

**CAN YOU PUT HUMPTY TOGETHER AGAIN?: MULTIPLE PATHWAYS TO  
REPAIR TRUST**

by

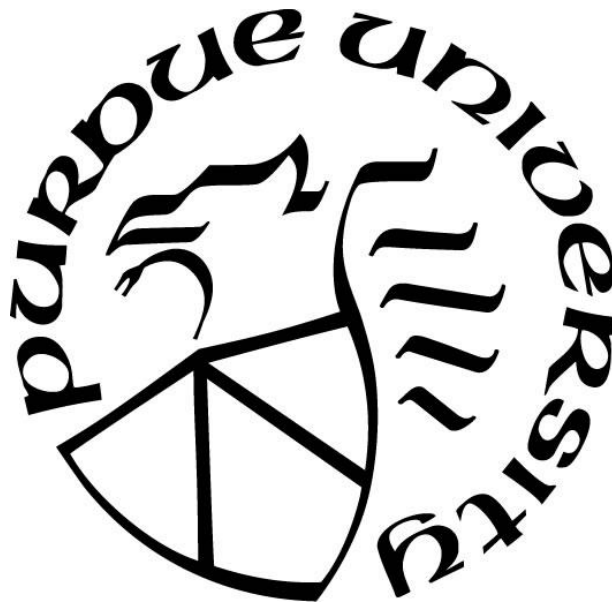
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**A Dissertation**

*Submitted to the Faculty of Purdue University*

*In Partial Fulfillment of the Requirements for the degree of*

**Doctor of Philosophy**



Krannert School of Management

West Lafayette, Indiana

May 2022

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*I want to dedicate my dissertation to my grandparents who have already taken their heavenly journey but have always stayed with me in spirit and blessed me and the family*

## ACKNOWLEDGMENTS

First of all, I would like to thank my advisor, Dr. David Schoorman, for being not only my professional mentor and guide throughout the doctoral journey but also a father figure to help me tackle all the troubles and issues that international education entails. I must mention here that very early in my doctoral journey he emphasized to me the importance of not only focusing on my professional development but also on my life satisfaction. Leading by example, he also emphasized the importance of keeping the family first. In fact, not only him but also his family, both personal and professional (comprising of his former students), has been extremely supportive and made me realize what it means to grow holistically. His presence and mentorship helped me not only become a better scholar but also a better person in the last 5 years. I would try to replicate his style of leadership and live by his training through my career.

Second, I would also like to thank my dissertation committee for providing me guidance and support throughout the dissertation process. They were always welcoming when I had questions and very patiently listened to and clarified my doubts. I would specially like to thank Dr. Shawn Bauldry who I reached out to multiple times (sometimes with the same problem worded differently) and who was extremely kind to listen to my doubts patiently and help me with a solution. It helped me not only complete my dissertation successfully but in the process also become a better scholar.

Third, I would like to thank the professors and PhD students in the OBHR department at Krannert School of Management. As a PhD student, it is really important to have trustworthy colleagues with whom you can bounce off ideas and discuss new project. I have been very fortunate to be surrounded by such colleagues during my PhD journey. Moreover, as the doctoral program is challenging, at some point during the process every PhD student goes through tough times. At that point, having a colleague with whom you can fearlessly share your frustration is extremely helpful. I was fortunate to have Lindsay Mechem Rosokha as my batchmate and officemate as she was always very supportive and helped me vent out some of my frustrations.

Fourth, I would like to thank my family to not only supporting me during the doctoral journey but also tolerating me sometimes when I was not in my best state of mind. I want to give special thanks to my parents, Dr. Sudha Sharma and Mr. S.M. Sharma and my wife, Dr. Nikita Bhatnagar. My parents, sitting thousands of miles away in India, gave me the pivotal psychological support and motivational boost that I required from time to time. My wife, apart from her own professional commitments, took care of our infant son, Viaan Sharma, alone when I was busy completing my dissertation work. Moreover, she was always able to find a way to cheer me whenever I received a rejection for my papers. My parents and my wife have really been the backbone behind my perseverance to face the obstacles through the doctoral journey. Even though it would be my name on the doctoral degree, it is my whole family that deserves the credit for it. It really was a team effort.

Finally, many of my friends have played a critical part in their own capacity at helping me through my doctorate degree. To all those well-wishers who I have not mentioned specifically here, I want to extend my gratitude for all your help and say thank you very much!

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## ABSTRACT

Prior literature on trust repair has focused primarily on exploring the effectiveness of different trust repair tactics in various contexts and the study of repair of trust as a process has been neglected. The literature has also suggested the presence of the humpty-dumpty effect in trust repair i.e. trust cannot be completely repaired once broken, though the claim has been more philosophical than empirical. In this dissertation, we explore the effect of tactic composites instead of analyzing the effect of each tactic separately (as has been the trend in the literature) that can be incorporated by the trustee to repair trust. We also develop multiple pathways that can potentially repair trust completely (specifically, redirect and replenish pathways) and one pathway that can restore the relationship by reestablishing cooperation but without repairing trust (redefine pathway). We structure the tactic composites within these pathways to explore the possibility of complete trust repair. Our results from a policy-capturing technique study and an experimental study show that in the redirect pathway, factual or symbolic evidence backed denial (but not denial alone) increases believability of the innocence claim by the trustee and can repair trust by improving the level of broken trustworthiness of the trustee. In the replenish pathway, only tactic composites that showcase regret through verbal tactics and repentance through behavioral tactics are able to make the trustor perceive that the trustee experiences remorse for the transgression, and only tactics that cater to individual and relational disequilibrium can increase perceived norm restoration in the eyes of the trustor. Both perceived remorse and norm restoration improved the levels of the broken trustworthiness. Finally, in the redefine pathway, strong control systems were better than weak control systems to restore cooperation, even though they had a negative relationship with the level of post-intervention trust. We also tested the potential of complete trust repair through the redirect pathway but did not find conclusive evidence. We discuss the limitations of the empirical studies and make suggestions for future research.

## CHAPTER 1. INTRODUCTION

Trust is a fundamental aspect of human existence which has been explored by scholars and philosophers for many centuries. For example, Aristotle in his classic work *Rhetoric* argued about the importance of trust in everyday life, and Confucius asserted that trust is more valuable than weapons and food for the government (cf. Lockey, 2012). However, it was not until the mid-20<sup>th</sup> century when psychology and sociology scholars started undertaking research on trust. Deutsch (1958, 1960) and Rotter (1967, 1971) were one of the earlier proponents of trust and suggested trust to be a behavioral and dispositional construct respectively. In the mid-1980s, Lewis & Weigert (1985) note that “trust in everyday life is a *mix* of feelings and rational thinking” (p. 972), proposing that trust is made of both cognitive and emotional components. The 1990s was the golden period for trust research in the management literature. In this decade, multiple classic trust articles were published that set the theoretical foundation for the field as a whole (e.g. Das & Teng, 1998; Kramer, 1999; Lewicki et al., 1998; Lewicki & Bunker, 1996; Mayer et al., 1995; McAllister, 1995; Rousseau et al., 1998). Mayer and colleagues (1995) came up with the ABI [Ability-Benevolence-Integrity] Model of Trust in their seminal paper which laid the foundation for comprehensive trust conceptualization and operationalization which continues to have significant relevance till date.

Early 21<sup>st</sup> century saw the spread of the repair tradition in the trust literature in the management field, even though it already had a history in the other fields. For example, in the cold war era, political scientists were interested in developing mechanisms in order to resolve conflict between the two blocs, and came up with the development of Graduated and Reciprocated Initiatives in Tension-Reduction (GRIT) strategy (Lindskold & Collins, 1978; Osgood, 1962). Sociological scholars studied relationship repair in the context of understanding the attitudes between interethnic and interracial groups, not only in the American society (e.g. Deutsch & Gerard, 1955; Sherif & Sherif, 1969) but also in other societies such as South Africa during the time of Apartheid (Hatch, 1955; Langely, Okolo, Langely, 1974). Some early scholars in the field of law also delved into the role of legal remedies such as long-term contract adjustments to “repair” expectation breaches (Scott, 1987). Finally, psychology scholars explored ways in which marital conflict could be resolved (Beck, 1966; Worthington & DiBlasio, 1990) and marriage rebuilt after extramarital affairs (Schneider, 1989). In the field of management, Sitkin and Roth (1993) and

Elsbach (1994) were amongst the first to conduct major research in order to understand the notion of repair of relationship after a transgression.

In the early 21<sup>st</sup> century, repair of relationship scholars started to become more precise with exploring repair of specific aspects of relationship. In other words, instead of diving into repair of relationship as a whole, scholars also started to explore the repair of affective, behavioral, and cognitive aspects of the relationship separately. For example, forgiveness is defined as “a deliberate decision by the victim to relinquish anger, resentment, and the desire to punish a party held responsible for inflicting harm” (Aquino et al., 2001, p. 53) and is considered a proxy to repair of affect. In the last two decades, many repair scholars considered forgiveness as their dependent variable to study the mechanisms and conditions that lead to repair of affect in the relationship after a transgression (e.g. Aquino et al., 2006; Radulovic et al., 2019; Wohl et al., 2012). On the behavioral front, scholars explored the effects of repair mechanisms specifically on cooperation (Bottom et al., 2002). Reconciliation, which is considered the “behavioral manifestation of forgiveness” (Tomlinson et al., 2004, p. 167) and is realized when both parties exert efforts to assist in building a damaged relationship (Lewicki et al., 2016, p. 167), is also a dependent variable that was often explored by repair scholars (e.g. Tomlinson et al., 2004; Yu et al., 2017). Finally, cognitive concepts that were explored most by repair scholars was the restoration of legitimacy i.e. re-establishing the perception that organizational practices are congruent with society’s norm values, and beliefs (e.g. Basford et al., 2014; Schembera & Scherer, 2017) and repair of trust (e.g. Ferrin et al., 2007; Kim et al., 2004, 2013). Hence, repair of trust came out as a specific subset from the tradition of repair of relationship wherein the trustor is again willing to be vulnerable to the trustee in the presence of risk due to restoration of the perceived trustworthiness of the trustee (Mayer et al., 1995). The effect of various repair mechanisms, such as denial, silence, apology, self-disclosure, compensation, penance, organizational reforms, hostage posting, and contracts, and the conditions that influence the effectiveness of trust repair in general and these mechanisms in particular have been the main focus of current trust repair scholars.

## **1.1 Overview of trust literature**

As trust forms the foundation of trust repair, it is important to first understand trust before exploring its repair. Thus, in this section, we provide a quick review of trust as a construct before we introduce the trust repair literature in the following section.

### 1.1.1 Definition of trust

Over the course of the development of the trust literature, many scholars have conceptualized trust (see Lockey, 2017 for the list of definitions). Fulmer and Gelfand (2012) conducted a thorough review of the literature and found out that a large majority of definitions suggested that trust consists of two key components: (1) *willingness to accept vulnerability* [also known as “trusting intentions”] which refers to an intention of the trustor to take risk, and (2) *positive expectation of trustworthiness* [also known as “trusting beliefs”] which refers to the “perceptions, beliefs, or expectations about the trustee’s intentions, and being able to rely on the trustee” (p. 1171). In the management literature, there is an ongoing debate about the definition of trust, with the point of argument revolving around the question – which of these two components form the core of the construct.

According to McAllister (1995), trust is defined as, “*the extent to which a person is confident in, and willing to act on the basis of, the words, actions, and decisions of another*” (p. 25). Lewicki, McAllister, & Bies (1998), define trust as, “*confident positive expectations regarding another’s conduct*” and distrust as, “*confident negative expectations regarding another’s conduct*” (p. 439). These definitions form the basis of the argument that trusting beliefs are at the center of the concept of trust, with trusting intentions as a natural consequence (Kramer & Lewicki, 2010). On the other hand, definitions by Mayer, Davis, & Schoorman (1995) and Rousseau, Sitkin, Burt, & Camerer (1998) form the basis of the perspective that considers trusting intentions at the center of the trust construct and trusting beliefs as a natural antecedent (P.H. Kim, 2018). They define trust as, “*the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party*” (p. 712), and “*a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviors of another*” (p. 395) respectively.

### 1.1.2 Trust model

In the literature, the trust model comprises of three constituent parts – beliefs, decision, and action (Dietz & Den Hartog, 2006; McEvily et al., 2003; Skinner et al., 2014). *Beliefs* constitutes on the set of perceptions that the trustor has about the trustworthiness of the trustee. *Decision*

comprises of the degree of vulnerability that the trustor is willing to take in an exchange relationship with the trustee. Finally, *action* refers to the risk-taking behavior that the trustor undertakes in the relationship with the trustee. It must be noted that these components are part of the trust model and not the construct of trust. We will explain each of the constituent parts of the model separately.

### **1.1.2.1 Belief**

As suggested by the trust definition, beliefs are the facilitators of trusting intentions in the trustor. According to Mayer and colleagues (1995), trusting beliefs by the trustor are dependent on trustee characteristics. These characteristics form the antecedents of trust and can be relational (e.g. benevolence) or dispositional (e.g. ability and integrity) in nature. Expanding on the antecedents of trust, the authors suggested that three different characteristics of the trustee can influence positive expectation in the trustor towards the trustworthiness of the trustee. These characteristics include ability, benevolence, and integrity (also termed as ‘ABI’), which form the factors of trustworthiness. Ability is defined as, “*that group of skills, competencies, and characteristics that enable a party to have influence within some specific domain*” (Mayer et al., 1995, p. 717). It generates trusting beliefs that are domain-specific. For example, an individual would have positive expectation from an accomplished accountant to file for taxes but not to conduct open-heart surgery. Benevolence refers to the “*extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive*” (Mayer et al., 1995, p. 718). Benevolence is a global characteristic which exists at the relationship level. However, the general level of benevolence between the parties is likely to differ based on the stage, type, and nature of the relationship (Chen et al., 2011). Integrity is defined as the adherence to a set of principles that are considered acceptable (Mayer et al., 1995). It is a relatively global characteristic as well although some scholars have suggested that integrity may also be domain specific, in particular there could be a within-person difference of integrity between an individual’s work life and personal life (Chen et al., 2011). In other words, an individual may be perceived to have low integrity in personal life but high integrity in public life or vice versa. Propensity to trust (also known as ‘generalized’ trust), defined as, “*a stable within-party factor that will affect the likelihood the party will trust...might be thought of as the general willingness to trust others*” (Mayer et al., 1995, p. 715), influences the effects of the three factors of trustworthiness on trust.

Even though the robustness of the trust model proposed by Mayer and colleagues has been tested and validated (e.g. Colquitt et al., 2007), some scholars have argued that the ABI factor of trustworthiness is incomplete and have introduced new factors of trustworthiness. Among the many recommendations, predictability or reliability has found the most support for being part of the factor of trustworthiness (Cunningham & MacGregor, 2000; Dietz, 2011; Dietz & Den Hartog, 2006; McKnight & Chervany, 2001; Mishra & Mishra, 1994), forming what is termed as ‘ABI+’ (Dietz, 2011, p. 220). However, predictability or reliability add more confounds than value to the understanding of the trust process because predictability or reliability relate to the perceived consistency in performance of the trustee (Dietz & Den Hartog, 2006). This consistency may be a result of high ability, high benevolence, high integrity, or external control systems. If the predictability or reliability is considered to be a function of one of the factors of trustworthiness, adding the trustee characteristic would be redundant. On the other hand, if the predictability or reliability is considered to be a function of a control system, it violates the boundaries of trust.

#### **1.1.2.2 Decision**

This part of the trust process focuses on the willingness of the trustor to be vulnerable in an exchange relationship with the trustee. As trusting intentions form the core of the trust construct, this part of the model is where trust is placed. Trusting intention of the trustor is based on its trusting beliefs which may not be similar for both parties in the relationship. In other words, research on dyadic trust has found that the level of vulnerability that an individual is willing to undertake with his/her partner may not always be mutual and could also be reciprocal or asymmetric (Korsgaard et al., 2015). Thus, different levels of trust can be present in different entities of the same relationship.

There has been an ongoing debate about whether trust can be distinctly segregated into cognitive and affective forms. The distinction was brought to light by McAllister (1995) in his seminal work on cognitive-based trust and affective-based trust. According to the author, “each form of trust [cognitive- and affective-based] functions in a unique manner and has a distinct pattern of association to antecedent and consequent variables” (p. 51). These claims were empirically tested and supported by various scholars. For example, Johnson and Grayson (2005) conducted a study on customers of a firm of financial advisors in the United Kingdom and found that “cognitive and affective dimensions of trust can be empirically distinguished and have both



common and unique antecedents” (p. 500). Scholars also found that only affective-based trust led to follower job performance and favorable behavior, such as OCB (Miao et al., 2014; Zhu et al., 2013). Ng and Chua (2006) also empirically showed that cognitive- and affective-based trust form unique dimensions.

On the other hand, some scholars do not recommend the segregation of trust into cognitive and affective dimensions. Mayer and colleagues (1995) suggest that trustee characteristics (i.e. factors of trustworthiness) tap cognitive and affective dimensions of the trust more appropriately and accurately. Specifically, ability and integrity encapsulate the cognitive dimension, and benevolence covers the affective dimension. Whereas perceived ability and integrity provide the trustor with ‘good reasons’ to make rational decisions about whom to trust, in what respect, and under what circumstances (p. 25), perceived benevolence provides the trustor information about the emotional connect that the trustee feels, which can form a basis for trust (McAllister, 1995). As it is well-established in the literature that trustworthiness and trust are not the same thing (Colquitt et al., 2007; Mayer et al., 1995) and that trustworthiness forms the antecedent of trust, attributing trust to have a cognitive and an affective type is not useful or defensible.

Another ongoing debate that falls within the decision component of the trust process is that whether distrust and trust are separate dimensions or lie on the opposite ends of the same continuum. Scholars that argue for the former claim that trust and distrust are separate but linked constructs (Bijlsma-Frankema et al., 2015; Lewicki et al., 1998; Sitkin & Roth, 1993). They suggest that as “relationships are multifaceted or multiplex” (Lewicki et al., 1998, p. 442), such distinction is necessary to address the possibility of trust and distrust in the same relationship. On the other hand, scholars that support the other opinion suggest that distrust is a “functional equivalent of trust” (Luhmann, 1979, p. 71). They argue that ‘confident negative expectations regarding another’s conduct’ (definition of distrust, Lewicki et al., 1998, p. 439) would lead a trustor to not be willing to be vulnerable to the trustee at all – which is the same as lack of trust (Schoorman et al., 2007). McKnight and Chervany conducted a review on trust and distrust literature and concluded that “most trust theories agree that trust and distrust are separate constructs that are opposites of each other” (2001, p. 42). Interestingly, some of the scholars that argue for distrust as a distinct construct incorporate a reverse-coded trust scale in their study to measure distrust, indicating that trust and distrust are empirically opposite (cf. Schoorman et al., 2007). Thus, there is little value-add for treating the two as distinct constructs. Moreover, even in terms

of theoretical utility, the current model of trust provides evidence of addressing the multifaceted nature of trust relationships. Specifically, as ability in the ABI model is a domain-specific factor of trustworthiness, it can justify the possibility of the presence of trust and distrust in the same relationship. In other words, a trustor may trust a trustee in a particular domain but not in other, depending on the context and the perceived competence of the trustee. For example, an advisor may trust her doctoral student with research on a particular project but not to teach her class. Thus, theoretical utility or empirical viability of distrust as a separate construct does not seem to have sufficient credibility.

### **1.1.2.3 Action**

The final part of the trust process is the exchange behavior that symbolizes the realization of the vulnerability (Dietz & Den Hartog, 2006; McEvily et al., 2003). Mayer and colleagues (1995) describe it as ‘risk-taking in relationship’ (RTR). Some scholars describe this aspect of the trust model as a dimension of trust (Bigley & Pearce, 1998; Ferrin, Bligh, & Kohles, 2007). For example, Skinner and colleagues (2014) state that the act of trusting behavior is the ‘real’ trust. Nienaber, Hofeditz, and Romeike (2015) describe that vulnerability can be either active or passive. Trusting behaviors are required to manifest trust in the relationship. Some scholars, especially in the trust repair tradition, use cooperation as a proxy to measure trust in the relationship (e.g. Berg et al., 1995; Schweitzer et al., 2006).

According to Mayer and colleagues, trust is a cognitive construct that provides a source of motivation for the trustor and trustee to cooperate. In other words, trusting behavior between the trustor and the trustee is a *consequence* of trust and not trust itself. Exchange may also occur not because of trust but other factors that lead to mitigation of risk. As risk is an integral part of trust, without which the question of trust does not arise (Das & Teng, 1998; Kee & Knox, 1970; McAllister, 1995), high trust would lead to more cooperation but high degree of cooperation does not necessarily mean the presence of trust. Social exchange theory, which posits that relationships among actors are created based on the benefits and costs that the transactions provide each other (Blau, 1964), explain the difference between trust and non-trust exchange relationships. According to the rational actor models, actors cognitively weigh the holistic benefits and costs of the relationship in both its absolute and relative sense, and attempt to maximize their net benefits (Molm, 2010). As a structure of mutual dependence forms an integral part of all exchange

relationships, which creates a substantial degree of uncertainty and ambiguity (Lawler, 2001), exchange relationships are inherently risky in nature. Scholars have proposed that to reduce the cost of uncertainty in the exchange relationships, two different forms of transactions can be executed by the individuals: negotiated transactions and reciprocal transactions (Molm, 1994), which in turn develop different forms of exchange relationship between the individuals. Negotiated transactions refer to the exchange of resources wherein “actors engage in a joint-decision process, such as explicit bargaining, in which they reach an agreement on the terms of the exchange” (Molm, 1994, p. 168). In other words, in negotiated transactions, exchange occurs by mitigating risk in the relationship and not by the presence of trust. Reciprocal transactions, on the other hand, refer to exchange of resources wherein “actors initiate exchanges without knowing whether, when, or to what degree others will reciprocate” (Molm, 1994, p. 168). Such transactions incorporate implicit understanding between the actors about the expectations in exchange of resources. Consequences of failure to reciprocate are not explicitly discussed in these transactions and intention to form an exchange relationship is based on positive expectations. Such exchange relationships are based on trust. Thus, as cooperation can occur for multiple reasons (Kim et al., 2009; Raymond, 2006), using actual behavior for conceptualization or operationalization of trust can lead to confounding conclusions.

The trust model also includes a feedback loop (Mayer et al., 1995), wherein the RTR provides information to the trustor and updates the ‘beliefs’ of the trustor about the trustworthiness of the trustee. This change in the antecedents of trust results in a shift in the trust levels and in turn, RTR. This cycle continues as long as the relationship is not completely dissolved.

### **1.1.3 Introduction to the Trust Repair Literature**

#### **1.1.3.1 Definition of Trust Repair**

Relationships are ties between two or more individuals or organizations that incorporate affective, cognitive, and behavioral connection between the parties. They are inherently risky in nature (Lawler, 2001) as they involve mutual dependence and implicit or explicit expectations (Molm, 1994, 2010), which when broken can distort the accepted dynamics of the relationship and slip it into a disequilibrium (Goffman, 1967; Ren & Gray, 2009). This disequilibrium negatively affects all three relationship aspects and in certain situations challenge the very existence of the

relationship (Lewicki & Bunker, 1996). Thus, whenever there are relationship breaches, repair becomes essential for the relationship to continue and not be dissolved.

Repair of relationship “occurs when a transgression causes the positive state(s) that constitute(s) the relationship to disappear and/or negative states to arise, as perceived by one or both parties, and activities by one or both parties substantively return the relationship to a positive state.” (Dirks et al., 2009, p. 69). Repair of trust is a specific segment of this larger repair concept, which predominantly focuses on the restoration of the cognitive aspect of the relationship in the presence of risk. Most scholars who study trust repair do not define the construct of trust repair as its own entity. In their research on trust repair, these scholars have often taken the approach of defining trust and using that definition as a baseline to study its repair (Brühl et al., 2018; Cianci et al., 2019; Haesevoets et al., 2014; Schweitzer et al., 2006a). Some scholars, however, have defined repair of trust as its own entity. These scholars have either taken a *process-perspective* or a *goal-perspective* to define trust repair. Scholars who have taken the former perspective have focused on trust repair as the activities and efforts by the parties in order to improve the level of trust. For example, Dirks, Kim, Ferrin, & Cooper (2011) mention that “trust repair involves attempting to increase trust following a situation in which a transgression (i.e. untrustworthy behavior) is perceived to have occurred” (p. 88). Similarly, Yu, Yang, and Jing (2017) refer to trust repair as “a process to make trust more positive after a violation” (p. 234). On the other hand, scholars that take a goal-perspective define trust repair by focusing on the level of trust reached after a trust breach. For example, Bansal & Zahedi (2015) define trust as “the level of trust after the trustee has taken positive actions to repair the trust following a violation, which restores trustor’s willingness to be vulnerable to the trustee’s future actions” (p. 62). Tomlinson & Mayer (2009) define trust repair as, “partial or complete restoration of the willingness to be vulnerable to the other party following a decline in that willingness” (p. 88). Table 1.1 displays the list of definitions of trust repair that have been used in the literature.

Table 1.1. Definitions of trust repair in the literature

Authors	Definitions
Bansal & Zahedi, 2015	“the level of trust after the trustee has taken positive actions to repair the trust following a violation, which restores trustor's willingness to be vulnerable to the trustee's future actions” (p. 62)
Božič & Kuppelwieser, 2019	“an improvement in trust after a violation of trust” (p. 208)
Božič, Siebert, & Martin, 2019	“to restore the relationship to its former state” (p. 58)
da Rosa Pulga et al., 2019	“the company's attempt to improve beliefs and intentions after a trust violation and to restore the fractured relationship” (p. 497)
Dirks, Kim, Ferrin, & Cooper, 2011	“involves attempting to increase trust following a situation in which a transgression (i.e. untrustworthy behavior) is perceived to have occurred” (p. 88)
Frawley & Harrison, 2016	“the efforts to restore trust following a perceived violation” (p. 1045)
Kim, Ferrin, Cooper, & Dirks, 2004	“activities directed at making a trustor's beliefs and trusting intentions more positive after a violation is perceived to have occurred” (p. 105)
Kramer & Lewicki, 2010	“those activities in which the trustee has taken advantage of the trustor's vulnerability and seeks to restore the willingness of that party to be vulnerable in the future” (p. 249)
Tomlinson & Mayer, 2009	“a partial or complete restoration of the willingness to be vulnerable to the other party following a decline in that willingness” (p. 88)
Yu, Yang, & Jing, 2017	“a process to make trust more positive after a violation. It is composed of two essential stages: willingness to reconcile and intention to continue cooperating” (p. 234)

Even though the current definitions of trust repair in the literature provide a general understanding of the concept, these definitions lack clarity and comprehensiveness on two accounts. First, most of the scholars that define trust repair as a unique, independent construct use the term ‘trust’ in their definition. As trust is the central construct in the definition, explicitly elaborating in the definition on which component of trust is being repaired would increase its clarity. Second, most of the definitions are silent on the fact that how much repair needs to occur for trust to be completely repaired. In other words, there is clarity needed in the literature about what forms the boundary of trust repair beyond which improvement in trust no longer remains part of the ‘repair’ process. Incorporating the boundary conditions of the construct within the definition would increase both clarity and comprehensiveness of the definition. In the next few paragraphs, we will expand on the importance of these two issues in more detail.

### ***What is being repaired?***

As mentioned before, there are two main perspectives on the definition of trust. Even though trust repair following either perspective is likely to be correlated, conclusions may differ in certain scenarios depending on the perspective chosen. For example, as trust is very fragile in the early stages of the relationship (Lewicki & Bunker, 1996), transgression can quickly and substantially decrease positive expectations and increase negative expectations from the trustee. The trustor can improve behavioral expectations from the trustee by incorporating strong and reliable control systems, such as monitoring and renegotiated contracts with harsher punishment for betrayal. These external changes are likely to increase the reliability of the trustee as it would reduce their opportunity or/and incentive to engage in untrustworthy behavior in the future (Sitkin & Roth, 1993). However, such improvement in expectations would be based on risk-mitigating processes and would not necessarily increase the willingness of the trustor to engage with the trustee in the presence of risk (Kim, 2018; Schoorman et al., 2015). In fact, incorporation of strict control systems can reduce the perceived trustworthiness of the trustee, and further deteriorate the willingness of the trustor to be vulnerable (Malhotra & Murnighan, 2002). Thus, depending on the trust perspective taken, different conclusions can be made about repair of trust in the above scenario. As risk is essential for trust to hold value (Das & Teng, 1998; Kee & Knox, 1970; McAllister, 1995), in this dissertation we will use the perspective of trust that considers trusting

intentions at the core of the construct because it is more likely to lead to trust repair in the presence of risk.

### ***What is the boundary of trust repair?***

Most of the definitions of trust repair fail to explicitly and objectively suggest the boundary conditions of trust repair. In other words, trust repair scholars do not clarify in their definition the extent to which repair process is assumed to continue and when the repair of trust is deemed complete. The lack of boundary conditions implicitly suggests that any improvement of trust after a transgression is trust repair, irrespective of the magnitude of the reduction in trust after the transgression or the rise in trust after the repair intervention. This inherently suggests that once trust is breached, repair becomes a never-ending process. In order to understand trust repair in its totality, it is important to understand the boundaries of the construct.

According to Merriam-Webster Dictionary, repair means putting together what is torn or broken. In the trust repair context, the transgression “tears” the trusting intentions of the trustor to a level lower than the pre-transgressional level. Trust would be considered fully repaired, i.e. not broken anymore, when the “broken” trusting intentions are restored to the pre-transgression level, irrespective of how its antecedents i.e. factors of trustworthiness are readjusted. Thus, trust repair occurs within the boundaries of the effects of the transgression on trust. Improvement of trust beyond the pre-transgressional levels falls outside the boundaries of the effect that the transgression had on trust and hence, should not be considered as ‘repair’ but as development of new trust. It must be noted that when the trust is repaired completely, the combination of the factors of trustworthiness may not remain the same as the source of trust may shift. For example, a trustor may be equally willing to be vulnerable to the trustee after the intervention but the main source of those intentions may shift, such as from ability to benevolence (Lewicki & Bunker, 1996; Mayer et al., 1995; McAllister, 1995). This provides an explanation for the “humpty dumpty” problem (Lewicki & Brinsfield, 2017) by suggesting that even though trust may never be the same again as the composition of the factors of trustworthiness may have shifted, trust can return to its pre-transgressional level, or even exceed it, after a violation.

Considering the arguments from the above paragraphs, we define trust repair as *the extent of the improvement in the willingness of the trustor to be vulnerable to the trustee after a transgression, until the trusting intention returns to the pre-transgressional level*. The degree of

trust repair would be measured as the percentage of deteriorated trust that is repaired post the repair interventions.

#### **1.1.4 General overview of the trust repair literature**

Repair scholars have used three main mechanisms, namely attributional mechanism (e.g. Kim et al., 2009; Tomlinson & Mayer, 2009), social equilibrium mechanism (e.g. Ren & Gray, 2009), and structural mechanism (e.g. Nakayachi & Watabe, 2005; Sitkin & Roth, 1993) to understand trust repair at multiple levels of analysis. These mechanisms help to understand the repairing characteristics and use of different tactics within the repair process as each of these mechanisms incorporate different assumptions and focus to address different aspects of trust repair (Dirks et al., 2009). Even though recently there have been calls for integrating these mechanisms in the research on trust repair (Bachmann et al., 2015; Dirks et al., 2009), most of the extant literature have treated these mechanisms as substitutes rather than complements and have used them in isolation to argue the absolute or comparative repairing effectiveness of different trust repair tactics. However, this has led to an over-emphasized focus on the repair tactics and a neglect on the repair process. In other words, scholars have dealt with research questions pertaining to the effectiveness of the repair tactics but have not yet looked into the research questions pertaining to the combinations of tactics needed to repair trust completely and what are the different pathways that the trustee has to repair trust. For example, many studies have shown that denial interventions lead to higher trust levels than apology after integrity-based transgression, but the opposite is true after ability-based transgressions (e.g. Kim et al., 2004, 2013). However, this does not necessarily mean that use of apology for competence-based transgression and denial for integrity-based transgression repair trust completely. This is also evident from the fact that some scholars who used the case study design show that denial does not always return trust levels to the pre-transgression levels after integrity-based transgression, and in some cases makes the situation even worse (e.g. Gillespie et al., 2014). In fact, most of the tactics studied by the scholars individually fall short of complete repair of trust (Kim, 2018). Thus, shifting some the focus of research exclusively from the repair tactics to the trust repair process and finding which, when, and how tactics lead to trust *repair* would not only contribute theoretically to the trust repair literature but would also provide practical suggestions for individuals and organizations to build their repair strategies after transgressions.



Comprehensive research on the process of trust repair would require a revisit of the methodology – specifically, operationalization of trust repair and research designs used to study the construct. Extant literature has used different variables to measure trust repair. Specifically, trust repair literature can be divided into four categories depending on the way scholars have operationalize trust repair – first, those that use trusting intentions (e.g. Grover et al., 2019; Kim et al., 2013; Krylova et al., 2018); second, those that use trusting beliefs or trustworthiness (e.g. Bansal & Zahedi, 2015; Ferrin et al., 2018; Henderson et al., 2020); third, those that use trusting behavior or cooperation (e.g. Ho, 2012; Lei et al., 2014; Ma et al., 2019); and fourth, those that use orbiting constructs such as forgiveness or reconciliation (e.g. Fehr & Gelfand, 2010; Tomlinson et al., 2004; Yu et al., 2017). Consistency in the operationalization of trust repair based on the definition is necessary to systematically and thoroughly understand the trust repair process. Moreover, scholars in the trust repair literature have predominantly incorporated a between-subject research design, which can help in studying the effectiveness of repair tactics but is not capable to provide insights about the trust repair process. According to our literature search, only 8 articles incorporated a complete or partial within-subject design, 4 of which used policy-capturing technique and drew conclusions primarily on the basis of their between-subject results. Out of the remaining 4 articles, only Bankins (2015) incorporated a repeated measure design to understand the patterns of the repair process after a psychological contract breach. The other three articles conducted within-subject analyses to analyze the relative effectiveness of different manipulation conditions on the dependent variable. More of within-subject repeated measures design studies are needed to understand the trust repair process and the pathways that may be incorporated by the trustee to completely repair trust.

To fully understand the trust repair process, the trust-level needs to be measured at least at three time points – (1) pre-transgression, (2) right after transgression, and (3) after repair tactics have been incorporated. Absence of a trust score from any of the time-points would negatively affect the possibility of accurately measuring trust repair. For example, the lack of trust measurement at pre-transgressional time-point denies scholars of the boundary of trust repair i.e. the level at which trust is considered ‘repaired’. Studies that have not measured trust levels at the pre-transgressional level can only conclude the effectiveness of the repair tactics at best but not its capability to repair trust completely. The lack of trust score after transgression (time-point 2) is essential to show that the transgression actually reduced the willingness of the trustor to be

vulnerable to the trustee. The decrease in the trust level is a critical condition for the concept of trust repair to hold any value. Finally, trust levels after the repair tactics have been incorporated shows the degree of trust repair that the repair tactics were able to execute. Without that trust score, the researchers cannot conclude the degree of trust repair that occurred. Thus, to reliably measure repair of trust, a repeated measure approach must be followed where ideally trust levels should be measured at three time-points. As data-collection at multiple time-points can have logistical limitations and tradeoffs are often made by scholars, data on trust levels should at least be collected at pre-transgression timepoint and post-repair process timepoint to measure trust repair, and the post-transgression drop in trust levels should be explained theoretically.

### **1.1.5 Dissertation overview**

In this dissertation, we will review trust repair literature from a multi-level lens but focus on the trust repair process at the individual level. Specifically, we will elaborate on two trust repair pathways (redirect pathway and replenish pathway) and one interaction repair pathway (redefine pathway) that the individuals could use for relationship repair after a transgression. We will also develop a trust repair model to hypothesize and empirically test the tactic composites that can help the trustee to repair trust. Furthermore, we will explore the empirical support for the humpty-dumpty effect in the trust repair literature by testing it through one of the pathways of trust repair (redirect pathway). To test our hypotheses, we will conduct two studies. The first study will be a multiple-scenario vignette study for which we will use the policy-capturing methodology. This study will provide us with the best combination of the tactics to repair trustworthiness. The second study will be an experimental study, in which we will develop the manipulations based on the results of study 1. In study 2, we will study the complete repair process using a within-subject repeated measure design for the redirect pathway.

In the next chapter, we will provide a literature review on the various tactics that have been studied at multiple levels of analysis and the mechanisms that these tactics use. In chapter 3, we will elaborate on the trust repair process and the multiple pathways that the trustee can choose from to repair the relationship. In chapter 4, we will develop the trust repair model. Finally, in chapter 5, we will introduce the two studies and showcase the results. We will follow each study with a discussion and also provide a more holistic general discussion at the end, which includes the implications, limitations, and future research.

## **CHAPTER 2. LITERATURE REVIEW**

In order to conduct a thorough review of the literature, we searched for articles on repair of trust that followed the classic article on this subject published by Sitkin and Roth (1993) as this article is often considered as the first major peer-reviewed article on the subject of repair of trust in an organizational context. We used multiple combinations of the terms “repair”, “reconcile”, “restore”, “trust”, and “relationship” on Google Scholar, ABI Informs, Web of Science, and PsycINFO databases. We restricted our search to peer reviewed journals and primarily focused on journals with an impact factor of at least 2.0. Exceptions were made for articles in different fields, by key scholars on this topic, and for any article that we thought were central to a high-quality, thorough review. We included only those articles that explored repair of trust after a transgression (implicitly or explicitly mentioned in the article) and in the organizational or professional context. Articles that explored only trust development or repair of trust in other contexts such as romantic relationships were excluded from the review. We included articles that studied repair of trust at all level of analysis. Both empirical and theoretical articles, and relevant book chapters were part of the review. Our search found 116 relevant articles and book chapters in multiple fields such as organizational behavior, psychology, strategy, economics, marketing, and accounting.

### **2.1 Mechanisms that influence trust repair**

Research on trust repair has focused on generating and testing hypotheses about what interpersonal tactics, actions, and reforms are most likely to be effective. In the literature, we found two relevant schemes for classification of the repair tactics. According to Dirks, Lewicki and Zaheer (2009), scholars have studied multiple repair tactics and classified them under three main mechanisms; attributional (e.g. Kim et al., 2009; Tomlinson & Mayer, 2009), social equilibrium (e.g. Reb, Goldman, Kray, & Cropanzano, 2006; Ren & Gray, 2009), and structural (e.g. Nakayachi & Watabe, 2005; Sitkin & Roth, 1993). Bachmann, Gillespie, and Priem (2015) provided a different classification for repair tactics. These authors classified the repair tactics in the organizational repair literature into six categories – Sensemaking, Relational, Regulations and Controls, Ethical Culture, Transparency, and Transference. We will use the former classification of repair tactics for two reasons: first, Bachmann et al. built the six-category classification

primarily for the organizational-level trust repair. As some categories are not valid for repair tactics at other levels (e.g. ethical culture), they would not be the best form of classification for a multilevel clustering. Second, these six categories fit well within the broader three-mechanism model. Specifically, sensemaking is similar to the attribution mechanism; relational use similar assumption to repair as social equilibrium mechanism; and ethical culture, regulations and control, and transparency repair trust using assumptions mostly based on the structural mechanism. Transference can be part of any of the three mechanisms, depending on the way third-party trustworthiness and/or control is used to repair trust.

At a broader level, trust repair tactics affect subsequent trust levels by addressing issues related to at least one of the three aspects of the repair process – transgression, relationship, or/and environment. Trust repairing in the relationship between the trustee and the trustor would improve if the responsibility of the *transgression* is at best removed or at least reduced from the trustee [i.e. the *individual* characteristics of the trustees are improved], the dent in the *relationship* due to the transgression is restored [i.e. the *social* order between the parties are re-established], and an *environment* is created that reduces the likelihood of trust to be violated again [i.e. the *external* forces are influenced to reduce the transgression to happen again]. Each mechanism predominantly (though not exclusively) addresses one of these aspects of the repair process. Specifically, tactics following attribution mechanism focus on the individual characteristics of the trustee, tactics following the social equilibrium mechanism focus on the social order between the parties, and tactics that follow the structural mechanism focus on the external environment within which the parties exist. In this section, we elaborate on each mechanism one at a time. Table 2.1 provides a summary of the three mechanisms used to study trust repair.

Table 2.1. Summary of mechanisms used to study trust repair

<b>Mechanism</b>	<b>Perspective</b>	<b>Assumption</b>	<b>Repair Focus</b>	<b>Main Goal</b>
<i><b>Attribution</b></i>	Cognitive	Degree and nature of responsibility of the trustee with the transgression determines their trustworthiness in the relationship with the trustor	Transgression	Trustee: Place the blame of the transgression to an external source or a repairable factor Trustor: Find the true source of the transgression
<i><b>Social Equilibrium</b></i>	Socio-Psychological	Transgressions are disruptions in the normative assumptions shared by the trustor and the trustee as embedded members within their social network.	Relationship	Restore the normative order in the relationship
<i><b>Structure</b></i>	Agentic	Individuals are utility maximizers and are driven by self-interest and profitability.	Environment	Transform the environment such that it discourages the trustee from engaging in future transgressions

### 2.1.1 Attributional mechanism

The attributional mechanism focuses on shaping the cognitive evaluations of the trustor to repair the trust. According to this approach, the trustor engages in sensemaking, which can be viewed as a learning process that “involves turning circumstances into a situation that is comprehended explicitly in words and that serves as a springboard into action” (Weick et al., 2005, p. 409). A transgression leads to a loss of trust because the transgression imparts negative information which makes the victim perceive unfavorable characteristics about the transgressor. This negative information must be erased, replaced, or at least reduced for the trust repairing to occur and trust to be eventually repaired.

Attributional mechanism operates on the assumption that the degree and nature of responsibility of the actor with the transgression determines his/her trustworthiness in the relationship with the trustor (Dirks et al., 2009). Blame attributions are made based on prior beliefs of the victim, the information received from the environment, and expected behavior in the situation by the trustee (Kelley & Michela, 1980). Locus, stability, and controllability of the cause of transgression influences the degree and nature of blame placed on the trustee, which in turn impacts the affect felt by the trustor and the expectancy of future transgression by the trustee (Weiner, 1985, 1988). As affect and expectancy are the main determinants of action (Weiner, 1988), internal, stable, and/or controllable causes of transgression reduces the likelihood that forgiveness is offered and the relationship is reconciled (Andiappan & Treviño, 2011). Thus, the main aim of the attributional mechanism is to reduce the responsibility, or at least perceived controllability and stability of the cause of transgression to the extent possible so that perceived trustworthiness can be restored in the trustee.

Borrowing from Weiner's attributional theory (1985), Kim and colleagues (2009) and Tomlinson and Mayer (2009) have provided the foundational understanding of how attributional mechanism operates within the trust repair process (Gillespie & Siebert, 2018). In their bilateral model of trust repair, Kim and colleagues (2009) posit that the attribution of guilt for the transgression is a three-stage process where the trustor attempts to find answers to three sequential questions. The answers received or perceived by the trustor impact the need for the subsequent questions. In the first stage, the trustor tries to find answer to the question: is the trustee innocent or guilty of committing the transgression? Question for the second stage is only explored if trustee is blamed with at least some guilt for the transgression. Once at least some guilt is established in the trustee, the attribution process enters the second stage wherein the trustor seeks answer for the following question: should the guilt be attributed to the situation or to the trustee? The need of the final query arises only if at least some guilt is attributed to controllable and/or internal causes. Finally, in the third stage the trustor explores whether the transgressing shortcoming in the trustee changeable or stable? Repair of trust is extremely difficult if the trustor perceives the internal causes of the transgression to be stable. Many factors, such as the frequency and nature of the violation and stage of the relationship, can influence the perceived changeability of the transgressional trait (see Lewicki & Brinsfield, 2017 for details). As is discussed later in this review, different tactics are most effective to direct the trustor towards positive perceptions in

different attributional levels. For example, denial is effective to establish innocence of the trustee i.e. in the first level of the attribution process, whereas explanation and apology are particularly effective in the second and third level of the attribution process respectively.

Tomlinson and Mayer (2009) also provides a similar explanation to how attribution process plays a role in trust repair. Specifically, their explanation is based on two concept – *causal ascription* i.e. whether trustor ascribes the cause of the transgression on the trustee's lack of ability, benevolence, integrity, or luck [termed as 'other' in Tomlinson & Mayer, 2009] and *causal attribution* i.e. whether the negative outcomes from the transgression are due to external or internal factors, controllable or uncontrollable situations, and unstable or enduring characteristics of the trustee. Causal ascription and causal attribution together influence the likelihood of trust repair and which repair tactics would be effective. Even though these two models of attributional mechanism of trust repair were explored in the interpersonal trust repair perspective, research has shown that attributional mechanism is often utilized to study repair after organizational level trust breaches (Dietz & Gillespie, 2012; Elsbach, 1994; Gillespie & Siebert, 2018).

### **2.1.2 Social-equilibrium mechanism**

The social equilibrium mechanism focuses on the social interplay between members in a relationship to repair trust and thus, is socio-psychological in nature. It is based on the interaction ritual model proposed by Goffman (1967), which states that transgressions are disruptions in the normative assumptions shared by the trustor and the trustee as embedded members within their social network (Goffman, 1967, p. 19). These violations in turn disrupt the social order of the relationship and require reconsiderations of social rituals and execution of symbolic or restorative acts to reestablish the social order of the relationship (Gillespie & Siebert, 2018). Thus, the main aim of social equilibrium mechanism is to re-establish the social order in the relationship between the trusting parties.

According to social equilibrium mechanism, individuals are bound within the relational and cultural social web, which creates an implicit understanding between the parties about the expectations of resource exchange. Thus, such a social structure facilitates reciprocal transactions wherein "actors initiate exchanges without knowing whether, when, or to what degree others will reciprocate" (Molm, 1994, p. 168). However, as all individuals are either not aware, not equipped, or not willing to follow the social code, they intentionally or unintentionally break the norms from

time to time. A transgression leads to “ritual disequilibrium or disgrace” in the social balance of the relationship (Goffman, 1967, p. 19) and disrupts the interpersonal system between the parties (Lewicki & Bunker, 1996). According to affect theory of social exchange, this disruption leads to involuntary negative emotions (Lawler, 2001) that once activated “become the driving force in subsequent thought and action” (Izard, 1991, p. 43) and prohibits the parties in the relationship from working together until norms are reinstated and equilibrium is restored. Appropriate consequences of the transgression for the trustee becomes an important part of the social justice restoration process (Reb et al., 2006). Thus, complete repair of trust occurs when the restorative behavior reaffirms the social norms of trust in the relationship and re-establishes the pre-transgressional social order. This restoration process can be initiated either by the trustor, the trustee, or a third-party, but both the trustor and the trustee must be willing to repair the relationship (Kim et al., 2009; Ren & Gray, 2009).

The social equilibrium mechanism considers trust repair efforts to be effective when two conditions are met: (1) the negative affect that the trustor feels towards the trustee due to the transgression is eliminated, and (2) the trustor is satisfied with the extent and sincerity of the restorative efforts by the trustee (Ren & Gray, 2009). Negative affect influences the repair of trust negatively as it colors the cognitive processing of social information about the relationship (Jones & George, 1998; Williams, 2001). Thus, a pre-requisite for a trust relationship to be repaired is that the negative affect of the trustor towards the trustee should be diminished at the least and replaced with positive affect at best. The reversal of physical, emotional, and/or monetary loss incurred by the trustor due to the transgression or at least a sincere acknowledgment and concern for it assists in diminishing the negative affect felt by the trustor due to the transgression. For satisfaction with the extent and sincerity of the restorative efforts to be achieved, expected repair actions by the trustor in terms of justice restoration and trustworthy replenishment must not transform into “cheap talk” and be put into effect (Bottom et al., 2002).

### **2.1.3 Structural mechanism**

The structural mechanism generally takes an agentic perspective to trust repair (Long & Sitkin, 2018) and assumes that individuals are utility maximizers and are driven by self-interest and profitability (Jensen & Meckling, 1976). According to the structural scholars, a breach in trust can either decrease the positive expectations or/and increase the negative expectations in the



trustee i.e. negatively influence trusting beliefs. It reduces cooperation and increases the likelihood of negative or short-term transactional behavior taking its place (Dirks et al., 2009; Lewicki & Bunker, 1996). Repair of such expectations occurs when changes are made to formal and/or informal structures, procedures, and social norms that either decrease negative expectations or increase positive expectations of future behaviors (Gillespie & Dietz, 2009; Gillespie & Siebert, 2018). In other words, structural scholars suggest that trust can be repaired if external conditions are set that either promotes trustworthy behavior or diminish the opportunity of untrustworthy behavior. For example, structural scholars recommend that trust can be repaired by incorporating control mechanisms, such as detailed legal contracts, in the relationship. These control mechanisms minimize the “implementation-related problem” (Sitkin & Roth, 1993, p. 373) as they explicitly define the expected and acceptable behavior, bind the parties to perform their agreed-upon responsibilities with integrity, and extend rewards or sanctions based on the performance (Cardinal et al., 2017; Ouchi, 1979; Weibel et al., 2016). They reduce psychological, temporal, and monetary risks for both the trustor and the trustee as they ensure that the rights of the trustor would be protected and the trustor would be treated fairly. This helps in re-establishing reliability between the parties (Sitkin & Roth, 1993) and, in turn, the likelihood of renewed exchange. The trustees may also incorporate promotive structural changes, such as offer voluntary hostage posting at the individual level (Nakayachi & Watabe, 2005) or facilitate cultural reforms at the organizational level, which can increase the trustworthiness of the trustee and restore positive trusting beliefs (Gillespie et al., 2014). Thus, the main aim of structural mechanism is to influence external forces in the form of structural, procedural, and normative reforms to create an environment which facilitates trustworthy behavior and denounces untrustworthy behavior.

## **2.2 Trust repair tactics**

Over the last few decades, trust repair scholars have studied the absolute and comparative effectiveness of many repair tactics. These tactics can be classified in terms of their delivery characteristics. Specifically, repair tactics are either verbal (e.g. denial, explanation, apology) or behavioral (e.g. compensation, leader replacement, organizational reforms) in nature. In the following section, we will elaborate on each of the major trust repair tactic in the literature.

## **2.2.1 Verbal tactics**

### **2.2.1.1 Denial**

This is a repair mechanism that the trustee often uses in order to establish its complete innocence. Denial must not be confused with reticence because silence about the transgression is seldom perceived as denial of transgression and signals a possibility of guilt (Ferrin et al., 2007). Hence, denial is an active (and not passive) form of refusing the responsibility for the execution of a transgressional behavior.

Prior research has shown support for both arguments that denial is an effective repair mechanism (Bansal & Zahedi, 2015; Brühl et al., 2018) and that it is not (e.g. Gillespie et al., 2014; Henderson et al., 2020). Digging deeper into the construct, scholars have found evidence that moderating factors play a critical role in the efficiency of denial as a repair construct. For example, though various lab experiments and vignette studies, denial has been shown to be more effective for integrity-based violations than for competence-based violations (Ferrin et al., 2007; Kim et al., 2004, 2006). These results stayed consistent when the moderating effects of nature of violation was tested at multiple levels of analysis (Kim et al., 2013). Denial has also been found to be effective when re-establishing cooperation in longer relationships are in question (Bottom et al., 2002) and/or the trustee is interested in short-term relationship benefits (Fuoli et al., 2017). In terms of content and expression, research has shown that denial is more effective in repairing trust when its content is bound together in an analytical rather than narrative format (Van Laer & De Ruyter, 2010) and is communicated through persuasion rather than normative pressure (Kim et al., 2013).

On the flip side, scholars have also found that under certain circumstances denial may not only be ineffective but may also hinder the repair process of the trust relationship even further. Lack of believability in the denial may make the denial ineffective in repairing trust as it would not reduce the suspicion on the trustee for the execution of the transaction. Analyzing the testimony of the Big Four accounting firms as part of the House of Lords Economic Committee's investigation of UK audit market, Mueller and colleagues (2015) found that denial of wrongdoings was not effective enough to allow the audit industry to continue their "business as usual" (p. 1191). In fact, denial as a strategy of trust repair may backfire if it is used when the allegations are certain, persistent, and proven, and is in conflict with the information available with the trustor. In such

situations, the trustor would perceive that the trustee is trying to deceive and can lead to serious consequences. For example, in their study about repair of reputation of nine politicians who were caught in publicized sex scandals, Grover and Hasel (2015) found that most of the politicians who denied truthful allegations had their political careers suffer drastically – e.g. Anthony Weiner, former U.S. Congressman, had to resign from office, and Dominic Straus-Kahn, former Director of International Monetary Fund (IMF), had to resign from IMF and lost his chance to run for French Presidency. Denial can also backfire if it is executed in a defensive fashion. Gillespie, Dietz, and Lockey (2014) studied the fraud and data manipulation case of United Kingdom's water utility company Severn Trent Water (STW). In their analyses, they found that when the incumbent management hastily denied the allegation by the whistleblower and brushed it off, it disenchanted the stakeholders (including the whistleblower), which led to an increase in negative affect and compounded the unfavorable effects of original trust violation.

### **2.2.1.2 Apology**

This is one of the most widely studied repair tactic after a trust violation (Bansal & Zahedi, 2015; Byrne, Barling, & Dupré, 2014; Fehr, Gelfand, & Nag, 2010; Grover, Abid-Dupont, & Manville, 2019; Henderson et al., 2020). Research has shown that apologies are more frequently used in long relationships or earlier in the relationship, between better-matched partners (Ho, 2012), and when transgression leads to unrealized gains instead of incurred losses (De Cremer, 2010). Moreover, trustees with low propensity to trust are likely to apologize only if they believe that the trustor is willing to forgive (Leunissen, De Cremer, & Folmer, 2012).

Much research has been done on the effects of apologies combined with other tactics. Apologies have a boosting effect on trust repair when they are complemented with other tactics such as explanation (e.g. Elangovan, Auer-Rizzi, & Szabo, 2015; Kim & Harmon, 2014), penance (e.g. Gillespie et al., 2014; Grover & Hasel, 2015), and compensation (e.g. Haesevoets, Folmer, De Cremer, & Van Hiel, 2013; Ohtsubo & Watanabe, 2009). An apology accompanied with voluntary or involuntary punishment reduces negative affect as it provides validation of the remorse displayed in the apology (Dirks et al., 2011; Gillespie et al., 2014; Henderson et al., 2020; Ohtsubo & Watanabe, 2009). It also fulfils the desire of the trustor to witness the trustee pay a price for the transgression (De Quervain, Fischbacher, Treyer, & Schellhammer, 2004) and helps the trustor acknowledge that the trustee has learned their lesson. For example, analyzing the

corruption scandal involving Siemens, Eberl, Geiger, and Aßländer (2015) and Schembera and Scherer (2017) suggested that paying fines of over \$1 billion and voluntarily committing to a 15-year \$100 million payment to non-profit organizations fighting corruption over and above the apology were important measures in order to repair trust.

Evidence from the literature shows mixed results in the effectiveness of apology as a repair tactic. Researchers have found that an apology is effective to restore cooperation (e.g. Ho, 2012; Ma et al., 2019; Tomlinson, Dineen, & Lewicki, 2004), affect (e.g. Bottom et al., 2002; DiFonzo, Alongi, & Wiele, 2020), trusting intentions (e.g. Bansal & Zahedi, 2015; Grover et al., 2019; Kim & Harmon, 2014), trusting beliefs (e.g. Dirks et al., 2011; Ferrin et al., 2007; Ma et al., 2019), justice (e.g. Cugueró-Escofet, Fortin, & Canela, 2014; De Cremer & Schouten, 2008; Tomlinson, 2012), and to facilitate forgiveness (e.g. Basford, Offermann, & Behrend, 2014; Fehr et al., 2010; Zheng, van Dijke, Narayanan, & De Cremer, 2018). On the other hand, other studies have suggested apologies are not effective in repairing affect (e.g. Ma et al., 2019), cooperation (e.g. Haesevoets et al., 2013; Lei et al., 2014), trusting beliefs (e.g. Brühl et al., 2018; Druckman, Lewicki, & Doyle, 2019), or trust (e.g. Schweitzer et al., 2006; Tomlinson, 2012). This suggests the presence of potential moderators to the effectiveness of apologies.

Research has shown that the efficacy of an apology is dependent on many different criteria. These criteria include dispositional factors such as effects of individual construal, apology-related factors such as apology characteristics, content, and delivery quality, and transgression-related factors such as severity and intentionality of the transgression.

### ***Dispositional moderators***

The congruence of individual construal, defined as the way individuals perceive their relationship with other people, and apology characteristics affects the effectiveness of apology (Fehr & Gelfand, 2010). Specifically, an apology along with compensation is effective for trustees to receive forgiveness from trustors who emphasize independent self-construal. On the other hand, trustors who emphasize relational self-construal are more likely to forgive if an apology includes expression of empathy, and trustors who emphasize collective self-construal are more likely to offer forgiveness after an apology that acknowledges rules and violated norms. Research has also shown that violations catering to the need for belongingness would demand a socio-emotional remedy such as a public apology (Reb et al., 2006). Furthermore, the effectiveness of an apology

is influenced depending on whether the trustor follows incremental beliefs (i.e. beliefs that moral character can change over time), or entity beliefs (i.e. beliefs that moral character cannot change). Research has shown that trustors who follow incremental beliefs are more likely to cooperate following an apology than trustors that follow entity beliefs (Haselhuhn, Schweitzer, & Wood, 2010; van Houwelingen, van Dijke, De Cremer, 2018). These arguments suggest that apology quality and dispositional fit increases the likelihood of forgiveness and cooperation. As forgiveness mediates the relationship between apology quality and trust and cooperation (Grover et al., 2019), behaviors that facilitate forgiveness set the platform for eventual repair of trust.

### ***Content-based moderators***

The structure of apology plays an important role in its effectiveness. According to Lewicki, Polin, & Lount Jr. (2016), the structure of an effective apology comprises six components, out of which ‘offering to repair the relationship’ and ‘expressing an intent to not repeat the transgression’ are the most efficacious characteristics, and ‘acknowledgment of responsibility’ is the most important. The effectiveness of an apology is also directly related to the number of components present in the apology (Lewicki et al., 2016). Thus, apology is a complex tactic that not only follows the attributional mechanism but also incorporates the perspective of social equilibrium mechanism to repair trust and mend the relationship, and is most effective when multiple mechanisms are employed simultaneously.

Focus and affect displayed by the apology has also shown to influence the likelihood of receiving forgiveness from the trustor. A victim-focused apology, relative to offender-focused apology, along with use of specific words that signal repentance [such as “I am sorry” rather than “I am angry” or “I am sad”] increases the perceived trustee remorse (Berndsen, Hornsey, & Wohl, 2015; Dirks et al., 2011; Hornsey & Wohl, 2013) and facilitates empathy towards the trustee (Ho, 2012; Tabak, McCullough, Luna, Bono, & Berry, 2012). Meta-analytic results show that empathy is significantly and positively related to forgiveness (Fehr et al., 2010). Research has also shown that perceived remorse has the largest effect on forgiveness (Gold & Weiner, 2000) as it lowers the likelihood of the trustor to perceive the transgression to be repeated in the future (Tomlinson & Mayer, 2009). Therefore, an apology is likely to be effective and trustor likely to forgive the trustee if negative emotions such as anger and fear are replaced with positive ones such as empathy (DiFonzo et al., 2020; Fehr et al., 2010). Sincere (Basford et al., 2014; Cugueró-Escofet et al.,

2014) and respectful delivery of apology (De Cremer & Schouten, 2008) is likely to reduce the feeling of injustice in the trustor and facilitate forgiveness for the trustee (Basford et al., 2014; Ohbuchi, Kameda, & Agarie, 1989). An apology is considered sincere when it originates out of guilt or shame in the trustee and not pity for the trustor, with guilt signaling the highest sincerity levels (Hareli & Eisikovits, 2006). In certain situations, even superfluous apologies may facilitate cooperation by increasing the perceived benevolence of the trustee (Brooks, Dai, & Schweitzer, 2014).

Effectiveness of an apology also depends on the attributions made in the apology i.e. whether the apology signals blame to internal traits for the transgression or external pressures. Tomlinson, Dineen, and Lewicki (2004) studied 48 vignettes and found that apology with internal attribution had a more positive effect on reconciliation than one with external attribution. Kim, Dirks, Cooper, and Ferrin (2006) conducted hiring context vignette studies and found that differences in internal versus external attributions do affect willingness to risk and hiring after an integrity-based violation, and perceived integrity after a competence-based violation. In general, the authors found that internal attribution is more beneficial when the violation is competence-based and external attribution is better when the violation is integrity-based.

### ***Transgression-based moderators***

One of the most important transgression-based moderators of the effectiveness of apology is the nature of violation. Specifically, research has consistently shown that an apology is effective to repair trust when the violation is competence-based (Ferrin et al., 2007; Kim et al., 2004). These results were found at multiple levels of analysis (Kim et al., 2013). Apology has also shown a positive effect on perceived ability of the trustee when the strength of evidence is strong rather than weak (Fuoli et al., 2017).

In the last decade, scholars have also started to explore the effects of an apology in a power differential transgression, especially in a leader-follower relationship (Andiappan & Treviño, 2011; Epitropaki, Radulovic, Ete, Thomas, & Martin, 2020). A leader apology after a transgression not only improved the emotional well-being of the follower but also of the leader himself/herself (Byrne et al., 2014). This provided the follower with mental resources to process the inferential information from the leader's effort to repair the relationship. However, as with an apology to peers, perceived sincerity is a critical moderating factor. Apologies from leaders who were viewed

as caring prior to the transgression are considered more sincere (Basford et al., 2014) and receive forgiveness (Radulovic, Thomas, Epitropaki, & Legood, 2019). On the other hand, an apology from leaders who are viewed to possess low benevolence for the follower prior to the transgression is viewed with cynicism and is often unlikely to generate forgiveness from low-power victims (Zheng, van Dijke, Leunissen, Giurge, & De Cremer, 2016). Procedural justice climate (Aquino, Tripp, & Bies, 2006) and forgiveness climate (Radulovic et al., 2019) also moderate the relationship between leader apology and follower forgiveness.

### **2.2.1.3 Self-disclosure**

This repair mechanism is completely opposite to denial. In the self-disclosure mechanism, the trustee themselves accept their culpability in the transgression. The repair potential in self-disclosure is that even though the acceptance of the blame would hurt the trustworthiness of the trustee, the act of self-disclosure is likely to signal trustee remorse and guilt. Given that, the trustor would perceive that the transgressional characteristics of the trustee are repairable (Kim et al., 2009; Reeder & Brewer, 1979). This would increase the likelihood for trust to be repaired eventually.

Various scholars researching the effects of self-disclosure on trust repair have found support for the above-mentioned explanation for the use of the strategy. For example, Gold and Weiner (2000) conducted multiple vignette studies on undergraduate student sample and found that trustees whose confession expressed remorse are generally perceived by trustors to have a higher moral character and that their transgression has more unstable causality. Also, in a hiring scenario vignette study, Krylova, Longacre, and Phillips (2018) found that individuals that accepted responsibility for the negative information from the past were perceived as possessing higher integrity, enjoyed greater trust, and received higher willingness to hire.

A number of moderating factors have shown to influence the effect of self-disclosure on trust repair. The source of disclosure, either the self or a third-party, had a greater effect on reputation repair when the prior reputation of company was negative than positive (Fennis & Stroebe, 2014). Moreover, self-disclosure becomes more effective when the likelihood of discovery is low and the trustee preemptively accepts responsibility rather than reacts to the situational developments (Krylova et al., 2018). Furthermore, confessions are treated less harshly for in-groups than out-

group when they lack remorse. However, such difference becomes insignificant if the trustor senses remorse in the confession (Gold & Weiner, 2000).

#### **2.2.1.4 Explanation**

This mechanism of trust repair is often used by the trustee to influence the perception of the trustor at both individual and organizational level (Bankins, 2015; Bottom et al., 2002; Gillespie et al., 2014; Henderson et al., 2020; Lei et al., 2014; Shaw et al., 2003). Once the trustor believes the trustee to be guilty, the trustor delves into finding information about the locus of control of the transgression (Kim et al., 2009). Explanations given by the trustee provide the trustor with information to make judgments about locus of control, and can improve damaged trustworthiness of the trustee (Tomlinson & Carnes, 2015). Trustees that engage in perspective-taking, defined as the understanding of other's thoughts and feelings from their shoes, are more likely to proactively engage in transgressional behavior in a way that would make it easier to justify the behavior after the breach or/and to come up with adequate explanations that are more effective to reduce blame (Williams, 2012).

Prior research has shown that explanation helps in restoring cooperation (Bankins, 2015; Lei et al., 2014) and affect (Heaphy, 2013) in the relationship. Shaw, Wild, and Colquitt (2003) conducted a meta-analysis on the effects of explanation on cooperation, retaliation, and withdrawal outcomes. In their meta-analysis, they analyzed the effects of explanation provisions (i.e. extent to which an explanation is given for a decision) and explanation adequacy (i.e. extent to which provided explanations are clear, reasonable, and detailed) separately. They found that both explanation provisions and adequacy were positively related to in-role and extra-role cooperation. In addition, their results showed that both explanation provision and adequacy reduced active and passive retaliation responses, but only explanation adequacy attenuated withdrawal responses from existing relationships.

Scott and Lyman's (1968) general purpose taxonomy of explanation distinguishes explanation into two types – justification and excuses (cf. Shaw et al., 2003). Justification is defined as the kind of explanation wherein the trustee accepts responsibility of the transgression but addresses the reason of engaging to higher order concerns (Bobocel & Farrell, 1996; Conlon & Murray, 1996). On the other hand, excuses are explanations where the trustee admits the execution but shifts attribution of controllability of the transgression to an external cause (Crant &



Bateman, 1993; Tata, 2000). Various case studies and qualitative interviews have shown that trustees engage in both types of explanation. For example, Mueller, Carter, and Whittle (2015) explored the systemic trust in audit firms that was damaged after the financial crisis and required repair. Specifically, the case study examined the interaction between the heads of the Big 4 accounting firms in the UK and the House of Lords Economic Select Committee in the course of their parliamentary investigation. In the case study, the Big 4 admitted that they were responsible for lack of competition between audit firms but blamed it on client choice and auditing rules than on their self-interested behavior. Moreover, to justify their lack of communication and information exchange, they used the excuse that such strategies were undertaken for ‘protecting the public interest’ by not providing select group of stakeholders’ informational advantage. Meta-analysis results depict that excuses are more beneficial than justification after a transgression, especially when the transgression leads to instrumental, relational, or/and moral implications (Shaw et al., 2003). The effects of justification for trust repairing are worse when the transgression benefits the trustee (Kim & Harmon, 2014).

#### **2.2.1.5 Acknowledgment of transgression**

When the transgression is discovered by the trustor, it leads to a negative affective reaction (Lawler & Yoon, 1996; Topolinski & Strack, 2015) even before the trustor starts to investigate the details of the transgression (Gillespie & Dietz, 2009; Pfarrer, Decelles, Smith, & Taylor, 2008). The role of acknowledgment as a repair tactic is to control this sudden spike of negative affect and further deterioration of the relationship between the parties. Thus, it bases itself on the foundation of the social equilibrium mechanism and is useful early in the repair process (Božič, Siebert, & Martin, 2019, 2020). Acknowledgement of the presence of the transgression is an important first step as it implies that the trustee is empathetic towards the frustration that the transgression caused the trustor. This has a positive effect on the perceived trustworthiness of the trustee (Berndsen et al., 2015) and increases the likelihood of transgression resolution over the course of the repair process (Božič et al., 2019; Jones, Dacin, & Taylor, 2011). A lack of acknowledgment, on the other hand, can not only induce a feeling of revenge in the trustor (Gillespie et al., 2014) but also increase negative affect due to the perception that the trustee is unsympathetic to their condition (Lewicki & Bunker, 1996) that can holistically form a negative perception of the trustee (Jones &

George, 1998) and hinder the effectiveness of other repair tactics incorporated by the trustee to repair trust (Bankins, 2015).

#### **2.2.1.6 Hostage posting**

It is defined as a “self-sanctioning system in an uncertain situation” (Nakayachi & Watabe, 2005, p. 2), wherein the trustee facilitates exchange with the trustor by accepting a tangible cost associated with the risk of failure in the transaction. Thus, it follows structural mechanism by forming a non-legal structure around the relationship that reduces the likelihood of trust being abused in the future. For hostage posting to be effective, it should contain at least the following three characteristics – (1) it should be perceived by the trustor as a binding agreement; (2) it should provide compensation for the trustor and/or have consequences for the trustee in case the trust is broken; and (3) it should signal a lower expectation of transgression in the future (Raub, 2004). As hostage posting is non-legal in nature, the trustor is often willing to accept the posting after a transgression only if some trust remains or is repaired in the relationship.

Hostage posting may be voluntarily offered or be imposed on the trustee. Research has shown that voluntary postings are significantly more effective than imposed posting to restore integrity and ability trustworthiness in the trustee, especially when prior attitude towards the trustee is positive. The type of posting also has an effect on cooperation in the relationship. Specifically, whereas voluntary posting increased the willingness of the trustor to cooperate, imposed posting leads to a decrease in cooperation between the trustor and the trustee (Nakayachi & Watabe, 2005). Thus, hostage posting is likely to have a positive impact on the trust repair process when it is voluntarily offered by the trustee.

#### **2.2.1.7 Trust transference**

The trustee can initiate trust repair if it can convince a trustworthy third-party to utilize its own trustworthiness to facilitate trust transference in the trustee (Bachmann et al., 2015). Trust transference can lead to trust repair because it can improve attributions about the trustworthiness of the trustee (Ferrin et al., 2006). Research has shown that trust transference can assist in trust repair when trustworthy watchdogs provide positive reactions of the trustee after a transgression (Mueller et al., 2015; Rhee & Valdez, 2009), third party individuals [preferably closely related and

high-power individuals] persuade or guarantee the trustor about the future behavior of the trustee (Yu et al., 2017), and reputed endorsers provide persistent support to the trustee (Rhee & Valdez, 2009; Spicer & Okhmatovskiy, 2015). Trust transference can also occur passively if the trustee can attain certification or accreditation from a trustworthy organization for its factor of trustworthiness most severely hit by the transgression (Gillespie & Dietz, 2009). Even though there is sufficient research on the general effects of third-party on trust development (Bachmann et al., 2015; Ferrin et al., 2006), there is a surprising lack of empirical studies looking into the effects of third-party in the trust repair context.

## **2.2.2 Behavioral repair tactics**

### **2.2.2.1 Compensation**

It is a buffering repair tactic where the trustee tries to balance out the negative event with other positive fulfillments desired by the trustor (Bankins, 2015), such as monetary compensation (Reb et al., 2006). Compensation has shown to effectively reverse the negative affect and feeling of injustice within the trustor after the transgression has taken place (Cugueró-Escofet et al., 2014), thus, facilitating a return in the social order of the relationship. Individuals who experienced loss (instead of missing out on the gain) are more inclined to forgive if they received financial compensation (De Cremer, 2010). A trustee is likely to compensate the trustor for their loss if he/she feels guilty and/or shameful for the committed violation (Ghorbani, Liao, Çayköylü, & Chand, 2013). Trustees are more likely to compensate if the violation was unintentional, especially when the relationship is anticipated to be long-term (Desmet & Leunissen, 2014).

While the positive effects of compensation are well established in the literature, the conversation about compensation as a repair tactic in the last decade has revolved around the effects of the compensation size. Even though the literature has generally found that overcompensation has a more positive effect on the process of trust repair than equal- or undercompensation (Desmet et al., 2011), some research has shown that this positive effect has a ceiling (Haesevoets et al., 2013). There is also evidence that overcompensation may have a negative impact on repair of trust because overcompensating trustees could be perceived as possessing low moral orientation (Haesevoets et al., 2014). Ambiguity of the intent of the transgression (Desmet et al., 2011) and voluntariness of compensation (Desmet, De Cremer, van Dijke, 2010) moderate

the likelihood and degree of trust repaired following over-compensation based on its attributional features.

#### **2.2.2.2 Penance**

It is a repair tactic that assists the repair process of trust by fulfilling the trustor's desire to witness that the trustee pays an adequate penalty for committing the transgression (cf. Bottom et al., 2002), especially if the transgression involved interactional injustice (Reb et al., 2006). As sincerity and authenticity of the trustee's repentance and desire to change are rarely certain, penance often acts as a validation for the trustor that the trustee is genuinely making efforts to restore the relationship. This helps in returning positive affect in the relationship (Bottom et al., 2002; Radulovic et al., 2019) and accentuating trusting beliefs and behaviors (Dirks et al., 2011; Henderson et al., 2020). Thus, penance plays an integral role in the restoration of the social equilibrium.

Punishment for a transgression is different from compensation as it is focused more on the penalties that the trustee has to incur than the reimbursement that the trustor receives. Thus, it includes monetary and non-monetary costs that the trustee has to pay apart from the compensation to the trustor, such as fines and regulatory sanctions (Schembera & Scherer, 2017). Punishment could either be voluntarily offered by the trustee or be required by the trustor or a third party. Research has shown that open offers of penance often result in smaller repayments than the cost of harm imposed by the transgression, even though they are not significantly more effective than fixed offers (Bottom et al., 2002). However, such smaller repayments are less likely for short interactions, as a violation early in the relationship leads to transactional-oriented responses often resulting in larger demand for penance. Perspective-taking can help trustees to negotiate acceptable penance for the transgression (Williams, 2012). When penalties are levied onto the trustee, reintegration of relationship is more likely to happen if the penalties are accepted and not shown much resistance. For example, in their study of the Severn Trent Waters (STW) data manipulation case, Gillespie and colleagues (2014) noted that the fact that STW did not contest even the "completely and utterly outrageous" fines (p. 383) helped the organization to signal regret for the behavior of the incumbent team and put the "legacy issues" (p. 383) of the transgression behind through positive trustworthiness attributions.

### **2.2.2.3 Transparency maintenance**

Transparency is defined as the “perceived quality of intentionally shared information from a sender” (Schnackenberg & Tomlinson, 2016, p. 1788). It acts as a gate-keeping condition for trust to be repaired in the trustee after a transgression. Transparency may be established by the trustee by undertaking heuristics changes, such as installing cameras in meat production facilities to show which meat goes into a product (Božič et al., 2019), or by providing periodic reports on the requested operations or/and violation investigation. Research has shown that transparency maintenance by the trustee increases the repair of trust in the trustee (Bankins, 2015; Child & Rodrigues, 2004; Eberl et al., 2015). Transparency enables inward observability defined as the ability of external stakeholders (in this case trustor) to monitor internal activities and decisions (Grimmelikhuijsen & Meijer, 2014) and involves the disclosure of relevant and accurate information in a manner that is easily interpretable to the trustor (Schnackenberg & Tomlinson, 2016). Because of this, transparent investigations could provide trustors access to damning information and potentially put the trustworthiness of the trustee at risk. When the trustor perceives that the trustee shares unfiltered information frequently, it signals that the trustee is willing to assume that risk as he/she has nothing to hide. This lends the trustor to attribute higher integrity to the trustee and provides a positive impulse to the trust repair process. A lack of transparency, on the other hand, would suggest the assurances to be cheap talk (Bottom et al., 2002), which would hurt organizational legitimacy (Beelitz & Merkl-Davies, 2012) and the likelihood of trust repair.

### **2.2.2.4 Contracts**

It refers to *a priori* agreements between the parties in the relationship that “define outputs to be delivered, specify monitoring procedures, and detail duties, rights, and contingencies” (Cao & Lumineau, 2015, p. 15), and form part of the output and process controls in the relationship (Long & Sitkin, 2018). Contracts are one of the most common forms of control systems that parties employ in a relationship, especially in inter-organizational transactions. The boundaries stated in the contract become the source of credibility and legitimization of actions by the parties in the relationship (Garud, Gehman, & Karunakaran, 2014). There are two main types of contracts – prevention contracts in which control provisions are dominant, and promotion contracts in which provisions are developed in order to encourage greater coordination (Weber, 2017). Prior research

on contracts has shown that even though both control and coordination provisions increase confidence in the trustor, only the latter helps to establish new relational norms and boundary structure and positively influence benevolence-based trust (Malhotra & Lumineau, 2011; Pinnington & Ayoub, 2019). After a trust breach, however, trusting beliefs can be restored by incorporating preventive clauses that can fill the loopholes in the transactional relationship (Gillespie & Dietz, 2009). Moreover, research has shown that preventive regulations can be effective in repairing trust if the trustor perceives that the trustee recommends those regulations based on repentance (Dirks et al., 2011).

When transgressions attributed to stable traits occur, distributional approaches are incorporated to resolve the dispute (Lumineau & Malhotra, 2011) and contractual structures are driven more by control provisions than by coordination provisions (Weber, 2017). Research has shown that control provisions are negatively related to the intent to continue in the relationship (Malhotra & Lumineau, 2011). Thus, whenever transgressions are attributed to lack of integrity or/and malevolence, repair through contracts leads to cooperation only in the presence of perceived net benefit in the relationship by both parties. It does not necessarily repair trust because contractual remedies only addresses reliability concerns and not value concerns that are necessary to repair trust (Sitkin & Roth, 1993). Control contracts, therefore, may provide short-term transactional benefits but may be detrimental for the long-term viability of the relationships.

#### **2.2.2.5 Organizational reforms**

This repair tactic is valid only when there is a breach of trust at the organizational level. Leadership, culture, strategy, and structures form the internal components and external governance (Gillespie & Dietz, 2009). Research has shown that leadership replacement, and cultural and structural reconsideration after a transgression can lead to repair of trust at the organizational level. In the next few paragraphs, we will expand on each of these tactics for organizational reforms.

##### ***Leadership replacement***

When using this repair tactic, an organizational-level trustee attempts to repair trust by placing the blame for the transgression on the leader and replacing the incumbent leader with one that is more trustworthy. Thus, it is a repair attempt that is possible only at the organizational level

and involves two elements – incumbent leader resignation or dismissal and replacement by a trustworthy leader. The former element primarily impacts repairing of trust through attributional mechanism, and the latter primarily influences trust repairing through structural mechanism.

Many organizations employ leader replacement as a strategy especially after integrity-based transgressions take place in the organizations, such as organizational corruption (Eberl, Geiger, & Aßländer, 2015; Okhmatovskiy & Shin, 2019). After an integrity-based violation, “changing of the guard” speeds up and increases the likelihood of repair of trustworthiness of the trustee (Bachmann et al., 2015; Gillespie et al., 2014) because of two main reasons – (1) dismissal of the blamed incumbent leader washes out the impact of the transgression from the organization, and (2) the introduction of the new leader as a replacement increases the likelihood of repair of trust by influencing a positive change in the organizational culture (Eberl et al., 2015; Gillespie & Dietz, 2009). Formal and informal distancing of the organization from the incumbent leader associated with the transgression validates in the eyes of the trustor that the organization has nothing to do with the potential benefits received from the transgression, and that the trustee is ideologically different from the incumbent leader (Ferrin et al., 2018). This indirectly decreases the perceived trustworthiness of the incumbent leader and directly increases the trust in the organization (Ferrin et al., 2018). Moreover, as leader ‘symbolize and shape the conduct of organization’ (Gillespie & Dietz, 2009, p. 130) which can influence the perception of stakeholders about organization’s trustworthiness (Kouzes & Posner, 2002), the replacement of the incumbent leader with a trustworthy one is important for the repair to be sustainable.

### ***Structural and cultural reconsiderations***

An organizational violation creates dissolution not only between the trustee organization and the external stakeholders, but also within the trustee and the internal stakeholders (i.e. the employees) as it negatively affects the identification of the employees to the organization (Petriglieri, 2015). After the violation, the likelihood of the external stakeholders to cooperate reduces considerably if they do not perceive a net benefit in transacting with the trustee organization (Lewicki & Bunker, 1996) and employees are more likely to voluntarily leave if they do not re-identify with their employer organization (Petriglieri, 2015). Organizational reforms, in the form of changes in regulations and organizational culture, assist in repairing the relationship. Specifically, rules and regulations help in the repair process as they provide clarity of behavioral

expectations to the employees (Heaphy, 2013). This reduces the uncertainty cost of transacting with the organization and signals reduced likelihood of future transgression. Internalized cultural reforms help in re-identification of the employees and repairs trust in the organization. It also creates social controls (Pinnington & Ayoub, 2019) and provides the energy to the organization to regain its lost legitimacy due to the transgression.

Changes in rules and regulations can be either self-propelled (Ahmed, Bangassa, & Akbar, 2020) or recommended by an external party (Mueller, Carter, & Whittle, 2015). Post transgression, external regulation recommendations are often control-oriented and focus on preventing future transgressions by the trustee (Mueller et al., 2015). However, these recommendations should be followed as they can increase the probability of trust recovery (Božič & Kuppelwieser, 2019). On the other hand, cultural reforms are often internally driven, especially by the leadership and top management (Gillespie & Dietz, 2009). The main aim of the cultural reforms is to realign organizational norms and values with its vision and social expectations and establish organizational trustworthiness in the eyes of the stakeholders. New cultural values are often induced top-down through clear leadership communication and targeted emphasis (Beelitz & Merkl-Davies, 2012).

Research has shown that neither formal reforms (i.e. rules and regulations) nor social reforms (i.e. organizational culture) can alone repair trust in the organization. For organizational reforms to be effective, two conditions must be met – (1) changes in rules and regulations, and cultural values should be aligned with each other (Okhmatovskiy & Shin, 2019; Pinnington & Ayoub, 2019); and (2) concerns of both external and internal stakeholders must be addressed (Ahmed et al., 2020; Gillespie et al., 2014). The importance of these conditions is visible in the difference of responses of integrity-based violation by Siemens (see Eberl et al., 2015 for complete case details) and STW (see Gillespie et al., 2014 for complete case details).

In the case of Siemens, even though tighter rules employed by the new leadership were popular with external stakeholders as they signaled lower likelihood of future transactions, they did not go well with the internal stakeholders because they were forced down by the leadership, made conducting of even legal business tough, and in some cases challenged the core values of the company itself. This resulted in the fact that “strong trust attributions never reappeared” (p. 1214). On the other hand, STW used a more effective strategy wherein the content of the reforms increased trustworthiness in the eyes of external stakeholders and clear cooperative



communication of the reforms to the employees helped them re-identify with the organization. This led to the repairing of trustworthiness of the organization, so much so that STW won the Utility of the Year award within 5-years of their reform initiative.

## **CHAPTER 3. TRUST REPAIR PROCESS**

### **3.1 Introduction to the trust repair process**

One of the earliest models of trust repair process was provided by Lewicki and Bunker (1996). They elaborated on the process of trust repair at the individual level. They suggested that the trust repair process consists of initial steps and subsequent steps, and can take multiple courses. Specifically, according to the authors, the initial steps are a set of four steps that starts with the recognition by the trustee that the violation occurred. This sets the stage for the possibility of trust to be repaired. The trustee, thereafter, attempts to determine and convey to the trustor what caused the transgression. At the individual level, the trustee is often able to determine the cause easily. This step is followed by admission of the trustee that the event was “destructive” of trust and that he/she is willing to accept the responsibility. At this stage, the trustor is responsible for the attribution of the blame and intent of the trustee. Initial steps, therefore, are focused on finding information and clarity on the locus of causality, control, and stability of the transgression (Weiner, 1985) and is predominantly attributional in nature.

In the subsequent steps, the trustee attempts to restore the relationship using appropriate repair tactics. The trustor can drive the relationship in one of four courses depending on his/her attribution about the transgression, and perceived sincerity and appropriateness of the efforts made by the trustee to restore trust in the relationship. One of the courses that the trustor can take is to not forgive the trustee and deem the relationship as unrepairable. It is not necessary that the trustee must also believe that the relationship is unrepairable. If there is a discrepancy in the perception of the relationship, the trustee is responsible to change the perception of the trustor. The other courses that the trustor may take is to forgive the trustee but either with unreasonable demands, no demands, or reasonable demands. These demands may be explicit or implicit in nature. Trust is unlikely to be repaired if the demands are unreasonable because it would make the trustee question the worth of repairing the relationship. In such a scenario, trust repair efforts will only be undertaken further if demands can be negotiated down. As both trustor and trustee should be willing for trust to be repaired (Kim et al., 2009), the unreasonable demands will put roadblocks on the trust repair process. Trust is also unlikely to be repaired if forgiveness comes with no demands because in such a scenario forgiveness often is only cathartic in nature. Such forgiveness

takes out the relevance of the transgression from the relationship but not its effects on the relationship and future expectations, which resists the repair of trust. Trust is most likely to be repaired if the trustor forgives with reasonable demands because these acts of reparation not only demonstrate that the trustee is sincere and committed to repair trust in the relationship but also provide the trustee an opportunity to expiate any guilt or remorse to avoid awkwardness in the relationship.

In more recent work, various scholars have discussed the process of repair after a transgression in a more detailed multi-stage format (e.g. Gillespie & Dietz, 2009; Pfarrer, Decelles, Smith, & Taylor, 2008; Ren & Gray, 2009). Pfarrer, Decelles, Smith, and Taylor (2008) provided a four-stage model of organizational legitimacy recovery after a transgression, comprising of discovery stage, explanation stage, penance stage, and rehabilitation stage. Gillespie and Dietz (2009) studied repair of trust and suggested a four-stage sequential model of trust repair also at the organizational level. Taking cues from the work of Pfarrer and colleagues, they segregated the trust repair process into immediate response stage, diagnosis stage, reforming interventions stage, and finally evaluation stage. In both these models, the first stage of the repair process involves the surfacing of the transgression to the trustor and the initial response of the trustee. The second stage consists of the parties trying to analyze the transgression more thoroughly to come to a logical conclusion of who is responsible for the transgression and why did it occur. The third stage pertains to the trustee incorporating various repair tactics to make up for the loss of relationship strength with the trustor and paving the platform for a possible eventual trust repair. Finally, in the fourth stage, the trustee analyzes both explicit and implicit cues from the trustor to know the amount of trust restored in the relationship, which can potentially act as a motivation for the trustee to complete the repair process. On the other hand, the trustor constantly renews the perceived trustworthiness of the trustee through information from multiple interactions in this stage. This leads to an incremental increase in the trustor's willingness to be vulnerable to the trustee with each subsequent positive experience until trust is completely repaired.

Citing Goffman (1967), Ren and Gray (2009) also came up with a four-stage model of relationship restoration at the individual level. According to them, the restoration process starts with a challenge stage in which the trustor explicitly or implicitly communicates to the trustee about the transgression. This is followed by the offering stage in which the trustee engages repair mechanisms with an intent to revert the broken relational order back to equilibrium. However, this

restoration of equilibrium only happens if and when the trustor acknowledges the ‘offerings’ made by the trustee, which form the acceptance stage of the restoration process. In the final stage, i.e. thanks stage, the trustee is expected to show gratitude to the trustor for accepting the offerings in order for the relationship to be cemented into order again.

Even though the four-stages in these models are very helpful in theoretically distinguishing between the different sub-processes that occur in the repair process, some of the stages share a weak border with the subsequent stage. In other words, it is extremely difficult to know when the relationship exits one stage of the repair process and enters the other. For example, immediate response stage focuses on the initial response of the trustor and the trustee when the transgression is discovered, which is followed by the disclosure stage. However, it is very difficult to pinpoint when the relationship crosses the immediate response stage in the repair process and enters the disclosure stage. Moreover, the reform intervention and evaluation stages also have a weak boundary because it is tough to mark the difference when the trustee has created enough cooperation momentum that no intervention is needed for increased risk-taking in relationship in the subsequent interaction. Thus, even though the four-stage model of repair process is valuable theoretically, it may not be as valuable practically. As locus of causality attribution forms the watershed event for different repair strategies that the trustee can employ (explained later), a two-phase repair model, i.e. pre-causality-attribution and post causality-attribution, is likely to be more understandable and feasible from a practical standpoint. In this section, we will expand on the trust repair process from a four-stage perspective (using stage labels from Gillespie & Dietz (2009) because they suggest stages specifically for *trust* repair). However, we will also mention the boundary that separates the phases in the two-phase model and use it in the subsequent section to explain the pathways to repair trust. Figure 3.1. depicts the different stages of the trust repair process.

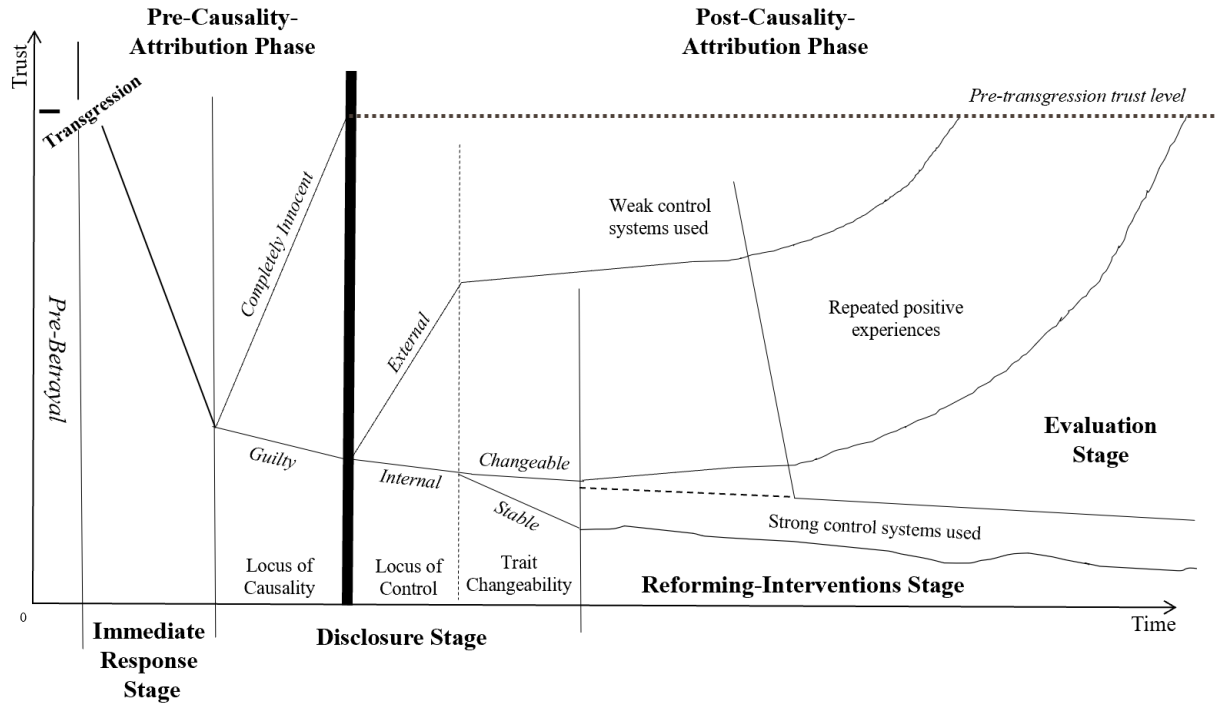


Figure 3.1. Different stages of the trust repair process

### 3.1.1 Immediate response stage

This stage incorporates the period immediately after the trustor learns about the transgression in the relationship with the trustee. Awareness of the transgression could arise from various sources, such as voluntary disclosures, self-observation of trustee's lack of expected performance, whistleblower statements, and internet posts. As, by definition, transgression is an unexpected negative experience for the trustor, it is immediately followed by a negative affective reaction (Lawler & Yoon, 1996; Topolinski & Strack, 2015) because "primitive" emotions i.e. the first-level internal responses that the trustor experiences right after an unexpected event are "outcome-dependent" and "attribution independent" (Weiner, 1985). Moreover, according to affect theory of social exchange, these emotions are involuntary in nature (Lawler, 2001) and once activated they "become the driving force in subsequent thought and action" (Izard, 1991, p. 43). This global negative psychological state motivates the trustor to search for the source or cause of the transgression and restore what is jeopardized or threatened due to the transgression (Ren & Gray, 2009; Wortman & Brehm, 1975). The principle of fundamental attribution error (Ross, 1977, p. 183) suggests that often in their early quest to find the source of the transgression, the trustor

quickly attributes it to the internal traits of the trustee. Initial attribution of the transgression to the trustee also generates specific negative emotions, such as anger, towards the trustee (Weiner, 1985). This worsens the overall affect felt by the trustor and reduces his/her affective attachment with the trustee (Lawler, 2001), fueling the realization of deteriorating trust in the relationship (Jones & George, 1998). Even though negative affect can lead to dissolution of the relationship altogether or a desire for vengeance on the part of the trustor (Bradfield & Aquino, 1999), some exchange might continue to occur if the trustor perceives a benefit in keeping the relationship alive (Lewicki & Bunker, 1996, p. 129).

In most cases, it is the trustor who is supposed to bring the transgression to light (Ren & Gray, 2009) but it is the responsibility of the trustee to initiate and seek restoration of the relationship in order to continue to avail its benefits (Gillespie & Dietz, 2009). Research has shown that well considered, timely, and credible responses to transgression aid forgiveness (Bottom et al., 2002) and restrict negative affect. Reticence to initiate such communication, on the other hand, can signal lack of innocence and lead to attenuated trustworthiness (Ferrin, Kim, Cooper, & Dirks, 2007b). It would also provide greater power to third-party rumors to influence perceptions (Burt & Knez, 1996), resulting in continued trust deterioration. Hence, initial communication is essential for the trustee to curtail the initial trust fall in the relationship.

In the immediate response phase, the trustor is affectively charged and cognitive investigation happens only over time in the subsequent phases (Gillespie & Dietz, 2009). For this reason, the initial responses by the trustee should be to at least acknowledge the presence of a transgression and display genuine concern for the inconvenience caused to the trustor. Acknowledgement of the presence of transgression is an important first step as it implies that the trustee not only understands at least some of the central goals of the trustor but also recognizes the frustration that the transgression caused the trustor. Concern demonstration for the inconvenience caused by the transgression generates an impression that the trustee is sensitive and/or in-touch with the experiences of the trustor. The lack of such initial impression would induce resistance from the trustor towards the trustee's repair efforts and will inhibit those efforts to bear positive results (Kim et al., 2009; Lewicki & Bunker, 1996, p. 131). However, at this stage of the repair process, blame should not be placed on an external factor, especially if the transgression is integrity-based or at the organizational level, as it could signal that the trustee either knew about the transgression but was not concerned enough to stop it, does not care about a thorough

investigation, or is trying to save his/her skin through a scapegoat. It would not only raise questions about the integrity or benevolence of the trustee but would also make the trustor skeptical of the ability of the trustee to handle the investigation of the transgression.

In this stage of the repair process, the trustor lacks information about the transgression. Thus, assurance of transparency and support to the trustor in the investigation would also be effective to control the trust fall in the trustee. It would provide the trustor a possible source to seek high-quality information in order to thoroughly investigate the transgression. As transparency involves the disclosure of relevant and accurate information in a manner that is easily interpretable to the trustor (Schnackenberg & Tomlinson, 2016), voluntary disclosure of damning information to the trustor could potentially put the trustee at risk of that information being used against him/her. Assurance of transparency would signal to the trustor that the trustee is willing to assume that risk as he/she has nothing to hide. It would make the trustor question his/her initial attribution and reduce the negative relational effects of the transgression. Moreover, disclosure of such information would also develop a feeling of fairness for the trustor (Schnackenberg & Tomlinson, 2016), signaling a higher level of integrity and benevolence in the trustee (Colquitt & Rodell, 2011). It would provide the trustor a sense of control and opportunity to reach to the bottom of the cause and make an informed attribution. Thus, a guarantee of transparency by the trustee in this stage would suggest that the trustee is concerned about the needs and interest of the trustor, which could restrict the negative affect and in turn the overall fall in the level of trust (Whitener et al., 1998). However, assurance of transparency should be followed up with requisite actions in the disclosure phase or else these assurances would be viewed as ‘cheap talk’ and negatively influence the trustworthiness of the trustee (Bottom et al., 2002). Appropriate action, on the other hand, would demonstrate commitment of the trustee in repairing the trust in the relationship.

*Proposition 1: Acknowledgment of the transgression, concern demonstration, and assurance of transparency for the investigation will limit the overall drop of trust-levels in a relationship following a transgression.*

At the individual-level, the trustee often uses apology in this stage as a mechanism of passive self-disclosure and/or to limit the trust fall in the relationship. Even though superfluous apology, i.e. an expression of regret for an undesirable event for which the apologizer is clearly not responsible, has shown to have a repair potential (Brooks et al., 2014), immediate apology for

the transgression may not always be advisable, as its effectiveness depends on the initial perception of the trustor on the type of transgression i.e. whether the transgression is perceived by the trustor as ability-based or integrity-based (Kim et al., 2006). When an apology is extended, it signals that the trustee acknowledges guilt (Riordan et al., 1983) but at the same time expresses remorse (Kim et al., 2004) that decreases the perceived likelihood of the transgression to be repeated again (Gold & Weiner, 2000). Because an integrity-based transgression is considered to have a stable cause (Kim et al., 2004), an apology fails to ameliorate the negative affect created by the acceptance of guilt in an integrity-based transgression. This occurs because individuals tend to weigh negative information about integrity more than positive information (Kim et al., 2004). Immediate apology implicitly suggests that the trustee knew about the consequences of the transgression but still went through with it. The trustor is likely to focus more on the malicious intent of the trustee than the feeling of remorse (Reeder & Brewer, 1979). Moreover, as the surge of emotions drives curiosity in the individual about the source of the negative affect (Weiner, 1985), apology in this stage would make the embedded information about lack of integrity in the trustee seed in deep and be more distinctly remembered by the trustor (McGillivray et al., 2015). Hence, apology for an integrity-based transgression generates a reputation of low integrity for the trustee, which is most likely to persist even when the trustee performs subsequent acts of high integrity (Schweitzer et al., 2006), and thus, is not advisable. However, apology as a self-disclosure mechanism may be helpful in increasing the perception of integrity if it is used for a transgression which had a low chance of discovery and/or was not executed towards the trustee (Krylova et al., 2018). More research is needed to clearly understand the short-term and long-term effects of apology in this stage on trust repair.

Effectiveness of apology for transgression perceived as ability-based, however, is different from that of integrity-based because ability is considered a more volatile trait. When an individual apologizes for an ability-based transgression, the negative effect of acceptance of guilt is not considered as detrimental for the repair process as the positive effect of perceived remorse and motivation to rectify. Moreover, individuals tend to weigh positive information about ability more than negative information (Kim et al., 2004). Thus, if the trustee has performed well in the past, the negative effect of the transgression is often diluted further as part of the blame is attributed to external conditions such as luck. However, it must be noted that the trustee may not always be able to anticipate the effects of apology in this stage. Understanding whether the trustor perceived the



transgression as ability-based or integrity-based may not always be straightforward for the trustee and can increase the complexity in deciding whether to apologize. For example, suppose an employee was promised by the supervisor to get a raise at the end of the month but was not given one. The employee may attribute the transgression to the ability of the supervisor i.e. “the supervisor does not have the budget to do so”, or to the integrity of the supervisor i.e. “the supervisor lied to me the whole time”. As knowing the perception of the trustor may take time, clarity may not always be possible in the immediate response stage.

*Proposition 2: Use of an apology in the immediate response stage by the trustee would be effective to limit the initial trust fall after the transgression for transgressions perceived as ability-based by the trustor and not for transgressions perceived as integrity-based.*

### **3.1.2 Disclosure stage**

Whereas the immediate response stage is focused on affective reactions, in the disclosure stage the focus is on cognition. During this stage, the trustor develops a “hyper-vigilant state” (Gillespie & Dietz, 2009, p. 139) and attempts to gather information and cues to cognitively make informed decisions about the locus of causality, control, and stability of the transgression. The trustor collates information from multiple sources, such as network ties, rumors, and the trustee itself. Even though full and frank disclosure of the transgression might damage trustworthiness, especially if the transgression is based on stable characteristics, such as benevolence or integrity, lack of transparency has a greater deleterious effect on both RTR and trust (Bottom et al., 2002). It gives an impression that the trustee has something to hide and/or has not learned from the transgression (Gillespie & Dietz, 2009). Moreover, long-drawn investigations at the organizational level drain patience of the trustor over time. Undue delay in answers from the trustee shifts attention of the trustor towards other sources, such as rumors, providing those sources more opportunities to influence the perception of the trustor. Third parties often tend to accentuate negative information over positive information (Burt & Knez, 1996, p. 81). Hence, undue delay negatively affects trust in the relationship. It is, therefore, critical that investigative actions of trustee not only portray transparency but also do so in a timely manner.

According to the literature, during this stage the trustor seeks information on three levels of questioning to make sense of the transgression (Kim et al., 2009; Tomlinson & Mayer, 2009). These three levels occur sequentially.

### **3.1.2.1 Locus of causality**

First, the trustor attempts to gather information to ascertain the locus of causality i.e. whether the trustee is guilty or completely innocent of the transgression (Kim et al., 2009). The trustee can attempt to distance itself from the transgression by using repair mechanisms such as denial. If the trustor perceives the trustee as completely innocent (it does not matter if in reality the trustee is not) i.e. the trustor believes that the trustee is not involved in the transgression in any shape or form, trust is repaired as the attribution of transgression to the trustworthiness of the trustee are invalidated. It concludes the trust repair process between the trustor and the trustee. However, if the trustee is viewed as guilty, trust fall is solidified as it provides some validation for the trustor of his/her initial attribution. The trustor then goes to the next level of evaluation and attempts to address the question on locus of control of the transgression.

This locus of causality sub-stage forms the boundary between the pre-causality-attribution phase and post causality-attribution phase, as some of the major pre-causality-attribution repair mechanisms, such as denial, cease to remain valid if the trustee is blamed for the transgression. In other words, if trust is not repaired by this sub-stage, the trustee cannot invalidate the transgression completely and come out clean but has to instead employ a repair strategy that can replenish the degraded perceived trustworthiness to repair trust. Thus, repair strategies that repair trust in the pre-causality-attribution phase focus on attributions and the ones that repair trust in the post causality-attribution phase focus on corrections.

*Proposition 3: If the trustee makes the trustor believe that it is completely innocent, trust will be repaired.*

### **3.1.2.2 Locus of control**

If the trustor attributes the trustee to not be completely innocent, the trustor seeks information on whether a factor from the external environment forced the trustee to violate trust or whether the trustee had control over his/her actions (Kim et al., 2009). If the trustor perceives

that the trustee did not have power to alter their actions, some trust is recovered but often not to the pre-transgression level (Tomlinson & Mayer, 2009). This is because even though the information of trustee's lack of control in the behavior would reverse the perceived malevolent intent or lack of integrity, it would develop a perception that the trustee lacks ability to avoid or deal with the situation. However, it would make the replenishment of trustworthiness easier as ability-based transgressions are more repairable (Reeder & Brewer, 1979). On the other hand, if the trustor perceived that the trustee had control over their actions, the trustor would attribute the transgression more to the trustee. It would make the trustor believe that the trustee could have avoided the negative outcome but chose not to, which would reduce trust and encourage the trustor to undertake self-protective measures in future interactions with the trustee (Weiner, 2001, p. 336).

To establish lower control in the transgression, the trustee employs various repair mechanisms such as accounts and explanation to redirect the locus of control (Dewulf et al., 2009; Kim et al., 2006; Shaw et al., 2003) and to raise the trust in the relationship as close to pre-transgression levels as possible, if not repair it. Perception of sincere utilization of such repair mechanisms is critical to the possibility of repair of trust as perceived insincerity by the trustee would further hurt the integrity of the trustee and deteriorate trust to even lower levels, making it extremely tough to repair (Shaw et al., 2003).

*Proposition 4: Degree of transgression attribution to an external factor would be positively related to the degree of trust repaired.*

### **3.1.2.3 Transgression-trait stability**

If the trustor attributes at least partial control of the transgression to the trustee, the trustor seeks to answer whether the internal cause of the transgression is stable (unchangeable) or volatile (changeable) (Kim et al., 2009). This response determines the increase in cost that the trustor would perceive to continue the exchange relationship. When the internal cause of transgression is perceived to be stable, uncertainty and affect cost are accentuated in the relationship for the trustor. Specifically, stable causes of the transgression diminish the perceived trustworthiness and in turn increase the likelihood of the transgression to be repeated in the future. This generates fear, along with anger, towards the trustee (Weiner, 1985; Williams, 2007). These affective states lead to disequilibrium in the relationship between the trustor and the trustee because the social norms,

relative standing, and power dynamics governing the relationship are altered (Ren & Gray, 2009) and perceived vulnerability of the trustor in the relationship with the trustee is increased (Williams, 2007). It also leads to a feeling of hopelessness in the trustor and resignation of the trustor from the trust relationship (Weiner et al., 1979). One of the ways through which the trustor regulates the increased uncertainty and affect costs is by taking self-protective measures in the relationship (Gross, 1998; Weiner, 2001: 336; Williams, 2007). Such self-protective measures often take one of two forms: either dissolution from the relationships altogether, or employment of relatively strong risk-mitigating measures in the relationship. The trustor chooses to use the latter option only when it anticipates net benefits in continuing the relationship. If the trustor anticipates that the financial and non-financial costs (such as uncertainty, affect, and opportunity cost) outweigh the benefits, the trustor is likely to not invest their time and energy in the relationship and dissolves it (Bradfield & Aquino, 1999). However, when the internal cause of the transgression is believed by the trustor to be changeable, the trustor perceives that the trustworthiness of the trustee is not as low as it anticipated, and with an intent to improve and execution of requisite corrective actions the cause of transgression could be replaced. This could potentially lead to trust repair as it would decrease the likelihood that trust would be breached in the future. However, to actually repair, the trustee must provide the trustor cues and reason to believe that their damaged trustworthiness has been fixed.

Many factors influence the perceived changeability of the internal transgressional trait (Lewicki & Brinsfield, 2017). Specifically, the perceived deteriorated factor of trustworthiness, frequency of transgression, severity of transgression, and transgression timing in the context of relationship development stage influence the perceived changeability of the transgressional trait and the likelihood of a future transgression by the trustee. Except for the first factor, which is trustee based, all the others are based on the characteristics of the transgression. In the next few paragraphs, we will briefly explain each of the factors.

Transgression could be caused by the lack of any of the three factors of trustworthiness i.e. integrity, ability, or benevolence. Each cause of transgression i.e. lack of integrity, ability, and benevolence is perceived to have a different level of stability (Lewicki & Brinsfield, 2017). Specifically, integrity-based transgressions are considered more stable i.e. less changeable than both ability-based and benevolence-based transgressions. As mentioned earlier, trustor perceives integrity-based transgressions to be less changeable because people intuitively believe that those

with high integrity would refrain from dishonest behavior towards the trustor at all times (Reeder & Brewer, 1979). However, those at the other end of the continuum may show integrity in some of their behaviors depending on the opportunities and incentives offered to them (Kim et al., 2004). Thus, once the trustee commits an act of low integrity, suspicion continues to loom on the intent of the behavior of the trustee. In other words, the trustee is perceived to have low integrity even if the transgression is followed by positive behavior. On the other hand, when the internal cause of the transgression is attributed to the ability of the trustee, the transgression is considered to be volatile i.e. changeable because ability is considered trainable (Arthur Jr et al., 2003) and investing time and energy by the trustee in learning and practicing the skill could develop expertise over time. Benevolence-based transgression are less changeable than ability-based transgressions but more changeable than integrity-based transgressions, as even though transgression with high malevolent intent towards the trustor is difficult to repair (Klackl et al., 2013), some benevolence-based transgressions may be out of indifference of the trustee towards the trustor. For example, benevolence does not play a major role in organizational relationships (Schoorman et al., 2007). If the trustee organization chooses to offer a contract for a new venture to a competitor supplier over the trustor supplier because the former offered better deliverables to the trustee in that line of products, the transgression would likely not be considered by the trustor supplier as a transgression based on malicious intent.

Severity, frequency, and timing of transgression are the three transgression-based factors that can affect the perceived changeability of transgressional trait. First, severity of transgression, defined as the degree to which “the violation shakes the very foundation of the relationship or creates very serious consequences” (Lewicki & Bunker, 1996, p. 136), influences the perceived changeability of the internal transgressional trait as more severe transgression results in a greater trust fall. This requires more extensive reparation strategy and effort to repair trust (Ohbuchi et al., 1989; Schlenker & Darby, 1981), making repair of trust harder to execute. It decreases the perceived possibility of trust repair and increases the perceived likelihood of future transgression in the eyes of the trustor (Tomlinson et al., 2004). However, there is still a dearth of studies that specifically explore the effects of transgressional severity on perceived transgressional trait changeability of the trustee (Lewicki & Brinsfield, 2017), thus more research is needed to understand the effects of transgressional severity more holistically. Second, frequency of transgression increases the perceived stability of the transgressional trait because it suggests that

the trustee has lower ability or intention to refrain from executing a breach of trust. In other words, it creates a perception that engaging in transgressional behavior is 'normal' for the trustee and, thus, the trustee would be likely to repeat the transgression in the future (Tomlinson et al., 2004; Tomlinson & Mayer, 2009). Research has shown that trustors are willing to tolerate only up to two transgressions after which trust decreases in the relationship significantly (Elangovan et al., 2007).

Finally, impact of timing of the transgression in the context of the stage of the relationship on perceived stability of the transgressional traits has had mixed results. Some scholars have found that transgression committed early in the relationship leads to a lower likelihood of trust repair than transgression committed later in the relationship development process. This is because in the early stages of the relationship development process, trust is more fragile and based on assumptions and stereotypes rather than experience (Kim et al., 2009; McKnight et al., 1998). Transgression at an early stage increases the perceived stability of the transgressional trait as the trustor often has not made an emotional investment in the relationship and the transgression acts as a warning sign to walk out of the relationship (Lewicki & Bunker, 1996). Moreover, according to fairness heuristics theory (Lind, 1995), initial judgments of individual characteristics sets the tone for the relationship and provide cognitive resistance to later information that contradicts those judgments. Thus, low trustworthiness judgment due to a transgression early in the relationship development process is likely to make the trustor perceive that the transgressional trait is stable. On the contrary, scholars that suggest the opposite base their arguments on the fact that a transgression in mature relationships is more likely to threaten the identity and values of the trustor (Lewicki & Bunker, 1996; Lind & Tyler, 1988) and severely disrupt the relational equilibrium (Ren & Gray, 2009) because the trustors are more emotionally invested in the relationships at the later stages of relationship development that leads to higher negative affect and stronger emotional reactance when trust is breached (Bottom et al., 2002). It must be noted that such stability perceptions would occur only when the evidence for the blame of the transgression clearly points towards the trustee because the need for cognitive consistency and emotional security encourages the trustor to provide every benefit of doubt to the trustee (Cooper & Fazio, 1984a; Festinger, 1957). Taking both viewpoints together, it seems that timing of transgression has an inverted U-shaped relation with the perceived stability of the transgressional trait, such that the transgressional trait would be perceived as stable by the trustee both in new and highly mature relationships. Future research should explore this relationship.

*Proposition 5: The trustor is more likely to consider the transgressional trait of the trustee as stable if (a) integrity is the deteriorated factor of trustworthiness; (b) transgression has high severity; (c) the frequency of transgression committed by the trustee is high; (d) the relationship between the trustor and the trustee is either at the early-stage or the mature-stage of development.*

*Proposition 6: The trustor is less likely to consider the transgressional trait of the trustee to be stable if (a) ability is the deteriorated factor of trustworthiness; (b) transgression has low severity; (c) the frequency of transgression committed by the trustee is low; (d) the relationship between the trustor and the trustee is neither at the early-stage nor the mature-stage of development.*

### **3.1.3 Reforming interventions stage**

By the beginning of this stage, the trustor has substantial clarity about the real source and cause of the transgression, and the direction in which he/she desires to take the relationship. Specifically, if the trustor attributes the cause of the transgression to stable transgressional traits, the trustor would likely choose to engage in a low-risk transactional relationship but that too only if it anticipates net benefit from continuing the relationship. However, if the trustor attributes the cause of the transgression to changeable transgressional traits, the trustor would look for cues to validate their changeability assessment. The main aim of the parties in this stage is to break the friction in the exchange relationship and jump-start the repair process from cognition to action by incorporating reform interventions. In other words, in this stage the goal of the trustee is to create conditions and platform for the possibility of an eventual trust repair. For the trustee to be successful in this stage, the trustee must (1) revive at least some risk-taking in relationship (RTR) with the trustor, and (2) reduce negative affect and increase positive affect in the relationship.

Structural scholars suggest tactics that play an important role to revive interactions between the trustor and the trustee by mitigating risk present in the exchange relationship. They recommend the use of formal or informal control systems, such as contracts, monitoring (Sitkin & Roth, 1993), and hostage posting (Nakayachi & Watabe, 2005), to restore cooperation as these mechanisms can

reduce the risk of a potential future transgression by making the transgression costlier (Williams, 2007). Even though these mechanisms are effective to restore cooperation in the relationship, the stronger control systems can potentially become a liability for trust repair by denying the opportunity to the trustee to form a basis for a potential future higher-risk interaction with the trustor (Malhotra & Lumineau, 2011). Specifically, strong control systems restrict internal attribution of positive outcomes (Malhotra & Murnighan, 2002). As increase in risk-taking is an incremental process, lack of internal attribution of positive outcomes does not allow for replenishment of perceived trustworthiness (Mayer et al., 1995) and resists the trustor from increasing his/her RTR with the trustee. Thus, it is advisable to use weak control system in this stage to create the platform for higher-risk interactions in the future. At the organizational level, the trustee can also take more systemic steps to boost the repair process. Specifically, incorporating sustainable organizational reforms that adequately align the internal and external components of the organization to facilitate positive future interactions would increase the likelihood of the trustor to restore RTR that can eventually lead to trust repair (Gillespie et al., 2014; Gillespie & Dietz, 2009).

According to social equilibrium scholars, for the trustor to be hopeful for trust repair it must believe that the trustee regrets their action in the transgression and is remorseful, wants to make up for the costs incurred by the trustor, and is willing to take steps to avoid the breach in the future (Goffman, 1967; Ren & Gray, 2009). However, negative affect due to the transgression resists the trustor to view a positive repair intent in the trustee because negative affect tends to make the trustor paint even positive interactions with the trustee in negative light (Jones & George, 1998). This not only reduces RTR due to the increased affect and uncertainty cost (Bottom et al., 2002), but also attenuates the likelihood of trust to be repaired in the future (Williams, 2001). Thus, reduction of negative affect (McCullough & Witvliet, 2002: 447; Tomlinson & Mayer, 2009) is an essential step in breaking the friction of resistance to repair trust because more positive affect helps the trustor to perceive their social interactions more positively (Kok et al., 2013). Scholars who used social equilibrium approach to explore trust repair suggest tactics, such as apology, compensation, and penance, to not only improve affect and perceived trustworthiness in the trustee but also in turn to restore RTR (e.g. Bottom et al., 2002; Ren & Gray, 2009). These mechanisms are especially effective when used in tandem. For example, the expression of regret and remorse through a sincere apology reduces negative affect in the trustor towards the trustee (Ohbuchi et al.,



1989) and enhances the likelihood of RTR (Bottom et al., 2002). However, only verbal accounts without any effort to compensate for the wrongdoings or to display intent of rectification would be deemed as cheap talk by the trustor. Models of cheap talk suggest that words alone neither reduce negative affect significantly nor increase interaction between the parties (Farrell & Gibbons, 1989). Penance is important to reduce negative affect as it validates the information and intent displayed in the apology (Bottom et al., 2002; Dirks, Kim, Ferrin, Cooper, 2011) and provides a sense of fairness to the trustor to see that the trustee pays for the transgression (Reb et al., 2006). According to Lewicki, Polin, & Lount Jr. (2016), structure of an effective apology comprises of six components – expression of regret, explanation of occurrence of the betrayal, acknowledgement of responsibility for the betrayal, expressing an intent to not repeat the betrayal, offering a way to repair the broken relationship and seeking forgiveness. The effectiveness of an apology is directly proportional to the number of components incorporated in the apology (Lewicki et al., 2016). Hence, simultaneous incorporation of other repair mechanisms that signify willingness to repent, such as compensation, would increase the effectiveness of the apology (Ohtsubo & Watanabe, 2009) and increase the likelihood for forgiveness by the trustor. Forgiveness offered, in most cases, signifies the reduction in negative affect (Enright et al., 1991) and aid willingness of the trustor to interact with the trustee (Karremans & Van Lange, 2004).

*Proposition 7: Use of control systems, such as detailed contracts and hostage posting, helps to restore cooperation in the relationship.*

*Proposition 8: Use of verbal and behavioral repair tactics, such as apology and compensation, helps to restore RTR.*

*Proposition 9: The relationship between verbal and behavioral repair tactics and RTR is mediated by perceived trustworthiness, such that use of repair tactics improves trustworthiness in the relationship, which in turn restores RTR between the parties.*

### **3.1.4 Evaluation stage**

In this stage, the trustor evaluates the outcomes of each interaction with the trustee and updates his/her perceived trustworthiness about the trustee from the feedback (Mayer et al., 1995). This feedback loop is repeated by the trustor after each subsequent interaction. Each positive

interaction replenishes some deteriorated perceived trustworthiness and accentuates the level of vulnerability that the trustor is willing to take in the relationship with the trustee. This cycle continues until trust is repaired completely. The level of risk-taking behavior that the trustor undertakes in the interaction during this stage also provides cues to the trustee about the amount of trust restored in the relationship. It provides both drive and direction for the trustee's efforts and helps the trustee to move towards an eventual trust repair (Gillespie & Dietz, 2009).

Replenishment of trustworthiness is a time-consuming process as each of the multiple interactions provides incremental adjusting of the level of perceived trustworthiness. However, even in this stage the trustee should avoid the use of strong control systems because even though it facilitates reliable actions and positive transactional outcomes for the trustor, it inhibits repair of trust in the relationship (cf. Sitkin & Roth, 1993) for two main reasons: first, strong control systems reduce the perceived risk in the exchange to a negligible level (Schoorman et al., 2007). Lack of risk invalidates the need for trust altogether (Kee & Knox, 1970). As theories of human information processing consider attention as "cognitive resources of limited availability" (Kanfer & Ackerman, 1989, p. 659) and that individuals attempt to utilize these resources in the most judicious manner (Hobfoll, 1989), lack of importance of trust in the relationship encourages the trustor to expend minimal effort to rectify the initial negative judgments about trustee's trustworthiness. This in turn slows down (if not halts) the process of trust repair. Second, for repair of trust to occur, only positive exchange outcomes are not enough – internal attribution is also a critical factor (Mayer et al., 1995). As strong control systems, such as close monitoring and prevention contracts, in a relationship act as an external risk management mechanism, it inhibits the trustor from attributing positive experiences in the interactions to internal factors of the trustee (Malhotra & Murnighan, 2002; Strickland, 1958). In other words, use of strong control systems resist the positive exchange outcomes to replenish the deteriorated perceived factors of trustworthiness because such positive outcomes are seen as a result of the presence of control systems. This, in fact, negatively affects the quality of the relationship (Malhotra & Lumineau, 2011). Thus, for factors of trustworthiness to be replenished and trust to be repaired, the trustor needs to provide the trustee multiple opportunities to perform positively in the presence of risk. The risk for which the trustor is willing to be vulnerable would incrementally increase over time when positive outcomes are observed for smaller RTRs and attributed to the improvement in the trustee's factors of trustworthiness. To summarize, for RTRs by the trustor to facilitate perceived

trustworthiness improvement for trust repair, two conditions must be met, (1) multiple RTRs must result in positive outcomes, and (2) these positive outcomes must be attributed to the trustworthiness of the trustee.

*Proposition 10: When repeated RTR with the trustee lead to positive outcomes that are attributed to the internal traits of the trustee, perceived trustworthiness of the trustee would be replenished gradually and trust would eventually be repaired.*

## CHAPTER 4. PATHWAYS OF TRUST REPAIR

As suggested earlier, breach in trust leads to ‘reactance’, defined as a negative psychological state which arouses the trustor to restore what is perceived as jeopardized when identity and/or freedom to control outcomes is threatened (Ren & Gray, 2009; Wortman & Brehm, 1975). Reactance manifests itself into various negative emotions such as anger and frustration, and behaviors such as increased aggression and decreased cooperation (Gordon & Bowlby, 1989). It also generates negative prospect-based emotions, such as fear, that increase the perception of the transgression to be repeated in the future by the trustee (Ortony et al., 1990; Tomlinson & Mayer, 2009). These negative emotions invalidate the “trustworthy until proven otherwise” assumption of initial trust development (Kim et al., 2004, p. 104) and makes the trust repair process more difficult. When there is a transgression, the trustor is likely to either dissolve the relationship altogether, continue the relationship in order to seek revenge (Aquino et al., 2001), reconcile and continue the cooperation with the trustee by mitigating risk, or attempt to repair trust in the relationship (Lewicki & Bunker, 1996, p. 125–126).

For trust to be completely repaired, the willingness of the trustor to be vulnerable must return to its pre-transgressional level. This can happen if either it is established that the trustee is completely innocent and the impact of transgression on the relationship between the trustor and the trustee is invalidated (Kim et al., 2009), or the trustworthiness is substantially replenished over time based on positive feedback from subsequent interactions (Mayer et al., 1995). By its very nature, fulfilling the former condition for trust repair is only possible when the locus of causality is not finalized on the trustee. On the other hand, the latter condition of trust repair becomes viable when at least some causality is either confirmed by the trustor or/and implicitly or explicitly accepted by the trustee. Thus, finalized attribution of the locus of causality to the trustee forms the watershed that divides the two pathways of trust repair and where the former uses the strategy of redirection of attribution and the latter uses the tactic of replenishment of trustworthiness. Thus, we term the former repair pathway as the ‘Redirect Pathway of Trust Repair’ and the latter as ‘Replenish Pathway of Trust Repair’, and use attribution mechanism and social-equilibrium mechanism respectively to explain the process through which trust can be repaired through these pathways. A trustee may only follow either of the pathways because the foundational strategies that the two repair pathways utilize are incompatible and contradictory to each other.

It must be noted here that although both these pathways increase the likelihood of a complete trust repair, they do not guarantee it in every situation. In scenarios where neither redirect nor replenish pathway are feasible or desirable, parties may still reap transactional benefits by mitigating substantial risk in the exchange. In doing so, a negotiated transaction relationship is likely restored wherein explicit terms for exchange are set but a reciprocal relationship wherein trust forms the core of exchange is often not (Molm, 1994). As the relationship is *redefined* to be one based exclusively on risk-mitigated interactions and not trust by altering the environmental factors in the relationship, this pathway of repair is termed as ‘Redefine Pathway of Interaction Repair’ and we use the structural mechanism to explain the process of interaction repair through this pathway. Either party may initiate the repair process using this pathway, or incorporate it if the other two pathways of trust repair do not succeed. The theoretical model with all three repair pathways, i.e. two for trust repair and one for interaction repair, is displayed in Figure 4.1.

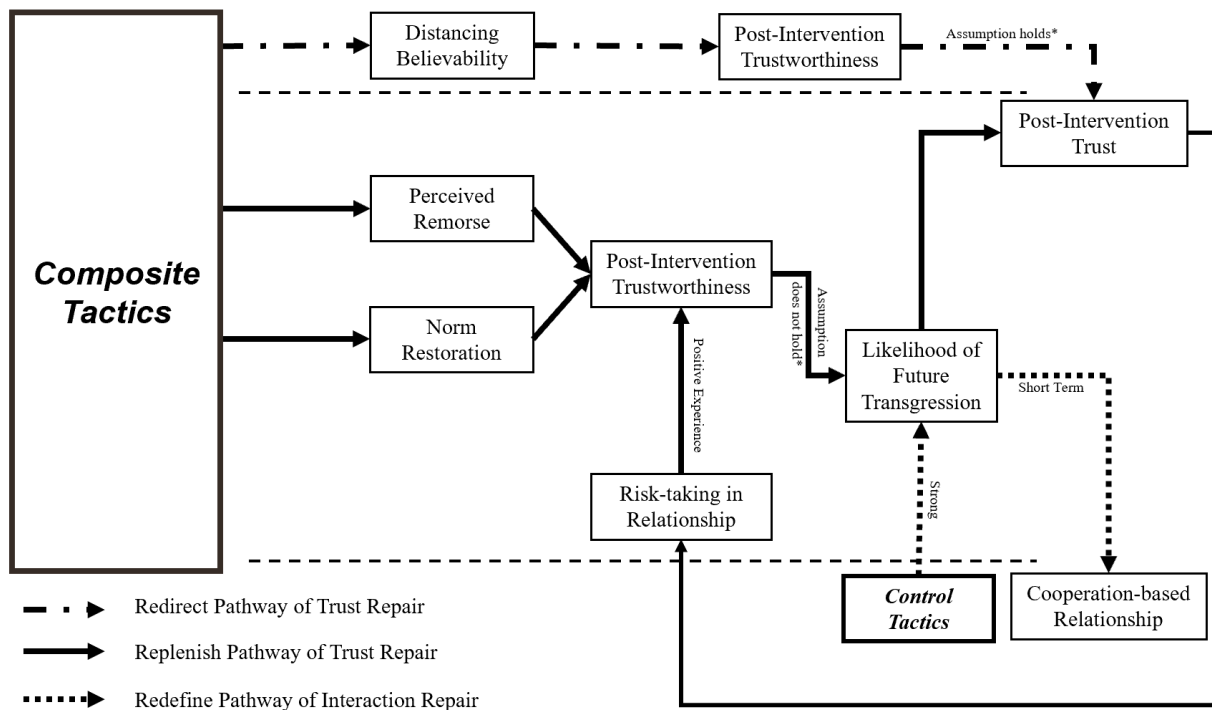


Figure 4.1. Trust repair model containing all three repair pathways

This model will form the basis for the empirical studies that follow. In this section, we will elaborate on both pathways of trust repair in detail one at a time. Even though we have reviewed

the trust repair literature at multiple levels of analysis, we will hypothesize and empirically test the effect of the pathways and the tactics involved only at the individual level. Following the two trust repair pathways, we will briefly expand on the redefine pathway of interaction repair. Table 4.1. provides a summary of the different pathways.

Table 4.1. Summary of different pathways of trust (and interaction) repair

Pathways	Requirements
<b>Redirect</b>	<ul style="list-style-type: none"> <li>- Establish distance from the transgression</li> <li>- Make sure the trustor believes that the innocence claim by the trustee is believable</li> </ul>
<b>Replenish</b>	<ul style="list-style-type: none"> <li>- Establish that the locus of control of the transgression was based less on internal attributes of the trustee</li> <li>- Make the trustor believe that the deteriorated trusting relationship with the trustee is changeable</li> <li>- Provide the trustor with repeated positive experiences in risk-filled interactions attributed to the internal characteristics of the trustee</li> </ul>
<b>Redefine</b>	<ul style="list-style-type: none"> <li>- Both parties in the relationship should believe that there is a net benefit in continuing the relationship</li> </ul>

#### 4.1 Redirect pathway of trust repair

Redirect pathway of trust repair focuses on repairing trust primarily by addressing the attribution of the transgression (Sharma, Schoorman, & Ballinger, 2022). The main goal of this pathway is for the trustee to make the trustor believe that he/she was not involved in the transgression in any shape or form and is *completely* innocent. In other words, complete trust repair through this pathway would occur only when the trustee distances himself/herself from the transgression in the eyes of the trustor, invalidating the relational shocks that the transgression caused in the relationship. This pathway is viable only as long as the locus of causality is not

finalized on the trustee. As soon as blame is voluntarily accepted by the trustee and/or established on the trustee, the trustee no longer possesses the opportunity to claim complete innocence. Thus, in such a scenario, trust cannot be completely repaired through the redirect pathway.

For complete innocence to be achieved, the trustee needs to explicitly claim distance from the transgression i.e. plead innocence and establish believability of that claim. Display of factual or/and symbolic evidence for the innocence claim is essential to establish believability (Bottom et al., 2002). Believability of the innocence claim by the trustor controls the downward spiral of negative affect of the trustor towards the trustee due to the transgression. This is critical in the repair of trust as negative affect can color the perception of the trustor (Jones & George, 1998; Williams, 2012) and activate the sinister attribution error (Kramer, 1996). Depending on the circumstances, various repair mechanisms can be used to establish distance and booster its believability. We will elaborate on each of the sub-requirements in the next few paragraphs.

#### **4.1.1 Transgression distancing**

To establish innocence in the eyes of the trustor, the trustee is required to actively communicate explicitly or implicitly to the trustor that he/she was not involved in the transgression. Denial provides an opportunity to the trustee to distance himself/herself from the transgression. Through denial, the trustee explicitly communicates that they are not responsible for the transgression at all and the blame of the transgression rests somewhere else (Ferrin et al., 2007). Distancing by itself may not be believed and, thus, lack effectiveness to decrease the locus of causality of the transgression towards the trustee. Denial, by its very nature, is seen with suspicion as it contradicts the initial affect-driven attribution of the transgression and creates a situation of cognitive dissonance (Cooper & Fazio, 1984b; Festinger, 1957). Moreover, transgression leads to reactance and makes the trustor hyper-vigilant to trustee behavior (Gillespie & Dietz, 2009) and susceptible to “sinister attribution error” (Kramer, 1996). Thus, any account by the trustee that claims innocence must be backed by “sufficient substance ... to be believable” that at least matches the gravity of the transgression (Bottom et al., 2002: p. 499). In other words, higher validation of the innocence claim through factual and/or symbolic evidence increases the likelihood of believability of the claim. On the other end, the lack of validation in the innocence claim of the trustee may be perceived as an attempt of deception or scapegoating, signaling that the trustee is attempting another transgression to cover up the first one. Such perception is likely to increase,

rather than decrease, the perceived trustworthiness of the trustee. False denials are, therefore, not advisable at all because as soon as the truth is revealed, it would formalize the deception and make the possibility of trust repair extremely difficult, if at all possible (Kim et al., 2009; Ferrin et al., 2007).

#### **4.1.2 Believability of the innocence claim**

A trustee can establish believability of their innocence claim through factual or/and symbolic evidence. Research has shown that denial should be incorporated when there is clear and sufficient evidence that points towards the innocence of the trustee (Fuoli et al., 2017) and would be most effective in establishing innocence if it is communicated as a fact-based persuasive argument than an emotion-based normative narration (Kim et al., 2013; Van Laer & De Ruyter, 2010). However, factual evidence is often not available to the trustee. In such cases, symbolic evidence can be used to increase the likelihood of believability. Display of concern by extending support and providing assurance of investigative cooperation would signal to the trustor that the trustee has nothing to hide as the trustee is willing to assist in unpacking the truth about the transgression. It would also have a positive impact on the affect-level of the trustor (Bottom et al., 2002), which would not only increase perceived trustworthiness (Williams, 2007) but also form the platform to depict the information received from other tactics and future interactions in a more positive light (Williams, 2001). Absence of the same could generate an impression that the trustee is insensitive and/or out of touch with the experiences of the trustor and generate further resistance to the repair efforts (Kim et al., 2009; Lewicki & Bunker, 1996).

Risk-taking is another way by which the trustee can provide symbolic evidence to the trustor of his/her innocence. Hostage posting is a repair mechanism through which a trustee can transfer risk away from the trustor towards himself/herself. Many scholars have tested hostage posting as a tactic to initiate interaction after a transgression (e.g. Nakayachi & Watabe, 2005). However, hostage posting may also be useful to ascertain believability of a past event. We termed such hostage posting as ‘past hostage posting’. A binding past hostage posting, i.e. pledging a bond for a particular past event, would make the trustee incur a loss if conclusive evidence is found to attribute the transgression to the trustee. Information processing theories posit that processing of information from non-routine events result in active reflection and attention toward the content and context of the event (Louis & Sutton, 1991; Schneider & Shiffrin, 1977). Thus, offer of a past



hostage posting by the trustee, especially when the cost of discovery is low and the likelihood of discovery is high, would signal that the trustee is innocent because it is willing to risk a loss if proven guilty.

The need for factual or symbolic evidence for believability is likely to be negatively related to the quality of relationship that the trustor had with the trustee prior to the transgression. Information about the breach in trust by the trustee in strong relationships creates cognitive dissonance in the trustor due to the development of an expectation-reality information gap (Bobko et al., 2014; Salancik & Pfeffer, 1978). As an individual constantly strives to restore dissonance (Cooper & Fazio, 1984b; Festinger, 1957), a statement of denial would require less explicit evidence of believability by the trustor in a strong relationship with the trustee because such a statement would help to realign the expectation with perceived reality and would be believed at its face value (Lewicki & Bunker, 1996).

*Hypothesis 1: Attempt to distance without validation will be negatively related to the believability of the innocence claim.*

*Hypothesis 2a: Tactic composites that not only distance the trustee from the transgression but also provide evidence for the innocence claim would be believable.*

*Hypothesis 2b: Believability of the innocence claim would be stronger when the tactic composite provides more evidence for the innocence claim.*

The believability of the innocence claim would establish the trustee as innocent in the eyes of the trustor and would invalidate the effects of the transgression on the perceived trustworthiness of the trustee. It would restore the assumption that the trustee is “innocent until proven otherwise” (Kim et al., 2004). Thus, the believability of the innocence claim would revert the broken trustworthiness of the trustee, which in turn would completely repair trust in the relationship (Mayer et al., 1995), completing the trust repair process.

*Hypothesis 3: Believability of the innocence claim would be positively related to level of post-intervention trustworthiness in the trustee.*

*Hypothesis 4: Level of post-intervention trustworthiness in the trustee would be positively related to level of post-intervention trust in the trustee.*

*Hypothesis 5: Level of post-intervention trustworthiness in the trustee would mediate the relationship between believability of the innocence claim and level of post-intervention trust in the trustee.*

*Hypothesis 6: Trust can be completely repaired immediately through the redirect pathway.*

## **4.2 Replenish pathway of trust repair**

The replenish pathway of trust repair focuses on repairing trust by addressing all three aspects of the repair process i.e. the transgression, the relationship, and the environment (Sharma et al., 2022). This pathway holds value only when locus of causality is placed on the trustee. When the trustee chooses to accept guilt early in the repair process following the transgression through explicit or implicit verbatim, such as through self-disclosure or apology, it places the trustee in the post causality-attribution phase. At the individual level, the longer the trustee stays in the pre-causality-attribution phase, the less likely it would be for trust to be repaired through this pathway especially if evidence of guilt is later found. This is because at the individual level, the trustor expects the trustee to be aware of whether he/she participated in the transgression and the lack of disclosure makes the trustor perceive that the trustee tried to lie or deceive but was not successful, which often would be seen as another transgression attributing to lower trustworthiness of the trustee.

Once the trustee is deemed guilty by the trustor, the trustee no longer possesses the ability to invalidate the negative impact of the transgression on the quality of their relationship unless strong new evidence is found that suggests otherwise. At this stage, the trustee has to replenish his/her perceived trustworthiness and re-establish the pre-transgressional social order to completely repair trust (Lewicki & Bunker, 1996; Ren & Gray, 2009). To efficiently repair trust through this pathway, the trustee must meet the following criterion – first, display remorse for the involvement in the transgression; second, restore norms of the relationship (Ren & Gray, 2009); and third, encourage RTR to create repeated positive experiences for the trustor. Whereas the first and the second requirement are the minimum requirements for any repair to occur, the third requirement is essential for complete repair of trust as replenishment of trust after transgression takes multiple feedback loops to return to the pre-transgressional level (Mayer et al., 1995). We will elaborate each of the requirements separately in the next few paragraphs.

#### **4.2.1 Replenishment of trustworthiness**

Even though the degree of repair of trustworthiness may depend on various factors, such as severity of the transgression, frequency of the transgression, and factor of trustworthiness broken in the transgression (Lewicki & Brinsfield, 2017), symbolic display of remorse and norms restoration form the foundation on which the replenishment process is built (Ren & Gray, 2009).

##### **4.2.1.1 Perceived remorse**

For social order to be restored and trust to be repaired, it is important that the trustor perceives that the trustee has remorse for their actions and is willing to repent (Lewicki et al., 2016; Ren & Gray, 2009). Such beliefs are essential for the trustor to reduce negative affect and to again consider the trustee as trustworthy. This is because expression of remorse symbolizes that the trustee also felt negative emotions after engaging in the transgression, which reduces the negative emotions in the trustor towards the trustee (Pace et al., 2010) and increases hope that the trusting relationship can be restored. This reduction in the negative affect allows the trustor to view the trustworthiness of the trustee in a more positive light (Kok et al., 2013). Repentance for the transgressional actions provides an assurance to the trustor that the expression of remorse by the trustee was indeed sincere (Lewicki et al., 2016). The lack of either perceived remorse or repentance, on the other hand, can make the trustor believe that the trustee does not consider their actions as anything wrong and such behavior forms part of the normal, reducing hope in the trustor that trusting relationship with the trustee can ever return to its pre-transgressional levels.

The trustee can employ different repair tactics to express remorse and repentance, and in turn improve their perceived trustworthiness. Explicit verbal expression of regret through a high-quality apology (referred to as apology from here on) can signal to the trustor that the trustee feels remorse for the transgression. Disclosure forms an integral part of apology (Lewicki et al., 2016). Research has shown that even though confession and apology places the blame of the transgression on the trustee, it signals that the trustee feels a sincere remorse for their actions (Gold & Weiner, 2000), especially when the transgression has low likelihood of discovery (Krylova et al., 2018), and the trustee takes actions to make amends. Self-disclosure is extremely important especially when the transgression occurs at the individual level because if the locus is internal (which is assumed when choosing the replenish pathway of trust repair), the trustee is expected to have at

least some knowledge about the cause of the transgression. Silence in such a situation may not be advisable (Ferrin et al., 2007) because once internal locus is attributed it would likely make the trustor believe that the trustee was trying to hide the transgression but could not, reinforcing the perceived low trustworthiness of the trustee. An explicit expression of regret, such as “I am sorry” (Berndsen, Hornsey, & Wohl, 2015), explanation of the cause of the transgression, assurance of non-repetition, and request for forgiveness can be effective to attenuate the negative affect caused by the transgression (Lewicki et al., 2016). Even though verbal regret can signal remorse, only verbal display of remorse without any behavioral repentance to either reverse the wrongdoings, display intent of rectification, or show retribution would likely invalidate the verbal tactics and make them appear as cheap talk to the trustor (Bottom et al., 2002; Gibson et al., 1999). Models of cheap talk suggest that words alone neither reduce negative affect significantly nor increase interaction between the parties (Druckman et al., 2019; Farrell & Gibbons, 1989). Thus, repentance through behavioral efforts of rectification by the trustee are necessary for the trustor to validate the remorse felt by the trustee, and in turn, improve his/her perceived trustworthiness.

*Hypothesis 7a: Verbal and behavioral repair tactics together would be positively related to perceived remorse.*

*Hypothesis 7b: Verbal and behavioral repair tactics together would be more effective to establish perceived remorse than only verbal repair tactics.*

*Hypothesis 8: Perceived remorse will be positively related to the level of post-intervention trustworthiness in the trustee.*

#### **4.2.1.2 Norms restoration**

According to the social-equilibrium mechanism of trust repair, a transgression leads to disequilibrium in the norms of the relationship (Ren & Gray, 2009). The displacement of norms happens both at the individual level and at the relational level. At the individual level, an imbalance of resource allocation is often created because the trustor is deprived of his/her rightful share by the trustee. At the relational level, the legitimacy of relationship rules becomes questionable by the transgression as the actual behavior in the relationship is misaligned from the acceptable behavior. As perceived fairness, both distributional and procedural, is essential for the trustor to

believe in the trustworthiness of the trustee (Colquitt et al., 2007) and the legitimacy of the relationship system (Tyler & Lind, 1992), norms restoration process is completed when the remedial tactics correct the wrong and reinforce the rule of fairness in the relationship (Ren & Gray, 2009).

The trustee can facilitate norms restoration at the individual level by compensating the trustor for his/her loss due to the transgression. In other words, the trustee should balance out the negative experiences for the trustor from the transaction by either returning what is lost for the trustor or by providing other positive fulfillments desired by the trustor as a buffer (Bankins, 2015), such as monetary compensation (Reb et al., 2006). Compensation would be most effective if it is perceived to have originated out of sincere desire to restore the norms of the relationship rather than out of pity, compulsion, or profit-motive (Dirks et al., 2011; Ferrin et al., 2018; Hareli & Eisikovits, 2006). At least equal and ideally slight over-compensation should form an integral part of the repair strategy, especially when the transgression involves procedural injustice (Reb et al., 2006). The trustee may also consider voluntary open offers to compensate if it had a good pre-transgression relationship with the trustor (Bottom et al., 2002) and/or the trustor was highly involved in the activity in which violation occurred (Heidenreich et al., 2015).

On the other hand, relational-level fairness can be established if the trustor perceives justice in the social order (Folger & Cropanzano, 1998). Penance provides symbolic labelling of the transgression as against the values of the relationship (Okimoto & Wenzel, 2009). It reemphasized the unacceptable behaviors in the relationship and restore perceived procedural justice, which are essential for effective reinstate the social order (Ren & Gray, 2009). In scenarios where relatively harsher punishments are levied by the trustor or a third-party regulator, the punishment should not be negotiated as acceptance of the punishment by the trustee would also signal sincere willingness to restore social order, and help the trustor to move beyond the transgression (Gillespie et al., 2014). However, unjustified punishments by the trustor are likely to decrease the likelihood that the trustee would perceive it worthwhile to employ efforts to continue the relationship with the trustor (Lewicki & Bunker, 1996), because it would negatively influence the norms of fairness in the eyes of the trustee. Thus, punishments levied on the trustee after a transgression should only be adequately harsh because for repair of trust to happen, both parties must be willing to repair trust (Kim et al., 2009). The lack of adequate consequence would risk the

relationship being dissolved by the trustor and the excessive unjustified punishment would risk the relationship being broken by the trustee.

Transgression not only affects the explicit transactional rules of the relationship but also deteriorates the normative importance of the relationship in the eyes of the trustor. Whereas penance helps in restoring structural and relational fairness, apology helps in reinforcing the cultural norms of the relationship. Apology by the trustee conveys to the trustor that the trustee acknowledges that the actions were against the accepted values of the relationship, regrets for the behavior, and explicitly or implicitly seeks forgiveness from the trustor to restore the social order (Lewicki et al., 2016). Thus, apology reinforces the perception in the trustor that the trustee is willing to accept and behave according to the values of the relationship, leading to legitimacy of the relationship system (Tyler & Lind, 1992). Penance and high-quality apology together can restore fairness at the relational level.

Adequate efforts by the trustee to restore norms, both at the individual and the relational-level, would increase hope in the trustor that the trusting relationship can be repaired as it would signal that the trustee cares about the relationship and is taking actions to mend it (Ren & Gray, 2009). This would make the trustor believe in the possibility that the transgression was a one-time error in judgment on the part of the trustee. This would increase the perceived trustworthiness of the trustee in the eyes of the trustor and initiate the process of a possible eventual trust repair.

*Hypothesis 9a: Tactic composites that address disequilibrium at both the individual and relational level will be positively related to norms restoration in the relationship.*

*Hypothesis 9b: Tactic composites that address disequilibrium at both the individual and relational level will be more effective to restore norms than tactic composites that address disequilibrium at only the individual or relational level.*

*Hypothesis 10: Norm restoration will be positively related to the level of post-intervention trustworthiness of the trustee.*

#### **4.2.2 Repeated positive experiences in risky interactions**

Complete trust repair occurs when perceived trustworthiness of the trustee reaches a level that facilitates trusting intentions at least at the pre-transgressional level. According to the trust

model by Mayer and colleagues (1995), every RTR creates a feedback loop that provides the trustor with information to update the perceived trustworthiness of the trustee, and in turn trust, and facilitate a higher (or lower) risk-taking behavior in the following interaction depending on the feedback. Hence, for trust to be completely repaired, the following conditions must be met: (1) risk-taking behavior between the parties must be established, and (2) repeated positive experiences attributed to personal characteristics of the trustee must occur for these interactions.

Cooperation between the parties can be restored by either improvement of the perceived trustworthiness or mitigation of risk in the interactions with the help of external environment reforms. According to the trust model by Mayer and colleagues (1995), increase in trustworthiness has a direct positive relationship with trust development. However, complete trust repair would occur only when the trustor perceives that the likelihood of a transgression in the future from the trustee is no greater than what it was prior to the transgression (Božič et al., 2020; Schweitzer et al., 2006a). In other words, likelihood of future transgression plays a mediating role between increase in the level of post-intervention trustworthiness and trust. This is because trust operates on the assumption that an individual is “trustworthy until proven otherwise” (Kim et al., 2004, p. 104). A transgression invalidates that assumption and makes the trustor vigilant during interactions with the trustee due to fear of a repeated transgression (Tomlinson & Mayer, 2009). As this fear is detrimental to trust repair and needs to be tackled before trust can be repaired completely, the general likelihood of the trustee to violate trust in the future becomes an important antecedent for the amount of vulnerability the trustor is willing to take with the trustee. Thus, improvement in perceived trustworthiness would repair trust by reducing the likelihood of transgression in the general future. Increase in perceived trustworthiness due to perceived felt remorse and norms restoration would decrease the perceived likelihood of the transgression to be repeated in the future, repairing at least part of trust and in turn accentuating the likelihood of the trustor engaging in higher RTR (Mayer et al., 1995).

Repair tactics that follow structural mechanisms can restore cooperation as they reduce risk in interaction by placing control systems in the relationship. Even though control systems can be formal or informal in nature (Long & Sitkin, 2018), it is only the formal control systems that are viable after a transgression (Inkpen & Currall, 2004). The control systems impact predictability of the trustee behavior. For example, legalistic tactics such as contracts constrains individual behavior by explicitly clarifying the expectations and accepted behavior between the parties and the

consequences if either party engages in an opportunistic behavior (Malhotra & Murnighan, 2002). This increases the task reliability of the trustee as risk of violation is considerably reduced (Sitkin & Roth, 1993). Research has shown that even though strong formal reforms, such as preventive contracts and close monitoring, are effective to restore positive expectations from the trustee in the interactions for their specific legal tenure, they should be avoided because they are not only ineffective in restoring trusting intentions but may also make trust repair harder to achieve (Malhotra & Murnighan, 2002; Strickland, 1958). In the presence of strong control systems, neither do individuals get an opportunity to engage in risk-filled interactions (i.e. RTR) nor is the positive experience by the trustor attributed to the personal characteristics of the trustee (Shapiro, 1987; Tolbert & Zucker, 1986; Zucker, 1986). Moreover, as soon as the constraints are removed, the trusting beliefs drop considerably as the conditions facilitating the positive expectations no longer exist (Malhotra & Murnighan, 2002). Thus, strong formal reforms lead only to a reliable but situational and temporary rise in cooperation without improving the perceived trustworthiness of the trustee or even giving the trustee an opportunity to do so.

Each positive RTR provides cognitive feedback to the trustor and incrementally increases the perceived trustworthiness of the trustee (Hui et al., 2011; Mayer et al., 1995). As the assumption that the trustor is trustworthy until proven otherwise no longer holds after a transgression, increasing the general uncertainty and in turn suspicion (Bobko, Bareika, & Hirshfield, 2013) of the trustee's trustworthiness, the relationship has to go through multiple interactions in order for trust to be repaired completely. After the transgression, the trustor is often not willing to engage in high risk-taking behavior with the trustee right away. For the trustee to restore high risk-filled cooperation with the trustor, it must slowly build their trustworthiness with each subsequent interaction. In other words, higher RTR are only undertaken by the trustor with the trustee once the trustor has had several positive experiences with the trustee in relatively lower risk interactions. Even though repair tactics in the early part of the repair process are helpful and initiate the momentum for trust repair, in majority cases do not lead to a complete trust repair (Kim, 2018). Repeated positive experiences help in validating the trust repair by the initial tactics and repairing the remaining trust lost in the relationship due to the transgression. As a general rule, greater the drop of the perceived trustworthiness due to the transgression, more the number of positive experiences it takes for trustworthiness to be replenished.



*Hypothesis 11: Improvement in level of post-intervention trustworthiness will increase the level of post-intervention trust via reduction in the likelihood of future transgression.*

*Hypothesis 12: Level of post-intervention trust would be positively related to RTR by the trustor*

*Hypothesis 13: Positive experience of RTR would increase the level of post-intervention integrity of the trustee.*

*Hypothesis 14: Multiple positive RTR can, over time, repair trust completely.*

#### **4.2.3 Redefine pathway of interaction repair**

Even though the redirect and replenish pathways increase the likelihood of trust repair, there is no guarantee that trust can always be repaired after a transgression. Repair of trust may be strongly resisted if at least one of the parties is either not willing to repair trust (Kim et al., 2009) due to the increased uncertainty and affect cost in the transaction (Bradfield & Aquino, 1999), or/and does not perceive that trust in the relationship is repairable at all (Lewicki & Bunker, 1996). Both these conditions increase the likelihood of perceived hopelessness in the party and their resignation from the relationship (Ortony et al., 1990; Weiner et al., 1979). Even though the trustee is highly unlikely to be able to repair trust in these situations, the trustee may still be able to restore a negotiated transaction relationship by following the redefine pathway of interaction repair.

Redefine pathway is often incorporated after the locus of causation is established on the trustee, though it does not have to. It can either be used as a back-up to redirect or replenish pathway in case they fail to repair trust or be used as the primary repair strategy. As the focus in this pathway is completely shifted from restoring the trust-based reciprocal relationship to developing conditions where transgressions are not viable so that cooperation can be established, this pathway of relationship repair can be driven by either the trustor or the trustee. The trustor often chooses to pursue this pathway in scenarios where it believes that the likelihood of future transgression is high but cooperation with the trustee has potential to provide a net benefit. On the other hand, a trustee chooses to utilize the redefine pathway when it believes that it is either not feasible or worthwhile to repair trust, but cooperation could lead to a possible net benefit. Hence,

for this pathway to be utilized, both parties must perceive a potential net benefit in continuing the relationship.

As mentioned earlier, a transgression accentuates uncertainty and affect cost in a relationship. When the relationship is shifted from reciprocal to negotiated, the trustor is likely to reduce interaction (to the extent that it allows for a perceived net benefit) when costs, both monetary and non-monetary, due to the transgression increase in the relationship (Molm, 1994). Cooperation in such relationships can be restored if the uncertainty in the trustee behavior can be reduced. Various repair mechanisms can be incorporated to mitigate perceived uncertainty costs in the future exchanges. Strong control systems (such as prevention contracts and close monitoring), rather than weak control systems (such as hostage posting) can be employed by the trustee to attenuate the perceived uncertainty (Malhotra & Murnighan, 2002). This is because weak control systems have some amount of uncertainty and vulnerability embedded in them and are, thus, not likely to be effective when trust is in short supply after a transgression (Inkpen & Currall, 2004). Preventive contracts would not only provide clarity to both parties of their expectations in the relationship (Heaphy, 2013) but would also generate formal punishments in case such agreements are not met (Lumineau & Malhotra, 2011; Sitkin & Roth, 1993). This would decrease the perceived likelihood of a future transgression for the tenure of the contract, reducing the uncertainty cost and facilitating a transactional relationship between the parties. Transparency and close monitoring by the other party or a trusted third-party is also effective in reducing the perceived likelihood of future transgression over the tenure of the control system, and thus restoring the transactional relationship, as it takes away the opportunity and incentive of the trustee to engage in another transgression.

As positive expectations in exchange in redefine pathways are often attributed to strong control systems that lead to risk mitigation than trustworthiness improvement (Malhotra & Murnighan, 2002), this pathway is unlikely to repair trust. In fact, when excessive control systems are incorporated in a relationship, it can negatively impact levels of trust as the other party may feel that the focal party is unwilling to protect their personal or professional interest or may feel forced into terms and conditions that are contrary to their values, goals, or aspirations (cf. Long & Sitkin, 2018). Thus, levels of post-intervention trust would be negatively impacted when strong control systems are incorporated by either party in the relationship.

*Hypothesis 15: Incorporation of strong control systems (rather than weak control systems) will restore a transactional relationship between the parties by reducing the likelihood of the future transgression over the short term.*

*Hypothesis 16: Use of strong control systems would be negatively related to the level of post-intervention trust.*

## **CHAPTER 5. EMPIRICAL STUDIES**

In this dissertation, we will conduct two studies – a vignette study using policy-capturing methodology and a controlled experiment. In this chapter, we will explain the methods of each of these studies in more detail. Specifically, for each of the study, we will elaborate on its research design and content, sample, measures, analytical framework. We will follow it with the results and discussion sections.

### **5.1 Study 1**

#### **5.1.1 Methods**

##### **5.1.1.1 Sample**

We collected data from 180 participants using the Prolific data collection services. This is a large sample size for the policy-capturing technique because the effective sample size for pooled analyses is the number of scenarios analyzed by the participants (Judge & Bretz, 1992). Many other studies in the trust repair literature that have used a policy-capturing methodology have had a sub-100 sample size (e.g. Cugueró-Escofet et al., 2014 [82] ; Tomlinson et al., 2004 [45]; Yu et al., 2017 [84]). However, after collecting the data, we realized that there were some issues with the scenarios based on the replenish pathway, most concerning of which was the fact that compensation and penance were described as verbal tactics rather than behavioral tactics. As data exclusively on different versions of replenish pathway tactic composites were collected from 139 participants, it rendered data points from all those individuals as unfit and we were left with data from only 41 participants (referred to as sample 1 from here on). We collected another set of data from 100 participants from Prolific data collection services (referred to as sample 2 from here on) focusing only on the replenish pathway tactics. Thus, study 1 included data from the first sample for redirect and redefine pathways, and second sample for replenish pathway. We believe it is appropriate and would not affect the analyses in any significant way as the analyses were conducted within the boundary of their respective pathways.

The participants for this study had a mean age of 31.17 years (sample 1) and 32.92 years (sample 2) with a standard deviation of 8.52 years (sample 1) and 8.91 years (sample 2). In sample 1, 44% of the participants were female and 68% of the participants were white. 37% had bachelor's degree as their highest educational qualification, and 34% completed a master's degree. 22% of the participants in sample 1 had their education in a STEM field. In terms of sample 2, 52% of the participants were female and 56% were white. 55% selected bachelor's as their highest educational qualification, 21% completed a master's degree, and 4% had a PhD. 21% of the participants had their education in a STEM field.

#### **5.1.1.2 Research design and content**

For Study 1, we used a policy-capturing design because this methodology allowed us to study how decision makers process available information (Aiman-Smith et al., 2002; Tomlinson et al., 2004) and make comparisons of the relative importance of different tactic composites (York, 1989) without confounding in problems of social desirability bias (Graham & Cable, 2001). Moreover, use of this methodology is more similar to real-world situations as the participants make decisions on the basis of different information in the scenarios than on a primed single variable (Rynes et al., 1983). As the information was presented indirectly, it also avoided the limitations of direct approaches in capturing information processing strategies (Karren & Barringer, 2002; Yu et al., 2017). Furthermore, this methodology has been used by multiple scholars to study trust repair (e.g. Tomlinson et al., 2004; Yu et al., 2017) and thus, we believe that this methodology is appropriate to test some of our hypotheses.

In this study, participants were presented with background information of the situation in order to acclimatize them with the context and help them develop a cognitive relationship with the other party (trustee) in the context. The background information was followed by multiple scenarios in which tactic composites were manipulated. As our background information was detailed and more than one variable was measured after each scenario, no participant was shown more than 12 scenarios in order to minimize his/her fatigue bias. To analyze the data, we asked the participants to treat each scenario as an independent event. Items that followed the scenarios measured dependent variable(s) that the participants were asked to make judgments on based on the information in the scenarios. To analyze the data, fixed effect regression was used to compute

and compare the relationship of the independent variable with its appropriate dependent variable (e.g. Rotundo & Sackett, 2002; Tomlinson et al., 2004).

In the first sample of study 1, the participants were shown 12 scenarios<sup>1</sup>. These scenarios included tactic composites that formed part of the redirect and redefine pathways. We deliberately kept the number of scenarios much lower than the recommended maximum in the literature (e.g. Cooksey, 1996 recommend between 40 and 80 scenarios, whereas Rossi & Anderson, 1982 recommend a maximum of 60) for several reasons. First, our study has a much more detailed background information section than what is usually the norm in policy-capturing studies and it also consists of a relatively longer list of dependent variable items after the scenarios. As reading and retaining longer background information and making decisions on a longer list of items for each scenario is cognitively taxing, we anticipated that the quality of the responses may have dropped if we included high number of scenarios. Second, most of the scenarios in our study are very similar to each other with only minor changes in the independent variables. Reading a large number of similar scenarios may have led to participant boredom and impacted the quality of the responses. The scenarios were randomly shuffled to control for order effects and increase the likelihood that the participants treat each scenario as independent. Half of the participants received the referent in the background information as male and the other half received the referent as female. This was done in order to control for referent gender effects.

In the second sample of study 1, we included 7 scenarios that included tactic composites from the replenish pathway that could be used to test our hypotheses. The background information and the format of the scenarios was the same as that for the first sample, except for two changes in the variable salary structure of the researcher in the vignette. Specifically, an actual amount of the one-time bonus (\$5,000) was added and the mention of 5% royalty for the patent was deleted in sample 2. This was done to make it easier for the participant to understand the payment structure and to easily comprehend “equal” compensation for the compensation tactic. As we consider these changes to be minor without changing the essence of the background information in any way, we treated both versions of the background information as the same. The background information (version used for sample 2) and manipulated scenarios can all be found in Appendix A.

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<sup>1</sup> 4 of the 12 scenarios that the participants were shown were included purely for inductive purposes, and were hence not included in the analyses. These scenarios included the following tactic composites: Denial + Past Posting – Penance; Denial + Investigative Cooperation + Past Posting – Penance; and Hostage Posting – Penance when repair process was activated by the trustee and the trustor.

Panel data are subject to quality issues and so we embedded 4 attention checks within the survey. We did not include the data of any participant that missed more than one attention check question. We also followed the background information with the following comprehension check questions in order to make sure that the participants read through the information. The questions were, “*Who is senior in terms of tenure among you and Sam in the above description?*”, “*Who is required to submit the patent application to PAW?*” and “*Is there a violation that has occurred in the above description?*” In sample 1, out of the 41 participants that are included in the analyses, all answered the first question correctly (100%) and all but one (97.56%) answered the second question correctly. In terms of the last question, 31 out of 41 participants (75.61%) mentioned that violation occurred and 10 participants mentioned that violation did not occur. Post collection of the data, we realized that as the transgression in the background information is based on a rumor, and such variance in the comprehension check could be due to interpretation of the term ‘violation’. To empirically test whether that was the case, we conducted a t-test between those who answered “yes” to violation and those who answered “no”, on post-intervention trust ( $t = -.385$ ,  $p = .70$ ) and post-intervention integrity ( $t = -.298$ ,  $p = .77$ ). As the difference was non-significant, we included data from all 41 participants in our dataset. In sample 2, we used the same criteria for data inclusion, and asked the same comprehension check questions. However, we replaced the last comprehension check question of study 1 with the following question, “*Has Sam acted in a way he should not have?*” 98 out of 100 participants answered the first question correctly and 97 out of the 100 answered the second question correctly. In terms of the last question, 81 out of the 100 participants answered “yes” while 19 answered “no”. Post data collection, we realized that the wording of the comprehension check question again is susceptible to the interpretation of the participant about the actual behavior of Sam in the vignette. We conducted the t-test as we did for sample 1 and found that the means of post-intervention trust ( $t = -1.50$ ,  $p = .14$ ) and post-intervention integrity ( $t = -.84$ ,  $p = .41$ ) are not significantly different between those who answered “yes” and those who answered “no”. Thus, we included data from all 100 participants in the study.

### 5.1.1.3 Measures

Unless specifically mentioned, the variables were measured using a 5-point likert scale, ranging from strongly disagree (1) to strongly agree (5).

### ***Trust***

Trust was measured using a three-item scale adapted from Schoorman et al., 2007. The items are, “You would be comfortable letting Sam have influence over issues that are important to you”, “You would be willing to let Sam have control over decisions that are important to you”, and “You would be comfortable letting Sam have access to information that could adversely affect you”. Pre-transgression trust was measured in the background information right before information about the transgression was revealed to the participant. Post-transgression trust was measured after the scenarios as follow-up questions. The cronbach’s alpha for the trust scale in sample 1 is .76 (pre-transgression) and .92 (post-intervention), and for sample 2 is .74 (pre-transgression) and .95 (post-transgression).

### ***Integrity***

Integrity was measured using a three-item scale adapted from Mayer & Davis, 1999. The items included in the scale are, “Sam has a strong sense of justice”, “You never have to wonder whether Sam will stick to his word”, and “Sound principles seem to guide Sam’s behavior”. Pre-transgression integrity was measured in the background information right before information about the transgression was revealed to the participant. Post-transgression integrity was measured after the scenarios as follow-up questions. The cronbach’s alpha for the scale in sample 1 is .59 (pre-transgression) and .90 (post-intervention), and for sample 2 is .73 (pre-transgression) and .86 (post-intervention).

### ***Cooperation***

We measured cooperation using the following two items, “You will continue to work with Sam on the second project” and “If opportunity for collaboration arises, you will collaborate with Sam on more projects”.

### ***Believability of innocence claim***

We measured believability in the innocence claim of the trustee using one item, “You consider the statement of Sam as believable”.



### ***Perceived remorse***

We measured perceived remorse using the following three items, “Sam regrets his decision to exclude your name from the patent application” and “Sam feels bad about excluding your name from the patent application”, and “Sam feels remorse for excluding your name from the patent application”. The cronbach’s alpha for the scale is .95.

### ***Norm restoration***

We measured norms restoration using the following three items, “Fairness has been restored in the relationship”, “Adequate consequences for breaking the rules of the relationship have been implemented”, and “Individuals in the relationship have been fairly treated”. The cronbach’s alpha for the scale is .90.

### ***Perceived likelihood of future transgression – short term (PLFT – ST)***

We measured PLFT-ST using a single-item scale. The item that is used to measure the construct is, “Sam is likely to exclude your name in the patent application of the second project”.

#### **5.1.1.4 Analytical framework**

Following common practices of analyzing data collected through policy-capturing methodology, we ran analyses on individual-level sample and scenario-level sample for this study (Tomlinson et al., 2004; Yu et al., 2017).

#### ***Individual-level sample***

Through the analyses on individual-level sample, we aim at estimating the relative strength of the tactic composite to repair trust in the relationship, and its likelihood to repair trust completely. To conduct the analyses, we first coded each tactic composite as 1 (0) if it was present (absent) in the scenario. Thereafter, we conducted analyses to estimate the relative strength of each tactic composite, as also its likelihood to repair trust *completely*. First, we estimated the variance explained by each tactic composite to predict trust. Even though our study included the tactic composites predicting more than one variable, we chose to analyze the explained variance of tactic

composites to predict post-intervention trust for two reasons – (1) post-intervention trust is the ultimate dependent variable so measuring the strength of tactic composites to predict post-intervention trust seemed appropriate, and (2) unlike other variables, post-intervention trust was measured for each tactic composite so it made it possible to measure relative strength across all tactic composites. To conduct this analysis, a separate equation was computed for each participant, thus, yielding as many regression equations as the sample size (cf. Tomlinson et al., 2004). We used multiple regression analysis with explained variance representing the strength of the tactic composites to predict post-intervention trust.

Unlike other policy capturing studies in the repair of trust literature, our data included a pre-transgression trust level and a post-intervention level of trust. To estimate the relative strength and likelihood of the tactic composite to restore trust to the pre-transgression level (i.e. repair it completely), we conducted a second set of analyses that comprised of a t-test analysis between the pre-transgression and post-intervention levels of trust to estimate the invariance between the two levels of trust. The presence of invariance would suggest that the tactic composite is likely to have a potential to repair trust completely immediately after the tactic composite is used. This analysis would also provide validation on the relative strength of the multiple tactic composites to repair trust.

The t-test analysis has two main limitations. First, the predictions from this analysis rests on the assumption that the transgression specified in the background information significantly deteriorated the trust levels of the trustor towards the trustee. However, given that the multiple scenario structure of policy capturing technique provides a baseline estimate at the individual level (and not scenario-level), we believe that the extent of the first limitation is minimized in our study as long as at least one of the tactic composites from the set has a significant difference between the pre-transgression and post-intervention trust levels. Second, we test the null hypothesis instead of having a model that rejects it. Even though testing null hypothesis is not a recommended practice in the field, methodologists have opined for its usage if it possesses theoretical backing (e.g. Cortina & Folger, 1998; Vandenberg & Lance, 2000). In our case, the very concept of trust repair is one that demands invariance in pre-transgression and post-intervention trust levels. Moreover, our invariance hypothesis is dynamic in nature, in that we anticipate an invariance over a period of time, wherein the invariance is a result of a significant drop and a significant return of the trust levels. This reduces the likelihood of sample and measurement errors driving the

invariance results. However, to stay conservative with our predictions, we treat the results as suggestive at best than conclusive.

### ***Scenario-level sample***

We also conducted analyses on scenario-level sample to test some of our hypotheses. To do so, we first pooled the data by treating each scenario answered by the participant as a separate datapoint. We used the same coding methodology to code the independent variables for these analyses as well. Data collected by policy-capturing methodology is based on the assumption that the participants considered each scenario as independent to each other (Hays, 1981). This makes it necessary that no autocorrelation is present in the dataset. The potential problem of autocorrelation can be neutralized by creating dummy codes for each of the participants (Cable & Judge, 1994; Rynes et al., 1989). Therefore, we conducted fixed-effects analysis as it incorporates the inclusion of dummy variable for each participant (Huang, 2016). An additional advantage of using fixed effects is that “group-level [i.e., rater] effects are completely accounted for using a fixed effects model” (Huang, 2016: p. 182).

### 5.1.2 Results

The descriptive statistics, correlations, and reliabilities are reported in Table 5.1 and 5.2.

Table 5.1. Descriptive statistics, correlations, and reliabilities for study 1 (sample 1)

Variables	Mean	SD	1	2	3	4	5	6
1. Pre-transgressional Trust	2.91	0.87	(.76)					
2. Post-intervention Trust	2.02	1.00	.40*	(.92)				
3. Pre-transgressional Integrity	3.74	0.56	.33*	.17*	(.59)			
4. Post-intervention Integrity	2.57	1.13	.18*	.78*	.12*	(.90)		
5. Cooperation	2.39	1.17	.20*	.69*	.09	.69*	-	
6. Believability	3.38	1.22	.13	.50*	.06	.79*	-	-
7. PLFT-ST	3.69	1.26	-.13	-.47*	-.05	-.52*	-.62*	-

*Note: \*p < .05; N for trust and integrity is 328 and cooperation, believability, and future transgression (ST) is 164; Cronbach's alpha stated in parenthesis on the diagonal; Believability = Believability of innocence claim; PLFT-ST = Perceived Likelihood of Future Transgression (short-term)*

Table 5.2. Descriptive statistics, correlations, and reliabilities for study 1 (sample 2)

Variables	Mean	SD	1	2	3	4	5	6
1. Pre-transgressional Trust	3.36	0.72	(.74)					
2. Post-intervention Trust	1.88	0.92	.21*	(.95)				
3. Pre-transgressional Integrity	3.65	0.58	.53*	.10*	(.73)			
4. Post-intervention Integrity	2.50	0.98	.11*	.74*	.10*	(.86)		
5. Perceived Remorse	3.44	1.17	.11*	.44*	.06	.68*	(.95)	
6. Norm Restoration	2.47	1.14	.08*	.61*	.08*	.73*	.57*	(.90)

*Note: \*p < .05; N = 700; Cronbach's alpha stated in parenthesis on the diagonal*

In the first sample of study 1, we included two versions of the vignette – one with the trustee as male and the other with the trustee as female. Also, within each of the versions, there

were both scenarios where the trustee activated the repair process and where the activation was done by the trustor. Thus, we first considered the effects of the gender of the referent (referred to as referent-gender effects from here on) and of the party (i.e. trustor or trustee) that stimulates the trust repair process (referred to as stimulation effects from here on) on the variables. Specifically, we conducted t-tests to understand the effects of referent-gender and stimulation on the first-order mediators i.e. believability and PLFT-ST. Our results depict that both referent-gender [ $t = -.350$ ,  $p = .727$  (Believability);  $t = -.761$ ,  $p = .448$  (PLFT-ST)] and stimulation [ $t = 1.434$ ,  $p = .153$  (PLFT-ST)] had non-significant effect on the variables (see Table 5.3).

Table 5.3. T-test depicting referent-gender and stimulation effects on first-order mediators

Mediator Variables	<i>Referent-Gender Effects</i>		<i>Stimulation Effects</i>	
	t-score	p-value	t-score	p-value
Believability	-0.350	0.727		
PLFT-ST	-0.761	0.448	1.434	0.153

*Note: PLFT – ST = Perceived Likelihood of Future Transgression (short-term)*

As we used the second sample to conduct analyses on replenish pathway, we only used male as a referent because our first sample showed that referent-gender did not have a significant effect. Also, we only used trustee activation scenarios for the repair process because literature has shown that self-disclosure assists in trust repair (e.g. Gold & Weiner, 2000) and as one of the core goals of this research is to empirically test the possibility of complete trust repair we wanted to analyze the capability of the most effective replenish pathway tactic composite to repair trust completely. In order to stay conservative, we controlled for referent-gender and stimulation effects in our analyses of sample 1.

#### 5.1.2.1 Individual-level sample

As described earlier, we conducted two-pronged analyses on the individual-level sample to estimate the relative strength of different tactic composites to repair trust and the likelihood of the tactic composites to repair trust completely immediately after the intervention. First, we estimated the variance explained in post-intervention trust by each tactic composite. The range of

the average  $R^2$  of the tactic composites was .04 - .27, with penance alone explaining the minimum and denial + past posting explaining the maximum variance. This indicates that there is difference in the relative strength of the tactic composites to repair trust.

As the above analysis does not incorporate pre-transgressional trust, which is an essential component in the trust repair concept, we followed it up with a t-test comparing the difference in pre-transgressional trust and the post-intervention trust. The results show that tactic composites aimed at redirecting attribution of the transgression away from the trustee are more effective to repair trust immediately after the intervention than tactic composites that are aimed to restore norms or increase the perception that the trustee experiences remorse for the transgression. This provides initial evidence that replenish pathway requires multiple iterations of interactions to repair trust whereas redirect pathway results in a relatively more efficient way of trust repair. In terms of specific tactic composites, only tactic composites that include denial + past posting ( $t = 1.202$ ,  $p = .237$ ) showed invariance in the pre-transgressional and post-intervention trust levels. This suggests that this tactic composite has a potential to repair trust completely immediately after the intervention is employed, providing some support to hypothesis 6. Table 5.4 depicts the results of the t-test analysis for all tactic composites.

Table 5.4. T-test between pre-transgressional and post-intervention trust in study 1

<b>Repair Tactics</b>	<b>Trust (t-score)</b>	<b>p-value</b>
Den	6.633	0.000
Den + Inv. Coop	4.074	0.000
Den + PP	1.202	0.237
Den + Inv. Coop + PP	2.603	0.013
Comp	18.820	0.000
Pen	15.300	0.000
Apol	19.640	0.000
Comp + Pen	12.090	0.000
Comp + Apol	12.668	0.000
Pen + Apol	13.625	0.000
Comp + Pen + Apol	10.665	0.000
Mon	11.745	0.000
HP	11.242	0.000

*Note: Den = Denial; Inv. Coop = Investigative Cooperation; PP = Past Posting; Comp = Compensation; Pen = Penance; Apol = Apology; Mon = Monitoring; HP = Hostage Posting; First four and last tactic composite are based on sample 1 and the rest are based on sample 2*

### 5.1.2.2 Scenario-level sample

To conduct analyses on the scenario-level sample, we first pooled the sample treating each scenario as a separate data point. This increased our sample size to 328 for sample 1 and 700 for sample 2. As multiple data-points belonged to each participant, it was important to make sure that the results are not a function of autocorrelation i.e. positive correlation between error terms. Thus, we used fixed effects regression to estimate the results of different tactic composites on their respective dependent variables. To stay conservative with our results, we controlled for both referent gender and stimulation effects in our analyses of sample 1. Results from the fixed-effects regression analysis are presented in table 5.5. These estimates are used to test our hypotheses (explained in detail in the next section).

Table 5.5. Fixed-effects regression analysis in study 1

	Believe	P. Rem	Norm Res.	PLFT-ST	Int (PI)	Trust (PI)	Coop
<i>Tactic Composites</i>							
Den	-.675** (.182)						
Den + Inv. Coop	-.024 (.192)						
Den + PP	-.122 (.191)						
Den + Inv. Coop + PP	.821** (.177)						
Comp		-.688** (.096)	-.193† (.101)				
Pen		-.346** (.099)	-.477** (.100)				
Apol		-.544** (.098)	-1.076** (.092)				
Comp + Pen		.315** (.099)	.643** (.098)				
Comp + Apol		.319** (.099)	.371** (.101)				
Pen + Apol		.132 (.100)	-.236* (.101)				
Comp + Pen + Apol		.813** (.094)	.969** (.094)				
Mon				-.720** (.152)		-.354** (.093)	.274** (.102)
HP				.720** (.152)		-.427** (.092)	-.274** (.102)
<i>Mediators</i>							
Believability					.457** (.046)	.187** (.045)	
Perceived Remorse					.270** (.026)	.067* (.026)	
Norm Restoration					.355** (.029)	.329** (.029)	
PLFT-ST						-.042 (.036)	-.184** (.051)
Post-Intervention Integrity						.425** (.057)	.506** (.080)

Note: \* $p < .05$ , \*\* $p < .01$ ; Den = Denial; Inv. Coop = Investigative Cooperation; PP = Past Posting; Comp = Compensation; Pen = Penance; Apol = Apology; Mon = Monitoring; HP = Hostage Posting; Believe = Believability of Innocence Claim; P. Rem = Perceived Remorse; Norm Res. = Norm Restoration; Fut Trans. (ST) = Likelihood of Future Transgression (Short-term); Int = Integrity; PI = Post-Intervention; Coop = Cooperation; Effects on Believability and PLFT-ST = Perceived Likelihood Future Transgression (short term) are based on sample 1 and effects on perceived remorse and norms restoration are based on sample 2



### *Causal hypothesis tests*

In this study, we will test hypotheses 1, 2, 7, 9, 15, and 16. In addition, as the data is collected at a single time-point in a policy-capturing technique, testing hypotheses that cater to second-order part of the model may not be ideal to understand the causal effect. However, we believe that estimating correlational effects could provide an initial understanding of the relationship between the variables that can be validated by subsequent studies. Thus, we also examined hypotheses 3, 4, 5, 8, and 10.

Hypothesis 1 posits that attempt to distance without validation will be negatively related to the believability of the innocence claim. To test this hypothesis, we estimate the effect of only denial as a tactic composite on the believability of the claim. Our results show that tactic composite that included only denial is negatively related to believability of the innocence claim ( $\beta = -.68$ ,  $p < .01$ ), supporting hypothesis 1.

There are multiple parts to hypothesis 2. Hypothesis 2a suggests that tactic composites that tactic composites that not only distance the trustee from the transgression but also provide evidence for the innocence claim would be believable. To test this hypothesis, we analyzed the effects of denial + investigative cooperation, denial + past posting, and denial + investigative cooperation + past posting on believability of the innocence claim. We found that the first two tactic composites did not significantly increase the believability of the innocence claim [ $\beta = -.02$ ,  $p = .90$  (denial + investigative cooperation);  $\beta = -.12$ ,  $p = .53$  (denial + past posting)] but the third tactic composite was positively related to believability ( $\beta = .82$ ,  $p < .01$ ), thus, only partially supporting hypothesis 2a. Hypothesis 2b is comparative in nature, positing that believability would be stronger when the condition of negative affect and validation both be addressed, than when tactic composite includes tactic that only address one of the two conditions. To test this hypothesis, we conducted t-test between tactic composites that included denial and investigative cooperation, and denial and past posting, with tactic composite that included all three tactics. We also estimated Cohen's  $d$  in order to analyze the effect size based on mean comparison. The results showed that there was significant difference between the believability from denial + investigative cooperation + past posting and from denial + investigative cooperation ( $t = 2.48$ ,  $p = .015$ ) and denial + past posting ( $t = 2.83$ ,  $p < .01$ ). The effect sizes based on mean comparison of denial + investigative cooperation + past

posting with denial + investigative cooperation ( $d = .55$ , confidence interval (95%) = [.10, .99]) and denial + past posting ( $d = .62$ , confidence interval (95%) = [.18, 1.07]). Thus, hypothesis 2b was also supported.

Just as with hypothesis 2, hypothesis 7 also had multiple parts. Hypothesis 7a suggested that verbal and behavioral repair tactics together would be positively related to perceived remorse. To test this hypothesis, we used apology (which included expression of regret, explanation, declaration of repentance, and request for forgiveness – Lewicki et al., 2016) as verbal tactic, and compensation and penance as behavioral tactics. We first analyzed the effect of apology + compensation tactic composite and found that it is positively related to perceived remorse ( $\beta = .32$ ,  $p < .01$ ). However, apology + penance and perceived remorse were not significantly related ( $\beta = .13$ ,  $p = .19$ ). Finally, we analyzed the effect of apology + compensation + penance on perceived remorse and found that it was significantly related ( $\beta = .81$ ,  $p < .01$ ). Thus, we found partial support for hypothesis 7a. Hypothesis 7b posits that verbal and behavioral repair tactics together would be more effective to establish perceived remorse than only verbal tactics. To test this hypothesis, we followed the same analytical approach as we did for hypothesis 2b. First, we conducted a one-tailed t-test between the effects of only apology with that of apology + compensation ( $t = 4.82$ ,  $p < .01$ ), apology + penance ( $t = 3.60$ ,  $p < .01$ ), and apology + compensation + penance ( $t = 7.85$ ,  $p < .01$ ). Thereafter, we estimated the effect size on mean comparison between effect of only apology on perceived remorse and that of apology + compensation ( $d = .68$ , confidence interval (95%) = [.40, .97]), apology + penance ( $d = .51$ , confidence interval (95%) = [.23, .79]), and apology + compensation + penance ( $d = 1.11$ , confidence interval (95%) = [.81, 1.41]). Our results showed complete support for hypothesis 7b. Thus, our results suggest that a tactic composite that includes both verbal and behavioral tactics (especially compensation) would make the trustor perceive that the trustee feels remorse for the transgression, more effectively than what a tactic composite with only verbal tactic would.

Hypothesis 9 is also divided into two parts, hypothesis 9a and hypothesis 9b. Hypothesis 9a mentions that tactic composites that address disequilibrium at both the individual and relational level will be positively related to norms restoration in the relationship. As compensation is capable of adequately addressing individual disequilibrium and penance and apology has shown to be effective at addressing relational disequilibrium, we tested this hypothesis by estimating the effects of compensation + penance, compensation + apology, and compensation + apology + penance on

norms restoration. Our results found that all three tactic composites would lead to norms restoration [ $\beta = .64, p < .01$  (compensation + penance);  $\beta = .37, p < .01$  (compensation + apology);  $\beta = .97, p < .01$  (compensation + penance + apology)], supporting hypothesis 9a. Hypothesis 9b posits that tactic composites that address disequilibrium at both the individual and relational level will be more effective to restore norms than tactic composites that address disequilibrium at only the individual or relational level. To test hypothesis 9b, we conducted one-tailed t-test and effect size analyses. Specifically, we tested the effects of different combinations of only individual-focused and only relational-focused with different combinations of individual- and relational-focused tactics. Our results found that the effects that only compensation, penance, apology, or penance + apology had on norm restoration was significantly lower from that of compensation + penance [ $t = 4.74, p < .01$  (compensation);  $t = 6.49, p < .01$  (penance);  $t = 11.29, p < .01$  (apology);  $t = 4.98, p < .01$  (penance + apology)], compensation + apology [ $t = 3.25, p < .01$  (compensation);  $t = 4.99, p < .01$  (penance);  $t = 9.70, p < .01$  (apology);  $t = 3.49, p < .01$  (penance + apology)], and compensation + penance + apology [ $t = 6.83, p < .01$  (compensation);  $t = 8.69, p < .01$  (penance);  $t = 14.08, p < .01$  (apology);  $t = 7.07, p < .01$  (penance + apology)]. The effect sizes of compensation, penance, apology, and penance + apology, with compensation + penance [ $d = .67$ , confidence interval (95%) = [.39, .95] – compensation;  $d = .92$ , confidence interval (95%) = [.63, 1.21] – penance;  $d = 1.60$ , confidence interval (95%) = [1.28, 1.91] – apology;  $d = .70$ , confidence interval (95%) = [.42, .99] – penance + apology], compensation + apology [ $d = .46$ , confidence interval (95%) = [.18, .74] – compensation;  $d = .71$ , confidence interval (95%) = [.42, .99] – penance;  $d = 1.37$ , confidence interval (95%) = [1.06, 1.68] – apology;  $d = .49$ , confidence interval (95%) = [.21, .77] – penance + apology], and compensation + penance + apology [ $d = .97$ , confidence interval (95%) = [.67, 1.26] – compensation;  $d = 1.23$ , confidence interval (95%) = [.93, 1.53] – penance;  $d = 1.99$ , confidence interval (95%) = [1.65, 2.33] – apology;  $d = 1.00$ , confidence interval (95%) = [.70, 1.29] – penance + apology]. These results depict that hypothesis 9b is fully supported. Thus, our results suggest that tactic composites that include tactics that address disequilibrium at both individual- and relational-level are more effective to restore norms than those that include tactics that address disequilibrium at either individual- or relational-level.

Hypothesis 15 suggest that incorporation of strong control systems will restore a transactional relationship (cooperation) between the parties by reducing the perceived likelihood of the future transgression over the short term. To test this hypothesis, we first estimated the effect

of weak control systems (in our case, hostage posting) on PLFT-ST and cooperation, and found that hostage posting increases PLFT-ST ( $\beta = .72, p < .01$ ) and decreases cooperation ( $\beta = -.27, p < .01$ ). This shows that weak control systems should not be used to restore transactional relationship after a transgression. We then conducted a 4-step mediator analysis using the fixed effects method to estimate the effects of strong control systems (in our case, monitoring) on cooperation. In step 1, we estimated the effects of monitoring on cooperation and found it to be positively related ( $\beta = .27, p < .01$ ). In step 2, we estimated the effects of monitoring on PLFT-ST and found a negative relationship ( $\beta = -.72, p < .01$ ). Thereafter, in step 3, we estimated the effect of PLFT-ST on cooperation. The results showed a negative relationship between the two variables ( $\beta = -.18, p < .01$ ). Finally, in step 4, we estimated the effects of monitoring on cooperation controlling for PLFT-ST. The result showed that the relationship between monitoring and cooperation became non-significant when PLFT-ST was placed in the equation ( $\beta = .06, p = .55$ ). This shows that PLFT-ST fully mediates the relationship between monitoring and cooperation, supporting hypothesis 15.

Finally, hypothesis 16 posits that strong control systems would be negatively related to the level of post-intervention trust. To test this hypothesis, we analyzed the relationship between monitoring and level of post-intervention trust using fixed effects technique. Our results showed that monitoring was negatively related to level of post-intervention trust ( $\beta = -.35, p < .01$ ), supporting hypothesis 16.

### ***Correlational hypothesis tests***

Even though policy-capturing technique is not ideal to analyze the causality of the relationships between mediating variables with second-order mediating variables and dependent variables as the data is collected at a single time-point, we still conducted the analyses to get an initial sense of the relationship. We note here that the results for the following hypotheses should be viewed only as a starting point and not a conclusive evidence.

Hypothesis 3 posits that believability of innocence claim is negatively related to the level of perceived trustworthiness in the trustee, and hypothesis 4 suggests that level of perceived trustworthiness in the trustee would be positively related to level of trust perceived in the trustee. To test these hypotheses, we first estimated the effects of believability on post-intervention integrity using the fixed effects regression method, controlling for the direct effects of the redirect

pathway tactic composites on post-intervention integrity. Our results show that believability of innocence claim is positively related to level of post-intervention integrity ( $\beta = .46, p < .01$ ), suggesting support to hypothesis 3. We used the same method to test hypothesis 4 but controlling for believability and PFLT-ST as well, and found that post-intervention integrity is positively related to post-intervention trust ( $\beta = .43, p < .01$ ). This result provides initial support for hypothesis 4.

Hypothesis 5 posits a mediating relationship between the believability of innocence claim and post-intervention trust via post-intervention integrity. To test this hypothesis, we used the same 4-step analysis using fixed effects methodology as we did for testing hypothesis 14. We controlled for the direct effects of the redirect pathway tactic composites on the variables. Specifically, we first estimated the effects of level of believability of innocence claim on level of post-intervention trust and found a positive relationship ( $\beta = .19, p < .01$ ). Thereafter, we estimated the effects of post-intervention integrity on post-intervention trust. The results depicted a positive relationship ( $\beta = .43, p < .01$ ). We followed it with estimating the effects of believability of innocence claim on post-intervention integrity, which also showed a positive relationship ( $\beta = .46, p < .01$ ). Finally, we estimated the effect of believability of innocence claim on post-intervention trust after controlling for post-intervention integrity and found that believability of innocence claim was not significant when post-intervention integrity was included in the model ( $\beta = -.04, p = .40$ ), showcasing a full mediation. This suggests an initial support for hypothesis 5.

Hypothesis 8 and 10 cater to the replenish pathway and posit that perceived remorse and norm restoration will be positively related to the level of perceived trustworthiness in the trustee. Using fixed effects methodology and controlling for direct effects of replenish pathway tactic composites, we found positive relationship between post-intervention integrity and both perceived remorse ( $\beta = .27, p < .01$ ) and norm restoration ( $\beta = .36, p < .01$ ). Thus, we find initial support for hypothesis 8 and 10.

### **5.1.3 Discussion**

This study provides us interesting insights into all three pathways. In terms of the redirect pathway, our results suggest that denial as a repair tactic is only believable if backed by appropriate amount of factual or symbolic evidence and would, in fact, reduce the believability of the innocence claim if such evidence is completely absent. Trust repair literature has shown mixed

results on the effect of denial on trust repair (e.g. Bansal & Zahedi, 2015; Henderson et al., 2020). These findings assist in explaining these mixed results in that denial is a volatile tactic, which can help in quickly repairing trust if believed and hurt the repair process if not believed irrespective of the actual happenings. Thus, incorporating tactics that not only distance the trustee from the transgression but also provides appropriate amount of evidence for the innocence claim holds the key in repair of trust through the redirect pathway. The findings from this study also show that complete trust repair may be possible through some tactic composites of the redirect pathway.

Study 1 also showed that perceived remorse and norms restoration may not be possible through individual repair tactic and require specific tactic composites that complement each other. For example, perceived remorse is more likely accomplished when the tactic composite not only includes verbal tactics but also behavioral tactics which help validate the genuineness of the verbal regret, otherwise repair tactics may be perceived as cheap talk (Bottom et al., 2002). On the other hand, our findings also support that tactic composites that address not only relational legitimacy (Folger & Cropanzano, 1998) but also trustor injustice (Reb et al., 2006) are the most likely to restore norms in the relationship and in turn facilitate trust repair.

Finally, study 1 also shows that strong control systems, such as monitoring, are capable to restore cooperation in the relationship by reducing the likelihood that the trustor would engage in future betrayal in the short-term (often which is equivalent to the time that the control systems are activated). In terms of the effects of control systems on trust, however, our result suggests that even though strong control systems are capable of reviving cooperation and restoring the relationship they reduce the likelihood of trust to be repaired in the relationship. This argument is contrary to the supplementary argument of the relationship between controls and trust that posits that trust and controls play a supplementary role in a relationship (cf. Long & Sitkin, 2018) and suggests that control systems should be incorporated only when restoring cooperation (and not trust) in the relationship is the prime goal of the acting party.

## **5.2 Study 2**

### **5.2.1 Methods**

#### **5.2.1.1 Sample**

Our sample included 67 undergraduate students from a large public university in the Midwest United States. 51% of the participants were females. 42% of the participants were white. The age of the participants had a mean of 20.16 years and ranged from 19 years to 23 years.

To collect the data, the experiment was advertised and the participants voluntarily registered to participate in the experiment. In the advertisement, the participants were told that depending on their performance in the experiment, they had an opportunity to win a total of \$170. The performance contingent monetary reward has been used by other scholars who have used the experimental method to study trust repair (e.g. Dirks et al., 2011; Schweitzer et al., 2006). It played an important role for two reasons – (1) it helped attract undergraduate students to volunteer for the experiment, and (2) it increased the likelihood that during the experiment the participants felt that their decisions had real stakes attached to them.

#### **5.2.1.2 Research design and content**

For study 2, we used an experimental design to understand the process of trust repair and if and how the trustee can achieve complete trust repair. Specifically, we employed a modified version of the Red-Blue game (also known as rely-or-verify game) developed originally by Levine and Schweitzer (2015) to understand the fluctuations and repair of trust levels when trust is violated and when trust is repaired. We used an experimental design because it provides an opportunity to manipulate transgressions and to incorporate different repair strategies by the trustee in order to understand the repair patterns, which is extremely difficult to execute in a field study (Lewicki & Brinsfield, 2017).

To conduct the experiments for study 2, we developed two different versions of the game – one that included the redirect and redefine pathway manipulations and the other that included the replenish and redefine pathway manipulations. We developed two version of the experiment because a trustee can choose between the two pathways to repair trust, both of which are supplementary in nature. A trustee who chooses the redirect pathway focuses on repair of trust

through invalidation of the effects of the transgression on the trustor by distancing himself/herself from the transgression and *redirecting* the blame to an external source or entity. On the other hand, trustees who choose replenish pathway by definition accept some guilt for the transgression and attempt to improve the broken trust by *replenishing* perceived trustworthiness. As the redefine pathway can act as a back-up if the trust repair pathway fails, we included manipulations for it within both the redirect and replenish manipulation version. In the experiment, the redefine pathway manipulations were activated only if the redirect or replenish pathway failed and the participant chose to dissolve the relationship.

Given the temporal and sample resources available, we conducted only the redirect version of the experiment for the dissertation.

### ***Procedures***

The participants were told that they will play the game against another individual, though in reality the participants played the game against a pre-programmed computer. They were also told that the game consisted of a Red Player and a Blue Player and they were randomly picked as the Blue Player. However, each participant was always the Blue player because in this study we focus on trustor perceptions. The instructions of the game were provided to the participants at the beginning, which were followed by comprehension check questions to make sure that the participants understood the game. The participants could not move forward with the game until they answered all the comprehension check questions correctly.

The participants were incentivized to perform well (i.e. gain as many points as possible) in the experiment through a performance-contingent monetary reward. Specifically, the participants could potentially be part of 3 raffles, totaling \$170 in amazon gift cards – one \$20 raffle that included all the individuals that participated in the study, one \$50 raffle that included only the top 50% performers, and finally one \$100 raffle that included only the top 25% performers. As the feeling of vulnerability is foundational to the trust construct (Mayer et al., 1995), this payment dispersion was critical to encourage the participants to make thoughtful decisions in the presence of risk.

The points earned by the participant depended on a combination of decisions made by the Red Player (computer) and the Blue Player (participant). In rounds 2-5 of each block, participants had the opportunity to receive information about the decisions made by the Red Player at a cost to



make their own decision. At the end of each block, they also had the opportunity to ask for a partner replacement at a cost. Thus, in this game, each decision of the participant had immediate implication and a more general positive or negative consequence.

Each game had three blocks with each block will comprising of 5 individual rounds. The participants were not informed of the total number of blocks to be played. This arrangement was necessary so that participants did not base their decisions on which block the game was in, i.e. by developing an end-game strategy. Each round began with the Red Player (computer) sending a message to the Blue Player (participant) about whether the number displayed on their screen was odd or even. The participants were told that the Red Player is free to send an accurate or inaccurate message. This message was programmed to randomly show an “odd” or “even” message. The participant was also told that there is an individual designated as the Manager who could change an accurate message to an inaccurate one but only in the first round of each block. In the first round, the participants were instructed that they will be informed by the computer whether the message sent by the Red Player is accurate or inaccurate. If they are informed that the message is accurate, it would mean that the Red Player had definitely sent an accurate message. However, if they are informed that the message is inaccurate, it could be because the Red Player sent an inaccurate message or the Manager switched an accurate message to inaccurate. They would not be told the real reason for the inaccuracy. The participants were thereafter shown the manipulation (denial + past posting) as the innocence claim of the Red Player. As the points calculation would be made based on the real accuracy of the message sent by the Red Player, the participant had to make a decision whether or not to believe the manipulation.

In rounds 2 to 5 of each block, the participant did not have the information about the accuracy of the message but had an option to receive that information at a cost. The participants were informed that the Red Player will not know if and when the Blue Player utilizes this option. This condition was incorporated to make sure that the participant did not base their decision to seek information on impression management.

In each of the rounds, the participant had to decide whether to *believe*, *insure*, or *avert-risk* based on the message of the Red Player and the information about the accuracy either received (round 1) or purchased (rounds 2 to 5). This decision impacted the points that the participant received from the round.

The participants could also replace their partner at the end of each block at a cost. They were informed that the Red Player will receive 6 points for each block they are not replaced, adding to the realism of the incentive of the Red Player to want to continue the relationship. This provision of the game was important because each time the participant chose to replace the Red Player, they were shown the redefine pathway manipulation as an attempt of the Red Player to continue the relationship. The participants were also told that any offers made during the game would be used to calculate the final score, in order for them to make sure the participants base their behavioral decisions on the information in the manipulation. All the task and procedure details are described in Appendix B.

In this study, every message sent in the first block of the experiment was accurate. This was done so that the participant could build some initial baseline trust in the Red Player, which would help in analyzing better both the trust fall after the breach and the repair of trust after manipulation. In the first block, the participants were able to see the amount of points they earned at the end of each round. They were informed that the Red Player was not aware that they could see their earnings for each round in the odd block. This was done to accentuate the perception of trustworthiness, and in turn trust, in the Red Player by the participant.

The only inaccurate message that the participant was sent was in the first round of the second block. The content for the manipulation was based on our results in study 1. Specifically, denial + past posting tactic composite was used as the defense statement by the Red Player in the first round of the second block (we did not use denial + investigative cooperation + past posting even though it had the strongest effect sizes for trust repair in study 1 because investigative cooperation did not make sense in the current experimental context). We used the following statement as manipulation, *“I swear I did not lie to you. The manager changed my message. To prove you that I am not lying, the researcher can transfer you 12 points from my score if I sent you the wrong message.”* The language of the manipulation was created using suggestions from a focus group of students different from the participants. In case the participant chose to replace the Red Player at the end of any of the blocks, we used a strong risk-mitigating control system (redefine pathway manipulation) using the following statement, *“If you continue the relationship with me, I ask the researcher to automatically transfer 4 points in the next golden opportunity window for each inaccurate message I send you. It will provide you 12 points for each inaccurate message I send, so you would definitely not lose any points in the whole block.”* to request for the relationship

to be continued. We collected data on trust multiple times in the experiment (pre-transgression, post-transgression, and post intervention) in order to understand the movement of the trust level due to the transgressions and interventions and make sure that the repair of trust was not due to the measurement and sample bias. This would help us understand whether complete trust repair is possible or not.

### **5.2.1.3 Measures**

We used a 5-point likert scale, ranging from strongly disagree (1) to strongly agree (5), for all variables unless specifically mentioned.

#### ***Trust***

Trust was measured using the same three-item scale as used in Study 1. The items are, “I would be comfortable to let the Red Player have influence over issues that are important to me”, “I would be willing to let the Red Player have control over decisions that are important to me”, and “I would be comfortable having the Red Player have access to information that could adversely affect me”. We measured trust after round 1 of block 1 and 2, in round 1 of block 2 after the participant was shown the tactic composite manipulation, and at the end of each block. The cronbach’s alpha for the scale is .84 (pre-transgressional trust), .85 (post-transgressional trust), and .84 (post-intervention trust).

#### ***Integrity***

As the context of the experiment is focused on integrity-based transgression, out of the three factors of trustworthiness we will only measure integrity. Integrity was measured using the same three-item scale used in Study 1. The items included in the scale are, “The partner Red Player has a strong sense of justice”, “I never have to wonder whether my partner Red Player will stick to its word”, and “Sound principles seem to guide my partner Red Player’s behavior”. We measured integrity after round 1 of block 1 and 2, in round 1 of block 2 after the participant was shown the tactic composite manipulation, and at the end of each block. The cronbach’s alpha for the scale is .77 (pre-transgressional integrity), .70 (post-transgressional integrity), and .87 (post-intervention integrity).

### ***Believability of innocence claim***

To measure believability in the innocence claim of the trustee, we added an extra item to the previous one item used in Study 1. Thus, believability was measured using the following two items, “You consider the statements of Red Player to be believable” and “I consider the statements made by Red Player as truthful”. Believability was measured after the tactic composite manipulation was shown to the participant in round 1 of block 2.

### ***Propensity to trust***

We will measure propensity to trust in the beginning of the experiment using a five-item scale by Hwee, Schoorman, Sharma, & Mayer (working transcript). The items are, “Most people can be counted on to do what they say they will do”, “Most adults are competent at their jobs”, “Most people do not cheat”, “People can generally be relied on to keep their promises”, and “Most people are honest in negotiations”. We will measure this variable before introducing the experiment to the participants. The cronbach’s alpha for the scale is .78.

### ***Trait negative affect***

We will use an abbreviated version of the PANAS scale by Watson, Clark, and Tellegen (1988) to measure trait negative affect. Specifically, the items that we will use are, “I generally feel angry”, “I generally feel fearful”, “I generally feel nervous”. These emotions are consistent with those commonly felt in a trust breach scenario (Tomlinson & Mayer, 2009). We measured this variable before introducing the experiment to the participants. The cronbach’s alpha for the scale is .81.

### ***Trait forgiveness***

Trait forgiveness was measured using an abbreviated version of the scale developed by Berry, Worthington Jr., O’Connor, Parrott III, and Wade (2005). The items that we will use are, “I can forgive a friend for almost anything”, “I try to forgive others even when they do not feel guilty for what they did”, “I can usually forgive and forget an insult”, “I have always forgiven those who have hurt me”, and “I am a forgiving person”. We will measure this variable before introducing the background information. The cronbach’s alpha for the scale is .73.

#### **5.2.1.4 Analytical framework**

In this study, we are interested in understanding the pathway of trust over the course of the repair process and empirically testing the possibility of complete trust repair. We conducted path analysis using Structural Equation Modelling (SEM) to understand the relationship between the independent, mediator, and dependent variable along the redirect pathway of trust repair. We used PROCESS macro on SPSS to conduct the SEM analysis and controlled for demographic and trait-level covariates to reduce alternative explanations for the empirical effects.

To analyze whether trust was completely repaired, we conducted a three-step t-test (referred to as the three-step analysis). Specifically, we estimated difference between the means of pre-transgression trust (trust levels at the end of round 5 of block 1), post-transgression trust (trust levels after the participant received information that the message sent was incorrect), and post-intervention trust (trust level after participant was shown the redirect tactic composite manipulation). For trust to be considered completely repaired, the first two t-tests must be significant and the last t-test must be non-significant. This is because lack of significance for difference between pre-transgression and post-transgression trust, and post-transgression and post-intervention trust would either signal that there was no trust breach which would negate the need for trust repair or would suggest that the repair tactics used were ineffective and did not lead to a statistically significant improvement in the trust levels. In other words, the former would make trust repair invalid in the situation and the latter would signal a lack of complete trust repair. Finally, invariance between pre-transgressional trust and post-intervention trust would signal that trust has been completely repaired. This three-step analysis is also helpful in reducing the possible measurement and sample bias explanation for the invariance, as it requires both significant and invariant relationships for trust to be considered completely repaired.

## 5.2.2 Results

The descriptive statistics, correlations, and reliabilities are reported in Table 5.6.

Table 5.6. Descriptive statistics, correlations, and reliabilities for study 2

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Pre-Transgressional Trust	2.61	0.85	(.84)											
2. Post-Transgressional Trust	2.48	0.85	.90*	(.85)										
3. Post-Intervention Trust	2.53	0.87	.88*	.82*	(.84)									
4. Pre-Transgressional Integrity	3.16	0.74	.59*	.56*	.61*	(.77)								
5. Post-Transgressional Integrity	3.10	0.63	.47*	.46*	.38*	.77*	(.70)							
6. Post-Intervention Integrity	3.18	0.81	.50*	.49*	.59*	.78*	.69*	(.87)						
7. Believability	3.46	0.97	.37*	.32*	.47*	.61*	.54*	.74*						
8. Propensity to Trust	2.99	0.67	.07	.05	.03	.02	.15	.17	.20	(.78)				
9. Trait Negative Affect	1.71	0.76	.11	.03	.05	.20	.08	.09	.04	-.01	(.81)			
10. Trait Forgiveness	3.12	0.75	.36*	.32*	.25*	.37*	.44*	.30*	.31*	.48*	.24*	(.73)		
11. Age	20.16	0.98	-.17	-.16	-.18	.05	.03	-.06	-.09	-.10	-.03	-.13		
12. Sex	1.51	0.50	.01	.01	-.03	.01	-.05	-.08	.03	.19	.09	.17	-.11	
13. Race	2.27	1.18	-.19	-.19	-.14	-.21	-.25*	-.25*	-.27*	-.51*	-.04	-.40*	.21	-.26*

Note: \* $p < .05$ ;  $N = 67$ ; Reliability of the variables is stated on the diagonal

Before we tested the hypotheses, we estimated the model fit of the redirect pathway of trust repair using different fit indices. The results ( $\chi^2$  (df) = 19.48 (17),  $p = .30$ ; RMSEA = .047; CFI = .993; TLI = .989; SRMR = .045) depict that the redirect pathway of trust repair has an excellent model fit.

### 5.2.2.1 Causal hypothesis testing

We first analyzed hypotheses 3 – 5 which posit that believability of innocence claim is positively related to post-intervention integrity (hypothesis 3) which in turn is positively related to post-intervention trust (hypothesis 4), and that post-intervention integrity mediates the relationship between believability of innocence claim and post-intervention trust (hypothesis 5). To test these hypotheses, we conducted an SEM analysis using the PROCESS macro in SPSS. Our result shows that believability of innocence claim is positively related to post-intervention integrity ( $\beta = .59$ ,  $p < .01$ ) and post-intervention integrity was positively related to post-intervention trust ( $\beta = .58$ ,  $p < .01$ ), thus supporting hypotheses 3 and 4. We also found support for hypothesis 5 as the relationship between believability of innocence claim and post-intervention trust is fully mediated by post-intervention integrity. Specifically, there is a significant indirect effect between believability of innocence claim and post-intervention trust via post-intervention integrity ( $\beta = .34$ , 95% CI [.13 to .62]) but non-significant direct effect ( $\beta = .04$ ,  $p = .77$ ). These results validate our initial support for hypotheses 3 to 5 from study 1.

Hypothesis 6 posits that trust can be completely repaired immediately through the redirect pathway. To test this hypothesis, we conducted the three-step t-test elaborated in the analytical framework section. Our results showed that the mean of post-transgression trust (Mean = 2.48) was significantly lower ( $t = 2.68$ ,  $p < .01$  [one-tailed]) than that of pre-transgression trust (Mean = 2.61). However, the difference between the post-transgression trust and post-intervention trust (Mean = 2.53) was not significant ( $t = -.71$ ,  $p = .24$  [one-tailed]), even though we did find invariance between the means of pre-transgression and post-intervention trust ( $t = 1.54$ ,  $p = .13$ ). As all three conditions must be satisfied for the trust to be considered as completely repaired, we conclude that hypothesis 6 is not supported. Table 5.7 and Figure 5.1 depicts the results from the SEM analysis. Table 5.8 displays the summary of the hypotheses and results.

Table 5.7. SEM results for study 2

Variables	Post-intervention Integrity	Post-intervention Trust
<i>Control Variables</i>		
Age	.006 (.072)	-.126 (.094)
Sex	-.222 (.143)	.015 (.189)
Race	-.051 (.073)	.014 (.095)
Propensity to Trust	-.007 (.129)	-.183 (.168)
Trait Negative Affect	.054 (.095)	-.050 (.124)
Trait Forgiveness	.068 (.115)	.158 (.149)
<i>Direct Effect</i>		
Believability	.586** (.076)	.041 (.139)
Perceived Integrity		.584** (.169)
<i>Indirect Effect</i>		
Believability → Integrity → Trust		.342** (.122)

Note: \* $p < .05$ , \*\* $p < .01$

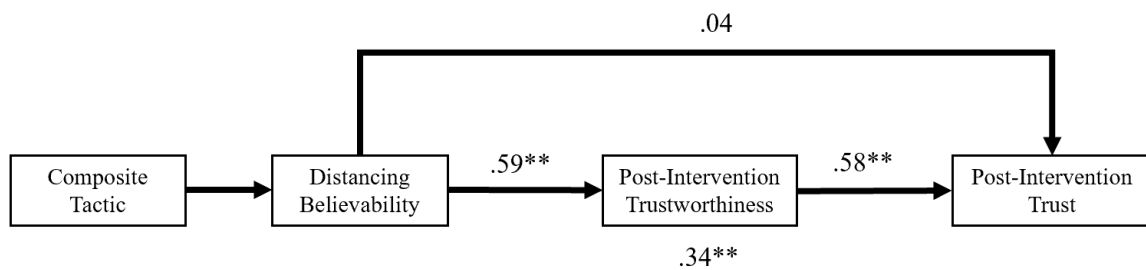


Figure 5.1. SEM results of redirect pathway



Table 5.8. Summary of the hypotheses and results

	<b>Hypotheses</b>	<b>Support</b>
1	Attempt to distance without validation will be negatively related to the believability of the innocence claim.	Yes
2a	Tactic composites that not only distance the trustee from the transgression but also provide evidence for the innocence claim would be believable.	Partial
2b	Believability of the innocence claim would be stronger when the tactic composite provides more evidence for the innocence claim.	Yes
3	Believability of the innocence claim would be positively related to level of post-intervention trustworthiness in the trustee.	Yes
4	Level of post-intervention trustworthiness in the trustee would be positively related to level of post-intervention trust in the trustee.	Yes
5	Level of post-intervention trustworthiness in the trustee would mediate the relationship between believability of the innocence claim and level of post-intervention trust in the trustee.	Yes
6	Trust can be completely repaired immediately through the redirect pathway.	No
7a	Verbal and behavioral repair tactics together would be positively related to perceived remorse.	Partial
7b	Verbal and behavioral repair tactics together would be more effective to establish perceived remorse than only verbal repair tactics.	Yes
8	Perceived remorse will be positively related to the level of post-intervention trustworthiness in the trustee.	Initial
9a	Tactic composites that address disequilibrium at both the individual and relational level will be positively related to norms restoration in the relationship.	Yes
9b	Tactic composites that address disequilibrium at both the individual and relational level will be more effective to restore norms than tactic composites that address disequilibrium at only the individual or relational level.	Yes
10	Norm restoration will be positively related to the level of post-intervention trustworthiness of the trustee.	Initial
15	Incorporation of strong control systems (rather than weak control systems) will restore a transactional relationship between the parties by reducing the likelihood of the future transgression over the short term.	Yes
16	Use of strong control systems would be negatively related to the level of post-intervention trust.	Yes

### **5.2.3 Discussion**

Study 1 provided initial support for the significant relationship between different variables in the redirect pathway of trust repair, though those results were more correlational in nature and based on a perceived transgression. In the current study, the controlled experiment created an experience of transaction and data were collected at different time points that increase the validity of the results. In our results, even though we found significant relationship and excellent model fit for the redirect pathway, we cannot conclude for certain that the pathway could lead to complete repair of trust.

There are a few explanations for the non-significant effects between post-transgression trust and post-intervention trust in our study. First, the context of our experiment is based on the initial stages of trust development. Research has shown that trust is more volatile in the initial stages and a transgression at the early stage may be tougher to repair (Lewicki & Bunker, 1996). Thus, once transgression occurs in early relationship, it paints a stable negative image of the trustworthiness of the trustee and requires stronger repair tactics. It is possible that in the given context our manipulation was not strong enough to revert the negative image created in the mind of the participant (Bottom et al., 2002). Second, the results show that pre-transgression, post-transgression, and post-intervention trust are in the direction that we expected. The lack of significance in the mean difference may be due to the lack of power due to smaller sample size.

### **5.3 General discussion**

Prior review articles on trust repair have highlighted that there is a considerable body of research that has demonstrated that the use of different tactics that are a part of several mechanisms can successfully increase the amount of trust in a relationship following a transgression. However, we still need to explore and examine how we can integrate the study of multiple mechanisms in a meaningful way to achieve a complete repair of trust. Thus, our key focus and contribution through this dissertation is to develop a trust repair model that includes multiple pathways of trust repair that incorporate assumptions from different mechanisms to repair trust. Also, as multiple tactics are often used as a composite by a trustee after a transgression, we explored how tactic composites (and not just tactics themselves) impact trust repair through the different pathways.

When a transgression occurs, the trustee has three different options to repair the relationship. First, the trustee may invalidate the effects of the transgression on the trusting intentions and beliefs of the trustor by establishing distance from and innocence to the transgression [‘Redirect Pathway of Trust Repair’], replenishing the depleted trustworthiness and trust due to the transgression [‘Replenish Pathway of Trust Repair’], or choosing to restore cooperation (and compromising trust) by placing control systems in the relationship [Redefine Pathway of Interaction Repair]. Our findings have shown that just claiming distance from the transgression does not help in repairing trust, as believability of the innocence claim is critical in the repair process. In fact, distancing without providing sufficient factual or symbolic evidence of the claim negatively affects the likelihood of trust to be completely repaired. For example, denial as a tactic composite showed negative relationships with believability of innocence claim but denial + investigative cooperation + past posting was positively related. Thus, redirect pathway should not be used to deflect blame but only used when the trustee is innocent in reality as lack of evidence or surfacing of evidence contrary to the innocence claim can make it extremely hard for trust to be repaired in the future (Ferrin et al., 2007; Kim et al., 2004).

Another core research question of our dissertation is whether complete trust repair is possible. The trust repair scholars have stated the existence of the humpty-dumpty problem (or the broken vase problem) explicitly (Lewicki & Brinsfield, 2017) or inferentially (Kim, 2018), which suggests that trust once broken cannot be completely repaired. However, such claims have been more philosophical than empirical in nature. We hypothesized that complete trust repair is possible and tested it using the “three-step analysis” in order to control for measurement and sample bias arguments. Even though we found invariance with the pre-transgression and post-intervention levels of trust in both studies and significant difference between pre-transgressional trust and post-transgressional trust, we did not find a significant difference between the post-transgression and post-intervention levels of trust. Thus, taking a conservative stance, we conclude that we did not find evidence for complete trust repair through the redirect pathway.

We believe that the non-significant results could also be based on the context in which trust breach and repair were set up. In the experimental design, the participants (trustor) did not know their partner and share no prior trust with the trustee. They experienced a breach in the trust extremely early in the trust developmental process. Prior research has shown that trustors develop much stronger and stable negative views of the trustees when the transgression occurs early in the

relationship (Lewicki & Bunker, 1996). The repair tactic composite that we used in the experiment may have fallen short of the perceived magnitude of the transgression, and thus, was not strong enough to improve post-intervention trust in the trustor (Bottom et al., 2002). Future research should not only analyze the effectiveness of redirect pathway to completely repair trust in mature relationships, but also explore the potential of stronger tactic composites to repair trust completely even in new relationships.

In this dissertation, we also explored the process through which the trustee can repair trust through the replenish pathway. Structural-equilibrium mechanism suggests that effectiveness of tactic composites depends on the reduction of negative emotions in the trustor and the perceived restorative efforts by the trustee (Ren & Gray, 2009). As perceived remorse by the trustee and norm restoration cater to the above conditions, tactic composites that facilitate them would be effective in repairing trust. We found that composites that incorporated both verbal and behavioral tactics were more effective to establish perceived remorse than verbal alone, and composites that addressed both individual and relational disequilibrium were most effective in norm restoration. Thus, it can be inferred that tactic composites are more capable of repairing trust than single tactics, though the composites should be structured in a strategic fashion.

In this dissertation, we also focused on the effects of strong control systems (i.e. tactics pertaining to redirect pathway) on cooperation and trust. We found that control systems assist in restoring cooperation in the relationship by attenuating likelihood of future transgression in the short term (the control system tenure precisely) but reduce the likelihood of trust repair. This is consistent with the literature that suggests that strong control systems repair relationship by reducing the perceived opportunity of the trustee to engage in another transgression than by improving the perceived trustworthiness of the trustee (e.g. Malhotra & Murnighan, 2002).

This dissertation has both theoretical and practical implications. First, the trust repair literature has focused primarily on the effectiveness of the tactics rather than the process through which trust is repaired (cf. Dirks et al., 2009, Sharma et al., 2022). We provide a trust repair model that includes the process to repair trust completely in the relationship through multiple pathways that operate on different assumptions and help in trust repair in different circumstances. For example, if the trustee is innocent in reality and desires quick trust repair, redirect pathway would be an ideal choice. On the other hand, if the trustee is guilty he/she should utilize replenish pathway if he/she cares about maintaining a long-term trusting relationship but may incorporate redefine

pathway tactics if he/she is primarily interested in short-term benefits from the relationship. Thus, our trust repair model provides more opportunities to cater to the circumstances and desires of the trustee in the trust repair process. Moreover, by providing the requirements that need to be addressed for the pathways to be effective, our model also provides strategic flexibility to the trustee in forming their tactic composition that fits their desires and resources. Thus, our trust repair model provides the tools to the trustees to customize their trust repair strategy according to their needs and preferences.

Even though we did not find support for complete trust repair, we also contribute to the trust repair literature by providing empirical evidence of the humpty dumpty problem prevalent in the literature. Most of the studies in the trust repair literature analyze the effects of repair tactics on the post-intervention trust (Sharma et al., 2022). By measuring trust repair using the three-step analysis, we set a methodological precedence for research questions that cater to analyzing the degree of trust repaired in the relationship.

We acknowledge that this dissertation has several limitations that could be addressed by future research. First, both the studies in this dissertation focus on early stages of trusting relationship. As effect of transgression and repair effort at different stages of the trusting relationship may have different outcomes (Lewicki & Brinsfield, 2017; Lewicki & Bunker, 1996), our results are focused on the early relationship context and lack generalizability. Thus, future research should explore the effect of tactic composites to repair trust repair at different stages of trusting relationship. Moreover, we used panel and student data in our studies which, though common and widely used in the trust repair literature (Sharma et al., 2022), reduce generalizability. Generalizability of results is likely to improve if a field study with a larger sample size is conducted in the future so that trust repair process can be analyzed appropriately within the organizational environment.

Second, as the purpose of this model is to lay the basic structure of the repair process, we analyzed each pathway separately in both studies in order to keep the explanation relatively simple. Inter-pathway analyses were also not possible due to our research design and data collection approach for the two studies. There may, however, be situations wherein the trustee utilizes multiple pathways to repair trust. For example, in certain situations, such as when the transgression is severe or frequent or attributed to highly stable characteristics, replenish pathway tactics such as apology and compensation may not be enough to restore RTR because it may not restore

perceived trustworthiness of the trustee even to the extent for trustor to take small risks in the relationship. External reforms and weak control systems may be helpful to restore some amount of cooperation in the relationship in such scenarios (Malhotra & Murnighan, 2002; Schoorman et al., 2015). Thus, future research should also explore how tactic from different pathways can complement each other and be utilized together to repair trust.

Third, in our dissertation, all tactics within the composition were executed together right after the discovery of transgression. However, there might be variance in effectiveness depending on the timing and order of the tactics used. For example, research has shown that considerable time elapsed since the transgression may increase forgiveness by the trustor as it can blunt the pain of the transgression (Wohl & McGrath, 2007). Moreover, use of extensive behavioral tactics, such as over-compensation, before the use of verbal tactics, such as apology, (i.e. not as a validation of willingness to repair but as the initiating central tactic) may deteriorate integrity perceptions and perceived moral orientation of the trustee (Haesevoets et al., 2014) as it may be perceived that the trustee knew about the transgression and had complete control of the behavior but still chose to execute the behavior. Thus, future research should explore when and in which order should the tactics be utilized in the trust repair process to be most effective.

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## APPENDIX A. STUDY 1 VIGNETTE

### Background Information

You are a research scientist with an expertise in bioinformatics in the R&D department of a reputed Biotechnology firm. The R&D department in your organization comprises multiple labs with each lab headed by a Principal Investigator (PI) who is responsible for the lab and reports to the Head of the Department (HoD). Even though collaborations on projects between members of different labs is not prohibited and do happen, they are rare. At the end of each year, the most productive lab in terms of total patents issued by its members (combined) receives an additional grant money of \$125,000 from the organization.

You have been with the organization for the last 1.5 years and work in the lab of Dr. Lane. In your organization, attaining patents for the organization is the main job of a research scientist. *All patents are applied in the name of the organization and are filed by the 'Patent Application Wing' (PAW) of the organization.* Information about patent applications submitted to PAW is not officially accessible to the research scientists and is kept confidential to avoid internal jealousies and ridicule if a patent is not issued for the product.

The organization has a rule that the *senior-most researcher on the project team in terms of tenure is responsible for submitting their patent application package* to PAW. In any scenario that the senior-most team member is not able or willing to submit, the submitting member should have signed permission from the PI's of all members of the project team and the HoD, which in the recent past has been an extremely time-consuming exercise.

The research scientist(s) that are responsible for the patent are monetarily rewarded if the organization is issued the patent from the US Patents and Trademarks Office (PTO). An email is sent across the department with the summary of the project and the names of all the researchers involved whenever a patent is issued.

The salary of each research scientist in your organization has a fixed and a variable component. Specifically, each research scientist gets a certain fixed amount. The variable part of the salary comprises of a \$5,000 lump-sum bonus that the organization provides to the project team whose patent is issued by PTO. The amount of the bonus is shared equally among the members of the team. Thus, *the monetary share of each researcher is lower for patents issued to teams with higher number of researchers.*

Sam is another research scientist in the organization who has been working in a different lab (the lab of Dr. Taylor) for the last 2 years. Sam is a top molecular biologist and has collaborated with a few scientists within the organization. He already has 2 patents. In general, people in the organization talk highly of Sam in terms of his knowledge, vision, work-efficiency, and professionalism.

Sam has been working on **two** projects both of which require extensive simulation analyses. As you have the expertise for it, Sam reached out to you to discuss the projects and ask if you would like to join him in the projects. You agreed to collaborate as you are in dire need of patents. You spent the majority of your next month running all sorts of complex simulation models for the first project to make sure that an innovative product can be created. *The final product for the first project is extremely innovative.* Both Sam and you are sure that patent will be issued for the product and it would be a hit in the biotech market. The second project is a few months away from being ready, and is waiting for some critical analyses that you will provide. You have barely

worked any on the second project yet but intend to start working on it soon. Even though the project is far from complete, it looks promising and you are confident that it will turn out to be equally, if not even more, innovative.

As Sam is senior to you in terms of tenure, Sam submitted the patent application of the first project to PAW. A week later, you hear a rumor from the grapevine that Sam submitted the patent application to PAW as a sole researcher, i.e. without your name in the patent application, even though you significantly contributed to the first project. As information about submissions is kept confidential by PAW, you can only find out about it yourself in the email after the patent gets issued.

### **Scenarios – Tactic composites**

1. *Denial only:* You met Sam and confronted him about this rumor that you heard. Sam responded, “It is not true that I excluded your name from the application that I submitted to PAW.”
2. *Denial + Investigative Cooperation:* You met Sam and confronted him about this rumor that you heard. Sam responded, “It is not true that I excluded your name from the application that I submitted to PAW. However, if there is anything I can do to help you with reaching the bottom of this, let me know and I assure you I will do whatever I can to assist.”
3. *Denial + Past Posting:* You met Sam and confronted him about this rumor that you heard. Sam responded, “It is not true that I excluded your name from the application that I submitted to PAW. If you find that the rumor is true, I will personally write to the HoD to include your name for the approved patent too, so that you can be transferred half of the bonus and 2.5% of the royalty for the patent.”
4. *Denial + Investigative Cooperation + Past Posting:* You met Sam and confronted him about this rumor that you heard. Sam responded, “It is not true that I excluded your name from the application that I submitted to PAW. If you find that the rumor is true, I will personally write to the HoD to include your name for the approved patent too, so that you can be transferred half of the bonus and 2.5% of the royalty for the patent. Moreover, if there is anything I can do to help you with reaching the bottom of this, let me know and I assure you I will do whatever I can to assist.”
5. *Compensation only:* The patent was accepted but you realized that your name was not on the author list. When the next paycheck came out, you also did not get any bonus for the patent. A few days later, Sam came to your cabin and asked if he/she could talk to you about something important. You agreed. Sam stated, “The reason you did not receive any bonus is because I submitted the patent application as a sole-researcher. In order to make up to you, I have brought with me this check worth \$2500 for you, which is equivalent to your share in the bonus.”

6. *Penance only*: The patent was accepted but you realized that your name was not on the author list. When the next paycheck came out, you also did not get any bonus for the patent. A few days later, Sam came to your cabin and asked if he/she could talk to you about something important. You agreed. Sam stated, “The reason you did not receive any bonus is because I submitted the patent application as a sole-researcher. As a punishment for this action, I have returned the whole bonus that I received for the patent. If you do not believe me, you may confirm that with the HR department.”
7. *Apology only*: The patent was accepted but you realized that your name was not on the author list. When the next paycheck came out, you also did not get any bonus for the patent. A few days later, Sam came to your cabin and asked if he/she could talk to you about something important. You agreed. Sam stated, “The reason you did not receive any bonus is because I submitted the patent application as a sole-researcher. I am really sorry to have taken out your name from the patent application but I did so only because Dr. Taylor told me to do so. I feel terrible and regret what I did and promise I will never do it again. I hope you will forgive me.”
8. *Compensation + Apology*: The patent was accepted but you realized that your name was not on the author list. When the next paycheck came out, you also did not get any bonus for the patent. A few days later, Sam came to your cabin and asked if he/she could talk to you about something important. You agreed. Sam stated, “The reason you did not receive any bonus is because I submitted the patent application as a sole-researcher. I am really sorry to have taken out your name from the patent application but I did so only because Dr. Taylor told me to do so. I feel terrible and regret what I did and promise I will never do it again. In order to make up to you, I have brought with me this check worth \$2500 for you, which is equivalent to your share in the bonus. I hope you will forgive me.”
9. *Penance + Apology*: The patent was accepted but you realized that your name was not on the author list. When the next paycheck came out, you also did not get any bonus for the patent. A few days later, Sam came to your cabin and asked if he/she could talk to you about something important. You agreed. Sam stated, “The reason you did not receive any bonus is because I submitted the patent application as a sole-researcher. I am really sorry to have taken out your name from the patent application but I did so only because Dr. Taylor told me to do so. I feel terrible and regret what I did and promise I will never do it again. As a punishment for this action, I have returned the whole bonus that I received for the patent. If you do not believe me, you may confirm that with the HR department. I hope you will forgive me.”
10. *Compensation + Penance*: The patent was accepted but you realized that your name was not on the author list. When the next paycheck came out, you also did not get any bonus for the patent. A few days later, Sam came to your cabin and asked if he/she could talk to you about something important. You agreed. Sam stated, “The reason you did not receive any bonus is because I submitted the patent application as a sole-researcher. In order to make up to you, I have brought with me this check worth \$2500 for you, which is

equivalent to your share in the bonus. Also, as a punishment for this action, I have returned the whole bonus that I received for the patent. If you do not believe me, you may confirm that with the HR department.”

11. *Compensation + Penance + Apology*: The patent was accepted but you realized that your name was not on the author list. When the next paycheck came out, you also did not get any bonus for the patent. A few days later, Sam came to your cabin and asked if he/she could talk to you about something important. You agreed. Sam stated, “The reason you did not receive any bonus is because I submitted the patent application as a sole-researcher. I am really sorry to have taken out your name from the patent application but I did so only because Dr. Taylor told me to do so. I feel terrible and regret what I did and promise I will never do it again. In order to make up to you, I have brought with me this check worth \$2500 for you, which is equivalent to your share in the bonus. Also, as a punishment for this action, I have returned the whole bonus that I received for the patent. If you do not believe me, you may confirm that with the HR department. I hope you will forgive me.”
12. *Monitoring*: Before you started working on your part of the second project, the patent got approved. You realized that your name is not mentioned in the patent. You went to Sam's cabin and confronted him about your name being excluded. Sam responded, “Yes I did exclude your name. For all the projects that we collaborate from here on, including the one that we are finishing up, I will put the submission package together and seal it in your presence for you to be sure that your name is included.”
13. *Hostage Posting*: Before you started working on your part of the second project, the patent got approved. You realized that your name was not mentioned in the patent. You went to Sam's cabin and confronted him about your name being excluded. Sam responded, “Yes I did exclude your name. If I do such a thing again, I will write a formal application to make sure your name is added to the patent so that you are given your due bonus, royalty, and recognition.”

## APPENDIX B. DETAILS OF EXPERIMENT (REDIRECT PATHWAY)

### The Setting

Each participant has been selected as either a Red player or a Blue player. This selection has been made randomly by the computer. A Red Player will be partnered with a Blue Player. Each pair will play the game separately from the other pairs.

There will also be a Manager for this game. The Manager will not be partnered with anyone. He/She can intervene and discreetly change the message of the Red Player in the first round of each block [more on this is explained later]. However, the Manager can switch ONLY an accurate message to inaccurate but NOT an inaccurate message to accurate.

There are a few Red Player replacements kept on standby, in case the need arises. The role of Red Player and Blue Player is explained below.

### The Objective

**You have been selected as a BLUE PLAYER** for this game and will play the game with a Red Player. Your objective for this game is to **earn as many points as you possibly can by the end of the game.**

### The Reward

We will be running this game with many pairs of Red-Blue players over the next few months. As you are selected as a Blue Player, **you would be competing for rewards ONLY with the other Blue Players.** In other words, the points gained by the Red Player would NOT affect your chances of winning a reward. At the end of the study (possibly March – April 2022), the top 25% Blue Players with most points would be put in a \$100 Amazon gift card random draw. There will be another random draw for \$50 Amazon Gift Cards for the top 50% of Blue players. To thank you for your participation, all participants would also be placed in another \$20 Amazon Gift Card random draw. If your points earned are in the top 25% of all Blue Players, you could potentially win \$170 in gift cards.

### The Task

1. The computer will randomly generate a number and flash it on the screen of the Red Player (i.e. your partner). The Red Player will then send a message to the Blue Player (i.e. you) telling you whether the number is EVEN or ODD. The Red Player could choose to send an *accurate* message or *inaccurate* message.
2. You may be informed by the computer if you received an inaccurate message. However, you will NOT be informed whether the inaccuracy was because the Red Player sent an inaccurate

message or because the Manager switched the accurate message to inaccurate. [More on this is explained later]

3. Once you receive the message from the Red Player, you can either **BELIEVE** that the Red Player sent an accurate message, **INSURE** yourself from some of the points loss if the message is inaccurate, or **AVERT RISK** altogether from a possible inaccurate message. The points earned by both, you and the Red Player, will depend on the accuracy of the message from the Red Player and your decision to either believe, insure, or avert risk. The distribution of the points will be in the following manner:
  - a. *If the message sent is accurate and the decision is to believe* – You will earn 12 points and the Red Player will earn 9 points
  - b. *If the message sent is accurate and the decision is to insure* – You will earn 9 points and the Red Player will earn 6 points
  - c. *If the message sent is accurate and the decision is to avert risk* – You will earn 6 points and the Red Player will earn 3 points
  - d. *If the message sent is inaccurate and the decision is to believe* – You will earn 0 points and the Red Player will earn 12 points
  - e. *If the message sent is inaccurate and the decision is to insure* – You will earn 3 points and the Red Player will earn 6 points
  - f. *If the message sent is inaccurate and the decision is to avert risk* – You will earn 6 points and the Red Player will earn 0 points

The visual display of points distribution is as follows:

		YOUR DECISION		
		Believe	Insure	Avert Risk
RED-PLAYER DECISION	Accurate Message	RED PLAYER = 9 pts YOU = 12 pts	RED PLAYER = 6 pts YOU = 9 pts	RED PLAYER = 3 pts YOU = 6 pts
	Inaccurate Message	RED PLAYER = 12 pts YOU = 0 pts	RED PLAYER = 6 pts YOU = 3 pts	RED PLAYER = 0 pts YOU = 6 pts

### Comprehension Check Questions:

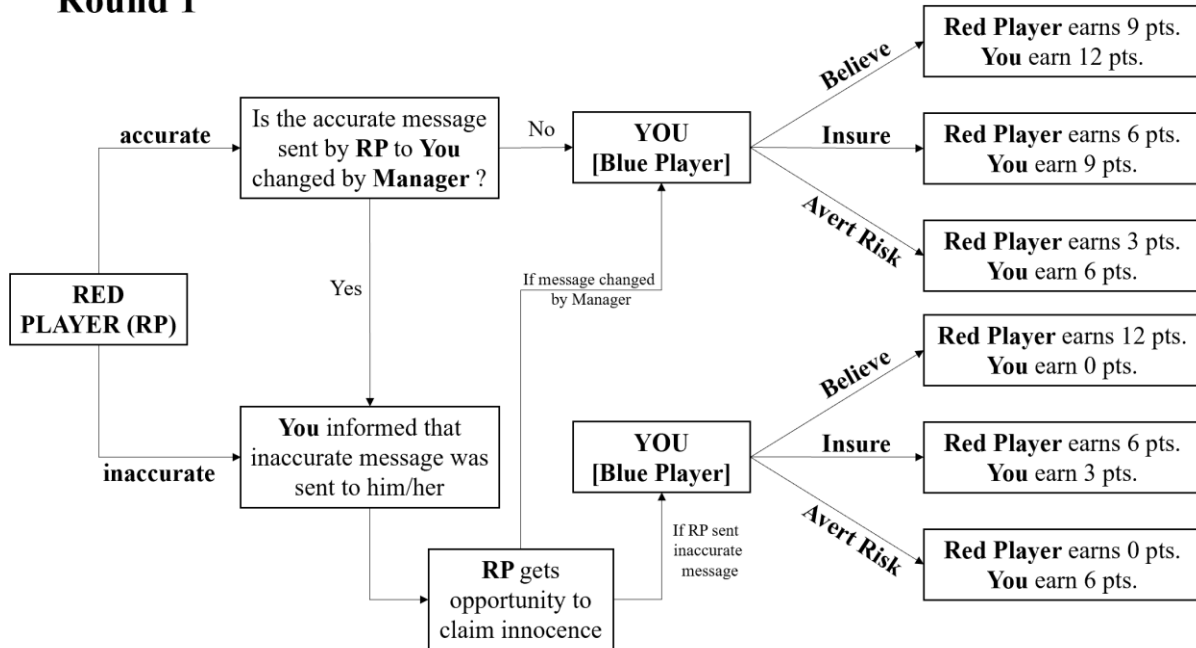
1. The Manager can partner with either a Blue Player or a Red Player. [T/F]
2. Suppose the Red Player sends an *accurate* message to you, will you earn the most points if you Believe, Insure, or Avert-Risk?
3. Suppose the Red Player sends an *inaccurate* message to you, will you earn the most points if you Believe, Insure, or Avert-Risk?
4. If you believe the message sent to you by the Red Player, will the Red Player earn more points if he/she had sent a message that was accurate or inaccurate?

### The Process

1. The game will be played in blocks, with each block comprising 5 rounds. Each round will consist of a decision made by the Red Player (to send an accurate or inaccurate message) and a decision made by you (to believe, insure, or avert risk). Each game will contain multiple blocks.
2. **Only in round 1 of each block**, the Manager can intervene and switch the accurate message sent by the Red Player to you to inaccurate message. You will be informed whether the message sent to you is accurate or inaccurate. If you are informed that the message is *accurate*, that would mean that the Red Player has DEFINITELY sent an accurate message. However, if you are informed that the message is *inaccurate*, it could be because the Red Player sent an inaccurate message or the Manager switched an accurate message to inaccurate. Thus, even when you are informed that the message is *inaccurate*, the Red Player may have sent an accurate message. You would NOT be told the reason for the inaccuracy.
3. For the purpose of points distribution, the accuracy of the message sent by the Red Player will be used. For example: suppose the number shown to the Red Player is “32” and the message that the Red Player sends to you is – “The number is EVEN”. Before the message is displayed to you, suppose the Manager changed it to “The number is ODD”. You will be informed that “The Number is ODD” and “the message is INACCURATE”. However, to calculate the points earned, the computer will treat the message as *accurate* because the original message sent by the Red Player was accurate. Thus, in this case, if you decide to BELIEVE the message sent by the Red Player, you will earn 12 points.
4. Whenever you are informed that the message is inaccurate, the Red Player will be given an opportunity to provide a statement in his/her defense to convince you of his/her innocence. The Red Player is free to use his/her discretion to showcase his/her innocence. Any offers made by the Red Player in his/her defense will be considered valid and will be incorporated while calculating your total points earned.

- After reading the defense, you will decide to either believe, insure, or avert-risk. This decision will mark the end of the round.

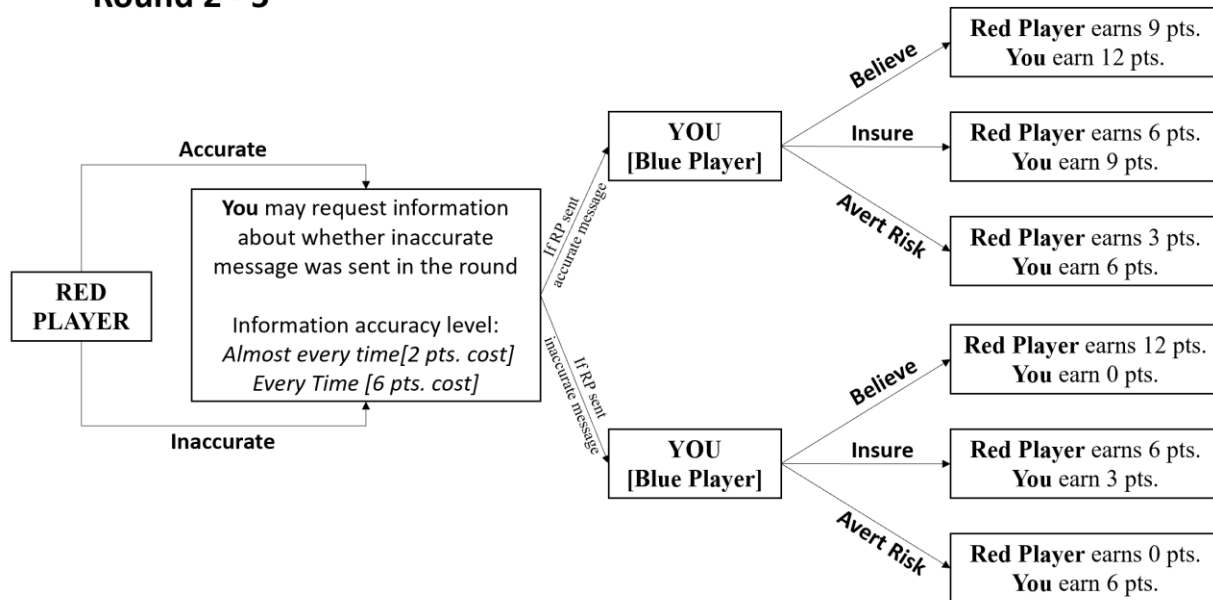
## Round 1



- In rounds 2, 3, 4, and 5 of each block**, the Red Player will again send an accurate or inaccurate message to you. Before making your decision to believe, insure, or avert risk, you can request information from the computer about whether the Red Player sent you an inaccurate message in the round. You can request this information in 2 ways – one costing 2 points and the other costing 6 points. If you request the version that costs 2 points, the information provided by the computer to the Blue Player will be accurate most but NOT all the time. If the Blue Player requests the version that costs 6 points, the information provided by the computer to the Blue Player will be accurate every single time.
- In each of the remaining rounds, i.e. round 2, 3, 4, and 5 of each block, the Manager CANNOT switch the decision of the Red Player.

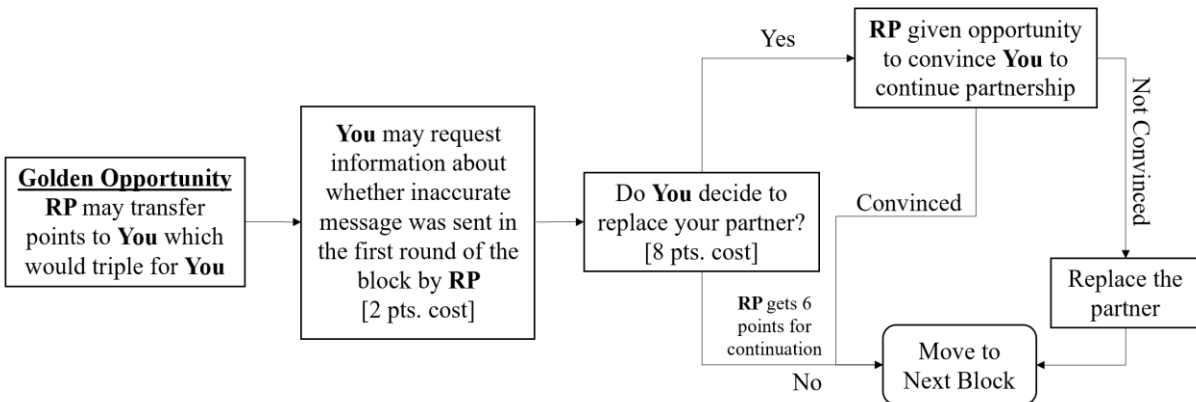


## Round 2 - 5



8. **At the end of each block**, the Red Player will get a “Golden Opportunity” window to share points with you. The Red Player may or may not choose to share any points with you. The points shared by the Red Player in the “Golden Opportunity” window will count as 3x for you. For example: if the Red Player shares 5 points in the “Golden Opportunity”, those points will add as 15 points for you.
9. After the “Golden Opportunity”, you will get an opportunity to know whether the Red Player sent at least 1 inaccurate message in the block. This request will cost you 2 points. The information shared will always be correct.
10. After that, you will get an opportunity to request a partner replacement at a cost. You may choose to accept or decline the opportunity. The replacement will cost you 8 points.
11. If you request a replacement, the Red Player will get an opportunity to convince you to continue the partnership. The Red Player is free to use his/her discretion to convince. Any offers made by the Red Player to convince you to continue the partnership will be valid and incorporated to calculate your total score. However, the Red Player can make offers for only one block at a time.
12. For each block that the Red Player does not get replaced, the Red Player receives 6 points.
13. Only you will be shown the points earned after each round in the odd blocks i.e. Block 1, 3, 5 and so on. Red Players are NOT told that you have the ability to know your score in the odd blocks. Both you and the Red Player will be shown their total points earned only at the end of the game.
14. There will be survey questions asked of the participants during the game. These questions are strictly for research purpose – the answers will NOT influence the overall points earned.

## End of Block



### Comprehension Check Questions (all True-False):

1. Each block contains 5 rounds.
2. In Round 1 of each block, the Red Player will NOT get an opportunity to provide statement in his/her defense even when the computer informs you that the message sent was inaccurate.
3. The Manager can intervene and switch messages by the Red Player in ALL rounds of the block.
4. When the computer informs you that the message sent is inaccurate, it will also inform you whether the inaccuracy is due to the Red Player sending inaccurate message or the Manager switches the accurate message to inaccurate.
5. In case the Manager switches the message, the computer will use the accuracy of the original message by the Red Player to calculate points earned
6. The Manager can switch the message of the Red Player in ALL rounds.
7. At the end of the block, you can get information about whether the Red Player sent an inaccurate message in the first round of that block at a cost
8. You CANNOT ask for a Red Player replacement at the end of the block.
9. The points shared by the Red Player during the "Golden Opportunity" window will be tripled for you.
10. Any offers made by the players during the game would be seen as valid and incorporated to calculate the total points earned.

## Manipulations

The following are the two manipulations that formed part of the Redirect version of the experiment. The language to develop these manipulations came from the suggestions made by a focus group of other students.

The following is the response by the Red Player in Round 6 after the participant is told that the message sent to them is inaccurate.

*“I swear I did not lie to you. The manager changed my message. To prove it if you find evidence that I sent the wrong message you can have 12 points from my score.”*

The following message was shown to the participants if the participant chose to replace the Red player.

*“If you continue the relationship with me, I ask the researcher to automatically transfer 4 points in the next golden opportunity window for each inaccurate message I send you in the next block. It will provide you 12 points for each inaccurate message I send, so you would not lose anything.”*