust violation, the offense severity manipulation check was collected via responses to a seven-item scale written for this purpose. An example item is, “On these rounds, Player 2 has not returned any money to me at all.” These items are also found in Appendix F, Box 1, and listed as item numbers 1-7. Coefficient alpha for these seven items was .85.
After the entire exercise, participants were asked to complete a brief survey to verify that the message manipulations had their intended effect. These manipulation checks consisted of one-item measures for apologies, promises, and content-free messages. These were, “After Player 2 did not return at least $9, he/she apologized for this,” “After Player 2 returned less than $9, he/she promised to return at least $9 in remaining rounds of the game,” and “Player 2 sent a message after returning less than $9, but the message was not clear,” respectively. These items are also found in Appendix F, Box 5, and listed as item numbers 1-3.

Debriefing

Two debriefings were conducted. Participants received an initial debriefing at the end of their experimental session. This initial debriefing thanked the participants for their involvement in the study, and informed them that their payment for participation would be calculated and delivered to them near the end of the academic quarter. To prevent contamination of the subject pool, the initial debriefing did not give a complete description of the study. Of course, attention was directed toward detecting any subjects who may have deduced the intentions of the study during their participation (by asking them to state their beliefs regarding the purpose of the study).

The second debriefing was conducted once all data was collected. At this time, a complete description of the general nature of the study was provided, including the deception that was used in the study and the reasons for using deception. In addition, a mechanism to address any remaining questions and concerns was provided. Participants received their final debriefing information, along with their payment for participation,
near the end of the academic quarter in which they participated. Both debriefing scripts are provided in Appendix G.

Plan for Data Analysis

Analysis of variance (ANOVA) was used to test hypotheses proposing main effects of message content on stability attributions, and moderating effects of offense severity. This includes H1, H2, H5a, H5b, and H6. Independent-samples t tests were used to test H3, H4a, and H4b.

Multiple regression-correlation analysis was used to test hypotheses regarding the direct (main) effects of independent variables on intervening and dependent variables. This includes H7, H8, H11, H13, H14, and H17.

Finally, the hypothesized model developed in Chapter 3 based on Weiner’s (1986) attribution theory proposed a number of mediated relationships following prescribed sequences. Mediated relationships were tested using regression analysis (to accommodate the inclusion and testing of H9a, 9b, H10a, 10b, H12a, 12b, H15, H16, and H18), following the procedures outlined by Barron and Kenny (1986).
CHAPTER 5

RESULTS

The purpose of this chapter is to report the results of the tests of the hypotheses presented in Chapter 3. Toward this end, several preliminary analyses will be reported, followed by the tests of the major hypotheses.

Preliminary Analyses

Before testing the hypotheses developed in Chapter 3, several preliminary analyses were conducted. This section reports those analyses, which include data checks and cleaning, calculation of descriptive statistics, calculation of scale reliability and dimensionality, experimental manipulation checks, and analyses to ensure equivalency across experimental conditions with regard to several individual difference measures.

Data Checks and Cleaning

With the exception of demographic and other individual differences measures collected in the pre-experimental survey, participants provided data electronically via the web sites they accessed during the experiment. The web sites were designed such that all requested information on a page had to be answered before the participant could proceed to the next page. That is, if a participant left a field blank and tried to proceed to the next page, a dialog box would appear on the screen to remind him/her to answer all missed questions. Once the participant provided answers to all questions, he/she could proceed to the next page.
Although the data collection for the experimental session was captured electronically, a number of steps were taken to ensure that only complete data were used in the primary analyses. First, the raw data downloaded from the websites was manually scanned for completeness. As mentioned above, the web page was designed to ensure that all data points would be recorded for all participants. At this point it was discovered that there was a single participant whose data file was missing over half of the data points. It is unclear why this happened, but this was the only such instance. Due to this deficiency, data that was collected from this individual was omitted from all analyses.

The next step of this process involved an analysis of scale ranges to ensure that all data were within proper parameters, and to see if there were additional missing data. It was determined that all data fell within their theoretical range of possibilities, and that there were no other instances of any missing data from the experimental session.

Finally, responses to the open-ended suspicion check at the end of the study (“What did you think Player 2 was trying to accomplish in this exercise?”) were examined to determine whether participants believed that there was no actual counterpart. Eight participants expressed such suspicions, and were removed from further analysis. Hence, the final sample size was $N = 220$. The $N$ per cell ranged from 25 to 32.

Descriptive Statistics

Table 5.1 provides the means, standard deviations, scale reliabilities, and correlations among study variables. Figure 5.1 displays the frequencies of trust behavior (the percentage of participants who chose to pass all of their $6 endowment) for each round of the exercise, organized by experimental condition.
Scale Reliability and Dimensionality

Analyses of scale reliabilities were performed for the main study data, with coefficient alphas ranging from .58 to .90. All reliability estimates for self-report scale variables are reported on the diagonal in Table 5.1.
<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promise</td>
<td>a</td>
<td>a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apology</td>
<td>a</td>
<td>a</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offense Severity</td>
<td>a</td>
<td>a</td>
<td>-.05</td>
<td>-.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stability</td>
<td>4.62</td>
<td>1.06</td>
<td>-.05</td>
<td>-.11</td>
<td>.02</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hope</td>
<td>4.18</td>
<td>1.46</td>
<td>.18</td>
<td>.16</td>
<td>-.24</td>
<td>-.50</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear</td>
<td>4.21</td>
<td>1.40</td>
<td>-.18</td>
<td>-.10</td>
<td>.19</td>
<td>.44</td>
<td>-.58</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>Trust Expectancy</td>
<td>3.83</td>
<td>1.35</td>
<td>.18</td>
<td>.03</td>
<td>-.15</td>
<td>-.41</td>
<td>.61</td>
<td>-.46</td>
<td>.90</td>
</tr>
<tr>
<td>Trust Behavior</td>
<td>a</td>
<td>a</td>
<td>.08</td>
<td>.07</td>
<td>-.14</td>
<td>-.24</td>
<td>.29</td>
<td>-.13</td>
<td>.29</td>
</tr>
</tbody>
</table>

Table 5.1: Means, standard deviations, scale reliabilities, and correlations among study variables

Note: \( N = 220. \)

\( ^a \) Dummy coded conditions and dichotomous trust behavior variable.

\( ^b \) Scale alpha reliabilities.

\( ^c \) Point biserial \( r \) representing correlation between a dichotomous and continuous variable.

\( ^d \) Phi coefficient representing correlation between two dichotomous variables.

\( * p < .05; ** p < .01. \)
Items to represent stability, hope, and fear were written for this study. The trust expectancy scale used four items from a previously developed five-item scale (McAllister, Lewicki, & Bies, 2000). As items in these scales were predicted a priori to represent their respective constructs, a confirmatory factor analysis was performed using RAMONA (in Systat version 10.2) to examine how well the predicted model fit the data from this study (Bryant & Yarnold, 1995). The analysis allowed for correlations among stability, hope, fear, and trust expectancy, and results were generally supportive of the four-factor model ($\chi^2 = 140.73$, $df = 59$, NFI = .89, CFI = .93, NNFI = .91, RMSEA = .08). The four-factor model was also compared to a one-factor model (where all items were used to indicate a single factor) and a three-factor model (with hope and fear
combined into one factor). In both cases, the four-factor model demonstrated superior fit ($\chi^2$ difference between the four- and three-factor models = 11.25, df = 3, p < .05).

**Manipulation Checks**

To verify that the experimental manipulations created the desired effects, a series of one-way ANOVAs was conducted. Participants who received an apology (apology, promise-plus-apology) were more likely to report that they had indeed received an apology ($M = 5.97$) than those who did not (promise, content-free) ($M = 3.77$; $F(1, 218) = 93.05$, p < .001).

Participants who received a promise (promise, promise-plus-apology) were more likely to report that they had indeed received a promise ($M = 6.32$) than those who did not (apology, content-free) ($M = 4.05$; $F(1, 218) = 100.80$, p < .001).

For the content-free message manipulation check question, an ANOVA was performed to compare the responses of those who received a content-free message to those who did not (promise, apology, promise-plus-apology). There was a significant message effect ($F(1, 216) = 83.80$, p < .001). Multiple post-hoc comparisons using the Tukey HSD procedure revealed that content-free messages were perceived as being more unclear than messages containing promises, apologies, and promises and apologies ($M$ differences ranged from 3.67 to 4.29, all ps < .001).

Finally, participants in the high offense severity condition reported that offense severity was indeed higher ($M = 4.84$) than those in the low offense severity condition ($M = 3.84$; $F(1, 218) = 38.76$, p < .001).

Based on these results, it was concluded that the experimental manipulations were successful in creating their desired effects.
**Equivalency Across Conditions**

Finally, in recognition of a number of theoretically-relevant variables that may account for some of the relationships to be tested in this study, responses on individual differences variables from the pre-experimental survey were analyzed. Specifically, a series of one-way ANOVAs was conducted with experimental condition as the independent variable to determine if age, propensity to trust, extraversion, agreeableness, conscientiousness, emotional stability, openness to experience, and dispositional forgivingness had significant mean differences across experimental conditions. Similarly, a Chi-square test was used to test for equivalency on gender. No significant differences were found. Accordingly, the next section proceeds to report the results of the hypothesis tests for the main study.

**Tests of Hypotheses**

This section reports the results of the statistical analyses conducted to test the study hypotheses that are summarized in Table 3.1.

**The Message Content-Attribution Relationship**

As mentioned in Chapter 4, a measure of interactional justice was also collected in this study for possible inclusion as a control variable in the analyses. The social accounts in this study could be perceived as a signal of fair interpersonal treatment (Bies, 1987). A preliminary analysis revealed that stability attributions and interactional justice perceptions were significantly correlated ($r = -.410, p < .01$), and this suggests that it is appropriate to use interactional justice as a covariate in the analyses reported in this section.
Hypothesis 1 predicted that promises will be negatively related to stability attributions regarding the cause of the trust violation. Referring back to Table 5.1, the data indicates a small, negative correlation between a promise and stability attributions ($r = -.05$, ns). In addition, a 2 (promise, no promise) x 2 (apology, no apology) x 2 (low offense severity, high offense severity) ANOVA was run with interactional justice perceptions as a covariate and stability attributions as the dependent variable. This analysis appears in Table 5.2, and it did not reveal a significant main effect for promises on stability attributions ($F (1, 211) = .79, p = .38$). Hypothesis 1 was not supported.

Hypothesis 2 predicted that apologies would be negatively related to stability attributions. Table 5.1 shows that there is a small, negative correlation between an apology and stability attributions ($r = -.11$, ns). The ANOVA results in Table 5.2 reveal that the main effect of apologies on stability attributions failed to reach significance ($F (1, 211) = .04, p = .84$). Hypothesis 2 was not supported.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactional justice (covariate)</td>
<td>1</td>
<td>35.45</td>
<td>37.30</td>
<td>.00</td>
<td>.15</td>
</tr>
<tr>
<td>Promise (A)</td>
<td>1</td>
<td>.75</td>
<td>.79</td>
<td>.38</td>
<td>.00</td>
</tr>
<tr>
<td>Apology (B)</td>
<td>1</td>
<td>.04</td>
<td>.04</td>
<td>.84</td>
<td>.00</td>
</tr>
<tr>
<td>Offense severity (C)</td>
<td>1</td>
<td>.19</td>
<td>.20</td>
<td>.66</td>
<td>.00</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>.03</td>
<td>.03</td>
<td>.87</td>
<td>.00</td>
</tr>
<tr>
<td>A x C</td>
<td>1</td>
<td>1.14</td>
<td>1.20</td>
<td>.27</td>
<td>.01</td>
</tr>
<tr>
<td>B x C</td>
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<td>3.08</td>
<td>3.24</td>
<td>.07</td>
<td>.02</td>
</tr>
<tr>
<td>A x B x C</td>
<td>1</td>
<td>.36</td>
<td>.38</td>
<td>.54</td>
<td>.00</td>
</tr>
<tr>
<td>Error</td>
<td>211</td>
<td>.95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2: Analysis of variance in stability attributions by promise, apology, and offense severity conditions, controlling for interactional justice perceptions
Hypothesis 3 predicted that subjects receiving an apology would have more beneficial (i.e., lower) stability attributions regarding the cause of the trust violation than those who received a promise. This general pattern is suggested in Table 5.1, which shows that the correlation between stability and apology ($r = -.11$) is stronger than the correlation between stability and promise ($r = -.05$). An independent-samples $t$ test was conducted, and although the mean for promise ($M = 4.56$, $SD = 1.01$) was higher than the mean for apology ($M = 4.43$, $SD = 1.20$) as predicted, this difference failed to reach significance ($t(107) = .61$, $p = .54$). Thus, Hypothesis 3 was not supported.

Hypothesis 4a predicted that subjects receiving a combination of a promise and apology would have more beneficial (i.e., lower) stability attributions regarding the cause of the trust violation than those who received a promise alone. An independent-samples $t$ test was conducted to evaluate this hypothesis. The test was non-significant ($t(112) = -.07$, $p = .94$), as those receiving a promise ($M = 4.56$, $SD = 1.01$) reported similar stability attributions to those receiving both a promise and an apology ($M = 4.57$, $SD = .96$). Hypothesis 4a was not supported.

Similarly, Hypothesis 4b predicted that subjects receiving a combination of a promise and apology would have more beneficial (i.e., lower) stability attributions regarding the cause of the trust violation than those who received an apology alone. An independent-samples $t$ test was conducted to evaluate this hypothesis. The test was non-significant ($t(107) = .69$, $p = .49$), as those receiving an apology ($M = 4.43$, $SD = 1.20$) reported similar stability attributions to those receiving both a promise and an apology ($M = 4.57$, $SD = .96$). Hypothesis 4b was not supported.
The Moderating Effects of Offense Severity

Hypothesis 5a predicted that the effect of promises on stability attributions would be moderated by the severity of the offense, such that the beneficial effects of a promise (i.e., lower stability attributions) would be more likely when offense severity is low. Referring back to Table 5.2, the ANOVA indicated no significant interaction between promises and offense severity, $F(1, 211) = 1.20$, $p = .27$. Hypothesis 5a was not supported.

Similarly, Hypothesis 5b predicted that the effect of apologies on stability attributions would be moderated by the severity of the offense, such that the beneficial effects of an apology (i.e., lower stability attributions) would be more likely when offense severity is low. Again referring back to Table 5.2, the ANOVA indicated no significant interaction between apologies and offense severity, $F(1, 211) = 3.24$, $p = .07$. Hypothesis 5b was not supported.

Content-Free Messages

Hypothesis 6 predicted that content-free messages will be associated with more detrimental (i.e., higher) stability attributions than content messages when offense severity is high than when offense severity is low. Using a two-way ANOVA on stability attributions by message (content-free, content) and offense severity conditions, controlling for interactional justice, there was a significant content x offense severity interaction ($F(1, 215) = 4.19$, $p < .05$). Figure 5.1 presents the plot of this interaction, which confirms the predicted relationship. That is, messages with content (promises, apologies, promise-plus-apologies) were consistently associated with lower stability
attributions, while content-free messages were only associated with lower stability attributions when offense severity was low. Hypothesis 6 is supported.

Figure 5.2: Interaction of message content and offense severity on stability attributions

The Attribution-Affect Relationship

Hypothesis 7 predicted that stability attributions would be negatively related to hope. Table 5.1 reveals a significant negative zero-order correlation between stability and hope ($r = -.50, p < .01$). This result provides support for Hypothesis 7.

Hypothesis 8 predicted that stability attributions would be positively related to fear. As evident in Table 5.1, stability was significantly and positively correlated with fear ($r = .44, p < .01$). This result provides support for Hypothesis 8.
The next set of hypotheses predicted that stability attributions would fully mediate the effects of promises (Hypothesis 9a) and apologies (Hypothesis 9b) on hope. Similarly, Hypotheses 10a and 10b predicted that stability attributions would fully mediate the effects of promises and apologies, respectively, on fear. To demonstrate mediation, it is necessary to demonstrate four steps: (1) the independent variable relates to the dependent variable, (2) the independent variable relates to the mediating variable, (3) the mediating variable relates to the dependent variable, and (4) when controlling for the mediating variable, the relationship between the independent variable and the dependent variable becomes nonsignificant (Baron & Kenny, 1986). Table 5.2 shows that neither promises nor apologies (the independent variables) had a significant main effect on stability attributions (the proposed mediating variable). As this necessary condition was not met, no further tests were conducted. Hypotheses 9a, 9b, 10a, and 10b were not supported.

The Attribution-Trust Expectancy Relationship

Hypothesis 11 predicted that stability attributions would be negatively related to future expectancies of trustworthiness. As shown in Table 5.1, there was a significant, negative correlation between the stability of the cause of the trust violation and trust expectancy ($r = -.41, p < .01$). This result provides support for Hypothesis 11.

The next set of hypotheses predicted that stability attributions would fully mediate the effects of promises (Hypothesis 12a) and apologies (Hypothesis 12b) on trust expectancy. Once again, because Table 5.2 indicates that there was no significant main effect for either promises or apologies (the independent variables) on stability attributions
(the proposed mediator), a vital prerequisite for mediation was not met. Hypotheses 12a and 12b were not supported.

The Affect-Short Term Trust Recovery Relationship

Hypothesis 13 predicted that hope would be positively related to short-term trust behavior. Table 5.1 reveals that there is a significant and positive correlation between hope and trust behavior ($r = .29, p < .01$). This result provides support for Hypothesis 13.

Hypothesis 14 predicted that fear would be negatively related to short-term trust behavior. Table 5.1 shows the correlation between fear and trust behavior, and while this correlation is in the predicted direction, it failed to reach significance ($r = -.13, ns$). Thus, Hypothesis 14 was not supported.

Hypothesis 15 predicted that hope would fully mediate the effects of stability on trust behavior. The results reported above demonstrated that stability is significantly related to hope (Hypothesis 7), and that hope is significantly related to trust behavior (Hypothesis 13). This satisfies Baron and Kenny’s second and third steps in demonstrating mediation stated above. It remains to be shown that stability directly relates to trust behavior (step one), and that the relationship between stability and trust behavior becomes nonsignificant after controlling for the effects of hope (step four).

These analyses were conducted using logistic regression because the dependent variable is dichotomous (Wright, 1995). That is, in this case, a decision is made to either trust or not to trust. In logistic regression, the Cox and Snell $R^2$ is analogous to $R^2$ in a linear regression in that both statistics express the amount of variance explained by the independent variables. However, the beta coefficients in logistic regression do not represent the amount of change in the dependent variable for every one-unit increase in
the independent variable. Instead, beta coefficients are interpreted as the change in the log odds of an event occurring for each unit increase in the independent variable. Beta coefficients are more readily interpretable when they are converted to an odds ratio, which “estimates the change in the odds of membership in the target group [i.e., those making a decision to trust instead of not to trust] for a one-unit increase in the predictor” (Wright, 1995, p. 223). The model chi-square statistic is an index of overall model fit, indicating that at least one of the coefficients significantly differs from zero, and the Wald statistic is used to test the significance of the regression coefficients (with the latter also following a chi-square distribution with one degree of freedom). While some researchers have claimed that the likelihood ratio statistic is more powerful and preferable to the Wald statistic (Cohen, Cohen, West, & Aiken, 2003), use of the Wald statistic appears to be less of a concern in large samples such as the one used for this study (Harrison, 2002).

To test for the first step in mediation, trust behavior was regressed on stability attributions. Stability accounted for a significant amount of variance in trust behavior ($B = -.58$, odds ratio $= .56$, $p < .01$). For example, if stability increases by one unit, the odds of someone engaging in trust behavior decreases by a factor of .56.

To test for full mediation, the fourth step was conducted to determine whether the relationship between stability and trust behavior became nonsignificant when controlling for hope. Table 5.3 presents the results of this analysis, and shows that the effect of stability on trust behavior became nonsignificant when controlling for the effects of hope ($B = -.32$, odds ratio $= .73$, $p = .10$). Thus, Hypothesis 15 was supported.
Hypothesis 16 predicted that fear would fully mediate the effects of stability on trust behavior. The previously reported results indicated that although stability was significantly related to fear (Hypothesis 8), there was no significant relationship between fear and trust behavior (Hypothesis 14). As this analysis does not meet an important standard for demonstrating mediation, no further tests were conducted. Hypothesis 16 was not supported.

**The Trust Expectancy-Short Term Trust Recovery Relationship**

Hypothesis 17 predicted that trust expectancy would be positively related to trust behavior. As shown in Table 5.1, there was a significant, positive correlation between trust expectancy and trust behavior ($r = .29, p < .01$). In addition, a logistic regression revealed that the effect of trust expectancy on trust behavior remained significant after

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Odds Ratio</th>
<th>Wald Statistic</th>
<th>Model $\chi^2$</th>
<th>Cox and Snell $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hope</td>
<td>.53</td>
<td>.13</td>
<td>1.70</td>
<td>17.34**</td>
<td>19.42**</td>
<td>.08</td>
</tr>
<tr>
<td>Step 2:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hope</td>
<td>.42</td>
<td>.14</td>
<td>1.53</td>
<td>9.01**</td>
<td>22.15**</td>
<td>.10</td>
</tr>
<tr>
<td>Stability</td>
<td>-.32</td>
<td>.19</td>
<td>.73</td>
<td>2.71</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3: Mediating effects of hope on the relationship between stability and trust behavior (Hypothesis 15)

**$p < .01$.**
controlling for the effects of hope and fear, as Table 5.1 suggested that these variables might possibly influence the expectancy-trust behavior relationship ($B = .39$, odds ratio $= 1.48$, $p < .05$). This result provides support for Hypothesis 17.

Finally, Hypothesis 18 predicted that trust expectancy would fully mediate the effect of stability on trust behavior. The results reported above indicated that stability was significantly related to trust expectancy (Hypothesis 11), and that trust expectancy was significantly related to trust behavior (Hypothesis 17). As reported above in Hypothesis 15, stability accounted for a significant amount of variance in trust behavior ($B = -.58$, odds ratio $= .56$, $p < .01$). Thus, it only remains to be shown that the effect of stability on trust behavior becomes nonsignificant after controlling for trust expectancy.

To test for full mediation, the fourth step was conducted to determine whether the relationship between stability and trust behavior became nonsignificant when controlling for trust expectancy. Table 5.4 presents the results of this analysis, and shows that the effect of stability on trust behavior became less significant when controlling for the effects of trust expectancy ($B = -.38$, odds ratio $= .68$, $p < .05$). Because the significance of the coefficient decreased after controlling for trust expectancy, yet remained significant at the .05 level, it is concluded that trust expectancy partially mediates the relationship between stability and trust behavior. Hypothesis 18 was partially supported.

In summary, these results supported the hypothesized effects of stability attributions on trust expectancy, hope, and fear. In turn, hope and trust expectancy predicted trust behavior. However, promises and apologies did not relate to stability attributions as hypothesized. Thus, a series of post-hoc analyses were conducted.
<table>
<thead>
<tr>
<th>Step 1: Trust Expectancy</th>
<th>B</th>
<th>SE</th>
<th>Odds Ratio</th>
<th>Wald Statistic</th>
<th>Model $\chi^2$</th>
<th>Cox and Snell $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.58</td>
<td>.14</td>
<td>1.78</td>
<td>17.30**</td>
<td>19.43**</td>
<td>.09</td>
</tr>
<tr>
<td>Step 2: Trust Expectancy</td>
<td>.47</td>
<td>.15</td>
<td>1.60</td>
<td>10.38**</td>
<td>23.76**</td>
<td>.10</td>
</tr>
<tr>
<td>Stability</td>
<td>-.38</td>
<td>.19</td>
<td>.68</td>
<td>4.26*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.4: Mediating effects of trust expectancy on the relationship between stability and trust behavior (Hypothesis 18)

*p < .05; **p < .01.

Post-hoc Analyses

As mentioned in Chapter 4, social accounts theory contends that certain forms of cheap talk (e.g., referential accounts and penitential accounts) influence perceptions of interactional justice (Bies, 1987). Interactional justice refers to the quality of interpersonal treatment individuals receive from decision-makers with whom they interact (Bies & Moag, 1986). Following a negative outcome, fair interpersonal treatment from the decision-maker in the form of social sensitivity and informational adequacy can enhance fairness perceptions and acceptance of negative outcomes (Greenberg, 1993; Colquitt, 2001; Sitkin & Bies, 1993), and approval ratings of the offender (e.g., Bies & Shapiro, 1987). Fair interpersonal treatment may also lead to trust recovery after a trust violation (c.f., Mayer et al., 1995) insofar as social accounts (cheap talk) are construed by the victim as evidence of subsequent trustworthiness.
Given (1) the unexpected findings that failed to confirm the effects of cheap talk on stability attributions, (2) the strong correlation between interactional justice and stability attributions ($r = -.41$, $p < .01$), and (3) the theoretical rationale that social accounts are related to interactional justice and interactional justice is related to short-term trust recovery, several post-hoc analyses were conducted. First, a 2 (promise, no promise) x 2 (apology, no apology) x 2 (low offense severity, high offense severity) ANOVA was run with interactional justice as the dependent variable. The results of this analysis are presented in Table 5.5.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promise (A)</td>
<td>1</td>
<td>20.04</td>
<td>19.55</td>
<td>.00</td>
<td>.08</td>
</tr>
<tr>
<td>Apology (B)</td>
<td>1</td>
<td>16.86</td>
<td>16.45</td>
<td>.00</td>
<td>.07</td>
</tr>
<tr>
<td>Offense severity (C)</td>
<td>1</td>
<td>3.18</td>
<td>3.10</td>
<td>.08</td>
<td>.01</td>
</tr>
<tr>
<td>A x B</td>
<td>1</td>
<td>23.19</td>
<td>22.62</td>
<td>.00</td>
<td>.10</td>
</tr>
<tr>
<td>A x C</td>
<td>1</td>
<td>.07</td>
<td>.07</td>
<td>.80</td>
<td>.00</td>
</tr>
<tr>
<td>B x C</td>
<td>1</td>
<td>.00</td>
<td>.00</td>
<td>.99</td>
<td>.00</td>
</tr>
<tr>
<td>A x B x C</td>
<td>1</td>
<td>4.63</td>
<td>4.52</td>
<td>.04</td>
<td>.02</td>
</tr>
<tr>
<td>Error</td>
<td>212</td>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.5: Analysis of variance in interactional justice by promise, apology, and offense severity conditions

This analysis indicates that promises exerted a main effect on interactional justice perceptions ($F (1, 212) = 19.55$, $p < .01$). Inspection of the means confirmed that those who received a promise reported higher interactional justice than those who did not receive a promise ($M_s$ 5.40 versus 4.80, respectively). Similarly, apologies exerted a main effect on interactional justice ($F (1, 212) = 16.45$, $p < .01$). The means indicated that interactional justice perceptions were higher for those who received an apology versus
those who did not receive an apology (Ms 5.38 versus 4.82, respectively). It is interesting to compare these analyses to the predictions of Hypotheses 1 and 2 that used stability attributions as the dependent variable. It appears that instead of promises and apologies exerting significant effects on stability attributions, they affect perceptions of interactional justice instead.

To examine whether an apology had more beneficial effects on interactional justice than a promise, an independent-samples t test was conducted. This analysis found that the mean for promise (M = 5.45, SD = 1.14) was not significantly different from the mean for apology (M = 5.39, SD = 1.08; t(107) = .31, p = .76). It is interesting to compare this analysis to Hypothesis 3 that drew comparisons based on stability attributions. That is, the use of an apology is not associated with more beneficial effects than a promise with respect to either stability attributions or interactional justice.

To examine whether the combination of a promise and apology had more beneficial effects on interactional justice than a promise alone, another independent-samples t test was conducted. This analysis found that the mean for promise-plus-apology (M = 5.35, SD = .98) was not significantly different from the mean for promise (M = 5.45, SD = 1.14; t(112) = .53, p = .60). Similarly, to examine whether the combination of a promise and apology had more beneficial effects on interactional justice than an apology alone, an independent-samples t test found that the mean for promise-plus-apology (M = 5.35, SD = .98) was not significantly different from the mean for apology (M = 5.39, SD = 1.08; t(107) = .20, p = .84). It is interesting to compare these analyses to Hypotheses 4a and 4b that drew comparisons based on stability attributions. That is, the use of a promise-plus-apology is not associated with more beneficial effects than either a
promise alone or an apology alone with respect to either stability attributions or interactional justice.

In terms of whether the effect of promises and apologies on interactional justice is moderated by offense severity, the ANOVA results in Table 5.5 indicate that neither of these interaction terms are significant. It is interesting to compare these results to Hypotheses 5a and 5b that used stability attributions as the dependent variable. That is, neither promises nor apologies interacted with offense severity to affect either stability attributions or interactional justice.

The results of Table 5.5 do indicate a significant promise x apology interaction, however. The form of this interaction is displayed in Figure 5.2, and shows that when an apology is given (relative to no apology), interactional justice perceptions are high with either the presence or absence of a promise. But when an apology is not provided, the simultaneous absence of a promise is associated with significantly lower interactional justice perceptions. Furthermore, this effect is qualified by offense severity, as indicated by the significant three-way interaction shown as Figure 5.3. Specifically, when an apology is provided, interactional justice perceptions are at about the same level regardless of whether it is accompanied by a promise, and regardless of offense severity. Among those who did not receive an apology, there were equally detrimental effects of not receiving a promise either, regardless of whether offense severity was high or low. But those who did receive a promise had higher interactional justice perceptions when offense severity was low than when offense severity was high. These findings seem somewhat similar to the results of Hypothesis 6 (see Figure 5.1), which indicated that messages with content (promises, apologies, promise-plus-apologies) were consistently
associated with lower stability attributions, while content-free messages were only associated with lower stability attributions when offense severity was low. Taken together, this suggests that messages with reparative content are associated with more beneficial effects than content-free messages, particularly as offense severity increases.

Figure 5.3: Interaction of promises and apologies on interactional justice
Finally, interactional justice was significantly correlated with short-term trust recovery ($r = .31, p < .01$).

Table 5.6 summarizes the results of the primary study hypotheses. In Chapter 6, these results will be discussed.
<table>
<thead>
<tr>
<th>Number</th>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Promises will be negatively related to the victim’s attributions of stability regarding the cause of the trust violation.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>2</td>
<td>Apologies will be negatively related to the victim’s attributions of stability regarding the cause of the trust violation.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>3</td>
<td>An apology will have a stronger, more negative relationship with stability attributions than a promise.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>4a</td>
<td>A promise-plus-apology will be more negatively related to the victim’s stability attributions than a promise alone.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>4b</td>
<td>A promise-plus-apology will be more negatively related to the victim’s stability attributions than an apology alone.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>5a</td>
<td>The relationship between a promise and stability attributions will be moderated by offense severity, such that lower stability attributions will be more likely when offense severity is low than when offense severity is high.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>5b</td>
<td>The relationship between an apology and stability attributions will be moderated by offense severity, such that lower stability attributions will be more likely when offense severity is low than when offense severity is high.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>6</td>
<td>The relationship between message type and stability attributions will be moderated by offense severity, such that content-free messages will be associated with higher stability attributions than content messages when offense severity is high than when offense severity is low.</td>
<td>Supported</td>
</tr>
<tr>
<td>7</td>
<td>Attributions of stability for the cause of the violation will be negatively related to hope.</td>
<td>Supported</td>
</tr>
<tr>
<td>8</td>
<td>Attributions of stability for the cause of the violation will be positively related to fear.</td>
<td>Supported</td>
</tr>
<tr>
<td>9a</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between promises and hope.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>9b</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between apologies and hope.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>10a</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between promises and fear.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>10b</td>
<td>Attributions of stability for the cause of the violation will fully mediate the relationship between apologies and fear.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>11</td>
<td>Stability attributions will be negatively related to trust expectancy.</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 5.6: Summary of study hypotheses and results
Table 5.6 continued

<table>
<thead>
<tr>
<th></th>
<th>Stability attributions will fully mediate the relationship between promises and trust expectancy.</th>
<th>Not Supported</th>
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</thead>
<tbody>
<tr>
<td>12a</td>
<td>Stability attributions will fully mediate the relationship between apologies and trust expectancy.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>13</td>
<td>Hope will be positively related to short-term trust recovery.</td>
<td>Supported</td>
</tr>
<tr>
<td>14</td>
<td>Fear will be negatively related to short-term trust recovery.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>15</td>
<td>Hope will fully mediate the relationship between stability attributions and short-term trust recovery.</td>
<td>Supported</td>
</tr>
<tr>
<td>16</td>
<td>Fear will fully mediate the relationship between stability attributions and short-term trust recovery.</td>
<td>Not Supported</td>
</tr>
<tr>
<td>17</td>
<td>Trust expectancy will be positively related to short-term trust behavior.</td>
<td>Supported</td>
</tr>
<tr>
<td>18</td>
<td>Trust expectancy will fully mediate the relationship between stability attributions and short-term trust behavior.</td>
<td>Partially Supported</td>
</tr>
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</table>
CHAPTER 6
DISCUSSION

In this chapter, the findings of this dissertation will be discussed and related to the original objectives of the study. Toward that end, a summary of the results is provided, along with a discussion of their theoretical implications. Subsequent sections will discuss practical implications, limitations, and directions for future research.

Overview of Findings

Although behavioral scientists have been fascinated with the construct of trust for over forty years (e.g., since Deutsch, 1958), the extant literature in this area has only recently begun to examine how trust can be rebuilt after it has been damaged by a violation. Because of the frequency and harmfulness of trust violations in professional interpersonal relationships, there is a pressing need for researchers to understand the key variables and processes that relate to trust recovery. In response to this challenge, recent studies have provided converging evidence that certain forms of “cheap talk” (post-violation reparative verbal communication that is unsubstantiated and unverifiable) positively affect the victim’s willingness to reconcile with the offender (Tomlinson et al., 2004), restore cooperation by the victim (Bottom et al., 2002), and facilitate trust recovery (Schweitzer et al., 2002). Surprisingly, the beneficial effects of cheap talk appear even in the very next interaction with the offender, before the victim has an opportunity to verify or substantiate the offender’s verbal claims. However, to date, no
study has systematically examined the cognitive and emotional mechanisms that enable cheap talk to facilitate trust recovery or the boundary conditions under which this effect is most likely to occur.

In accordance with the objectives laid out in Chapter 1, this dissertation extends this developing literature in several key ways. First, based on Weiner’s (1986) attribution theory and social accounts theory (Bies, 1987), a conceptual model was developed to specify how stability attributions mediate the effects of cheap talk on trust expectancy and specific emotional reactions. Second, this study examined whether the severity of the trust violation moderates the effect of cheap talk on stability attributions. Finally, the content of promises and apologies was compared to content-free messages under varying conditions of offense severity in an effort to disentangle the effects of message content versus message gesture on trust recovery.

The results of this dissertation indicate that promises and apologies do indeed lead to trust recovery via a specific path: the data suggest that these forms of cheap talk influence interactional justice. Surprisingly, promises and apologies did not directly affect stability attributions, nor did they interact with offense severity as predicted. However, this study did find that type of message interacted with offense severity such that content-free messages were associated with higher stability attributions relative to content messages (promises, apologies, promise-plus-apologies) when offense severity was high. This study also found support for Weiner’s (1986) attribution theory in the context of short-term trust recovery by highlighting the instrumental role of stability attributions and specific emotional reactions as key variables in the trust recovery
process. The overview that follows will discuss each of these themes in turn, and include within each section a discussion of how the present findings contribute to extant theory.

How Cheap Talk Works

One of the primary objectives of this dissertation was to pinpoint the specific mechanism that accounts for the relationship between cheap talk and short-term trust recovery. The literatures on impression management and causal attribution suggested that cheap talk may facilitate trust recovery by affecting the victim’s attributions of causal stability – that is, cheap talk is construed as a signal that indicates that the cause of the trust violation is unstable, and hence less likely to recur. The results of these analyses did not support the argument that cheap talk directly impacts stability attributions, or hypotheses asserting the relative primacy of apologies over promises, and promise-plus-apologies over promises or apologies alone.

These findings are surprising given the strong theoretical and empirical justifications for these hypotheses reviewed in Chapter 3. This may be due to the way in which stability was measured in this study. Pilot work for this study used a published self-report scale to measure stability attributions (McAuley, Duncan, & Russell, 1992) that had been used successfully in recently published empirical studies (Takaku, 2001; Takaku et al., 2001). However, because this scale demonstrated low reliability in both pilot testing and the main study (alphas ranged from .56 - .65 in pilots, .57 in main study), and participants frequently asked the experimenters for help in interpreting the questions on this scale (despite several attempts at clarifying the wording), a new stability scale was written solely for the purpose of this study. Care was taken to ensure that these custom-
written items tapped the stability of the cause of the behavior, rather than stability of the behavior itself (Weiner, 1986).

Based on the data set for the main study, the stability scale written for this study was positively and significantly correlated with the stability scale written by McAuley and his colleagues (1992), \( r = .30, p < .01 \). Of course, there is some concern over the convergent validity of these two measures because the correlation between them is not as large as desired; however, a largely similar pattern of results for the study hypotheses was found using the previously published scale. The four-item scale written for this study also had a small alpha (.58), as an alpha of .70 or higher is desired (Nunnally, 1978); but no participants raised questions regarding how these questions should be interpreted, and these items were written in a manner that was intended to capture stability attributions in this particular experimental context, which is why it is the measure reported in this study. In addition, despite the fact that promises and apologies did not significantly relate to this measure of stability, the findings indicate that the measure of stability used in this study showed strong correlations with other study variables in the predicted direction (see Table 5.1), even despite the low alpha. Finally, a significant message type x offense severity interaction on this measure of stability was found (discussed in the following section).

Another possibility for the failure to confirm the effect of promises and apologies on stability attributions is that these messages may not have been elaborate or remorseful enough to affect stability attributions. As reviewed in Chapter 3, a study by Weiner and his colleagues (1991) found that the use of a confession that included an expression of remorse, admission of responsibility, and reparation was associated with lower stability
attributions. Compared to the messages in this study, the confession used by Weiner and
colleagues (1991) is ostensibly more elaborate, as it was even accompanied by
found that as the level of expressed remorse increased, stability attributions decreased.
Thus, a speculative possibility is that, to the degree that extreme expressions of remorse
affect stability attributions and the apology manipulation in this study is not perceived to
be as remorseful as those used in the studies cited above, this may explain why no effect
was found for promises and apologies in this study. (Note that promises alone do not
include expressions of remorse at all.) In testing Hypothesis 3, it was found that apologies
were associated with lower stability attributions than promises, but this difference was
not significant. Perhaps a more elaborate and remorseful apology would have generated
significant results. However, since the primary aim of this study was to replicate and
extend the study by Schweitzer and his colleagues (2002), the decision was made to use
the same wording for the promise and apology manipulations used in that study.

Although this study failed to support the hypothesized relationship between these
types of accounts and stability attributions, post-hoc analyses revealed support for
another relationship that is strongly grounded in recent research. Specifically, the data
indicate that promises and apologies both result in significantly higher perceptions of
interactional justice. Indeed, the use of accounts has been extensively investigated in the
context of promoting a sense of fairness (Bies, 1987; Greenberg, 1990). This line of
research has typically focused on the use of explanations and justifications (e.g., Shaw,
Wild, & Colquitt, 2003). The present study contributes to the existing literature by
answering calls by other researchers for more research on other types of accounts (Bobocel & Zdaniuk, 2003; Greenberg & Roberge, 2003).

Moreover, while previous justice research has indicated that accounts are valuable insofar as they produce higher fairness perceptions and less anger and resentment (Bies & Shapiro, 1987; Shapiro, 1991), this is the first study to empirically demonstrate the relationship between interactional justice and trust recovery. Whereas the study by Bottom and colleagues (2002) cited theory on interactional justice as justification for hypothesizing the effect of cheap talk on trust recovery, no measure of interactional justice was reported in their study. And while prior research has indicated that justice can lead to trust (see Lewicki, Weithoff, & Tomlinson, in press for a review of this research), this is the first empirical study to demonstrate that interactional justice is associated with trust recovery. Thus, this study reveals yet another beneficial correlate of fair interpersonal treatment.

Given the theoretical connection between the use of promises and apologies and interactional justice, post-hoc testing also examined the relative efficacy of apologies over promises, and promise-plus-apologies over promises and apologies. Although Bies (1987) contends that apologies (penitential account) are conceptually different from promises (referential account), and prior work has suggested that these constructs are independent (Scher & Darley, 1997) and more extensive reparative communication is more effective (Gold & Weiner, 2000; Ohbuchi et al., 1998), the results of this study do not support the contention that combining a promise with an apology is more effective than the use of either account alone. This result is similar to the findings by Schweitzer
and his colleagues (2002), showing that a promise-plus-apology condition was not associated with more short-term trust recovery than a promise alone.

The results of the study reported here appear to indicate that either forward-looking assurances of trustworthiness or backward-looking expressions of responsibility and remorse are equally associated with higher perceptions of fair interpersonal treatment, and that these two types of accounts do not combine additively to affect interactional justice perceptions. These findings should be viewed with caution in light of theory indicating that more extensive apologies contain promises of future trustworthiness (Goffman, 1971; Schlenker, 1980) and empirical work indicating the increased efficacy of more extensive reparative accounts (Gold & Weiner, 2000; Ohbuchi et al., 1989).

Moreover, promises and apologies did interact such that the absence of both was associated with significantly lower interactional justice perceptions. This suggests that clear reparative messages result in higher perceptions of fairness than content-free messages, which is likely due to their informational content (Colquitt, 2001) aside from a mere gesture (Greenberg & Roberge, 2003).

Taken together, the present findings suggest that while promises and apologies do not seem to be effective in trust recovery because they communicate that the cause of the trust violation is unstable (and hence less likely to recur), they do appear to be effective insofar as they communicate fair interpersonal treatment. This supports theoretical assertions that accounts are useful in restoring balance to a damaged relationship (Walster et al., 1973), and suggests that they do so in a way that even enables trusting behavior to resume. Notably, the social resources conveyed in promises and apologies (esteem,
courtesy, concern, causal information) appear to be helpful in restoring trust even in purely transactional exchanges among arms-length actors (see also Tomlinson et al., 2004). Displaying interactional justice via voluntary accounts may signal both integrity (i.e., providing an account after violating someone’s trust is simply the “right” thing to do) and benevolence toward the victim (i.e., conferring status to a wrongly injured party), which in turn may increase perceptions of subsequent trustworthiness (Mayer et al., 1995). For example, Kim, Ferrin, Cooper, and Dirks (2004) studied the effects of apologies and denials on subsequent trusting intentions, and predicted that apologies would be associated with higher trusting intentions for competence-based trust violations, whereas denial would be associated with higher trusting intentions for an integrity-based trust violation. Kim and his colleagues (2004) found that these relationships were mediated by perceptions of the offender’s integrity.

The present findings regarding the effects of promises and apologies on interactional justice further suggest that offenders granting a social resource via an account may be able to counteract the negative effects of economic losses due to a trust violation. Future research should continue to address whether trust recovery is further enhanced by “matching” the type of reparative effort (e.g., social versus economic) with the type of trust violation or stage of trust characterizing the relationship (Lewicki et al., in press; Smith, Bolton, & Wagner, 1999; Tomlinson & Lewicki, 2003). For example, are substantive reparations more important than extensive apologies in calculus-based trust relationships? Are extensive apologies more important than substantive reparations in identification-based trust relationships?
When Cheap Talk Works

Support for the role of offense severity as a boundary condition for the effectiveness of cheap talk in the trust recovery process received mixed support. Offense severity did not moderate the effects of promises or apologies on stability attributions. Post hoc analyses did not support the possibility that promises and/or apologies interacted with offense severity in affecting interactional justice perceptions either. This indicates that promises and apologies had relatively equal effects on interactional justice regardless of how severe the violation was. In a recent study by Smith and colleagues (1999) on recovery from service failures, these researchers also failed to confirm an apology x severity interaction on interactional justice.

A possible contributing factor to the lack of support for these hypotheses is that, despite the significant results of the offense severity manipulation check, the experimental conditions in this study did not create very severe trust violations. On a seven-point scale, the mean for the low offense severity condition was 3.84, and the mean for the high offense severity condition was 4.84. Since the participants were recruited with the guarantee of extra credit points for academic courses, these points may have been the primary motivation for their participation. As a consequence, manipulations that only carried implications for how much money they would earn for their participation (i.e., in addition to the predetermined amount of course extra credit) may have been deemed trivial in comparison, and therefore less likely to generate perceptions of severe trust violations.

However, offense severity did moderate the effect of message type on stability attributions. Content-free messages were found to be associated with more detrimental
(i.e., higher) stability attributions than content messages (promises, apologies, promise-plus-apologies) when offense severity is high than when offense severity is low. This finding is consistent with previously published studies on the effects of mindless cognitive processing (Greenberg & Roberge, 2003; Langer et al., 1978). That is, content-free messages have about the same effect on stability attributions as messages expressing reparative content (promises, apologies, promise-plus-apologies) when the severity of the offense is low. But as offense severity increases, the message appears to be more closely scrutinized for its content, and the beneficial effect of a content-free message significantly decreases. In addition, the effects of offense severity do appear to ultimately affect trust behavior ($r = -0.14$, $p < .05$).

In addition, post hoc analyses revealed a three-way interaction indicating that when an apology is provided, interactional justice perceptions are at about the same level regardless of whether it is accompanied by a promise, and regardless of offense severity. Among those who did not receive an apology, there were equally detrimental effects of not receiving a promise, regardless of whether offense severity was high or low. But those who did receive a promise had higher interactional justice perceptions when offense severity was low than when offense severity was high. This suggests that offense severity affects the effectiveness of reparative accounts on perceptions of interpersonal fairness.

**The Role of Stability Attributions in Short-Term Trust Recovery**

Stability attributions played a prominent role in affecting specific emotional reactions of hope and fear, and well as trust expectancy. In turn, hope and trust expectancy both significantly predicted short-term trust recovery. Weiner’s (1986) theoretical predictions regarding stability attributions have received support in a number
of related areas such as parole decisions (Carroll, 1978; Carroll & Payne, 1976, 1977),
consumer reactions to product failure (Folkes, 1984), and interpersonal forgiveness
(Takaku, 2001; Takaku et al., 2001). Confirming this predicted pattern of relationships
lends further support to the general utility of Weiner’s (1986) attribution theory, and
sheds new insight on the trust recovery process in particular.

Consistent with both the conceptual model designed in this dissertation and the
data collected to test it, stability attributions significantly predicted trust expectancy,
hope, and fear. In turn, short-term trust recovery was predicted by both trust expectancy
and hope. Surprisingly, fear did not relate to trust recovery in this study, perhaps because
of the structure of the game used in this study. As mentioned above, participants did not
risk their own money, and were already guaranteed a fixed amount of extra credit for
their participation, which may have been their primary motivation for participating in the
study.

This pattern of results indicates that a focal consideration for victims
contemplating a decision to trust again after a violation is whether the cause of that
violation is likely to persist in the future (Elangovan et al., 2001; Mayer & Fuller, 2002).
So, in addition to the apparent benefits of interactional justice on trust recovery, stability
attributions also seem to play a major role in short-term trust recovery through both
cognitive and affective mechanisms.

In terms of cognitive mechanisms, attributions of lower stability signal less
permanence than higher stability attributions. Therefore, the lower the attribution of
stability regarding the cause of the trust violation, the more confident the victim can be in
concluding that the violation represents an anomaly. The present results indicate that
when stability attributions are lower, the victim is more likely to express greater confidence that the offender will behave in a trustworthy fashion in subsequent interactions, and will therefore be more likely to engage in trusting behavior. In addition, future expectancies of trustworthiness partially mediated the effect of stability attributions on trust behavior. These findings support previous theorizing on trust in early-stage relationships as being heavily influenced by cognition (Kramer, 1999; Lewicki & Bunker, 1995), and extend it by demonstrating the application of Weiner’s (1986) attribution theory in the context of trust recovery.

In terms of affective mechanisms, when the cause of the violation is deemed to be less stable, individuals are less fearful that they will be taken advantage of by the other, and more hopeful that the other will behave in a trustworthy manner in future interactions. These are important findings, as researchers have called for increased study of emotions in the trust literature (Jones & George, 1998). And in the context of trust recovery, the usual references to emotion deal with the anger that comes in the wake of a trust violation (e.g., Lewicki & Bunker, 1996). This study indicates that fear and hope are also important emotions to consider, and that they are generated by attributions of stability regarding the cause of the violation. Moreover, hope significantly predicted trust behavior, and fully mediated the effect of stability on trust behavior.

The effects of specific emotional reactions found in this study give rise to an important theoretical implication. Namely, trust recovery (behavior) should not simply be equated with self-reported levels of confident positive expectations regarding another’s conduct. Behavioral trust recovery appears to be more appropriately regarded as being influenced by both trust expectancy and specific emotional reactions. In other words,
trust recovery can be influenced by not only what the victim believes about the offender’s future trustworthiness, but how the victim feels about continued interaction.

Accordingly, theoretical models of trust repair should consider the role of stability and the variables that drive the victim’s stability attributions in the aftermath of a trust violation. In addition, future conceptualizations should continue to incorporate the role of specific emotional reactions and trust expectancy in predicting trust recovery.

Practical Implications

The results reported here have a number of practical implications for those who desire to rebuild trust in their interpersonal relationships. The first of these is that simple promises and apologies do relate to the victim’s short-term trust recovery, and they appear to matter because they are interpreted as a signal of interactional justice. That is, reparative messages convey meaningful information and social sensitivity that work to re-establish trust in the wake of a violation. In addition, there appears to be some connection between perceptions of interactional justice and stability attributions ($r = -0.41$), although the results of this study do not allow us to draw any firm conclusions about the causality of that relationship. At present, suffice it to say that as post-violation perceptions of interactional justice increase, the stability of the cause of the trust violation decreases, and movements in these directions for both variables is associated with higher short-term trust recovery.

Practitioners should also be aware that message content and the severity of the offense may affect the efficacy of promises and apologies, and hence the trust recovery process, in important ways. The data reported here suggest that in situations where offense severity is low, content-free (garbled) messages may result in approximately the
same beneficial effects of promises and apologies on stability attributions. That is, relatively ‘mindless’, perfunctory messages may simply be interpreted as a polite gesture that is sufficient for repairing the damage of the trust violation. But as the severity of the offense increases, it becomes increasingly important to convey promises and apologies with unambiguous substance and clarity, as victims who encounter greater harm appear to scrutinize message content more closely. This pattern can be seen in the results with both stability attributions and interactional justice perceptions. Providing substantive reparative accounts may pose a difficult yet well-justified challenge, as managers often attempt to distance themselves from employees after negative outcomes (and this distaste may even grow as the negativity of the outcome increases) by either providing an account so vague that it is void of any meaningful information, or failing to provide an account at all (Folger & Skarlicki, 2001). Of course, these findings also imply that practitioners who commit trust violations should become adept at understanding the degree to which others believe their trust has been severely violated in order to adjust reparative efforts accordingly.

Furthermore, stability attributions are a key variable in the trust recovery process, so practitioners should strive to convey that a trust violation stems from unstable causes (e.g., temporary or fluctuating causes) that are unlikely to recur. They influence specific emotional reactions in a manner that provides the victim with a greater sense of hope in future interactions, as well as less of a sense of fear. Stability attributions also permit the victim to develop confident positive expectations regarding the offender’s conduct in future interactions. Finally, short-term trust recovery is affected by both cognition (i.e., trust expectancy) and affect (i.e., hope). It appears that practitioners attempting to rebuild
trust should be mindful that the victim’s decision to trust again is driven by both of these considerations.

Study Limitations

This section acknowledges several limitations that merit consideration in interpreting the results of this study. These limitations consist of issues regarding generalizability, possible subject pool contamination, potential for common method variance, and the nature of the design of the current study, including the measures and manipulations that were employed.

Generalizability

First, this study was conducted in a laboratory setting, where the participants were engaged in an experimental game with a (fictitious) counterpart over a computer with highly restricted communication. Admittedly, this creates conditions that are largely void of many rich and complex factors (such as the reputation of the counterpart, face-to-face communication, personal relationship history, etc.) that may be influential as victims react to reparative communication after their trust has been violated in a work context. Indeed, laboratory studies have been criticized on the grounds that they create a contrived and artificial environment so lacking in realism that any results they produce cannot be confidently extended to actual organizational contexts (Babbie, 1975; Fromkin & Streufert, 1976).

Nonetheless, researchers have reaffirmed not only the legitimacy of the experimental method (Greenberg & Tomlinson, in press), but also its strengths in terms of establishing causal relationships and the conditions under which certain effects are likely to occur (Greenberg & Folger, 1988). That is, the focal concern in an experiment is
not so much on where an effect occurs, but if an effect occurs under certain conditions. As the primary purpose of this study was to uncover the mechanisms and boundary conditions that explain the beneficial effects of cheap talk on short-term trust recovery, an experiment was deemed to be the most suitable research method. Moreover, since the research literature on trust recovery is still in its early stages, experimental studies are useful because they provide rigorous tests of theoretical relationships under carefully controlled conditions that can later be extended to applied settings (Greenberg & Lind, 2000; Greenberg & Tomlinson, 2004). Thus, future research should examine whether the results of this study extend to actual, more realistic contexts.

It is also worth noting that in the sample used to test the dissertation hypotheses, the participants were fairly young (average age = 22 years old). It is not clear if the results reported here will generalize to individuals who are older, so future research should explore this issue.

Possible Contamination

Another possible concern is the contamination of the subject pool used in the current study. The study was conducted over a period of five weeks, and drew from three large management courses. Conceivably, there may have been opportunities where students may have discussed their research participation with those yet to participate. Several steps were taken as safeguards against contamination. First, although two sessions were conducted on one evening per week for five weeks, these sessions were scheduled to allow the participants from the first session to completely clear the area before participants for the later session arrived. Second, students in the organizational behavior course were only able to sign up for the very last night of experimental sessions,
even further curtailing the possibility that these students could discuss their experiences with other participants in a manner that might threaten the internal validity of the study. Third, the initial debriefing (1) did not reveal the true nature of the study or the specific hypotheses under investigation and (2) stressed the importance of maintaining the integrity of the study and explicitly asked participants not to discuss their experiences with anyone else until the entire study had been completed. Finally, responses to the open-ended suspicion check revealed that although eight participants expressed suspicions regarding their counterpart, no participants made any comments indicating that contamination was a factor. However, while these precautions may provide some degree of assurance that contamination did not occur, it cannot be completely ruled out.

**Potential for Common Method Variance**

Another possible limitation of this study is the potential that common method variance led to inflated correlations between four self-reported variables measured in this study. However, a factor analysis provided support for the distinction among these four constructs, whereas common method variance would suggest that all of the items for these constructs would load on a single factor (Podsakoff & Organ, 1986). In addition, a number of these items were reverse-coded to help control for common method variance.

**Design Issues**

There were a number of relationships presented in the conceptual model presented as Figure 3.1, but not tested in the current study. For example, the direct effect of content-free messages was not examined in this study. In this case, testing for this effect would have required a no-communication control condition. Given the number of cells in the existing design, and the prior work that has found a direct effect of content-free messages
(Greenberg & Roberge, 2003; Langer et al., 1978), the decision was made not to test this particular hypothesis in the current study. However, future research should address other relationships in the conceptual model that were not examined in this study.

Measures on causal stability, hope, and fear were written specifically for use in this study. Although care was taken to generate items that matched their theoretical conceptualization, the use of such idiosyncratic scales makes it difficult to compare the present results with those in other studies. However, to date there have been no other known studies in the trust literature that have examined these particular variables, and their customization for this study may actually be a strength insofar as they were designed to capture the unique qualities of this particular experimental situation.

Nonetheless, caution regarding the stability measure may still be warranted due to the low reliability (alpha = .58). Earlier in this chapter, the discussion touched on the difficulty of measuring stability attributions evident in the low reliability of the measure chosen to be reported in this study, as well as the low reliability and difficulty of comprehension pertaining to a previously published scale by McAuley and his colleagues (1992). Notably, several other research studies on causal stability have manipulated stability rather than measured it (e.g., Folkes, 1984). Future research on trust recovery that includes the role of causal stability may benefit from the development of a more psychometrically sound measure of this construct.

The offense severity manipulation may have also been problematic in this study. Pilot testing for this study went through several iterations to produce a viable manipulation that resulted in significant mean differences. Varying the amount of money returned in rounds 3 and 4 to be either $0 or $5 (slightly less than the original $6
endowment, yet $4 less than an even $9-$9 split) was finally selected as the manipulation for severity. In addition, informing the subjects that only the results from round 3 until an uncertain end would constitute the pool from which their earnings would be randomly drawn was found to further strengthen the efficacy of this manipulation. Specifically, if subjects receive $9 in rounds 1 and 2, and this amount counts toward their random drawing, the defections in rounds 3 and 4 will be less adverse. When the first two rounds do not count toward the payoff, rounds 3 and 4 are the first rounds that count, and trust violations in these rounds will be more salient.

Even though this final version of the offense severity manipulation resulted in a manipulation check that was highly significant, the mean for the high offense severity condition was only 4.84 on a seven-point scale. As mentioned earlier, all participants were recruited with a guaranteed, pre-announced amount of course extra credit in addition to the monetary incentive. Ostensibly, for many students, the extra credit may have been the primary motivation for participating, and any monetary earnings would be “icing on the cake.” Different results may have been achieved if participants were only playing for one kind of reward (e.g., subjects are told that they can earn a certain amount of extra credit points depending on their decisions, the decisions of others, and chance). Although researchers should certainly be wary of and sensitive to the ethical implications of creating extremely distressing situations for experimental participants, continued refinement of the offense severity manipulation may be a worthwhile pursuit given the theoretical relevance of this construct discussed in Chapter 3.
Future Research

As a result of this study, there are a number of avenues for future research to pursue. Although some suggestions have been provided in earlier sections of this chapter, this section highlights a number of opportunities that may be particularly useful in advancing the study of trust recovery in professional interpersonal relationships.

The Relationships Between Cheap Talk, Trust, and Justice

A number of previous studies have drawn the connection between trust and justice (see Lewicki, Wiethoff, & Tomlinson, in press). However, this study is the first to empirically examine the role of interactional justice in promoting the recovery of broken trust, even though that was not the original purpose of the study. While the present study sought to draw the connection between forms of cheap talk and stability attributions, the post-hoc analyses revealed that promises and apologies had a profound impact on perceptions of interactional justice.

Previous research in the organizational justice literature has revealed that interactional justice can dampen negative effects of underpayment inequity such as perceptions of unfairness and forms of deviant behavior such as employee theft (Greenberg, 1993; Walster et al., 1973). Arguably, the trust violation in the present study could also be viewed as a violation of distributive justice, insofar as Player 2’s allocation decision to return less than $9 would be moot if it were not for the trusting action of Player 1 that provided Player 2 with $18 to split in the first place. In the present study, it appears that interactional justice has restorative properties that facilitate recovery of trust as well.
This finding extends the view that fair interactional treatment engenders trust (Mayer et al., 1995) by suggesting that restoring justice via an account is an important element of restoring trusting behavior. Future research should continue to explore the connection between trust and justice, particularly in the context of trust recovery.

Toward that end, it is acknowledged that research on interactional justice has provided meta-analytic evidence that this construct actually has two distinct factors, termed interpersonal and informational justice respectively (Colquitt, 2001). The former describes the degree to which one is treated with social sensitivity (i.e., dignity and respect), while the latter deals with the degree to which information on a decision is provided. While this study used the measures of interpersonal and informational justice provided in Colquitt’s (2001) recent paper, they were combined into a single scale for interactional justice for use in this study.

However, future research can examine the efficacy of different types of accounts on different forms of interactional justice. For example, explanations, justifications, and promises may strongly impact informational justice, whereas apologies may strongly impact interpersonal justice. Exploratory analysis on data from the present study showed that both promises and apologies were similarly correlated with interpersonal justice ($r$’s = .25 and .26, respectively, $p$’s < .01). However, promises were more strongly correlated with informational justice ($r = .25, p < .01$) than apologies ($r = .17, p < .05$). Future research can also systematically assess the relative effects of these two types of interactional justice on trust recovery. Correlations in the present data set reveal that trust behavior is more strongly correlated with interpersonal justice ($r = .33, p < .01$) than informational justice ($r = .24, p < .01$). Thus, it appears that even in calculus-based trust...
relationships, trust recovery is strongly affected by the degree of social sensitivity extended by the offender (see also Tomlinson et al., 2004).

It is also worth noting that the measure of interactional justice in this study was collected at the end of the game, along with the message manipulation checks. If promises and apologies do indeed lead to short-term trust recovery via interactional justice, it may be useful to replicate this study with interactional justice measures immediately after the message manipulation and before the short-term trust recovery measure (to more closely capture the predicted temporal sequence). However, to the extent that one may rely on the veracity of the message manipulation checks to verify participants’ perceptions of their experimental conditions at the end of the study, measuring interactional justice perceptions at the same point in time (instead of earlier in the study as suggested above) may not make any difference if changes in interactional justice are predicted as a function of the message manipulation.

The Role of Stability Attributions

Despite the inability to confirm the predicted effects of cheap talk on stability attributions in this study, clear support emerged for the relationships between stability and specific emotional reactions and trust expectancies, which ultimately led to short-term trust recovery. This is consistent with Weiner’s (1986) causal attribution theory. This suggests that future research should identify and test theoretically-relevant variables that affect stability attributions regarding the cause of a trust violation. Such variables may consist of motive orientation of the offender (Deutsch, 1973) or other types of trust-relevant personality characteristics of the offender (e.g., Machiavellianism). Another
possibility may lie in manipulating the ratio of cooperative to competitive actions by an offender in a series of interactions.

It is also interesting to note the significant correlation between stability attributions (which were not affected by promises or apologies) and interactional justice (which was affected by both), $r = -.41, p < .01$. Extant theory and the design of this study limit the conclusions we can draw about the precise nature of this relationship, particularly whether a causal relationship exists. As this study indicates that both interactional justice and stability are key variables in the trust recovery process, future work should be devoted to exploring the relationship between these variables in greater depth.

Prescriptive Research for the Victim

The trust literature on trust has been largely normative: trust is good, distrust is bad (e.g., Erikson, 1963). Therefore, the assumption may be that restoring broken trust is good also. But this may not necessarily be the case, and the present research may be criticized on the grounds that it provides offenders with prescriptions on how to re-establish trust at no or minimal cost to themselves. That is, a cynical perspective would contend that such guidance allows offenders to set up their victims for continued exploitation. Indeed, a more realistic view may be that too much trust is as bad as too little (Jeffries & Reed, 2000; Wicks, Berman, & Jones, 1999), and there may be instances where those who have had their trust shattered should not allow it to be re-established.

What is needed, then, is for future research to move beyond describing the reactions of victims in order to prescribe useful techniques for offenders to rebuild trust, to prescribing guidance for victims to respond appropriately to offender tactics in the
aftermath of a trust violation. This seems somewhat analogous to research on cognitive biases that has generated prescriptions for those who wish to avoid typical psychological traps (e.g., Teger, 1980).

Conclusion

This dissertation represents an important step forward in understanding the dynamics associated with short-term trust recovery. These results indicate that, although cheap talk is virtually cost-free for the offender, it is valuable for the victim, the offender, and the relationship between them. Indeed, such post-violation reparative communication appears to be valued by the victim as evidence of interactional justice. Notably, even though talk is cheap for the offender, it also carries valuable benefits to the offender and his/her relationship with the victim as well insofar as trust is rebuilt in a manner that allows a beneficial interdependent relationship to resume. It is somewhat of a paradox that the high costs of lost trust (Simons, 2002) may be at least partially recouped with mere words in the short term.

Furthermore, the study did find some support for the role of stability attributions and the predicted sequence of Weiner’s (1986) attribution theory as it applies to short-term trust recovery. Future work should continue to explore how stability attributions can be affected in a manner that stimulates the recovery of trust in interpersonal relationships that have been damaged by a trust violation.
REFERENCES


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APPENDIX A

STUDY ANNOUNCEMENT AND SOLICITATION
Hello, I am Ed Tomlinson, a Ph.D. student in Management and Human Resources here at the Fisher College of Business. The reason I am speaking to you today is to offer you a chance to participate in some research I am conducting with Professor Roy Lewicki, also of the Fisher College of Business. If you choose to participate in this research project, you will earn extra credit [as determined by the course instructor] in this class. In addition, if you choose to participate in this study, you will have the opportunity to earn money. The amount of money you earn will depend on your decisions, the decisions of others, and chance.

If you choose not to participate in the research project, but would still like to have the opportunity to earn the extra credit, you will have the chance to write a 2-page current event summary about a topic related to Human Resources or general management instead. However, monetary compensation is not provided for this alternative.

We are conducting some research on attitudes and decision making, and we are seeking your participation in a computer-based exercise. Thus, your involvement in this project will consist of signing up for and showing up to a computer laboratory located on the third floor of Mason Hall. The exercise is scheduled for [list dates and times here]. We can only accommodate up to 40 people in each time slot. Space will be filled on a first-come, first-serve basis.

I want to make sure you understand that participation in this study is purely voluntary, and you can withdraw from the study at any time and for any reason without penalty. I will ask you to sign a consent form to bring with you when you come to participate in the study. This consent form indicates that you are aware of and agree to your involvement in the study.

The sheet I am distributing to you reminds you of several important points: (1) sign and bring the consent letter with you to the exercise, (2) make a note of which room and which time slot you sign up for, and (3) be on time! We will start promptly, and no one will be admitted to the exercise after we have started.

Are there any questions I can answer at this time? [address any questions] You will note that I have provided you with a contact phone number and email. Feel free to contact me at any time if questions arise. Again, thank you for your time today. [sign up interested participants]
APPENDIX B

DESCRIPTION OF EXTRA CREDIT OPPORTUNITY AND LETTER OF CONSENT
DESCRIPTION OF EXTRA CREDIT OPPORTUNITY:

Research Project
1. You will be asked to schedule a one-hour time slot in a computer lab during the month of January/February. Seats will be filled on a first-come, first-serve basis!
2. You will then need to visit the computer lab, outside of class at your scheduled time, and access the web sites used in this research. You must complete the computer lab session to receive the extra credit.
3. Sign the letter on the other side of this page and bring it with you to the exercise! We can’t let you participate without it!
4. Be sure to arrive on time for your session! We want to respect everyone’s time, so latecomers will not be admitted.
5. Make a note of which room and which day/time slot you sign up for!

I signed up to participate in Mason Hall Room _______
on ______________________ (day) at ________________ (time).

Alternative Project
NOTE: The purpose of this alternative project is to provide an opportunity to earn extra credit to those students who are unable, or who do not wish to participate in the research project. You may NOT do both the research project and this alternative opportunity.
1. Locate an article published during this academic quarter that relates to the course material for this class. Choose from one of these five major business periodicals: Business Week, Fortune, Forbes, New York Times, Wall Street Journal.
2. Copy and read the article. (Downloading the article from their web sites may be easiest.)
3. Write a short discussion of the article's relationship to course material. Be specific about what concepts you think the article relates to and why it is relevant: (a) What was the purpose of the article? (b) How does the article relate to one (or more) of the topics covered in class? (c) What are your reactions to the article? (d) Were there any problems with the article?
4. The length of your discussion should be at least two pages and no longer than three pages (printed using 11 or 12 point font & double-spaced) with 1-inch margins.
5. Turn in your paper and the copy of article to your instructor.
6. The paper is due in class no later than Wednesday, March 10, 2004. No late papers will be accepted.

Mr. Tomlinson will grade these papers on a pass/fail basis using the following criteria:
(1) Clarity and completeness of your summary
(2) Application of the article to course material
(3) Professionalism.
CONSENT FOR PARTICIPATION IN SOCIAL AND BEHAVIORAL RESEARCH

Protocol title: Decision Making Study

Protocol number: 2003B0133

Principal Investigator: Roy J. Lewicki

I consent to my participation in research being conducted by Roy J. Lewicki of The Ohio State University and his assistants and associates.

The investigator(s) has explained the purpose of the study, the procedures that will be followed, and the amount of time it will take. I understand the possible benefits, if any, of my participation.

I know that I can choose not to participate without penalty to me. If I agree to participate, I can withdraw from the study at any time, and there will be no penalty.

I have had a chance to ask questions and to obtain answers to my questions. I can contact the investigators at 292-5317/Tomlinson.41@osu.edu or lewicki.1@osu.edu. If I have questions about my rights as a research participant, I can call the Office of Research Risks Protection at (614) 688-4792.

I have read this form or I have had it read to me. I sign it freely and voluntarily. A copy has been given to me.

Print the name of the participant:

___________________________________________

Date: ______________________________ Signed: ______________________________

(Participant)

Signed:

(Principal Investigator or his/her authorized representative)
Personal Preference Survey

This is a voluntary survey that I would like you to complete. I will aggregate this information provided by class members and use it as the basis for discussing important course content later this quarter.

Please fill out this brief survey, asking about your current feelings and beliefs. There are no right or wrong answers to any of these questions. Your responses will be kept completely confidential and will never be reported individually, and the answers you provide will not be associated with your course grade.

Please turn in your completed survey in class on [date].

Thank you for completing this survey!
Directions: Indicate the degree to which you agree or disagree with each statement by using the following scale:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>Mildly Agree</td>
<td>Agree and Disagree Equally</td>
<td>Mildly Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

1. Hypocrisy is on the increase in our society.
2. In dealing with strangers one is better off to be cautious until they have provided evidence that they are trustworthy.
3. This country has a dark future unless we can attract better people into politics.
4. Fear and social disgrace or punishment rather than conscience prevents most people from breaking the law.
5. Using the honor system of not having a teacher present during exams would probably result in increased cheating.
6. Parents usually can be relied on to keep their promises.
7. The United Nations will never be an effective force in keeping world peace.
8. The judiciary is a place where we can all get unbiased treatment.
9. Most people would be horrified if they knew how much news that the public hears and sees is distorted.
10. It is safe to believe that in spite of what people say most people are primarily interested in their own welfare.
11. Even though we have reports in newspapers, radio, and T.V., it is hard to get objective accounts of public events.
12. The future seems very promising.
13. If we really knew what was going on in international politics, the public would have reason to be more frightened than they now seem to be.
14. Most elected officials are really sincere in their campaign promises.
15. Many major national sports contests are fixed in one way or another.
16. Most experts can be relied upon to tell the truth about the limits of their knowledge.
17. Most parents can be relied upon to carry out their threats of punishments.
18. Most people can be counted on to do what they say they will do.
19. In these competitive times one has to be alert or someone is likely to take advantage of you.
20. Most idealists are sincere and usually practice what they preach.
21. Most salesmen are honest in describing their products.
22. Most students in school would not cheat even if they were sure of getting away with it.
23. Most repairmen will not overcharge even if they think you are ignorant of their specialty.
24. A large share of accident claims filed against insurance companies are phony.
25. Most people answer public opinion polls honestly.
How Accurately Can You Describe Yourself?

Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know of the same sex and of roughly your same age. If there are any words that you do not know or understand, please circle them.

Before each trait, please write a number indicating how accurately that trait describes you, using the following rating scale:

Inaccurate                              Accurate

<table>
<thead>
<tr>
<th>Extremely</th>
<th>Very</th>
<th>Quite</th>
<th>Slightly</th>
<th>Neither</th>
<th>Slightly</th>
<th>Quite</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Active</th>
<th>Extraverted</th>
<th>Negligent</th>
<th>Trustful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreeable</td>
<td>Fearful</td>
<td>Nervous</td>
<td>Unadventurous</td>
</tr>
<tr>
<td>Anxious</td>
<td>Fretful</td>
<td>Organized</td>
<td>Uncharitable</td>
</tr>
<tr>
<td>Artistic</td>
<td>Generous</td>
<td>Philosophical</td>
<td>Uncooperative</td>
</tr>
<tr>
<td>Assertive</td>
<td>Haphazard</td>
<td>Pleasant</td>
<td>Uncreative</td>
</tr>
<tr>
<td>Bashful</td>
<td>Harsh</td>
<td>Practical</td>
<td>Undemanding</td>
</tr>
<tr>
<td>Bold</td>
<td>Helpful</td>
<td>Prompt</td>
<td>Undependable</td>
</tr>
<tr>
<td>Bright</td>
<td>High-strung</td>
<td>Quiet</td>
<td>Unemotional</td>
</tr>
<tr>
<td>Careful</td>
<td>Imaginative</td>
<td>Relaxed</td>
<td>Unenvious</td>
</tr>
<tr>
<td>Careless</td>
<td>Imperceptive</td>
<td>Reserved</td>
<td>Unexcitable</td>
</tr>
<tr>
<td>Cold</td>
<td>Imperturbable</td>
<td>Rude</td>
<td>Unimaginative</td>
</tr>
<tr>
<td>Complex</td>
<td>Impractical</td>
<td>Self-pitying</td>
<td>Uninquisitive</td>
</tr>
<tr>
<td>Conscientious</td>
<td>Inconsistent</td>
<td>Selfish</td>
<td>Unintellectual</td>
</tr>
<tr>
<td>Considerate</td>
<td>Inefficient</td>
<td>Shallow</td>
<td>Unintelligent</td>
</tr>
<tr>
<td>Cooperative</td>
<td>Inhibited</td>
<td>Shy</td>
<td>Unkind</td>
</tr>
<tr>
<td>Creative</td>
<td>Innovative</td>
<td>Simple</td>
<td>Unreflective</td>
</tr>
<tr>
<td>Daring</td>
<td>Insecure</td>
<td>Sloppy</td>
<td>Unrestrained</td>
</tr>
<tr>
<td>Deep</td>
<td>Intellectual</td>
<td>Steady</td>
<td>Unsophisticated</td>
</tr>
<tr>
<td>Demanding</td>
<td>Introverted</td>
<td>Systematic</td>
<td>Unsympathetic</td>
</tr>
<tr>
<td>Disorganized</td>
<td>Introverted</td>
<td>Systematic</td>
<td>Unsystematic</td>
</tr>
<tr>
<td>Distrustful</td>
<td>Irritable</td>
<td>Talkative</td>
<td>Untalkative</td>
</tr>
<tr>
<td>Efficient</td>
<td>Jealous</td>
<td>Temperamental</td>
<td>Verbal</td>
</tr>
<tr>
<td>Emotional</td>
<td>Kind</td>
<td>Thorough</td>
<td>Vigorous</td>
</tr>
<tr>
<td>Energetic</td>
<td>Moody</td>
<td>Timid</td>
<td>Warm</td>
</tr>
<tr>
<td>Envious</td>
<td>Neat</td>
<td>Touchy</td>
<td>Withdrawn</td>
</tr>
</tbody>
</table>
Below are a number of situations in which people might find themselves. People respond in different ways to these situations in terms of what things they will forgive. We would like you to read each situation and imagine it has happened to you. Then we would like you to use the scale below to indicate how you think you would respond to the situation:

1 = definitely not forgive,
2 = not likely to forgive,
3 = just as likely to forgive as not,
4 = likely to forgive, and
5 = definitely forgive.

1. Someone you occasionally see in a class has a paper due at the end of the week. You have already completed the paper for the class and this person says he or she is under a lot of time pressure and asks you to lend him or her your paper for some ideas. You agree, and this person simply retypes the paper and hands it in. The professor recognizes the paper, calls both of you to her office, scolds you, and says you are lucky she doesn’t put you both on academic probation. Imagine yourself in such a situation and mark how likely you are to forgive the person who borrowed your paper.

2. A fairly close friend tells you that he or she needs some extra money for an upcoming holiday. You know a married couple who needs a babysitter for their 3-year-old for a couple of nights and you recommend your friend. Your friend is grateful and takes the job. On the first night, the child gets out of bed and, while your friend has fallen asleep watching television, drinks cleaning fluid from beneath the kitchen sink. The child is taken by an ambulance to the hospital and stays there for 2 days for observation and treatment. The married couple will not speak to you. Imagine yourself in such a situation and mark how likely you are to forgive your friend.

3. A friend offers to drop off a job application for you at the post office by the deadline for submission. A week later, you get a letter from the potential employer saying that your application could not be considered because it was postmarked after the deadline and they had a very strict policy about this. Your friend said that he or she met an old friend, went to lunch, and lost track of time. When he or she remembered the package, it was close to closing time at the post office and he or she would have to have rushed frantically to get there; he or she decided that deadlines usually aren’t that strictly enforced so he or she waited until the next morning to deliver the package. Imagine yourself in such a situation and mark how likely you are to forgive your friend for not delivering the application on time.
4. You just started a new job and it turns out that a classmate from high school works there, too. You think this is great; now you don’t feel like such a stranger. Even though the classmate wasn’t part of your crowd, there’s at least a face you recognize. You two hit it off right away and talk about old times. A few weeks later, you are having lunch in the cafeteria and you overhear several of your coworkers, who do not realize you are nearby, talking about you and laughing; one even sounds snide and hostile toward you. You discover that your old classmate has told them about something you did back in school that you are deeply ashamed of and did not want anyone to know about. Imagine yourself in such a situation and mark how likely you are to forgive your old classmate for telling others your secret.

1 2 3 4 5

5. A distant cousin you haven’t seen since childhood calls you one day and asks if he can stay with you while he looks for work and an apartment. You say it will be fine. He asks you to pick him up from the bus station that night and you do so. Your cousin is just like you fondly remember him; you reminisce for several hours. The next morning you give him some advice on job and apartment hunting in the area, then you go about your own business. That night you come home and witness an angry argument in front of your residence between your cousin and a neighbor. Your cousin is obviously very drunk, cursing, and out of control. You ask what’s happening and without really taking the time to recognize you, your cousin throws a bottle at you, cutting the side of your head. The police arrive and, with some scuffling, take your cousin away and take you to the emergency room where you have stitches put on your cut. The next afternoon, your cousin calls from the police station. He says he is really sorry about the whole scene and that it was not like him but he was upset about being turned down for three jobs that day. Imagine yourself in such a situation and mark how likely you are to forgive your cousin.

1 2 3 4 5

Demographic questions
1. What is your age? _____(in years)

2. What is your gender? (please circle) Male Female

3. Please print your name here:
Thank you for participating in this study!

Your responses in this study will be kept completely confidential. Only the researcher from OSU will have access to your responses. However, to ensure you receive the extra credit for your participation, please write your name and assigned pairing number below:

Name (please print legibly): _______________________________ Pairing number:________

Once your responses have been compiled into the researcher’s database, your name will be dropped thus ensuring complete confidentiality. Individual responses will never be identified or isolated; all data will be reported as an aggregate group.

*****

This is an exercise on decision making where you will have the opportunity to earn money for your participation. The amount of money you earn will depend partly upon your decisions, partly on the decisions of others, and partly on chance. Different people may earn different amounts.

It is important that you do not look at the decisions of others, and that you do not talk, laugh, or make noises during the exercise. You will be warned if you violate this rule. If you violate this rule twice, you will be asked to leave, and you will not be paid. That is, your earnings will be $0.

Assignment to the Player 1 or Player 2 Group

Each person has been randomly assigned to the Player 1 or Player 2 group. You have been assigned to the Player 1 group. Members of each group will sit in different rooms. You will be matched with a person from the opposite group in a separate room.
Procedure for Player 1

The exercise will consist of several rounds. You will be paired with the same person (from the Player 2 group) for every round, and you are both engaged in the same exercise. The exercise you will participate in is depicted in the diagram below. In each case, YOUR earnings are underlined.

How Each Round Works

There are $6 given to you (Player 1) at the start of each round. For each round, Player 1 and Player 2 will make a decision simultaneously. The payoff for each player will be determined by the combination of decisions that both players make.

As Player 1, …

If you choose Pass $0, you will earn $6 and Player 2 will earn $0, regardless of what Player 2 chooses.
If you choose Pass $3, you will earn $3 and Player 2 will earn $3, regardless of what Player 2 chooses.
If you choose Pass $6, the amount of money triples to $18, and Player 2 decides how much of the $18 to return to you:

Player 2 can Return $18, Return $13, Return $9, Return $5, or Return $0.
If Player 2 chooses Return $18, you earn $18 and Player 2 earns $0.
If Player 2 chooses Return $13, you earn $13 and Player 2 earns $5.
If Player 2 chooses Return $9, you earn $9 and Player 2 earns $9.
If Player 2 chooses Return $5, you earn $5 and Player 2 earns $13.
If Player 2 chooses Return $0, you earn $0 and Player 2 earns $18.

In each round, both players are asked to indicate what they would do. Note that the round may actually end earlier so Player 2’s choice may not influence the outcome of that round. For example, if Player 1 chooses to Pass $0, then the choice of Player 2 will not affect the payoffs (since the round ends – with Player 1 earning $6 and Player 2 earning $0). As Player 1, only when you choose to Pass $6 will the choice of Player 2 affect your payoffs. Still, in each round both players will record their decisions simultaneously.

Therefore,

- You have the chance to maximize your payoff for each round by passing all of your $6 endowment to Player 2, and
- Regardless of what you choose, Player 2 will make a decision on every round based on the assumption that you have passed all of your $6 endowment.
**Number of Rounds**
You will play this same exercise with the same partner for several rounds. There will be at least 7 rounds, but we have not indicated exactly how many rounds we will play, as this will depend on how quickly you complete each round. The computer will notify you of the last round of your exercise immediately before that round.

**Feedback**
You and your partner will receive feedback after each round. After each round you will learn what your partner chose, and he/she will learn what you chose for that round. That is, you and your partner will know what each other chose in each round before you make your decision for the next round.

*As you proceed through the exercise, record all choices for each round on your “Player 1 Decision Sheet.”*

**Communication**
We will allow only limited communication. Both players will be able to send a message to each other simultaneously before Round 5. This is the only communication that is allowed in the exercise.

[The following is read to the participants by the experimenter, but does not appear in the printed instructions: Due to some technical difficulties, there have been instances where the message sent by Player 2 becomes “garbled” when sent through the computer, and it may be difficult to understand this message. We are aware of the problem and are working to correct it. However, there is nothing we can do if you get this type of message during the exercise. Just continue with the exercise the best you can. (This is not an issue if Player 2 chooses NOT to send a message.)]

**Survey Questions**
Depending on how your exercise unfolds, the computer program may periodically interrupt the exercise in between rounds to ask you and your partner various types of questions regarding your reactions, intentions, etc. Please answer these questions before proceeding on to the next round.

**Payoffs**
At the end of the exercise we will select one of the rounds at random and pay you based upon the amount you earned for that round. However, not all of the rounds you will play will count toward this random drawing. The computer will notify you immediately before the block of rounds that count toward your payoff drawing, and all rounds that you play after that notice will also count toward that drawing.

Because of the way this exercise is programmed, we can’t determine exactly how much you will be paid until all data for the study is accumulated. Your payment will be calculated at the end of the study when all participants have completed the exercise. We will give you a participation voucher as you leave today, and you will receive your payment near the end of the academic quarter.

For your information, the average payout on prior runs of the game is $9 for Player 1.

**DO NOT use the “back” button on your browser. Doing so will invalidate the exercise and forfeit your payment for participation. Instead, be sure to click the buttons provided on the screen to advance through the exercise.**
**Comprehension Check**
To be sure that every player understands the procedure, we would like you to answer the following questions.

How much do the players earn if…..

(1) *Player 1* chooses **Pass $6** and *Player 2* chooses **Return $18**?  
P1:____  P2:____

(2) *Player 1* chooses **Pass $6** and *Player 2* chooses **Return $9**?  
P1:____  P2:____

(3) *Player 1* chooses **Pass $6** and *Player 2* chooses **Return $0**?  
P1:____  P2:____

(4) *Player 1* chooses **Pass $0** and *Player 2* chooses **Return $13**?  
P1:____  P2:____

(5) *Player 1* chooses **Pass $0** and *Player 2* chooses **Return $5**?  
P1:____  P2:____

(6) *Player 1* chooses **Pass $0** and *Player 2* chooses **Return $0**?  
P1:____  P2:____

I will now come around to check everyone’s answers. We will continue when we are sure that everyone in both rooms understands the procedure. As before, if you have any questions please raise your hand and we will come around to answer them individually.
APPENDIX E
PLAYER 1 DECISION SHEET
**Player 1 Decision Sheet**

- The computer will randomly select *one* of your eligible rounds, and that will be your payment for participation today.
- The computer will define the block of rounds that are eligible to be randomly drawn for your participation payment.
- When the computer notifies you of the first eligible round, *draw a line on the chart below to indicate when your series of eligible rounds will begin.*

<table>
<thead>
<tr>
<th>Round</th>
<th><strong>Player 1 Decision</strong> (Completed by Player 1)</th>
<th><strong>FEEDBACK FOR PLAYER 1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Player 2’s Decision</em></td>
<td>Amount Earned for Player 1</td>
</tr>
<tr>
<td></td>
<td>[] Pass $6</td>
<td>[] Return $18, Keep $0</td>
</tr>
<tr>
<td>1</td>
<td>[] Pass $3</td>
<td>[] Return $13, Keep $5</td>
</tr>
<tr>
<td></td>
<td>[] Pass $0</td>
<td>[] Return $9, Keep $9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[] Return $5, Keep $13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[] Return $0, Keep $18</td>
</tr>
<tr>
<td>2</td>
<td>[] Pass $6</td>
<td>[] Return $18, Keep $0</td>
</tr>
<tr>
<td></td>
<td>[] Pass $3</td>
<td>[] Return $13, Keep $5</td>
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<tr>
<td></td>
<td>[] Pass $0</td>
<td>[] Return $9, Keep $9</td>
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<tr>
<td></td>
<td></td>
<td>[] Return $5, Keep $13</td>
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<tr>
<td></td>
<td></td>
<td>[] Return $0, Keep $18</td>
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<tr>
<td>3</td>
<td>[] Pass $6</td>
<td>[] Return $18, Keep $0</td>
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<tr>
<td></td>
<td>[] Pass $3</td>
<td>[] Return $13, Keep $5</td>
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<td></td>
<td>[] Pass $0</td>
<td>[] Return $9, Keep $9</td>
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<td></td>
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<td>[] Return $5, Keep $13</td>
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<td>[] Return $0, Keep $18</td>
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<tr>
<td>4</td>
<td>[] Pass $6</td>
<td>[] Return $18, Keep $0</td>
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<td></td>
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<td></td>
<td>[] Pass $0</td>
<td>[] Return $9, Keep $9</td>
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<td>[] Return $5, Keep $13</td>
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<td>[] Return $0, Keep $18</td>
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<tr>
<td>5</td>
<td>[] Pass $6</td>
<td>[] Return $18, Keep $0</td>
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<td>[] Pass $3</td>
<td>[] Return $13, Keep $5</td>
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<tr>
<td></td>
<td>[] Pass $0</td>
<td>[] Return $9, Keep $9</td>
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<tr>
<td></td>
<td></td>
<td>[] Return $5, Keep $13</td>
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<tr>
<td></td>
<td></td>
<td>[] Return $0, Keep $18</td>
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<tr>
<td>6</td>
<td>[] Pass $6</td>
<td>[] Return $18, Keep $0</td>
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<tr>
<td></td>
<td>[] Pass $3</td>
<td>[] Return $13, Keep $5</td>
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<tr>
<td></td>
<td>[] Pass $0</td>
<td>[] Return $9, Keep $9</td>
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<tr>
<td></td>
<td></td>
<td>[] Return $5, Keep $13</td>
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<tr>
<td></td>
<td></td>
<td>[] Return $0, Keep $18</td>
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<tr>
<td>7</td>
<td>[] Pass $6</td>
<td>[] Return $18, Keep $0</td>
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<td></td>
<td>[] Pass $3</td>
<td>[] Return $13, Keep $5</td>
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<tr>
<td></td>
<td>[] Pass $0</td>
<td>[] Return $9, Keep $9</td>
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<td></td>
<td></td>
<td>[] Return $5, Keep $13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[] Return $0, Keep $18</td>
</tr>
<tr>
<td>8</td>
<td>Pass $6</td>
<td>Return $18, Keep $0</td>
</tr>
<tr>
<td></td>
<td>Pass $3</td>
<td>Return $13, Keep $5</td>
</tr>
<tr>
<td></td>
<td>Pass $0</td>
<td>Return $9, Keep $9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return $5, Keep $13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return $0, Keep $18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$_______</td>
</tr>
</tbody>
</table>

| 9 | Pass $6  | Return $18, Keep $0  |
|   | Pass $3  | Return $13, Keep $5  |
|   | Pass $0  | Return $9, Keep $9  |
|   |          | Return $5, Keep $13  |
|   |          | Return $0, Keep $18  |
|   |          | $_______  |

| 10 | Pass $6 | Return $18, Keep $0  |
|    | Pass $3 | Return $13, Keep $5  |
|    | Pass $0 | Return $9, Keep $9  |
|    |          | Return $5, Keep $13  |
|    |          | Return $0, Keep $18  |
|    |          | $_______  |

| 11 | Pass $6 | Return $18, Keep $0  |
|    | Pass $3 | Return $13, Keep $5  |
|    | Pass $0 | Return $9, Keep $9  |
|    |          | Return $5, Keep $13  |
|    |          | Return $0, Keep $18  |
|    |          | $_______  |

| 12 | Pass $6 | Return $18, Keep $0  |
|    | Pass $3 | Return $13, Keep $5  |
|    | Pass $0 | Return $9, Keep $9  |
|    |          | Return $5, Keep $13  |
|    |          | Return $0, Keep $18  |
|    |          | $_______  |

| 13 | Pass $6 | Return $18, Keep $0  |
|    | Pass $3 | Return $13, Keep $5  |
|    | Pass $0 | Return $9, Keep $9  |
|    |          | Return $5, Keep $13  |
|    |          | Return $0, Keep $18  |
|    |          | $_______  |

| 14 | Pass $6 | Return $18, Keep $0  |
|    | Pass $3 | Return $13, Keep $5  |
|    | Pass $0 | Return $9, Keep $9  |
|    |          | Return $5, Keep $13  |
|    |          | Return $0, Keep $18  |
|    |          | $_______  |
APPENDIX F

MEASURES
Box 1: Offense Severity Manipulation Check

[Immediately after Round 4, but before receiving message from Player 2]

The computer program has recorded that Player 2 chose to return less than $9 on Rounds 3 and 4. This is a special questionnaire for Player 1 in situations where Player 2 chose to return less than $9. Before moving on to the next round, please provide your reactions to Player 2’s decisions on these rounds.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>Neutral</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Player 2’s choices of how much money to return to me on these rounds have severely harmed my earnings potential.
2. I feel cheated by Player 2.
3. I am offended by the amount of money that has been returned to me on these rounds.
4. On these rounds, Player 2 has not returned any money to me at all.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not at all upset</td>
<td>Somewhat upset</td>
<td>Extremely upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. How upset are you by the actions of Player 2?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I don’t care at all – it was just a few bucks</td>
<td>I care somewhat</td>
<td>I care a lot -- I wanted that money.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. How much do you care about the money you lost out on because of the actions of Player 2?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I do not feel my trust was violated</td>
<td>My trust was somewhat violated</td>
<td>I feel that the trust I showed was severely violated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. How severely do you feel Player 2 violated your trust?
Box 2: Attributions, Emotional Reactions, and Trust Expectancy

[After receiving message manipulation but immediately before Round 5]

<table>
<thead>
<tr>
<th>Question</th>
<th>9 8 7 6 5 4 3 2 1</th>
<th>Question</th>
<th>9 8 7 6 5 4 3 2 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The computer program has recorded that Player 2 chose to return less than $9 on Rounds 3 and 4. How would you characterize the reason for Player 2’s decisions on these rounds? Indicate your answer for each question by choosing the number that best reflects your relative agreement with the two sets of answers.</td>
<td></td>
<td>I would characterize Player 2’s decisions as something:</td>
<td></td>
</tr>
<tr>
<td>1. That reflects an aspect of Player 2’s personality</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>That reflects an aspect of the situation</td>
<td></td>
</tr>
<tr>
<td>2. Manageable by Player 2</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Not manageable by Player 2</td>
<td></td>
</tr>
<tr>
<td>3. Permanent</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Temporary</td>
<td></td>
</tr>
<tr>
<td>4. Player 2 can regulate</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Player 2 cannot regulate</td>
<td></td>
</tr>
<tr>
<td>5. Over which others have control</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Other people cannot control</td>
<td></td>
</tr>
<tr>
<td>6. Inside of Player 2</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Outside of Player 2</td>
<td></td>
</tr>
<tr>
<td>7. Stable over time</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Variable over time</td>
<td></td>
</tr>
<tr>
<td>8. Under the power of other people</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Not under the power of other people</td>
<td></td>
</tr>
<tr>
<td>9. Due to something about Player 2</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Due to something about others</td>
<td></td>
</tr>
<tr>
<td>10. Over which Player 2 has power</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Over which Player 2 has no power</td>
<td></td>
</tr>
<tr>
<td>11. Unchangeable</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Changeable</td>
<td></td>
</tr>
<tr>
<td>12. Other people can regulate</td>
<td>9 8 7 6 5 4 3 2 1</td>
<td>Other people cannot regulate</td>
<td></td>
</tr>
</tbody>
</table>
Box 3: Attributions, Emotional Reactions, and Trust Expectancy (continued)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Neutral</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. I feel afraid that Player 2 will take advantage of me in the rest of the exercise.
14. I have faith that Player 2 will cooperate for the rest of the exercise.
15. I am worried about my future earnings in the rest of this exercise.
16. I feel hopeful that Player 2 will return at least $9 to me in future rounds.
17. There is no reason to be suspicious of Player 2 as we finish the exercise.
18. I feel that there is no use in counting on Player 2 to pass at least $9 back to me.
19. I can use Player 2’s word as the basis for my decisions.
20. Player 2’s word is his/her bond.
21. Player 2 can be counted on to come through when needed.
22. I can count on Player 2’s word.
23. Player 2’s choices on Rounds 3 and 4 reflect a fundamentally stable aspect of their personality.
24. Player 2’s choices on Rounds 3 and 4 are caused by isolated circumstances that are unlikely to happen again.
25. Under different circumstances, Player 2 would be unlikely to make the same choices he/she made on Rounds 3 and 4.
26. Player 2’s choices on Rounds 3 and 4 would be the same if he/she were dealing with somebody else.
27. Player 2’s choices on Rounds 3 and 4 were probably made randomly.
28. If we were to re-play Rounds 3 and 4, I would expect Player 2 to make the same choices he/she did this time.
Box 4: Interactional Justice

[Immediately after the end of Round 7]

The computer program has recorded that Player 2 chose to send you a message during the game. We would like to learn more about any communication you may have received from Player 2. Based upon your experience, please answer the following questions, which refer to your partner. To what extent:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a small extent</td>
<td>Neutral</td>
<td>To a large extent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Has he/she treated you in a polite manner?
2. Has he/she treated you with dignity?
3. Has he/she treated you with respect?
4. Has he/she refrained from improper remarks or comments?
5. Has he/she been candid in his/her communications with you?
6. Has he/she provided a thorough explanation?
7. Were his/her explanations reasonable?
8. Has he/she communicated details in a timely manner?
9. Has he/she tailored his/her communications to your specific needs?

Box 5: Message Manipulation Checks, Forgiveness Measure, and Suspicion Check

Please respond to the following statements:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Neutral</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. After Player 2 did not return at least $9, he/she apologized for this.
2. Player 2 sent a message after returning less than $9, but the message was not clear.
3. After Player 2 returned less than $9, he/she promised to return at least $9 in remaining rounds of the game.
4. After Player 2 returned less than $9, he/she gave me an explanation.

5. Hypothetically, suppose that you could replace the amount of money your partner earns for the entire exercise with a fixed amount of money, between $0 and $18. Suppose that the amount you choose for your partner does not influence the amount of money you would earn. Based upon what you know now, how much money would you like your partner to receive for the entire exercise? (Remember, this is just a hypothetical question. This value will not actually be paid to your partner.)

$ _____

6. What did you think Player 2 was trying to accomplish in this exercise? [text box for answer]
APPENDIX G

DEBRIEFING SCRIPTS
The specific debrief script is as follows (initial debriefing):
(This will be read verbatim to all participants as a group prior to them leaving the laboratory.)

I would like to take this opportunity to thank you for your participation in today's study. The work that you have completed and the information you have provided is much appreciated, and will help us better understand how individuals make decisions.

The computer has recorded the data from your exercise. At the end of the study, the computer will randomly draw your earnings from one of the eligible rounds, and you will be paid based on your earnings for that round. As you leave today, I will give you a voucher with our contact information. You will receive your payment near the end of this academic quarter.

Because there are more students who will be participating in this study, I cannot go into specifics at the present time as to the specific setup and expected results. However, I will be providing you with a detailed debriefing, which will accompany your payment (if any) for participating. To help preserve the integrity of this study, I ask that you not discuss the nature of your activities today with anyone until the entire study is complete and you receive my debriefing. Before I dismiss you, I would like to address any questions or concerns any of you may have. [scan participants for possible signs of distress] Are there any questions or concerns? [handle questions] If there are no more questions, you are free to go, and thank you again for your participation.

[Distribute vouchers]

Debrief script to be given to all participants with their payment near the end of the academic quarter:

You have participated in a study that assesses the impact of specific types of verbal communication from offenders on post-violation trust recovery. The reason I am contacting you is to deliver your payment for participation. I am also writing to reveal in more detail the specific nature of that study and provide you with a mechanism to answer any questions you may have.

The study that you participated in is part of my doctoral dissertation entitled, “Cheap talk, valuable results? A causal attribution model of the impact of promises and apologies on trust recovery.”

As the title implies, this study is concerned with how to rebuild trust after it has been broken. There has been some recent research showing that this is indeed possible, and that trust can even be restored to some extent with simple
promises and apologies. The purpose of this study is to understand how these forms of cheap talk (unsubstantiated, unverifiable communication that is costless to the speaker) can lead to trust recovery, and when this effect is most likely to occur.

All of you who participated in the study were told that you were playing against another participant in the next room who was acting as your counterpart. In reality, all of you were playing against a fictitious, preprogrammed counterpart. It was necessary to tell you this in order to enhance the realism of the study. Trust was violated when your pre-programmed counterpart returned less than $9 on certain rounds of the exercise. At this point, you were sent a “cheap talk” message based on your experimental condition, and the computer recorded your responses as a function of the message you received.

In addition, there were two levels of trust violations. In one level, the preprogrammed counterpart returned $0 for two consecutive rounds. In the other level, the preprogrammed counterpart returned slightly less than the amount of the initial endowment ($5) on two consecutive rounds instead of splitting the tripled sum of money equally. At the time, you were told that your monetary compensation for the study was contingent on your decisions, the decisions of your (fictitious) counterpart, and chance. You were also led to believe that all participants were eligible to earn the same amount of money. To be fair, we are paying all of you who participated a fixed rate of $9, in addition to the course extra credit you were promised.

The results of this study will be tabulated in the near future. Knowledge from this study will aid our understanding of how verbal communication shapes attributions, emotions, and trust after a trust violation has occurred. If you are interested in learning about the results of this study, you can email me at Tomlinson.41@osu.edu or call me at 292-5317. I would be happy to answer any questions you may have about the study. Thank you very much.