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**I GET BY WITH A LITTLE HELP FROM MY FRIENDS:
THE INFLUENCE OF COWORKER TRUST
ON EMPLOYEE LEVEL OUTCOMES**

A Dissertation in

Psychology

by

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ABSTRACT

Although the topic of trust has received attention across a variety of disciplines, it has been somewhat narrow in its focus on hierarchical relationships between the individual and their supervisor, or the degree of trust employees have in the upper management of the organization. This study expands the trust literature by examining what dispositional characteristics predict coworker and supervisor trust, and how coworker and supervisor trust influence employee level outcomes. It also expands our understanding of coworker trust by differentiating between targets: trust in coworkers overall, least trusted coworker, and most trusted coworker.

Results from the study indicate that the tendency to attribute ambiguous behavior to a hostile intention does predict trust in others, and propensity to trust others was only moderately related to trust in the workplace; displaying anxious or avoidant attachment was a significant predictor of coworker trust across all three measurement methods. Avoidant attachment is the only variable that was a significant predictor of supervisor trust. This shows some indication that parts of our personality may differentially predict how we trust people in different roles.

Looking at the employee level outcomes, there were mixed results. While coworker trust significantly predicted perceived social support, supervisor trust does not. Further, perceived social support was not related to stress. Individuals who trust their coworkers or supervisor were more likely to perform organizational citizenship behaviors and experience higher job satisfaction. Neither coworker nor supervisor trust predict employee stress, though this is likely due to a mismatch in specificity of scales. Research and practical implications are discussed.

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Introduction

Trust is a fundamental part of everyday life, both personally and professionally. According to the General Social Survey (GSS), Americans' trust in others is at an all time low (National Opinion Research Center, 2013). When the GSS first asked the question "Do you think most people can be trusted?" in 1972, 50% of respondents answered yes. Now, an affirmative answer is down to just over one-third. Although this decrease in trusting others has implications that are larger than the scope of this paper, it illustrates the importance in understanding trust in both work and non-work contexts. Within work contexts, trust is a key component of having a happy and productive workforce. It underlies how we interact with others, including leadership and peers, particularly in times of uncertainty or risk. Without trust, an organization cannot function effectively (Mayer, 2007).

There are two primary sources of information that determine how much we trust other people: specific qualities of the individual (or individuals) with whom one has a relationship, and our past experiences with relationships and trust, which have an influence on our general level of trust for others. Although trust has received substantial research attention across multiple fields of study, it has generally focused the on hierarchical trust between the employee and their manager or upper management of an organization. While there has been a smattering of studies examining coworker trust, very few have done so while also taking into account the influence of supervisor trust. Trust has also received considerable attention at the group and organizational level in the forms of psychological safety and trust climate, showing multilevel evidence of its positive effects on employees (Fulmer & Gelfand, 2012).

Given the nature of trust, there is a strong case for specifying the referent in organizational research on trust. Tan and Lim (2002) asserted that studying trust from different

levels of analysis may produce dissimilar antecedents and outcomes depending on the trust referent. A theoretical review of the research has shown that different referents can and do differ in this regard, most likely due to the change in relational dynamics across targets (Fulmer & Gelfand, 2012). An employee may have different needs and expectations from their coworkers, supervisor, and the organization. As a result, there may be unique contributors and outcomes of trust based on those needs or expectations. Fulmer and Gelfand (2012) highlight the focus on supervisors in terms of interpersonal trust research, pointing out that often other referents are ignored, including trust in coworkers. While there is a smattering of studies addressing coworker trust, they do not provide a comprehensive picture of what influences the development of coworker trust, or the possible outcomes.

Although there is substantial research focused on the study of individual differences, scant research has sought to link these individual differences to how individuals form perceptions of trust (or mistrust). The purpose of this study is to address this deficient in the trust literature; first, I examine how the hostile attribution bias, anxious attachment style, avoidant attachment style, and the general propensity to trust are related to two key relationships: trust in one's supervisor, and trust in one's coworkers; and second, I investigate the influence of coworker trust on employees' job satisfaction, organizational citizenship behaviors (OCBs), and stress. Further, I seek to elucidate the differential influence of trust in supervisor from coworker trust, and examine how coworker ratings of OCB, stress, and job satisfaction relate to coworker and supervisor trust. This serves to provide a greater understanding of the employee's more complete and defined experience in the workplace.

Literature Review

Trust in Organizations

Trust is a commonly used term, both in the organizational sciences and in our everyday lexicon—but what exactly does it mean? Drawing from the work of Mayer, Davis and Schoorman (1995); Rousseau, Sitkin, Burt and Camerer (1998), and Colquitt, Scott and LePine (2007) trust reflects *the willingness to be vulnerable to another without being able to monitor their actions, based on the assumption that they will act in your best interest*. This definition reflects two key components that comprise most definitions of trust: the positive expectations of trustworthiness and the willingness to accept vulnerability to the target. Further, this definition focuses on a general level of positive expectations, as opposed to specific expectations. Fulmer and Gelfand (2012) insist that researchers need to tailor this definition to their specific research question; this is because they consider trust at the individual level to be a personal belief about the degree to which a particular reference is trustworthy, and the extent to which one is willing to accept vulnerability to this referent. Thus, trust is defined two ways in this study: *a psychological state comprising willingness to accept vulnerability based on positive expectations of a coworker; or, a psychological state comprising willingness to accept vulnerability based on positive expectations of one's supervisor*.

Trust as a function of the target. An individual is thought to develop perceptions of trustworthiness based on the ability, benevolence, and integrity of the target (Mayer et al, 1995). Ability is the collection of skills, competencies and characteristics that allows an individual to

have influence—for example, when an individual possesses the knowledge or skills necessary to complete necessary work tasks. Benevolence is considered to be the extent to which the individual believes the target will want to behave in a manner that is beneficial to the individual, regardless of a profit motive. Someone who consistently goes out of their way to help a coworker for reasons other than obvious personal benefit is considered high on benevolence. Integrity is defined as the perception that the trustee adheres to a set of moral principles that the trustor finds acceptable. Thus, an individual who consistently tries to be fair in dealing with others is typically considered to be of high integrity.

Based on the different expectations that an individual has for different roles within the workplace, it is likely that ratings based on the three components or dimensions of trust would be conditional on the target that is being evaluated. When examining trust in leaders, these three components have been shown to account for 47% of the variance of ratings, and 73% of the rating variance when looking at peers (Knoll & Gill, 2009). When partitioning the 47% explained variance by predictors for leaders, 43% was accounted for by benevolence, 39% integrity, and 19% ability. When partitioning the 73% of explained variance for peers, benevolence and integrity both accounted for 37%, whereas ability accounted for 26%. It is important to note that due to intercorrelations amongst the three variables, these estimates may not be accurate. Even though they are not very different for peers compared to leadership (benevolence, integrity, and then ability if the numbers are ranked for each target), they indicate that there may be more than the three antecedents of trust that influence how we approach trusting relationships in the workplace. Ability, benevolence and integrity are only one set of constructs that determines an individual's level of trust towards a target, focusing on the

attributes of the trustee, as opposed to the trustor. The unique effects of target-based trust cannot be fully understood without taking into account the stable variations across individuals.

Trust as a function of the individual. Theoretical conceptualizations of trust in organizational psychology are based on Blau's (1964) social exchange theory, which outlines how relationships can grow and evolve into trusting, loyal and mutual commitments where individuals are comfortable being vulnerable to one another (Blau, 1964). Reciprocity is the most frequently studied exchange rule in management (Cropanzano & Mitchell, 2005). There are three different types of reciprocity: reciprocity as a folk belief, as a moral norm, and as interdependent exchanges. Reciprocity as a norm and as interpersonal exchange are both pertinent to how individuals develop and maintain trusting relationships. Reciprocity as a norm is the notion that individuals ought to and should behave in a reciprocal manner—those who follow the norm are obligated to be reciprocal (Moore, 2004; Cropanzano & Russell, 2005).

A component of reciprocity as a norm is exchange ideology—the extent to which an individual endorses reciprocity. Individuals high on exchange orientation are more likely to return a good deed and carefully track obligations; individuals with low exchange orientation are less likely to care if an exchange is reciprocated, and are not very concerned with obligations. When developing a relationship where there is comfort in being vulnerable to another, whether or not one will engage in vulnerability in return is likely influential; if one employee displays vulnerability to another, who does not show vulnerability back, it may be interpreted as a cue of mistrust, resulting in the first employee trusting the second less than they would have beforehand. Differences in exchange ideology have been found between both individuals and cultures (Clark & Mills, 1979; Murstein, Cerreto & MacDonald, 1977; Parker, 1998; Rousseau

& Shalk, 2000), providing support for how there are aspects of a person that influence their social exchange-based relationships.

Reciprocity as interdependent exchanges expands on this idea; interdependence is considered to be a defining characteristic of social exchange. It involves outcomes based on the combination of efforts, as well as mutual and complementary arrangements (Molm, 1994). Interdependence within social exchange focuses on contingent interpersonal exchanges. Interdependent interpersonal exchanges are characterized by the action of one individual leading to the response of another. Gergen (1969) stated it in terms of if one person supplies a resource or benefit, the other should respond in kind. Within the context of this definition of trust, reciprocity as norm would contribute to the formation of a relationship where one individual acts in a manner to the benefit of the other, and thus the other is motivated to act in the benefit of the first. Over time, acting in a way that is positive for the other develops to the extent that there are no qualms about being mutually vulnerable, as positive behavior is a norm within the relationship. It is important to note that this kind of exchange is not bargaining—interdependence reduces risk and encourages cooperation because the actions of one individual are contingent on the others behavior (Molm, 1994; 2000). This is important because in general, better work relationships are produced by reciprocity than negotiations, and individuals who use reciprocity are typically more trusting and committed to one another (Molm, Takahashi & Peterson, 2000).

The most frequently studied personality component in trust research is an individual's propensity to trust; this refers to a stable dispositional characteristic referring to a general willingness to trust others (Mayer et al., 1995). This construct is explored in more depth later in this paper, as are hostile attribution and attachment style. The personality driven components of

trust are important to understand, given the number of positive outcomes that trust is associated with in organizations.

Beneficial outcomes of trust in leaders. Trust in leaders has been shown to have many beneficial outcomes in organizations. In terms of attitudinal outcomes, it is associated with increases in job satisfaction, leader satisfaction, ratings of leader effectiveness, and reduced levels of uncertainty at work (Colquitt, LePine, Zapata & Wild, 2011; Dirks & Ferrin, 2002; Gillespie & Mann, 2004; Zhang, George & Chan, 2003). Further, trust in leaders is associated with increased feedback seeking, increased acceptance of leader information and endorsement of leader decisions, as well as general support for leadership in adverse situations (Brockner, Siehel, Daly, Tyler & Martin, 2007; Dirks & Ferrin, 2002; Hays & Williams, 2011). Trust in leaders is also related to increased levels of organizational commitment, and lower levels of work-nonwork conflict, counterproductive work behaviors, and turnover intentions (Colquitt et al, 2007; Dirks & Ferrin, 2002; Raghuram & Wiesenfeld, 2004).

In terms of performance, the relationship is less clear. Trust in leadership has shown to be a consistent predictor of organizational citizenship behavior (OCBs; Colquitt et al, 2007; Huang, Iun, Liu & Gong, 2010; Mayer & Gavin, 2005; Palanski & Yammarino, 2011; Yang & Mossholder, 2010). Although it does often predict task performance (Colquitt et al, 2007; Huang et al, 2010; Palanski & Yammarino, 2011; Yang & Mossholder, 2010), trust in leadership has also been found predictive of only OCBs and not task performance (Mayer & Gavin, 2005). Fulmer and Gelfand (2012) argue that this is likely due to trust in leaders being a distal influence of performance, rather than proximal influence. Research supports this assertion, as others have found that trust in leadership is positively associated with employee ability to focus on task—representing the more indirect influence on performance (Mayer & Gavin, 2005).

Coworker trust. Coworker trust has been theoretically explored in the context of unconditional trust (Jones & George, 1998). Within this framework, relationships take on one of three trust based characteristics: unconditional trust, conditional trust, and distrust. New relationships are conditional trust, where the trustor suspends the belief that the trustee may have different beliefs from their own, and thus the possibility that they are untrustworthy. The experience of developing unconditional trust (or distrust) then results from the content of following behavioral exchanges over time, consistent with the theoretical foundations of social exchange theory. Unconditional trust is achieved when shared beliefs and values have been established or verified, as these shared values structure social interactions, and subsequently becomes how the parties experience trust. Jones and George (1998) propose that unconditional trust is positively linked to increased interpersonal cooperation and teamwork, both directly and indirectly. While their work does not argue for a specific referent in terms of who is trusting and being trusted, the theoretical outcomes of cooperation and teamwork clearly implicate the role that coworkers can play in determining an individuals experience in an organization.

In the original empirical work on coworker trust, trust was conceptualized as consisting of faith and confidence (Cook & Wall, 1980). These two constructs were examined in both peers and management (separately), and then used a composite of the four variables to measure overall trust. (Unfortunately, a composite of coworker faith and confidence was not given to look at the correlations between an overall measure of coworker trust and the outcome variables). The results showed that overall trust in peers and management was positively and significantly correlated with job satisfaction, intrinsic motivation, job involvement, and negatively and significantly correlated with anxiety. Faith in peers reflected the same pattern of correlations

with the outcome variables (which were smaller, but all statistically significant). This was also the case for confidence in peers.

Research has shown that coworker trust significantly predicted levels of perceived organizational support, affective commitment towards ones organization, and turnover intentions (Ferres, Connell & Travaglione, 2004; Tan & Lim, 2009; these relationships held even when controlling for propensity to trust, as well as age, gender and organizational tenure). It is also positively related to organizational citizenship behaviors and negatively related to counterproductive work behaviors (Colquitt, Scott & LePine, 2007). Perceiving one's coworkers as trustworthy (able, benevolent, and having integrity) is related to increased performance, though actual level of trust was not measured in this study (Dirks & Scarlicki, 2009). Organizational justice is also related to coworker trust—distributive, procedural and interactional justice all significantly predicted coworker trust (Forret & Love, 2008), even when controlling for demographic characteristics.

This gives us some indication as to the positive effects coworker trust exerts within the workplace concerning higher levels of job satisfaction, intrinsic work motivation and work involvement, as well as lower anxiety. These results, however, only provide a glimpse into the phenomena. Though this study and Cook and Wall's (1980) have two of the same outcome variables (job satisfaction and stress/anxiety), this study provides unique information by looking at coworker trust in multiple ways, as opposed to confidence and faith separately, and while taking into account the employees trust in their manager. There is some evidence that employees differentiate between trust in their coworkers and managers; the relationship is not as strong as one could expect given the dispositional components of trust, and trust in coworkers predicted above and beyond trust in management when predicting a preference for teamwork (Kiffen-

Peterson and Cordery, 2003; $r = .16, p < .05$ between coworker trust and supervisor trust). This study extends this work by exploring whether coworker trust has unique effects on job satisfaction, organizational citizenship behavior, and stress above and beyond the influence of trust in supervisor.

Are all coworkers created equal? The short answer is no. All of the measures of trust that were referenced in the previous section asked participants to evaluate their coworkers in general, rather than to evaluate specific coworkers. Although this is a reasonable way to measure general perceptions of trust, it fails to capture the dyadic nature of trust-based social exchanges. Luo (2005) coined the term particularistic trust in order to differentiate trust towards organizational members as a whole versus individually (Luo, 2005). The construct of particularistic trust resonates strongly within the study of coworker trust because it represents a unique form of measuring the construct of coworker trust that provides important information. In particularistic trust, there are two possible levels that strongly influence outcomes—a coworker that one trusts particularly strongly, or a coworker that an individual does not trust at all. In order to expand the conceptualization of coworker trust in this study, trust was measured using three possible coworker specific referents: coworkers as a whole, the coworker the participant trusts the most, and the coworker the participant trusts the least. Taking this approach, while exploratory, allowed for a more nuanced understanding of how trust can and does vary within organizations.

In line with this differentiated understanding of trust for different individuals in the workplace, even when at the same organizational level, it is important to explore the different ways in which coworker trust can be measured. Further, congruent with the assertion that the formation of trusting relationships is a function of both the individual and the target, it is

important to explore the dispositional factors that may influence relationships. Of interest in this study is the tendency of the individual to make hostile attributions about the behaviors of others, the secure or insecure attachment style, and their propensity to trust others.

Hostile Attribution Bias

Hostile attribution bias occurs when an individual assumes a hostile intent from the behavior of others during an ambiguous situation (Crick & Dodge, 1994). It is one of six aggression-related reasoning biases related to social information processing; these biases are based on the notion that individuals who desire to act in an aggressive manner will develop and use reasoning skills that are biased towards behaving aggressively by making it seem like the rational response (James, 1998). These biased reasoning skills result in a justification of behaving aggressively, because the individual is protecting themselves from a threat posed by another, as opposed to displaying an unprovoked aggressive response. The other justification mechanisms for aggressive behavior include potency, retribution, victimization by powerful others, derogation of target, and social discounting (Frost, Ko, & James, 2007). While each of the six justification mechanisms have a different thought process through which they provide justification, they all describe distorted and dysfunctional thought patterns that facilitate engagement in harmful and aggressive behavior.

Hostile attribution in adults has been measured via conditional reasoning using the CRT-A (James, 1998; James & LeBreton, 2012; James & McIntyre, 2000). Individuals are asked to solve inductive reasoning problems by selecting one of four possible solutions. Two of the solutions are inductively illogical. The remaining solutions are both inductively logical, but one is designed based on non-aggressive thinking and reasoning, the other solution is designed based

on implicit biases used to justify aggression (e.g., hostile attribution bias; James & LeBreton, 2012). The prosocial, or non-aggressive response is designed for individuals who find reasoning that supports cooperative, civil, friendly and polite behavior to be more persuasive than reasoning that supports acts of harm, retribution, and incivility (James, McIntyre, Glisson, Bowler, & Mitchell, 2004; Kuhn, 1991). As a result of supporting socially adaptive behaviors and reasoning, these individuals reject the reasoning provided by aggressive justification mechanisms (James et al, 2005). The hostile response is designed to appeal to individuals who have the propensity to sense malevolent and harmful intent in others' behavior. Individuals with a history of aggressive behavior are significantly more likely to select this option (James & McIntyre, 2000; James et al., 2005).

Even though it is typically studied within adolescent populations, hostile attribution in adults is related to lower performance ratings in police officers, decreased truthfulness, increased absence in both student and working populations, increased conduct violations and unreliability, theft, and lying and cheating in internet based simulations (James et al., 2005). Further, individuals high on hostile attribution are more likely to engage in counterproductive work behaviors, and leaders with hostile attribution bias are more likely to purposefully and knowingly engage in destructive leadership behaviors that cause harm (James & McIntyre, 2000; Krasikova et al., 2013). Research on aggressive justification biases via conditional reasoning tests has been promising thus far, and has been deemed worthy of receiving additional research attention (Harms, Spain & LeBreton, 2014).

In terms of trust, perceiving the behavior of others to be hostile constitutes an automatic assumption that they are not being benevolent, a key antecedent of trust. Benevolence explained the largest portion of variance in trust ratings in supervisors, and was tied with integrity for

percentage of variance explained when looking at trust in coworkers (Knoll & Gill, 2009). The inability to see benevolence in others means that they are automatically portrayed as untrustworthy. Conceptually, hostile attribution bias is different than the propensity to trust because propensity to trust does not assume malevolence on the part of others; it is less extreme than hostile attribution bias in terms of driving judgments. As a result, individuals high on hostile attribution bias will likely have lower levels of trust for both supervisors and coworkers. There is evidence, however, that the nature of relationships with others influences the level of hostility attributed. Research on adolescents shows that the strength of hostile attribution bias varies based on the type of relationship an individual has with their peer; they attribute more hostility and react in a more hostile manner when the target is an enemy, as opposed to a peer (Peets, Hodges, Kikas & Salmivalli, 2007). While individuals higher on hostile attribution bias will have lower levels of trust overall, they will likely have the lowest level of trust overall for their least trusted coworker, as they will likely perceive their behavior as more hostile and threatening than coworkers overall, or their most trusted coworker.

Hypothesis 1a: An individual's tendency to attribute others' behaviors to hostility will be negatively related to coworker trust.

Hypothesis 1b: An individual's tendency to attribute others' behaviors to hostility will be negatively related to supervisor trust.

Attachment Style and Trust

Attachment style is based on the assumption that individuals are born behaving in a manner meant to attain and maintain relationships or proximity with supportive others, also

known as attachment figures, to protect themselves from physical or psychological threats when in distress (Bowlby, 1973; 1982; Mikulincer & Shaver, 2005). A sense of security results when supportive others are available and responsive, whereas insecurity is the result when supportive others are unavailable or unresponsive (Mikulincer & Shaver, 2005). Attachment style begins early within development; typical first attachment figures are parents or other caregivers (Bowlby, 1973). Ainsworth (1963) posited that the attachment figure serves as a base from which an infant explores his or her environment. Differences in attachment style develop as a result of the level of availability and responsiveness in early experiences of distress; over time this develops into a dominant attachment style that typically remains stable over time (Bowlby, 1973). This dispositional pattern has shown influence on a number of individual attributes, including affective experiences, cognition, emotion regulation, and a desire to be close to others, as well as interpersonal experiences (Collins, Guichard, Ford & Feeney, 2004; Fraley & Brumbaugh, 2004; Fraley & Shaver, 2008; Mikulincer, Shaver & Pereg, 2003).

Attachment pattern is conceptualized as two dimensions—*anxious attachment* or *avoidant attachment* (Brennan, Clark & Shaver, 1998; Fraley & Waller, 1998; Mikulincer & Shaver, 2005). Anxious and avoidant attachments both vary on spectrums from low to high. Individuals low on both anxious and avoidant are commonly referred to as *securely attached*. Ainsworth, Blehar, Waters and Wall (1978) found that when put in a strange situation, approximately 20% of infants qualified as anxious, 20% as avoidant, and 60% as securely attached. Securely attached individuals are more likely to view themselves positively and valued, and others as trustworthy. As a result, securely attached individuals typically experience higher levels of resiliency and security, as well as an increased ability to navigate challenging situations (Mikulincer & Florian, 1998; Mikulincer & Shaver, 2005). While the research looking

at the Five Factor Model of Personality (Goldberg, 1993; McCrae & Costa, 1995) and attachment style are somewhat mixed, it is generally agreed upon that an anxious attachment is related to lower levels of emotional stability and avoidant attachment is weakly related to lower levels of extraversion and agreeableness (Fraley & Shaver, 2008).

Individuals high on anxious or avoidant attachment styles typically experience unique, negative outcomes. Avoidant individuals typically engage in what are referred to as deactivating strategies, which undermine or deny the importance of relationships with others, or keep them from engaging in emotional intimacy (Mikulincer & Shaver, 2005). This is because they view others as punishing, unavailable, or unresponsive (Bowlby, 1973; Mikulincer & Shaver, 2005). Individuals high on avoidance show discomfort with closeness, avoid intimacy, and are self-reliant in a manner that reflects any level of dependence on others (Richards & Schat, 2011). Thus, these deactivating strategies take the form of trying to protect the self from possible psychological threats that come from vulnerability. Individuals high on anxious attachment tend to err to the other extreme—they typically engage in hyperactivating strategies, resulting in overdependence on others, as well as focusing abnormally intensely on social and emotional cues (Fraley, Niedenthal, Marks, Brumbaugh & Vicary, 2006). Individuals high on anxiety are preoccupied with their relationships with others, fear being rejected, and experience jealousy that reflects experienced anxiety (Richards & Schat, 2011). These hyperactivating strategies result because individuals high on avoidance maintain a negative view of the self. Deactivating and hyperactivating strategies both lead to a reduced capability to manage adversity, due to an inability or unwillingness to seek support from others (anxious) or a lack of internal coping resources (avoidant). Although initially geared towards parental and romantic relationships, attachment style is also influential within the workplace.

Attachment in Organizations. To date, attachment style has not been found to influence task performance (Daus & Joplin, 1999; Joplin, Nelson & Quick, 1999; Simmons, Gooty, Nelson & Little, 2009), but it has been shown to influence employee engagement in organizational citizenship behavior, counterproductive work behaviors, and more generally, job attitudes. Securely attached individuals have higher self-esteem, are more emotionally intelligent, are more likely to engage in citizenship behaviors, less likely to engage in counterproductive work behaviors, and are more likely to experience job satisfaction and overall satisfaction with the organization (Frazier et al., 2009; Hazan & Shaver, 1990; Krauz, Bizman & Braslavsky, 2001; Little, Nelson, Wallace, & Johnson, 2010; Neustadt, Chamorro-Premuzic and Furnham, 2011; Richards & Schat, 2007; Sumer & Knight, 2001).

Although there is some evidence that both anxious and avoidant attachments are related to a decrease in organizational citizenship behaviors, there is stronger evidence that individuals with avoidant attachment patterns are particularly unlikely to engage in OCB, and avoidant individuals are more likely to engage in counter productive work behaviors (Desivilya, Sabag, & Ashton, 2006; Erez, Mikulincer, van Ijzendoorn, & Kroonenberg, 2008; Geller & Bamberger, 2000; Little et al., 2010; Richards & Schat, 2007). Further, individuals high on anxious or avoidant attachments experience significantly lower job satisfaction, decreased satisfaction with coworkers, and increased likelihood for physical illness, psychosomatic illnesses, anxiety, anger and distress (Game, 2008; Hardy & Barkman, 1994; Hazan & Shaver, 1990; Krauz et al, 2001).

Attachment and Leadership. Attachment style is an individual difference that influences perception and success of close relationships over time, and subsequently is a strong contender for being able to explain the interpersonal interactions and relational dynamics between leaders and followers (Harms, 2011; Nofle & Shaver, 2006). Keller (2003) argued that

it is natural for employees to develop attachment relationships with their leaders because of the underlying assumptions that many followers have about what makes a good leader – providing support and encouraging autonomy. Avoidant attachment is related with task-oriented leadership, whereas individuals with a secure attachment are more likely to be relationship-oriented leaders and are more likely to delegate to followers (Doverspike, Hollis, Justice & Polomsky, 1997).

Psychological distress in new employees is greatly mitigated by the presence of a supportive supervisor, and the units of leaders with avoidant attachment styles were found to be less cohesive, have lower levels of job satisfaction and mental health, and higher rates of burnout than units with leaders with secure attachment (Davidovitz, Mikulincer, Shaver, Iszak & Popper, 2007; Nelson & Quick, 1991; Ronen & Mikulincer, 2010). Secure attachment is related to higher scores on transformational leadership components, while insecure attachments (both avoidant and anxious) are related to lower scores on the components of transformational leadership (Popper, Mayseless & Castlenovo, 2000). Followers of securely attached leaders also report higher levels of perceived leader competency and job satisfaction than followers of insecurely attached leaders (de Sanctis & Karantzas, 2008).

Attachment and Trust. Although the relationship between trust and attachment style in organizations has been discussed (Neustadt et al, 2011; Simmons et al, 2009), empirical research is quite limited and the links between attachment and trust are also notably absent from the major reviews of the antecedents of trust (see: Harms, 2011; e.g., Colquitt et al, 2007; Dirks & Ferrin, 2002). Outside of organizations, Feeney and Collins (2001) found both insecure attachment styles are linked with lower levels of trust as well as subsequent caregiving. Individuals demonstrating a secure attachment style are more willing to open up and disclose information to

others (Mikulincer & Nachshon, 1991); these are key characteristics in terms of defining trust as a willingness to be vulnerable to others. The research that has been done is consistent with that of developmental, personality, and social psychology: anxious and avoidant attachment style tends to lead to less functional relationships, or a lack of relationships, whereas secure attachment is related to positive and rewarding relationships, both with superiors and peers. It is likely that this also extends to trust within the workplace. There is some research beginning to illustrate this; a secure attachment has been shown to relate positively to trust in peers, supervisors and upper management (Adams, 2004). Avoidant attachment has been shown to lead to lower supervisor trust, and as a result, lower career satisfaction (Cranshaw & Game, 2010), which is illustrative of the deactivating strategies employed outside of organizations by those with avoidant attachment. Different attachment styles also lead to different manners of coping with violations of trust—secure individuals typically attempt to communicate with the individual, whereas avoidant individuals distance themselves from the trustee, and anxious individuals reported increased levels of rumination and worry (Mikulincer, 1998), which is consistent with deactivating and hyperactivating strategies employed by individuals with each attachment style. The theoretical and empirical evidence showing a shift from attachment including only adult figures in childhood to also including peers or equals within adulthood indicate that attachment style should be related to both supervisor and coworker trust within organizations.

Hypothesis 2a: Avoidant attachment style will be negatively related to coworker trust.

Hypothesis 2b: Avoidant attachment style will be negatively related to supervisor trust.

Hypothesis 2c: Anxious attachment style will be negatively related to coworker trust.

Hypothesis 2d: Anxious attachment style will be negatively related supervisor trust, though not as strongly as avoidant attachment.

The Role of Propensity to Trust

Propensity to trust reflects the dispositional aspect of trusting behavior that varies between individuals, and is considered to be a generalized trust in others (Mayer et al, 1995). It has been shown to be the strongest antecedent of trust when the target is unfamiliar or when information regarding the ability, benevolence and integrity of the target is unavailable or ambiguous (Bigley & Pearce, 1998; Gill, Boies, Finegan & McNally, 2005). An individual's propensity to trust others affects behaviors both within and outside of organizations; outside the workplace, propensity to trust is linked to the development and satisfaction of platonic and romantic relationships, adjustment, and even willingness to engage in collective commuting options such as carpooling or using public transportation (Jones, Couch & Scott, 1997; Rempel, Holmes & Zanna, 1985; van Lange, van Vugt, Meertens & Ruiters, 1998).

Propensity to trust is the most commonly studied dispositional component of the individual within organizational research; in their meta-analysis, Colquitt and colleagues (2007) found that propensity to trust is positively related to affective commitment, risk taking, task performance, and organizational citizenship behaviors, and negatively with counterproductive work behaviors. An individual's propensity to trust others also is related to higher levels of organizationally based self-esteem, interpersonal relationships with peers, trust in coworkers, and trust in management (Kiffen-Peterson & Cordery, 2003; Mooradian, Renzl and Matzler, 2006; Van Dyne, Vandewalle, Kostova, Latham and Cummings, 2000).

Propensity to trust represents one component that influences employee trust levels—the other primary antecedents to trust are perceived ability, benevolence, and integrity of the target. Propensity is related to these three components— $r = .15, p < .05$ with ability, $r = .20, p < .05$ with benevolence, and $r = .29, p < .05$ with integrity (Colquitt et al, 2007). Colquitt and colleagues (2007) showed that propensity to trust remains a significant predictor of trust when controlling for trustee perceptions of ability, benevolence and integrity of the trustor. This evidence shows that while individuals do integrate newly formed judgments of ability, benevolence and integrity into how their trusting relationships with others, the baseline determined by their propensity to trust others broadly still influences subsequent levels of trust. As a result, it is likely that while propensity to trust will be positively related to coworker trust and supervisor trust overall, it will have a stronger relationship with trust in coworkers overall where there hasn't been an opportunity to integrate specific judgments on target attributes, than trust in a specific coworker or person.

Hypothesis 3a: Propensity to trust will be positively related to coworker trust.

Hypothesis 3b: Propensity to trust will be positively related to supervisor trust.

Relationships amongst Potential Dispositional Antecedents of Trust

The components of personality examined in this study are intertwined, though to varying degrees; even though anxious and avoidant attachment are different constructs, they work together to determine whether an individual has a secure attachment or not. Hostile attribution is likely related more strongly to avoidant attachment than anxious attachment; individuals high on avoidant attachment view others as punishing, unavailable, or unresponsive (Bowlby, 1973;

Mikulincer & Shaver, 2005). Hostile attribution manifests in a more intense way, as the assumption of hostile intent in ambiguous situations facilitates a rationalization process for behaving in a harmful or aggressive way (Crick & Dodge, 1994). Thus they are likely positively related, though only modestly. Because anxious attachment results in the overreliance and dependence on others, it is likely not as strongly related to hostile attribution as avoidant attachment; all three represent some sort of dysfunctional interaction with others, though, so it is possible that avoidant attachment may still have a weak relationship with hostile attribution.

Hostile attribution and propensity to trust function in contrast to one another; an individual who is high on propensity to trust believes that generally others will look out for them, be honest, and not take advantage of them (Mayer et al., 1995). On the other hand, individuals who are high on hostile attribution engage in dysfunctional thinking that attributes malicious intent from situations where behavior is ambiguous. Thus, the two variables should be negatively correlated.

Propensity to trust and attachment style are very similar in a number of ways, theoretically and empirically (Harms, 2011). Theoretically, they are similar in their expected process and outcomes—initial trust levels are determined by an individual's propensity to trust, and this is transformed into a specific level of trust particular to the target based on their experiences (Burke, Sims, Lazzara & Salas, 2007; Mayer et al, 1995; Whitener, Brodt, Korsgaard & Werner, 1998). For attachment, an individual's attachment pattern determines an initial approach to an attachment figure, but can and does change in response to the experiences and expectations specific to the new relationship. What is even more notable are the similarities between the behaviors that indicate an individual is high on trust or has a secure attachment (Harms, 2011). The behavioral manifestation of trust is the ability and willingness to take risks

based on the positive expectations of the trustee to the trustor (Colquitt et al, 2007; Mayer et al, 1995); secure attachment is also related to risk taking behavior in that individuals will explore more and stray further from their secure base (Fraley & Shaver, 2008). Commonalities emerge in terms of depending on, relying upon, and being comfortable being close to others. These similarities in terms of process and behavioral manifestations indicate that attachment and propensity to trust may be highly related, particularly in terms of how they influence organizational behavior. In the research linking attachment style and trust (e.g., Adams, 2004; Cranshaw & Game, 2010; Mikulincer, 2008), propensity to trust has not been an included variable. Both propensity to trust and attachment style represent dispositional components of the individual that would affect their levels of trust for others, though attachment style focuses on a focal individual, whereas propensity to trust has a much broader target. As a result, both forms of attachment and propensity to trust will likely be negatively correlated with one another, though only modestly.

Both forms of attachment will likely be more strongly related to the measures of supervisor trust than propensity to trust or hostile attribution, as attachment is typically directed towards an authority figure. Within looking at coworker trust, the relative influence will likely depend on the measure of trust being examined. In the case of trust in coworkers overall, propensity to trust will likely play a stronger role than most trusted coworker, because an individual takes the time to get to know and become close to that individual, making the general disposition less influential. Even though it is outside of the scope of the hypotheses, the direction and strength of the relationships between the different personality characteristics will provide a greater understanding of the interplay of the constructs.

Trust and Employee Stress

Stress in organizations can take on many forms including workload, work pace, interpersonal demands, lack of perceived control, and emotional labor. A stressor is the physical or psychological demands to which an individual responds; these reactions are called strain (Cooper, Dewe, & O'Driscoll, 2001; Quick, Quick, Nelson & Hurrell, 1997). Stressors break down into two categories: physical or task stressors, and psychological stressors. Physical or task stressors encompass the demands of a given job that contribute to employee stress and strain, which has been linked to lower task performance, decreased motivation, and increased levels of stress hormones (Evans & Johnson, 2000; Ilies, Dimotakis, & De Pater, 2010; Szalma & Hancock, 2011; Wickens & Hollands, 2000). Psychological stressors include lack of control or autonomy, role stressors (e.g., role ambiguity, role conflict or role overload), emotional labor and interpersonal conflict (Brotheridge & Grandey, 2002; Ganster & Murphy, 2000; Jex, 1998).

Stress is an important topic to study and understand because of the wide variety of consequences it is associated with. Quick and colleagues (1997) characterized the consequences of stress into three categories: physical/medical, psychological, and behavioral. In terms of physical/medical consequences, stress causes an increase in cholesterol and cortisol, as well as shrinking blood vessels in the peripheral areas of the body, leading to a degraded immune system and increased incidence of heart disease and heart attacks (Cohen & Herbert, 1996; Eliot & Buell, 1983; Fox, Dwyer & Ganster, 1993; Krantz & Manuck, 1984; Krantz & McCeney, 2002). The American Institute of Stress estimates that between 75% and 90% of all doctor visits are for physical or mental maladies related to stress, and in 1986 the National Institute for Occupational Safety and Health estimated that heart disease accounted for 117 billion dollars a year when considering both treatment and loss of worker productivity. The ramifications for organizations

in terms of healthcare costs and lost time highlight the importance of understanding what contributes to and can mitigate the experience of stress in organizations, with the goal of implementing interventions to decrease costs via lowering the stress levels of employees.

Lost productivity via absence is a key consequence in terms of behavioral outcomes of stress (Quick et al, 1997). Chronic stress also has negative effects on memory, reaction time, and accuracy when performing tasks, and is associated with lower creativity and poorer decision-making (Rastegary & Landy, 1993; Smith, 1990). When engaging in complex tasks, like those typically encountered in organizations, stress is consistently associated with decreased job performance (Motowidlo, Packard & Manning, 1986; Tubre & Collins, 2000). Other behavioral outcomes of increased stress include accidents, alcohol and drug abuse, and workplace violence (Kahn & Byosiere, 1992; Spector & Fox, 2005), and psychological outcomes, including anxiety and depression (Kahn & Boysiere, 1992; Quick et al, 1997).

Supervisory trust is most commonly studied in relation to specific types of stress. Trust in leader is associated with reduced uncertainty in organizations, as well as decreased work-life conflict (Colquitt et al, 2007). Interpersonal conflict is defined as negative interactions with coworkers, supervisors, or clients that can range from outward (e.g., heated arguments) to subtle (e.g., unfriendly behavior or incivility; Jex, 1998), and is the component of stress likely most influenced by an individual's relationships with their supervisor and coworkers. It is likely to occur when resources are scarce, when employees have incongruent interests or goals, or when there are perceptions amongst employees of unfair treatment (Jex, 1998). Interpersonal conflict is related to a number of negative outcomes, including anxiety, frustration, job dissatisfaction, , depression, aggression, and theft (Chen & Spector, 1992; Frone, 2000; Jex, 1998; Spector, 1987; Spector, Dwyer & Jex, 1988). The consequences of interpersonal conflict vary depending on

who the conflict is with; conflict with supervisors is related to organizational level outcomes in terms job satisfaction, organizational commitment, and turnover intentions, while interpersonal conflict with coworkers is predictive of employee level outcomes including depression, decreased self-esteem, and somatic symptoms of distress (Frone, 2000).

Conservation of resources theory is based on the fundamental assumption that people are motivated to obtain and protect their personal and social resources, and experience stress when facing the threat or loss of these resources (Hobfoll, 1988). These resources typically are defined as objects, conditions, personal characteristics, or energies. Stress occurs when there exists the possibility of loss of resources, when resources are actually lost, and when a resource investment fails to yield a commensurate gain. In terms of the third situation under which stress occurs, when an investment of resources fails to yield a commensurate gain, the connection can be drawn in terms of investing personal or social resources into a social exchange relationship, and failing to gain any resources in return. Within this context, it may represent stress resulting from a social exchange relationship being in danger or ended as a result of interpersonal conflict. Due to trust's characterization as a willingness to be vulnerable to another or others based on the positive expectations of their behavior, trust should be negatively related to interpersonal conflict in the workplace.

In addition to reduced interpersonal conflict, coworkers would likely also be the individuals to help when an employee is experiencing a high workload, or are unsure about aspects of their job. This is also in line with conservation of resources theory, where energy resources can take the form of knowledge, as well as favors owed. Resources in the form of knowledge could be largely beneficial in terms of role ambiguity, and favors owed in terms of role overload. Conservation of resources theory posits that individuals are motivated to enhance

their resources and protect against the possibility of future loss, and engaging in a strong exchange relationship based on reciprocity is one way to do this. Both role stressors and interpersonal conflict represent psychological stressors in the organization, and conservation of resources theory ties how trusting relationships can act as a resource, as well as lead to other resources in terms of reducing stressors, and why employees would be motivated to maintain these relationships and avoid interpersonal conflict. Due to the likely decreases in interpersonal conflict and stressors about their job, individuals who trust their coworkers will experience lower levels of stress than individuals who do not trust their coworkers.

In terms of resources from supervisors, this relationship may take a slightly different form. While similar in the form of interpersonal conflict and exchange relationship, a supervisor exercises more latitude when it comes to the employee concerning, informational, physical, financial, or workload related resources. When an individual is feeling uncertainty, their leader is often the ideal person to provide clarity or vision surrounding a project. When a tasking is not from the direct supervisor, they may have additional connections within an organization or workplace to gain clarity themselves, and communicate it to their employees. In the context of overload, supervisors may be able to assign tasks to other employees, provide guidance on priorities, or extend the timelines on which tasks need to be completed. Because higher status within organizations is often related to increased access to resources, supervisors are likely able to make more long lasting, concrete contributions to managing their employees' stressors. As a result, the following is hypothesized:

Hypothesis 4a: Coworker trust will be negatively related to employee stress.

Hypothesis 4b: Supervisor trust will be negatively related to employee stress, and with a more strongly negative relationship than coworker trust.

The Role of Perceived Social Support

When addressing how and why employees experience stress in the workplace, it is also important to consider what can influence levels of anxiety. Social support, which is defined as the assistance, comfort, or information an individual receives from others, has been the focus of a considerable amount of that attention. Social support within organizations can come from formal or informal contacts at an individual or group level. House (1981) delineated four different types of social support: appraisal, emotional, informational, and instrumental. While House did not apply these types of support to the workplace, it is clear to see that situations could arise where all of these forms of social support could take place within an organization. Appraisal support serves the purpose of enhancing an individual's self-esteem, often through feedback. While House argued that this typically comes from someone like a therapist, close friend, family member, or member of a support group, the underlying relationship with all of those support sources is that it is someone whom the individual trusts. Thus, if an employee trusts those around them, it can also be given by someone in an organization, such as a manager or coworker, in the form of encouragement or praise.

Emotional support has more to do with the type of support provided when an individual is facing difficulties; it involves caring for, showing interest in, and sympathy or understanding for the others. House noted that this type of emotional support typically comes from either a therapist or family member; it is possible, however, that individuals with high levels of trust for their coworker (or even one specific coworker) may receive emotional support within the context

of the workplace, especially when the difficulty is also workplace related. Support that comes in the form of helping an individual solve a problem is considered to be informational support. It is likely that individuals can also be provided with informational support in the workplace, especially if the problem being addressed is work related. The last form of social support is instrumental support; this support takes the forms of directly helping the individual, often in a practical nature. House noted that instrumental could come from a variety of different sources, including the coworkers of the individual. Key to these last two types of support is the ability to provide it, reflective of one of the three antecedents of trust.

Social support can be built into organizations, often through the role of mentoring programs or new employee socialization designed to increase perceptions of support in the organization. Allen, McManus and Russell (1999) showed that experienced peers played an important role in the socialization and mentoring of new coworkers; this increased socialization and mentoring was subsequently related to lower levels of experienced anxiety and stress, as well as subsequent strain. Strong social support in teams has also been shown to increase job performance and reduce stress (Svyantek, Goodman, Benz & Gard, 1999). It has been indicated that while the primary role of social support is to reduce strain following stressors, the secondary role of social support appears to be reducing the level of stress in the first place (Viswesvaran et al, 1999). Thus, there is evidence it is possible that an employee knowing they have social support of some form available influences how they experience stress in the first place. It is important to consider what leads individuals to have available social support beyond that which occurs through formal programs in organizations. It is likely that one of the main influences of having available social support, both within and outside organizations, is trusting those around you.

Conservation of resources theory was extended specifically to examine the role of social support in gaining and maintaining social resources (Hobfoll, Freedy, Lane & Geller, 1990). Two main tenets were added in the creation of social support resource theory: that social support is the mechanism through which people's resources are expanded, and that personal and social resources are an integral part of an individual's identity. This means that the role of social support is two fold; it is instrumental on helping preserve particular resources, but is also necessary in terms of defining, maintaining and protecting one's identity. Specifically, social support allows individuals to indirectly access a wider net of resources, which enables the offsetting of stress and demands. Individuals high in personal resources are more likely experience lower stress, or withstand higher levels of stress without negative repercussion, and also receive increased levels of social support, which also is related to less depletion of personal resources (Pearlin, Leiberman, Menaghan & Mullan, 1981). Social support resource theory argues that individuals high on personal resources are also more likely to possess social support resources and know how to effectively utilize them (Hansson, Jones & Carpenter, 1984; Hobfoll et al, 1990). Individuals who are seen as coping effectively with stress are also seen as more attractive to potential sources of social support (Coyne, 1976). With trust as a potential social resource (and maintaining trust as a form of expanding and maintaining ones resources), it is in line with conservation of resources theory and social support theory that maintaining trusting relationships should lead to higher levels of perceived social support.

The research that has been done supports this theoretical perspective; increased interpersonal trust is positively related to seeking social support and showing emotional distress to friends (Mortenson, 2009). Trust in peers and perceived social support are strongly related ($r = .60, p < .001$), and perceived social support negatively related to experienced stress in

organizations ($r = -.20, p < .05$; Vigoda-Gadot and Talmud, 2010). Individuals high on interpersonal trust are more likely to see friends and family as sources of social support than individuals on low interpersonal trust (Grace & Shill, 1986), and feelings of interpersonal trust are positively related to perceived social support (Dunkel-Schetter, Folkman, & Lazarus, 1987). Thus, individuals high on coworker trust are more likely to have available social support than individuals low on coworker trust. Due to the nature of social support as outlined by House (1981), social support seems more likely to come from peers than from individuals within a reporting structure. The nature of this assertion likely depends on the type of social support, where a manager may be more able or comfortable providing informational support, as opposed to emotional support; similarly, an employee would likely feel more comfortable receiving emotional support from a peer, as opposed to a manager. Due to the expanded ability and likely level of comfort of coworkers providing social support, we theorize that while both coworker and supervisor trust will be related to social support, coworker support will have a stronger relationship.

Hypothesis 5a: Coworker trust will be positively related to perceived social support.

Hypothesis 5b: Supervisor trust will also be positively related to social support, though to a lesser extent than coworker trust.

Social support is often studied as a mediator between stress and subsequent strain, with full mediation occurring when the relationship between stress and strain drops to zero when taking into account social support. The alternative mediation model examines stress as mediating the relationship between social support and strain (Beehr & McGrath, 1992). In general, meta-

analytic results support the independent model (Lin, 1986), with little evidence of either meditation models containing the outcome of employee strain. There is a negative correlation typically between social support and stress (Viswesvaran et al, 1999), which indicates that social support may have an influence on stress itself. One fault of these articles and models, however, address the influence of social support on negative employee outcomes *after* stress is already being experienced, which is the predominant approach within the literature (see Alloway & Bebbington, 1987; Cohen & Wills, 1985; Kessler & McLeod, 1985; Leavy, 1983; Lin, 1986; Mitchell, Billings & Moos, 1982; Schwartz & Lepping, 1989; 1991). That is—they do not address how available social support influences the experience of stress itself. Thus, while the role of social support may be buffering or moderating between stress and subsequent strains or negative health outcomes, it may have a more direct influence on how the individual experiences stress to begin with. Indeed, it has been indicated that while the primary role of social support is to reduce strain following stressors, the secondary role of social support appears to be reducing the level of stress in the first place (Viswesvaran et al, 1999).

Hypothesis 6: individuals with higher levels of social support will experience lower levels of stress than individuals with lower levels of social support.

Trust and Organizational Citizenship Behaviors

Organizational citizenship behaviors represent employee behaviors that contribute to organizational effectiveness via their influence on the psychological, social, or organizational context of work (Organ, 1997). Kidwell and Bennett (1993) characterized OCB as providing extra effort at work. While OCBs are not a part of an individual's formal job duties and they are

not always formally rewarded, but they do contribute to effectiveness on both the work group and organizational levels (George & Bettenhausen, 1990; Podsakoff, Ahearne, & MacKenzie, 1997). There are many different ways in which an employee can engage in OCB. Organ's (1988) framework of OCBs included five types: altruism, civic virtue, conscientiousness, courtesy, and sportsmanship. While there are scales measuring each type of OCB (e.g., Podsakoff et al, 1990), meta-analysis has shown that all five dimensions are very highly correlated (uncorrected r 's ranging from .34 - .67, $p < .01$). It has been concluded that broad measures of OCB were as good, if not better predictors of organizational outcomes than the each dimension studied separately, as results indicate both forms of scale are fairly equivalent indicators of individuals who engage in OCBs (LePine, Erez and Johnson, 2002). As a result, the authors suggested that OCB be redefined to reflect a "general tendency to be cooperative and helpful in organizational settings" (LePine et al, 2002; pp. 61), which is in line with suggestions from other scholars (Motowidlo 2000; Organ, 1997). As a result, this study will be using an overall measure of organizational citizenship behaviors (Van Dyne & LePine, 1998).

There are three broad explanations of why individuals engage in organizational citizenship behaviors: positive affect, evaluations of fair treatment, and personality. The basis for positive affect as a motivator is that individuals who are positive, based either on an individual's disposition or the situation, are more likely to engage in helping and other prosocial behavior (George & Brief, 1992). These spontaneous behaviors are mutually reinforcing because positive experiences and feelings typically result from helping others. When considering evaluations of fair treatment, employees seek to be in a fair and balanced relationship with their employer, and thus engage in OCB to maintain feelings of equity with the organization (Adams, 1965). There has been mixed evidence regarding which types of fairness evaluations are most

strongly related to OCB; different studies have found both interactional and procedural justice to be the strongest predictors of OCB, lending credence to the power of perceptions of overall justice in organizations, which has also shown to be a strong predictor of OCB (Ambrose & Schminke, 2009; Konovsky & Pugh, 1990; Moorman, 1991). Engaging in OCB due to disposition is a function of conscientiousness, though Organ and Ryan (1995) found no relationship between conscientiousness and OCB.

Organizational citizenship behaviors are related to a number of positive outcomes, including employee satisfaction, organizational commitment, employee fairness perceptions, leader support, and conscientiousness (LePine et al, 2002). Similar to the social exchange nature of trust, it is likely that individuals will engage in OCB as an aspect of their exchange relationships, particularly in the context of relationships with coworkers; helping coworkers would constitute an easily enacted form of reciprocity. Helping individuals is a key component of reciprocal altruism, a theory derived from the biological study of evolution (Trivers, 1971). Within this context, individuals help each other because there are group benefits, and the increase in group relations that occurs via reciprocity is thought to encourage group survival. In organizations, the mechanism guiding friendships and the emotions derived from them is likely to have the most influence. Trivers (1971) argues that individuals will be more likely to engage in helping behavior for people they have positive feelings towards because it is emotionally rewarding. Liking and altruism are a two way street, where individuals are more likely to help those that they like, and they are more likely to like others who are helpful (Krebs, 1970). As trust and liking are separate (albeit, related), constructs, it is likely that their relationships with helping behaviors are similar.

Indeed, this does appear to be the case. Podsakoff and colleagues (1990) observed correlations between leader trust and each dimension of OCB that ranged between $r = .15-.30$, with four of the five above $r = .20$, all $p < .01$. Colquitt, Scott and LePine (2007) found a correlation of $r = .22$, $p < .01$, between employee trust and OCB across 19 studies. While this provides a strong foundation, it showed that the relationship between coworker trust and OCB has not been examined to nearly the same extent as leader trust. Of the four studies located, one used cooperation as a proxy for trust. While the relationship between these two constructs has been theorized, there is not one-to-one correspondence; for example, one can easily cooperate with someone they do not like for the sake of the team, but it is far less likely that someone will refuse to cooperate with someone that they trust. Coworker trust likely has a stronger influence on organizational citizenship behaviors than leader trust, as employees spend more time with their coworkers, and there is more opportunity for engaging in OCB. Coworkers are also more likely to be able to engage in a variety of types of OCB with each other than with their leader; for example, they may work on similar tasks and be able to share workload when needed, but may not have the skills needed to do that with a supervisor. Based on the existing theoretical framework and the foundational research, it is hypothesized that:

Hypothesis 7a: Coworker trust will be positively related to organizational citizenship behaviors.

Hypothesis 7b: Supervisor trust will be positively related to organizational citizenship behavior, but the relationship will not be as strong as between coworker trust and OCB.

Trust and Job Satisfaction

Research on job satisfaction has been frequently characterized and criticized for being atheoretical with an overreliance on statistical analyses (Brief & Weiss, 2002; Judge & Larson, 2001), because researchers tended to take the outcome of interest (satisfied workers), and try and examine its relationship with every possible correlate, as opposed to using a guiding theory. It is not necessarily surprising that this occurred, as there are many benefits of job satisfaction—it is positively linked with customer satisfaction, productivity, organizational profit, organizational citizenship behaviors and negatively with employee turnover (Harter, Schmidt & Hayes, 2002; LePine, Erez & Johnson, 2002; Schneider, Ashworth, Higgs & Carr, 1996). Job satisfaction has also been shown to lead to higher levels of organizational safety and lower occupational injuries

Two main ways that job satisfaction develops include the characteristics of the job and dispositional influences. Job satisfaction is a key outcome of job characteristics theory, where core job characteristics (skill variety, task identity, task significance, autonomy and feedback) influence core psychological states (experienced meaningfulness, experienced responsibility, and knowledge of the results), resulting in positive outcomes for organizations (Hackman & Oldham, 1980). The job characteristic approach can be problematic, however, in that excludes that individuals may perceive things differently; what one person may identify with, another may not. The dispositional approach seeks to take personality into account—specifically, if some individuals have the propensity to be satisfied (or dissatisfied), as a function of positive or negative affect, regardless of their job characteristics (Jex & Spector, 1996; Watson & Clark, 1984). This has received support in that employees' level of job satisfaction was stable over a seven-year period, even across job and career changes (Staw & Ross, 1985).

Both of these approaches, however, ignore the social influence on job satisfaction. Social information processing theory and social cognitive theory begin to take into account the social nature of organizations, focusing on how employees form attitudes and make sense of their environment by looking to comparison others (Festinger, 1954; Salancik & Pfeffer, 1978). These theories argue that individuals develop attitudes based on information from their social environment. Further, it asserts that individuals adapt their attitudes, behaviors, and beliefs to their social context, taking into account past and present context and behavior. From this perspective, employees develop attitudes based on the information available to them at the time they need to display or express the attitude. The environment also influences how attitudes are formed: it provides cues as to how events and behaviors should be interpreted, and what an employee's opinion or attitude should be.

With this approach, an employee would be more likely to develop positive attitudes towards their job if those around them also hold positive attitudes, and the environment is such where those around them act in ways that demonstrate positive feelings towards their job. An employee may ascertain how those around them feel through interactions, like positive or negative comments, or observing others' behavior. An individual who witnesses those around them being disparaging towards their work will likely have a lower level of job satisfaction than the opposite, as both the behavior from their coworkers display negative emotion towards the position, and the environment is such where showing negative attitudes is acceptable. On the other hand, if only one coworker is negative and others rebuke that individual for negativity, the focal employee will likely feel more positively, because negativity is the exception, and the environment shows that it is not tolerated. While neither theory specifically addresses job satisfaction, they provide a strong foundation of how social processes may influence an

individual's job satisfaction, particularly in regards to employees looking for meaning and consensus from those they trust.

Rich (1997) theorized that when managers engaged in positive role modeling behaviors, trust in the manager would increase and job satisfaction would increase as a function of the increased trust. Indeed, research has demonstrated a strong relationship between organizational trust and overall job satisfaction, as well as satisfaction with one's coworkers and overall job satisfaction (Driscoll, 1978). Extending these results, strong relationships have been found between supervisor trust and job satisfaction (O'Reilly and Anderson, 1980; Podsakoff, MacKenzie, Moorman and Fetter, 1990). In terms of coworker trust, Cook and Wall's (1980) results showed that overall trust was strongly positively correlated with job satisfaction, as was faith in peers and confidence in peers. These findings provide a snapshot of the likely relationship between trust and job satisfaction: that both coworker and supervisor trust are positively linked to one's satisfaction with their job.

A key component of both social information processing theory and social cognitive theory is that individuals look to a comparison other to help form their attitudes and make sense of their workplace environment. When looking for a comparison other, the logical and most realistic choice is someone who is similar to you—meaning that a coworker would provide a more accurate comparison other than a supervisor or manager. This is because one's supervisor likely engages in different job activities and has at least a somewhat different workplace experience. Because of this mismatch in comparison, an individual is less likely to look at their supervisor or manager as a proxy for how satisfied they should be with their job, regardless of their level of trust for that person. The logical extension of this assumption is that an individual with stronger coworker trust will have similar levels of job satisfaction to those around them.

Trust in supervisor, believing that your supervisor is able to perform their job well, has integrity, and will look out for you, will likely have a stronger direct influence on an individual's job satisfaction. Based on the extensions of social information processing theory and social cognitive theory, the following is hypothesized:

Hypothesis 8a: Coworker trust will be positively related to job satisfaction.

Hypothesis 8b: Supervisor trust will be positively related to job satisfaction, with a stronger relationship than coworker trust.

Other ratings of outcome variables. In order to address the hypotheses from multiple perspectives and reduce common method bias, alternate ratings of some outcome variables (stress, job satisfaction, and organizational citizenship behaviors) were collected from a group of coworkers of participants. Other ratings are becoming more popular in psychological research for a number of reasons. Frequently they are used as an alternative predictor in models with objective outcomes, and have been shown that both the self and others possess unique insight into how a person typically behaves (Vazire & Mehl, 2008).

Within organizational psychology, the self-other perspective is frequently studied within multisource (360) feedback, particularly in terms of peer ratings (e.g., Bettenhausen & Fedor, 1997; Kane & Lawler, 1978) and self-ratings (e.g., Mabe & West, 1982; Shrader & Steiner, 1996) in addition to supervisor ratings. Research in this field indicates that cross-source agreement in multi-source performance ratings is moderate, but that the different perspectives are complementary, as opposed to being seen as disagreement (Lance, Baxter & Mahan, 2006). Self-other ratings have also shown significant relationships when rating workplace deviance and

OCB, though non-significant relationships between ratings on leadership (Judge, LePine & Rich, 2006). Taking into account that some outcome variables are more likely to be seen, compared to emotions or states that someone feels, other-ratings have varying strength of relationships between the perspectives. For example, it is much easier to observe an employee engaging in organizational citizenship behaviors, as opposed to knowing the level of stress they experience. In an effort to address this, the scale used to measure stress is not an adjectives-based scale like the Stress in General, but asks about different behaviors that are considered to be manifestations of stress.

Using other-rater ratings also begins to address the issue of common method variance (CMV) by introducing an alternative perspective. The risk of CMV becomes greater when the independent and dependent variables are collected from the same person (Podsakoff & Organ, 1996). Podsakoff and colleagues (2003) recommend using other sources of information for some of the key measures, particularly the dependent measure. Collecting these data will allow for the hypotheses related to OCB, stress, and job satisfaction to be examined using the alternate perspective outcome variables.

As a reference, the hypotheses of the proposed study are the following:

Hypothesis 1a: An individual's tendency to attribute others' behaviors to hostility will be negatively related to coworker trust.

Hypothesis 1b: An individual's tendency to attribute others' behaviors to hostility will be negatively related to supervisor trust.

Hypothesis 2a: Avoidant attachment style will be negatively related to coworker trust.

Hypothesis 2b: Avoidant attachment style will be negatively related to supervisor trust.

Hypothesis 2c: Anxious attachment style will be negatively related to coworker trust.

Hypothesis 2d: Anxious attachment style will be negatively related supervisor trust, though not as strongly as avoidant attachment.

Hypothesis 3a: Propensity to trust will be positively related to coworker trust.

Hypothesis 3b: Propensity to trust will be positively related to supervisor trust.

Hypothesis 4a: Coworker trust will be negatively related to employee stress.

Hypothesis 4b: Supervisor trust will be negatively related to employee stress, and with a more strongly negative relationship than coworker trust.

Hypothesis 5a: Coworker trust will be positively related to perceived social support.

Hypothesis 5b: Supervisor trust will also be positively related to social support, though to a lesser extent than coworker trust.

Hypothesis 6: individuals with higher levels of social support will experience lower levels of stress than individuals with lower levels of social support.

Hypothesis 7a: Coworker trust will be positively related to organizational citizenship behaviors.

Hypothesis 7b: Supervisor trust will be positively related to organizational citizenship behavior, but the relationship will not be as strong as between coworker trust and OCB.

Hypothesis 8a: Coworker trust will be positively related to job satisfaction.

Hypothesis 8b: Supervisor trust will be positively related to job satisfaction, with a stronger relationship than coworker trust.

Method

Participants and Procedures

The sample consisted of students from a large Midwestern university, in addition to two samples of current full time workers. The full time worker responses were collected from a variety of methods: email, message boards, social media, mechanical Turk (mTurk), etc. The surveys were all completed via qualtrics. With the exception of participants recruited via mTurk, individuals who completed the survey had the option of entering a drawing for one of three possible gift cards valued at \$25 each. Participants in the snowball sample were also asked for the contact information (email address) of a coworker so that the research team could send a follow up email asking them to complete ratings on the participant. Participants from mTurk were paid \$0.75 for a survey completed and judged to be valid. This determination was made through an additional question added randomly on each page of the survey, six questions total. These questions included items like “Please select somewhat agree for this response.” Participants who did not select the proper responses to these questions were removed from the sample.

The initial sample consisted of 538 students from the subject pool of a large Midwestern university, in addition to two samples of current full time workers (N= 86 and N=87). When compared to the full time workers, there were a number of differences between the populations: the subject pool population had a higher percentage of female workers (71%), and a much lower level of average work experience (3.22 vs. 11.60 and 8.41 for mTurk and snowball, respectively). Because individuals in the subject pool were in school, most of the participants likely work part time in a position that may not be related to their career goals. This, in turn, influences their work experiences.

In order to make the samples more consistent with one another so that they could be combined, the researcher examined the distribution of work experience within the subject pool sample, looking at the differences of using participants with 6 years or more of work experience versus participants with 7 or more years. (While other cutoffs were also considered, including 5 years of work experience; the final decision was between six and seven years, as those two options brought the work experience closer together, and six years of experience resulted in fewer significant differences when running an ANOVA than five years of experience). Another measure that was examined in terms of assessing similarity was dependence on coworkers to perform ones job, since that likely influences the strength of the influence that relationships with coworkers has on ones work experience. When running an analysis of variance (ANOVA), an increased number of statistically significant differences resulted between the samples when using the cutoff of seven years or more, and it decreased the potential sample size substantially. Further, while using seven years or more made the resulting F-statistic smaller when looking at differences based on work experience, it was still statistically significant ($F(2,250) = 7.17, p < .01$). Further, there was no significant difference in terms of dependence on coworkers $F(2,349) = 1.53, ns$. This indicates that on this parameter there is similarity between the two groups. While there still is a significant difference in terms of work experience ($F(2,348) = 18.56, p < .01$), it was determined that the group of workers with six or more years of work experience should be used for analysis.

The final sample included in this study consisted of 48 respondents who had a corresponding coworker participate. Overall there were 353 focal participants. In this sample, 42% of respondents were male, and 58% female. The typical respondent had 5.69 years of work experience. See Table 2 for the breakdown of participant demographics by sample method.

Table 1: Participant Demographics by Source and Overall

	Subject Pool (N=200)	mTurk (N=86)	Snowball (N=67)	Total (N=353)
Gender	65% F; 35% M	47% F; 53% M	67% F; 33% M	58%F; 42% M
Work Experience	6.99 (1.52)	11.60 (9.12)	8.41 (8.26)	8.37 (6.13)
Dependence on Coworkers	M = 56.60% SD = 28.69%	M = 59.64%; SD = 23.47%	M = 63.10% SD = 25.49%	M = 57.90% SD = 26.54%

Focal Participant Measures¹

Hostile Attribution. Hostile attribution was measured using the CRT-A, or Conditional Reasoning Test, adjusted. The CRT-A is a 25-item indirect measure of aggression, which assesses an individual's implicit tendency to reason in ways that rationalize aggressive behaviors. The first three items are not designed to measure the construct; each of the 22 remaining problems is intended to appear to the respondent as a logical reasoning item. The scoring system for the CRT-A assigns one point for each aggressive response option chosen. A nonaggressive or illogical response yields zero points. Typically, any participant with more than four missing or illogical response is removed from the sample. The CRT-A is measures multiple mechanisms used justify aggression towards others, only one of which is the tendency to attribute behavior to hostile intentions. There are three general factors underlying the CRT-A. The first factor is external justification for aggression, which includes both hostile attribution bias and victimization bias. The measure for external justification of aggression contains 11 items. Past research has indicated a Kuder-Richardson-20 reliability for the overall measure is .76 (James & LeBreton, 2012; James et al., 2005).

¹ Full versions of each measure (excluding the CRT-A) can be found in Appendix A. All scales utilized a 7-point likert type scale unless otherwise specified. The CRT-A has one sample item from the 11 item measure.

Attachment Style. Attachment style was measured using Fraley, Waller and Brennan's (1999) Experiences in Close Relationships Questionnaire – Revised (ECR-R). This consists of two eighteen-item subscales: anxiety and avoidance. An example item from the anxiety subscale is “I worry a lot about my relationships,” and an example item from the avoidance subscale is “I tell my partner just about everything” (reverse coded). In this study, anxious attachment displayed an internal consistency of $\alpha = .95$, and avoidant attachment had an internal consistency of $\alpha = .89$.

Propensity to Trust. Propensity to trust was measured using Schoorman, Mayer and Davis (1996), as published in Mayer & Davis (1999). This is an eight-item scale designed to assess an individual's baseline trust for others. It includes items like “One should be very cautious with strangers” and “these days, you must be alert or someone is likely to take advantage of you.” While this scale occasionally shows poor reliability (e.g., $\alpha = .66$ in Mayer & Davis, 1999), it is the best available due to length and dimensionality concerns with previously developed scales (Schoorman, Mayer & Davis, 2007). In this study, the measure showed a slightly enhanced internal consistency compared to past research, $\alpha = .73$.

Coworker Trust. Coworker trust was measured using Cook and Wall's (1980) scales of faith and confidence in coworkers. This is half of the overall scale, where the other half measures faith and confidence in supervisors². The composite measure of faith and trust in coworkers is six items long, and has statements including “I can trust the people I work with to lend a hand if

² Despite having four subscales in the overall scale, factor analysis shows two primary factors—trust in coworkers and trust in management.

needed” and “I can rely on my coworkers to not make my job more difficult by performing work carelessly.”

As discussed previously, trust was measured in three different ways: trust in coworkers overall, thinking of participants most trusted coworker, and also regarding their least trusted coworker. Trust in coworkers overall was assessed via a slider bar ranging from 1-100, where participants indicate the percentage of their coworkers that the prompt statement applies to. Most and least trusted coworkers were measured on likert-type scales ranging from 1-7. A factor analysis of these scales is presented first in the results section. The three scales show strong internal consistency; $\alpha = .91$ for trust in coworkers overall, $\alpha = .94$ for most trusted coworker, and $\alpha = .94$ for least trusted coworker.

Factor Analysis of Coworker Trust

In order to assess dimensionality, the three scales for assessing coworker trust (trust overall, most trusted, and least trusted) were first examined for appropriateness for factor analysis. In addition to all of 18 items correlating at least .30 with at least one other item, the Kaiser-Meyer-Olkin measure of sampling adequacy was .91, and Bartlett’s test of sphericity was significant ($\chi^2 (153) = 10505.66, p < .01$). Further, all communalities indicated that the items share variance. Given these indicators, the scales were factor analyzed using a principal components analysis with a varimax rotation. Initial eigenvalues indicated three factors, accounting for 39%, 25%, and 10% of the variance, 74% overall. With the varimax rotation, all items in this analysis had primary loadings over .5, and when cross-loadings occurred, they were all below .3. The factor-loading matrix for this solution is presented in Table 2.

Table 2: Results of Coworker Trust Factor Analysis

Component	1	2	3	Communality
<u>Coworkers Overall</u>				
If I get into difficulties at work, I know my coworkers would help me out	0.24		0.81	0.72
I can trust the people I work with to lend a hand if needed	0.27		0.83	0.76
My coworkers can be relied upon to do as they say	0.25		0.80	0.73
I have full confidence in the skills of my coworkers	0.22		0.80	0.72
My coworkers would keep doing their work even if our supervisors were not around		0.23	0.73	0.60
I can rely on my coworkers to not make my job more difficult by performing work		0.20	0.73	0.62
<u>Most trusted coworker</u>				
If I get into difficulties at work, I know this individual would help me out	0.90		0.21	0.86
I can trust this individual to lend a hand if needed	0.90		0.24	0.86
This individual can be relied upon to do as they say	0.89		0.23	0.84
I have full confidence in the skills of this individual	0.87		0.19	0.79
This individual would keep doing their work even if our supervisors were not	0.75		0.23	0.61
I can rely on this individual to not make my job more difficult by performing work carelessly	0.81		0.20	0.70
<u>Least trusted coworker</u>				
If I get into difficulties at work, I know this individual would help me out around		0.81		0.69
I can trust this individual to lend a hand if needed		0.84	0.21	0.76
This individual can be relied upon to do as they say		0.90		0.83
I have full confidence in the skills of this individual		0.86		0.76
This individual would keep doing their work even if our supervisors were not around		0.80		0.66
I can rely on this individual to not make my job more difficult by performing work carelessly		0.88		0.79

Note: Factor loadings <.20 suppressed

When the internal consistency measure of each scale was examined, .91, .94, and .93 resulted, respectively, for trust of coworkers overall, most trusted coworker, and least trusted coworker. Overall, the analysis indicated that the three scales are distinctly different from one another.

Supervisor Trust. Supervisor trust was measured using Cook and Wall's (1980) scales of faith and confidence in management. This is half of the overall scale, where the other half measures faith and confidence in coworkers. The composite measure of faith and trust in coworkers is six items long, and has statements including "I have full confidence in the skills of my manager" and "My manager would keep doing his/her work even if his/her supervisors were not around." This scale had a reliability of $\alpha = .94$.

Perceived Social Support. The measure for perceived social support was adapted from Winefield, Winefield and Tiggeman (1992). It consists of six items designed to assess the satisfaction of availability of social support with peers (though in this case, adapted to be specific towards coworkers rather than peers in general), and had an internal consistency of $\alpha = .87$. Example items from this scale include "how often do they try to take your mind off your problems by telling jokes or chatting about other things?" and "how often do they help you in practical ways, like doing things for you?"

Stress. Employee stress was assessed using the Stress in General (SIG), which is a part of the suite including the Job Description Index (JDI). The SIG assessed participants' stress by asking if adjectives describe their job, with the options of yes, no, or "?" Examples of the seven adjectives include "pressured" and "relaxed." The full scale can be found in appendix A. The

scale is scored by assigning a 3 where “yes” is the indicated response, a -1 where “no” is the indicated response, and a 0 where “?” is the indicated response. For the negative adjectives, a “yes” response is reverse scored into a -1, and a “no” is reverse coded into a 3. While Stanton, Balzer, Smith, Parra and Ironson (2001) reported reliability coefficient of $\alpha = .88$ for the SIG, it displayed lower reliability in this study, $\alpha = .79$.

Organizational Citizenship Behaviors. Organizational citizenship behaviors was measured using the scale developed in Van Dyne and LePine (1998). This scale consists of seven items that were rated on a likert-type scale ranging from 1-7, and had a reliability coefficient of $\alpha = .95$. Example items from this measure include “I volunteer to do things for my work group” and “I help others in this group with their work responsibilities.”

Job Satisfaction. Job satisfaction was measured via the abbreviated Job in General (aJIG), which is also a part of the JDI suite of scales. Similar to the SIG, the aJIG includes eight items that assess participants’ global job satisfaction by asking if adjectives describe their job, with the options of yes, no, or “?” It had a reliability of $\alpha = .84$. Example adjectives for the aJIG include “Makes me Content” and “Undesirable.” The full scale can be found in appendix A. The scale is scored by assigning a 3 where “yes” is the indicated response, a -1 where “no” is the indicated response, and a 0 where “?” is the indicated response. For the negative adjectives, a “yes” response is reverse scored into a -1, and a “no” is reverse coded into a 3.

Non-Focal Participant/Peer Measures

Stress. In terms of the coworker ratings of employee stress, participants' coworkers completed an adapted version of a scale based on Frazier, Moser, Riegel, McKinley, Blakely, Kim and Garvin's (2002) results on how critical care nurses perceive stress based on the behavior of their patients. This is because no behaviorally oriented stress scale could be located, or scales designed for rating the stress of others. Thus, the referent of "my patient" was changed to "my coworker." In a pilot of the scale, 532 students employed full time completed the 19-item scale mixed into a battery of other assessments. An initial assessment yielded an internal consistency of $\alpha = .94$ with a mean of 3.46 (1.27). When running an exploratory factor analysis, 5 factors emerged. While this indicates a multi-dimensionality within the original scale, the current study is primarily interested in an overall assessment. Thus, the factor analysis was run with an outcome of one factor, and each item with a loading of .70 or above on the factor was selected. This resulted in a scale of 8 items, $\alpha = .92$ with a mean of 3.46 (1.45). The 19 item and 8 item scales correlate $r = .97$. Thus, the reduced scale is noticeably shorter, displays a similar and high level of reliability, and there is no significant change to the mean or rank order of respondents by only using those items. This reduced scale was used for subsequent data collection, and both scales can be found in Appendix B. In the final sample, the scale shows an internal consistency of $\alpha = .96$.

Job satisfaction. Coworker perception of job satisfaction was measured using a slightly modified version of the adjusted Job in General (aJIG). The coworker measure of job satisfaction showed an internal consistency of $\alpha = .92$. This scale can be found in Appendix B.

Organizational citizenship behaviors. Coworker perception of OCB was measured using the same scale as used for focal participants. In samples where coworker ratings were being sought, this survey was completed, using “this particular coworker” as the referent; Van Dyne and LePine (1998) report a reliability coefficient of $\alpha = .95$ for peer ratings of organizational citizenship behaviors using this scale, and a similar reliability of $\alpha = .96$ was found in this study. The version of this scale to be completed by participants’ coworkers can be found in Appendix B.

Results

Descriptive Statistics

Table 3 presents the means and standard deviations for all variables completed by the focal participant. Table 4 presents the correlations for these all variables; observed alpha values are reported on the diagonal.

Table 3: Descriptive Statistics for Focal Participant Variables

	Subject Pool (N=200)	mTurk (N=86)	Snowball (N=67)	Total (N=353)
Hostile Attribution	NA	2.94 (1.46)	2.43 (1.27)	2.72 (1.40)*
Attachment-Anxious	3.59 (1.12)	3.27 (1.42)	3.43 (1.24)	3.64 (1.14)
Attachment-Avoidant	3.62 (.90)	3.46 (1.04)	3.36 (.97)	3.56 (.90)
Propensity to Trust	3.48 (.71)	4.01 (.90)	3.96 (.67)	3.62 (.76)
Social Support	3.13 (.61)	3.50 (.67)	3.50 (.75)	3.19 (.62)
Coworker Trust: Overall	69.40% (19.06%)	71.36% (18.63%)	73.90% (18.14%)	67.82% (18.90%)
Coworker Trust: Most trusted	6.01 (1.06)	5.62 (.91)	6.20 (.90)	5.82 (1.05)
Coworker trust: least trusted	3.38 (1.43)	4.44 (1.54)	3.82 (1.59)	3.64 (1.47)
Manager trust	5.71 (1.23)	5.39 (1.19)	5.76 (1.25)	5.55 (1.20)
OCB	5.63 (.96)	5.27 (1.22)	5.82 (.92)	5.48 (1.02)
Stress in General	.92 (.95)	.50 (1.26)	.82 (1.23)	.80 (1.01)
Job in General	1.36 (.63)	2.32 (1.08)	2.24 (1.24)	1.51 (.89)

*Based only on the mTurk and Snowball samples

Table 4: Correlations and Internal Consistency Measures for Focal Participant and Coworker Measures

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Hostile Attribution	--												-.04	.09	-.05
2. Anxious Attachment	.05	.95											.22	.08	.05
3. Avoidant Attachment	.10	.24**	.89										-.03	.12	-.27*
4. Propensity to Trust	-.25**	-.04	-.28**	.73									-.08	-.34**	.30**
5. Overall Trust in Coworkers	-.20*	-.17**	-.28**	.22**	.91								-.02	-.17	.20
6. Most trusted Coworker	-.22**	-.21**	-.28**	.07	.55**	.94							.16	-.18	.16
7. Least Trusted Coworker	-.05	-.05	-.13*	.34**	.44**	.06	.94						-.19	-.12	.06
8. Supervisor Trust	-.08	-.10	-.34**	.06	.58**	.53**	.17**	.94					.02	-.50**	.38**
9. Perceived Social Support	-.15	-.10	-.24**	.30**	.49**	.35**	.34**	.25**	.87				.16	.22	-.18
10. OCB	-.11	-.05	-.39**	.02	.27**	.46**	.54**	.18**	.56**	.95			.38**	-.50**	.58**
11. Stress in General	.03	.10	.09	-.08	-.05	.00	.07	-.11	-.08	-.01	.79		.15	-.19	-.04
12. Job in General	.05	-.14*	-.33**	.23**	.36**	.36**	.19**	.28**	.29**	.35**	-.26**	.84	.08	-.25	.30*
13. Coworker Rating OCB													.97	-.48**	.41**
14. Coworker Rating Stress														.96	.81**
15. Coworker Rating JIG															.92

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

Table 5 presents the means and standard deviations for the coworker rated-variables. Table 6 compares the means and standard deviations on the focal-participant rated variables that are included in the analyses performed on the focal participant-coworker dyads. Compared to the sample at large, the individuals who had a coworker complete ratings were generally more trusting to their coworkers and their most trusted coworker, had a slightly lower level of trust for their least trusted coworker, and was roughly equal for supervisor trust. Compared to the snowball sample, where all of these individuals came from, they are only slightly more trusting of their coworkers overall, slightly more trusting of their most trusted coworker, more trusting of their least trusted coworker, and had a slightly lower level of trust for their supervisor.

Table 5: Means and Standard Deviations of Coworker Rated Measures

	M (SD)
Organizational Citizenship Behavior	6.02 (1.19)
Stress in Others	2.50 (1.78)
Job Satisfaction	2.08 (1.14)

Table 6: Means and Standard Deviations of Focal Participant Measures in the Coworker/Peer Rated Sample vs. Entire Sample

	M (SD) Coworker Sample	M (SD) Entire Sample
Overall trust in coworkers	75.19% (18.11%)	67.82% (18.90%)
Most trusted coworker	6.33 (0.81)	5.82 (1.05)
Least Trusted Coworker	3.97 (1.64)	3.64 (1.47)
Supervisor Trust	5.57 (1.28)	5.55 (1.20)

Hypothesis Testing

All of the hypotheses in this dissertation are correlational in nature; the correlations are displayed in table 4. The first set of hypotheses concerned the role of attributing the behaviors and reactions of others as hostile during ambiguous situations. Hypothesis 1a argued that an individual's tendency to attribute others' behaviors to hostility would be negatively related to coworker trust, and hypothesis 1b asserted that hostile attribution would also be negatively

related to supervisor trust. Hostile attribution bias was correlated with trust in coworkers overall and most trusted coworker, ($r = -.25, p < .01$, and $r = -.25, p < .01$, respectively). It was not correlated with least trusted coworker or supervisor trust ($r = -.02, ns$ and $r = -.14, ns$ respectively). These results provide general support for hypothesis 1a, but fail to support hypothesis 1b.

The second set of hypotheses related to the relationship between attachment style and trust; 2a and 2b asserted that avoidant attachment would be negatively related to coworker and supervisory trust, respectively. Avoidant attachment was significantly correlated to all three measures of coworker trust, providing support for these hypotheses ($r = -.28, p < .01$, $r = -.28, p < .01$, and $r = -.13, p < .05$, respectively, for trust on coworkers overall, most trusted coworker, and least trusted coworker). It was also significantly correlated with supervisor trust ($r = -.34, p < .01$). Hypotheses 2c and 2d argued that anxious attachment style would be negatively related to coworker and supervisor trust, though not as strongly as avoidant attachment. Anxious attachment was significantly correlated with trust in coworkers overall and most trusted coworker ($r = -.17, p < .01$, and $r = -.21, p < .01$, respectively). It is not significantly correlated with least trusted coworker or supervisor trust ($r = -.05, ns$, and $r = -.10, ns$, respectively). In order to test the relative strength of correlations, the methodology of Meng, Rosenthal and Rubin, 1992, for testing correlated correlation coefficients was used. When looking at the p-values associated with anxious attachment and all measures of coworker trust, none were significantly weaker than avoidant attachment. The relationship between avoidant attachment and supervisor trust was significantly weaker ($z = 3.39, p < .01$) than the relationship between anxious attachment and coworker trust. Thus, the data provided general support for hypothesis

2c, and despite the non-significant relationships proposed in hypothesis 2d, it received limited support due to the confirmed weaker relationship than 2b.

Hypotheses 3a and 3b assert that propensity to trust would be positively related to coworker and supervisor trust, respectively. Results show that propensity to trust was positively correlated with trust in coworkers overall ($r = .22, p < .01$) and least trusted coworker ($r = .34, p < .01$), but was not significantly correlated with most trusted coworker ($r = .07, ns$) or supervisor trust ($r = .06, ns$). This provided moderate support for hypothesis 3a, and no support for hypothesis 3b.

For hypotheses 4a and 4b, the relationship between trust and stress was examined. The hypotheses assert that while trust in coworkers and supervisors will be negatively related to stress, coworker trust will have a stronger negative relationship. Correlational analysis showed that none of the measures of coworker stress ($r = -.05, ns, r = .00, ns, and r = .07, ns$, respectively, for trust on coworkers overall, most trusted coworker, and least trusted coworker) were related to stress, nor was supervisor trust correlated with stress ($r = .11, ns$). Thus there was no support for hypotheses 4a and 4b.

Hypotheses 5a, 5b, and 6 relate to an individual's perceived social support within their organization. The first two purported that while both coworker and supervisor trust would be significant positive predictors of perceived social support, coworker trust will have a stronger relationship than supervisor trust. Correlations in this study supported both of these hypotheses; all three measures of coworker trust predicted perceived social support ($r = .49, p < .01, r = .35, p < .01, and r = .35, p < .01$, respectively, for trust on coworkers overall, most trusted coworker, and least trusted coworker). Supervisor trust was also significantly correlated with perceived social support ($r = .25, p < .01$). While weaker than any of the correlations with coworker trust, it

was only weaker to a statistically significant extent for trust in coworkers overall ($z = -4.01, p < .01$). Hypothesis 6 asserts that individuals with higher levels of social support will experience lower levels of stress than individuals with lower levels of social support. When looking at Table 4, the correlation between perceived social support and stress does not support this hypothesis ($r = -.08, ns$).

When looking to predict OCBs, hypotheses 7a and 7b argued that while both supervisor trust and coworker trust should be positively related, coworker trust should have a stronger relationship with citizenship behaviors. Results for these relationships supported these hypotheses, as OCB was significantly correlated with all three measures of coworker trust ($r = .27, p < .01, r = .46, p < .01, and r = .54, p < .01$, respectively, for trust on coworkers overall, most trusted coworker, and least trusted coworker), as well as showing a smaller, but still statistically significant correlation with supervisor trust ($r = .18, p < .01$). Concerning the magnitude of correlations, both most trusted coworker ($z = 4.63, p < .01$) and least trusted coworker ($z = 4.13, p < .01$) were significantly stronger than supervisor trust.

The last hypotheses concern how trust predicts an individual's job satisfaction, asserting that while coworker and supervisor trust will both be positively related to job satisfaction, supervisor trust will have a stronger positive relationship. All measures of coworker trust were significantly correlated with job satisfaction ($r = .36, p < .01, r = .36, p < .01, and r = .19, p < .01$, respectively, for trust on coworkers overall, most trusted coworker, and least trusted coworker), as was supervisor trust ($r = .28, p < .01$). Thus, the analysis showed overall support for the relationships proposed in the hypotheses, but not the relative strength of the relationships..

The hypotheses can also be examined looking at the coworker ratings of OCB, stress, and job satisfaction. Self and other ratings of OCB were statistically significant ($r = .38, p < .01$), as were self and other ratings of job satisfaction ($r = .30, p < .05$). The relationship between self and other ratings of stress was non-significant ($r = -.19, ns$). None of the measures of trust were significantly correlated with OCB ($r = .16, ns$, and $r = -.19, ns$). Interestingly, the relationship between least trusted coworker and organizational citizenship behaviors is the opposite direction as hypothesized when using coworker ratings as outcomes.

In terms of the coworker rating of stress, none of the measures of coworker trust were significantly related ($r = -.17, ns$, and $r = -.18, ns$). Supervisor trust was strongly related to coworker ratings of stress ($r = -.50, p < .01$). Supervisor trust was significantly stronger than trust in coworkers overall and least trusted coworker ($z = 2.03, p < .05, z = 2.91, p < .01$, respectively). Similarly, when looking at coworker ratings of job satisfaction, none of the ratings of coworker trust were significantly related ($r = .20, ns$, and $r = .16, ns$). Supervisor trust was significantly related to coworker ratings of job satisfaction ($r = .38, p < .01$).

Additional Analysis

In order to go beyond the bivariate correlational nature of this study, multiple regressions were run to examine the predictive power of the respective variables: the dispositional characteristics on each type of trust, and models using all four types of trust to predict employee outcomes rated by both the focal participant and their coworker. For the models looking at the influence of dispositional characteristics when predicting trust, each model was run twice: once on the whole sample, and once on the subsample (mTurk and Snowball), which included the measure of hostile attribution that was not included in the subject pool data collection. This

resulted in 15 total multiple regression models. Tables 7, 8, 9 and 10 display the regression statistics for each.

Trust in Coworkers Overall. When predicting trust in coworkers overall, the model using the subsample was significant ($F(5,145) = 7.89, p < .01$) and according to the adjusted R^2 , explained 19% of the variance in ratings. As shown in Table 7, hostile attribution was a significant predictor for trust in coworkers overall ($\beta = -0.19, p < .05$), was avoidant attachment ($\beta = -0.43, p < .01$) and propensity to trust ($\beta = -0.16, p < .05$). Anxious attachment was not a significant predictor ($\beta = -0.45, ns$). The interaction between anxious and avoidant attachment was included as a predictor (since presence of neither indicates a secure attachment), but was not a significant predictor ($\beta = 0.37, ns$).

When using the entire sample, shown in table 8, the overall model was significant ($F(4,357) = 7.96, p < .01$), and had an adjusted $R^2 = .07$. As shown in table 8, anxious attachment ($\beta = -0.15, p < .01$) and propensity to trust ($\beta = 0.15, p < .01$) were significant predictors of trust in coworkers overall. Neither avoidant attachment ($\beta = -0.10, ns$), nor the interaction between anxious and avoidant attachment ($\beta = 0.05, ns$), were significant predictors.

Most Trusted Coworker. The regression model for most trusted coworker in the subsample was significant ($F(5,145) = 3.16, p < .01$), and explained 23% of the variance. Hostile attribution was a significant predictor of most trusted coworker, ($\beta = -0.20, p < .01$), as was avoidant attachment ($\beta = -0.55, p < .01$). Neither propensity to trust ($\beta = 0.07, ns$) nor anxious attachment were significant predictors, ($\beta = -0.46, ns$). The attachment interaction term was also non-significant ($\beta = 0.43, ns$). Results can be found in table 7.

When examining the entire sample, the regression model predicting most trusted coworker was significant ($F(4,357) = 7.14, p < .01$), and accounted for 6.5% of the variance. Avoidant ($\beta = -0.20, p < .01$) and anxious ($\beta = -0.13, p < .05$) attachment were both significant predictors, but the interaction was not ($\beta = 0.07, ns$). Propensity to trust was not a significant predictor of most trusted coworker ($\beta = 0.09, ns$). Results can be found in table 8.

Least Trusted Coworker. When predicting least trusted coworker in the subsample, the regression model was significant ($F(5,145) = 3.60, p < .01$), and accounted for 8% of the variance. As shown in table 7, propensity to trust and anxious attachment were significant predictors of least trusted coworker, ($\beta = 0.31, p < .01$, and ($\beta = -0.31, p < .05$, respectively). Hostile attribution bias, avoidant attachment, and the attachment interaction were not significant predictors ($\beta = 0.07, ns$, $\beta = -0.31, ns$, and $\beta = 0.65, ns$, respectively).

Within the entire sample, the regression model predicting least trusted coworker was significant ($F(4,357) = 9.73, p < .01$) and accounted for 9% of the variance; results can be located in table 8. Similar to in the subsample, propensity to trust was the only significant predictor ($\beta = 0.32, p < .01$; $\beta = 0.03, ns$, for avoidant attachment, $\beta = 0.00, ns$, for anxious attachment, and $\beta = 0.08, ns$, for the attachment interaction term).

Supervisor Trust. The regression model used to predict supervisor trust within the subsample was significant ($F(5,145) = 8.76, p < .01$), and explained 22% of the variance in ratings. Avoidant attachment was the only significant predictor variable ($\beta = 0.82, p < .01$; $\beta = -0.11, ns$, for hostile attribution; $\beta = -0.41, ns$, for anxious attachment, $\beta = 0.10, ns$, for propensity to trust, and $\beta = 0.55, ns$, for the attachment interaction term). Results can be found in table 7.

Using the entire sample, the regression model was significant ($F(4,357) = 6.38, p < .01$), and the predictor variables accounted for 6% of the variance. Consistent with the subsample, avoidant attachment was the only significant predictor of supervisor trust ($\beta = 0.23, p < .01$; $\beta = -0.02, ns$, for anxious attachment, $\beta = -0.02, ns$, for propensity to trust, and $\beta = 0.08, ns$, for the attachment interaction term). Results can be found in table 8.

Stress. A multiple regression was performed to assess the value of trust in coworkers overall, most trusted coworker, least trusted coworker, and supervisor trust in predicting employee stress. The results, which are displayed in table 9, found that despite the overall model being significant ($F(4,357) = 2.61, p < .05$), only 1.9% of the variance is explained by the predictors, and none of the variables were significant predictors of stress.

Perceived Social Support. In order to assess the role of coworker and supervisor trust in predicting perceived social support, a multiple regression was conducted. The predictors explained 22.6% of the variance, and the model was statistically significant ($F(4,357) = 25.64, p < .01$). All three measures of trust significantly predicted perceived social support ($\beta=0.38, p < .01$ for trust in coworkers overall, $\beta=0.13, p < .05$ for most trusted coworker, and $\beta=0.13, p < .05$ for least trusted coworker). Supervisor trust, however, was not a significant predictor ($\beta= 0.06, ns$). Results can be found in table 9.

Organizational Citizenship Behaviors. For the regression examining predicting self-rated OCBs, the model was significant ($F(4,357) = 54.25, p < .01$) and explained 38.7% of the variance; these results can be found in table 9. Trust in coworkers overall was a significant predictor of OCB

($\beta=0.09, p < .05$), as was most trusted coworker ($\beta=0.35, p < .01$). Least trusted coworker was not a significant predictor of OCB ($\beta=0.02, ns$). Supervisor was a significant predictor of organizational citizenship behaviors ($\beta=0.31, p < .01$).

Job Satisfaction. In regards to predicting self-rated levels of job satisfaction, the overall regression model was significant ($F(4,357) = 14.91, p < .01$), and the predictors explained 14.2% of the variance in ratings. Two forms of coworker trust were significant predictors of job satisfaction; trust in coworkers overall ($\beta=0.22, p < .01$) and least trusted coworker ($\beta=0.15, p < .01$). Supervisor trust was also a significant predictor of job satisfaction ($\beta=0.17, p < .01$). Results can be found in table 9.

Coworker Ratings of Outcome Variables. Coworker ratings were collected for 48 focal participants. While the regression for each coworker rated outcome variable is presented in table 10, the sample size of $N=48$ fails to meet the criteria set forth by Tabachnik & Fidell (2007) for reaching 80% power. Their guidelines indicate needing a sample size of $50 + 8*k$ (where k is the number of predictors) for 80% power in assessing the overall model, which would have required 82 dyads. Further, a sample size of 108 dyads would have been required to have 80% power when examining the influence of any one predictor (Tabachnik & Fidell, 2007). Thus, these regressions should not be interpreted as illustrative of the true relationships between the predictor and outcome variables. Although several models did reveal a statistically significant effect, given the modest sample size I am reticent to interpret those findings as supportive of my hypotheses. Rather, I look at those findings as provocative results in need of cross-validation.

Table 7: Summary of Regression Analysis for Variables Predicting Trusting Relationships—Subsample ($N = 153$)

Variable	Coworker Trust Overall			Most Trusted Coworker			Least Trusted Coworker			Supervisor Trust		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Hostile Attribution	-2.26*	-0.89	-0.19	-0.12**	0.05	-0.20	0.07	0.08	0.07	-0.09	0.06	-0.11
Avoidant Attachment	-7.54**	3.08	-0.43	-0.52**	0.16	-0.55	-0.48	0.29	-0.31	-0.82**	0.21	-0.67
Anxious Attachment	-6.11	3.30	-0.45	-0.33	0.17	-0.46	-0.65*	0.31	-0.31	-0.37	0.24	-0.41
Propensity to Trust	3.41*	1.78	0.15	0.09	0.09	0.07	0.62**	0.17	0.31	0.15	0.13	0.10
Anxious x Avoidant Int	1.08	0.92	0.37	0.07	0.05	0.43	0.16	0.09	0.65	0.10	0.07	0.55
<i>Adj R</i> ²		.19			.23			.08		.22		
<i>F</i>		7.89			3.16**			3.60**		8.76		

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

Table 8: Summary of Regression Analysis for Variables Predicting Trusting Relationships—Sample (N = 353)

Variable	Coworker Trust Overall			Most Trusted Coworker			Least Trusted Coworker			Supervisor Trust		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Avoidant Attachment	-3.02**	1.10	-0.15	-0.21**	0.06	-0.20	0.05	0.09	0.03	-0.30**	0.08	-0.23
Anxious Attachment	-1.47	0.82	-0.10	-0.11*	0.04	-0.13	0.00	0.07	0.00	-0.02	0.06	-0.02
Propensity to Trust	3.60**	1.26	0.15	-0.08	0.07	-0.07	0.62**	0.10	0.32	-0.03	0.09	-0.02
Anxious x Avoidant Int	0.69	0.75	0.05	0.05	0.04	0.07	0.09	0.06	0.08	0.08	0.05	0.08
<i>Adj R</i> ²		.07			.07			.09			.06	
<i>F</i>		7.97**			7.14**			9.73**			6.83**	

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

Table 9: Summary of Regression Analysis for Variables Predicting Employee Outcome Variables (N = 353)

Variable	Perceived Social Support			Stress			Organizational Citizenship			Job Satisfaction		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Coworker Trust Overall	0.01**	0.00	0.38	0.00	0.00	0.23	0.01*	0.00	0.09	0.01**	0.00	0.22
Most Trusted Coworker	0.08*	0.04	0.13	0.13	0.08	0.12	0.36**	0.06	0.35	-0.08	0.06	-0.08
Least Trusted Coworker	0.06*	0.02	0.13	-0.09	0.04	-0.12	0.01	0.03	0.02	0.09**	0.04	0.15
Supervisor Trust	-0.03	0.03	-0.06	-0.10	0.06	-0.12	0.26**	0.05	0.31	0.13**	0.05	0.17
<i>Adj R</i> ²		.23			.02			.39			.14	
<i>F</i>		25.64**			2.61*			54.25**			14.91**	

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

Table 10: Summary of Regression Analysis for Variables Predicting Coworker Ratings of Employee Outcome Variables

Variable	Organizational Citizenship			Stress			Job Satisfaction		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Coworker Trust Overall	0.01	0.01	.35	-.01	0.02	-0.38	0.01	0.01	0.84
Most Trusted Coworker	0.01	0.31	0.05	0.26	0.41	0.63	-0.20	0.34	-0.57
Least Trusted Coworker	-0.22	0.13	-0.30	0.19	0.17	0.63	-0.17	0.14	-1.24
Supervisor Trust	0.17	0.17	0.98	-0.82**	0.22	-3.63	0.47*	0.19	2.47
<i>Adj R</i> ²		.00			.19			.08	
<i>F</i>		.86			3.75*			1.96	

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

Discussion

This primary objectives of this study were to: investigate which dispositional and situational characteristics influence who and how employees trust within organizations; explore how the nature of trusting relationships in organizations influence employee level outcomes; and investigate the interplay of different ways in which employees can trust their coworkers. Further, this allowed some initial investigation into how individual's coworkers view their work experience.

Looking at the influence of dispositional characteristics on forming trusting relationships in the workplace, hostile attribution bias was generally predictive of coworker trust, in that it predicted both trust in coworkers overall and most trusted coworker. It was not related to supervisor trust. The lack of relationship with supervisor trust is somewhat surprising, but may be indicative of another mechanism at work in hierarchical relationships. Consistent with the hypotheses, avoidant attachment was related to all three measures of coworker trust, as well as supervisor trust. Anxious attachment was generally related to coworker trust, and was not related to supervisor trust. This is of note because it further illustrates that while attachment is thought of as a construct that transitions from authority figures to peers as individuals grow up, it has utility across levels. As avoidant attachment is negatively related to more measures of workplace trust than anxious attachment, it could be indicative that the desire to be unnaturally close and dependent on others does not have the negative influence that avoiding close relationships does. Interestingly, anxious attachment is not significantly related to social support, whereas avoidant is. This also serves to illustrate that avoiding others could lead to increased negative workplace outcomes than a desire to be overly close.

Propensity to trust was generally related to coworker trust, as results showed significant correlations with trust in coworkers overall, as well as least trusted coworker. It was not related to most trusted coworker or supervisor trust. Thus, the conclusion can be drawn that propensity to trust is a potentially useful variable when looking at groups of people or an individual that an employee may not have a close relationship with or know very well, but it may lose its utility once there is more familiarity between individuals in a trusting relationship. Together, these results indicate that different personality or dispositional constructs may predict trusting relationships with varying targets in varying ways.

When the predictive power of dispositional characteristics on trust in coworkers and management were examined, the constructs similarly offered somewhat different contributions³. Results from the subsample showed significant relationships between hostile attributions of others behaviors and two of the three ways of assessing coworker trust, though non-significant relationship with least trusted coworker and supervisor trust. While surprising that it is unrelated to supervisor trust, it is possible that since this attribution could function through the antecedent of benevolence rather than directly on trust itself, that the other two antecedents of trust, ability and integrity, outweigh benevolence when forming trusting relationships. When comparing least trusted coworker and most trusted, it is possible that having a hostile attribution bias sets a ceiling on how much one trusts others, as opposed to a floor. Considering the significant negative correlation with propensity to trust, it is possible that the two work together to

³ It should be noted before drawing strong conclusions that the explained variance in ratings for sample models was generally low. For three of the four trust-related outcome variables, the adjusted R^2 decreased substantially between the subsample regression model and sample regression model. The exception to this is for least trusted coworker, where the subsample already had a low adjusted R^2 , and thus while there is a higher level of explained variance for the sample overall, it is still low enough to warrant caution.

determine one's trusting range, as propensity to trust was a significant predictor of least trusted coworker.

Multiple regression showed that avoidant attachment style was a significant predictor of trust in coworkers overall, most trusted coworker, and supervisor trust, in both the sample and subsample. It was not a significant predictor of the least trusted coworker. The literature suggested that anxious attachment style should be negatively related to coworker and supervisor trust. Anxious attachment was a significant predictor of most trusted coworker in both the sample and subsample, marginally predicted trust overall in the subsample, and was a significant predictor of trust overall in the sample. Neither supervisor trust nor least trusted coworker were significantly predicted by anxious attachment. While there is theoretical and empirical support for the interaction of anxious and avoidant attachment styles (Bartholomew & Shaver, 1998; Brennan et al, 1998), it was not a significant predictor for any measure of trust.

These results related to attachment indicate that the role it plays within organizations may be more complex and nuanced than initially posited. It is possible that attachment functions differently depending on if the outcome variable is asking about peers, people in higher seniority, or even individuals in lower levels in the organization. Further, the lack of significant prediction from the attachment interaction term indicates that even at a theoretical level, attachment may not function the same within organizations as it does within romantic relationships. That is, being securely attached (so neither anxious nor avoidant) may not have the extra positive influence on relationships that it does within other contexts.

Within the subsample, propensity to trust was only a significant predictor of least trusted coworker—with a positive beta-weight. This indicates that the higher one is on propensity to trust, the more trust they will have for the person they trust the least than those low on propensity

to trust. This was also the case in the entire sample, where propensity to trust was the only significant predictor of least trusted coworker. It is possible that when no negative event has occurred, and thus least trusted coworker is more so based on a lack of relationship (compared to a bad relationship), this dispositional tendency to see others as trustworthy takes over. This is a potential conceptual issue with using least trusted coworker in research—having a bad relationship with a specific coworker is very likely a different influence on an employee's experience at work than a lack of a relationship. Propensity to trust was also a significant predictor for trust in coworkers overall within the sample, which is indicative that propensity to trust may be a more appropriate predictor with groups of people. In both the sample and subsample, propensity to trust was not a significant predictor of supervisor trust. While this is counter to prior research, it is indicative that other dispositional characteristics are stronger predictors of supervisor trust than propensity to trust.

When discussing the relationships between the different dispositional characteristics, it was hypothesized that both avoidant and anxious attachment would be related to hostile attribution, with avoidant attachment showing a stronger relationship. Neither of these assertions were displayed in the data, which is somewhat surprising. It is possible that an individual is capable of avoiding others regardless of their tendency to attribute behaviors as hostile, rendering the constructs unrelated. In the case of anxious attachment, the associated self-doubting and questioning nature may lend itself to becoming overly close and dependent, disregarding potential social cues. It would be interesting to see if the lack of relationships hold across settings (e.g., inside an organization or outside), and across populations.

As proposed, hostile attribution had a statistically significant negative correlation with ones propensity to trust. This is interesting, because propensity to trust is the only dispositional

variable that hostile attribution was significantly correlated to. While avoidant attachment was negatively correlated with propensity to trust, anxious attachment was not related to propensity to trust. Following the previous indicators that propensity to trust may have more utility when looking at groups of people or non-close relationships, it follows that individuals who are avoidant of others would also rely more heavily on their propensity to trust than anxious individuals who get to know others more thoroughly. Inconsistent with the notion that attachment style would have a stronger influence on supervisor trust than trust in coworkers, only avoidant attachment was negatively related to supervisor trust, whereas both forms of attachment were related to trust in coworkers overall and most trust coworker.

Overall, the results of the hypotheses tested and supplemental analyses conducted indicated that several dispositional variables likely influence perceptions of trust. In addition, results revealed that the relationship between trust and employee outcomes often depended on the target of the trust perceptions (i.e., coworkers vs. supervisors).

Employee-Rated Outcome Variables

All three measures of coworker trust were positively correlated with social support, as was supervisor trust. Related to the notion that social support is more likely to come from a peer as opposed to someone in the chain of command, all three correlations related to coworker trust were stronger than the correlation with supervisor trust. Even though measures of coworker trust have a stronger relationship, supervisor trust is still significantly correlated. Participants in this study did have a high overall rating of supervisor trust ($M = 5.55$, $SD = 1.20$), and it is possible that many individuals do receive social support from their supervisor. The possibility of restriction of range results in a possible underestimating of the strength of these relationships

with supervisory trust. As organizations become more flat, employees may spend more time with their supervisor, and as a result develop a stronger and more personal relationship.

Self-rated OCB was also significantly related to all three measures of coworker trust, as well as supervisor trust. OCB has the strongest positive correlational relationship with least trusted coworker. While interesting at first glance, this is likely an artifact of having high trust overall, or that the least trusted coworker is someone that the participant did not know particularly well, as opposed to someone they have a bad relationship with. The ratings of coworker trust were more strongly correlated with OCB than supervisor trust; this indicates that employees who trust their coworkers also see themselves as helping more in the workplace. This is likely a function of the reciprocal nature of trust; engaging in multiple relationships that involve reciprocity could lead to performing many behaviors that would be considered OCBs.

Employee ratings of stress were not related to any measures of coworker or supervisor trust. With the case of measuring stress, it would have been beneficial to use a measure that is more specific. The SIG asked respondents to rate adjectives in terms of whether they describe their job, including “pressured” and “relaxed”. Variables are best at detecting relationships when they are at the same level of detail as one another, and the SIG is a much broader measure than any of the predictor variables used. Given the level of detail in the trust measures, a more appropriate measure would have been one that asks about perceived workload, control, and rewards.

Self-rated levels of job satisfaction were also related to all three measures of coworker trust. Trust in coworkers overall and most trusted coworkers had the strongest relationships with job satisfaction, even stronger than supervisor trust. This is meaningful because it speaks to the influence of being surrounded by people—not just your supervisor—that you trust. It is possible

that having strong relationships with peers may be able to help an employee get through a time where they do not find the work to be particularly interesting or meaningful. This may be particularly relevant in jobs where employees do not have a lot of autonomy to choose what exactly they are working on. This is an area that may be particularly fruitful in terms of further investigation, examining the compensatory nature of strong coworker relationships when the work itself may not be ideal for the employee.

Organizational citizenship behavior was predicted by a unique combination of trust measures—most trusted coworker, and supervisor trust. It was somewhat unexpected that trust in coworkers overall is not predictive of OCB, as logic follows that the more coworkers that you trust, the more you would engage in helping behaviors for those people. This has interesting implications because it shows that even if an employee has only one coworker who they really trust, they are more likely to engage in helping behaviors. This is beneficial for organizations to consider in terms of interpersonal dynamics, particularly regarding team composition. It is important to remember, however, that trust in coworkers overall also has a positive influence on the general work experience, so having, e.g., a best friend at work, cannot serve as a band-aid for a panacea of potential issues.

While the regression to predict stress was significant, there were no significant predictors and the adjusted R^2 is .02. Even though least trusted coworker is marginally significant, it would be inappropriate to interpret this finding as meaningful. Further, the adjusted R^2 reflects that these predictor variables are likely not important or pertinent in investigating employee stress.

Coworker trust was a strong predictor of perceived social support in organizations, with trust overall, most trusted, and least trusted coworker all being significant. Somewhat surprisingly, supervisor trust is not a significant predictor of perceived social support. It was

theorized that supervisor trust would be have a weaker relationship than coworker trust, partially because peers and supervisors serve different roles in organizations. While research delineates multiple types of social support (appraisal, emotional, informational, and instrumental), it is possible that employees do not differentiate when making judgments of overall support. In this case, it is likely that the focus is on emotional or instrumental support, which is more likely to come from a coworker. This result is also in contrast to the correlation between supervisor trust and social support, which was significant; it reflects that the intercorrelation amongst the different measures of trust may be driving the correlation, which is why it drops to non-significant when controlling for the measures of coworker trust.

When looking at job satisfaction, the measures of trust in coworkers overall, least trusted coworker, and supervisor trust were significant predictors. While this may provide insight into how one “bad apple” in a work group can influence the experience of employee, it also reveals that it may be possible to mitigate this effect, as the least trusted coworker *B* is the smallest of the significant predictors. It is also possible that it is again indicative of the conceptual issues in using least trusted coworker, and the variety of relationships that the construct could potentially reflect. Overall, trust in both coworkers and supervisor predict positive outcomes at work, though different ways of examining coworker trust are related to different outcomes, warranting more investigation.

Peer-Rated Outcome Variables

When examining the coworker-ratings of OCB, stress, and job satisfaction, the results were somewhat disappointing. OCB was not significantly related to any of the measures of trust. Stress was strongly and negatively related to supervisor trust, but did not have significant

relationships with any measures of coworker trust. Similarly, peer-rated job satisfaction was significantly correlated with supervisor trust, but no measures of coworker trust. As stated earlier, there would be tremendous benefits to replicating this study with a larger sample of paired respondents.

While all three scales showed strong reliability, the ratings showed a high degree of intercorrelation (all with an absolute magnitude of $r > .40$, $p < .01$). Propensity to trust was also significantly correlated with stress and job satisfaction; it is possible that peer ratings could reflect a more basic propensity to trust others, as they are at a distance. Further, the closeness of the peer likely has an influence on these ratings. Two of the peer-rated variables correlated significantly with the self-ratings of the same variable: organizational citizenship behavior and job satisfaction. This indicates that for both a behavior and an attitude, coworker ratings may be able to provide a strong alternate source of information. While self-rated stress and other rated stress were not significantly related, this is likely still an issue with the scale used to measure stress in the self-ratings. Interestingly, self-rated level of organizational citizenship was the only self-rated behavior with significant relationships with all of the coworker rated outcome variables; it is possible that an employee performing OCB or extra-role behaviors can be interpreted by their coworkers as an indicator of satisfaction with their job, and/or as a lack of stress or anxiety from task performance or in role behaviors. Alternately, it could be a function of common method variance occurring within the coworker ratings of the outcome variables.

Contributions

One particularly interesting outcome of this study is that with the stronger integration of coworker trust into organizational research, researchers should be mindful about the nature of those relationships, in that the specific referent may influence the outcome. In this case, coworker trust ratings using the three referents of a) coworkers overall, b) the most trusted coworker, and c) the least trusted coworker, tended to load on a their respective factor with minimal cross-loadings. Even though trust in coworkers overall and most trusted coworker are significantly correlated, as was the relationship between coworkers overall and least trusted coworker, the relationship between most trusted and least trusted coworkers was not significant ($r = .06$). This indicates that when provided with specific referents, including similar referents with different valence, individuals are able to differentiate. This, combined with the outcomes of this study, supports the potential value in taking a more nuanced approach to how trust is examined and measured within organizations.

Another notable outcome from this study was the role of attachment style in workplace relationships. While attachment style research has normally focused on child-parent relationships or romantic relationships for adults, this study showed that both anxious and avoidant attachment styles have predictive power for examining trust in the workplace. These results indicate that particularly avoidant attachment is a significant and consistent predictor for level of trust within organizations, and the results are particularly powerful when hostile attribution bias is included. Hostile attribution was not significantly correlated with either form of attachment, indicating that the three may work together to help shape beliefs and opinions. Further, the interaction between anxious and avoidant attachment (i.e., a securely attached individual) was not a significant predictor of trusting relationships. This is somewhat counter to prior research on adult

attachment, where securely attached individuals experience higher levels of positive outcomes compared to individuals who display anxious or avoidant attachment.

As an exploratory investigation, the relationships between attachment style and perceived social support were examined. While the interplay of attachment style and perceived social support was not explored in depth initially, theory supports how the two would be related. Individuals with insecure attachment styles engage in hyperactivating (anxious) or deactivating (avoidant) strategies when interacting with others. Individuals who engage in hyperactivating strategies are overdependent on others, which is a result of being preoccupied with their relationships with others and fear being rejected (Richards & Schat, 2011). Deactivating strategies minimize the importance of relationships as they view others as unavailable or unresponsive (Bowlby, 1973; Mikulincer & Shaver, 2005).

Deactivating and hyperactivating strategies both lead to an inability to manage adversity, due to an inability or unwillingness to seek support from others (anxious) or a lack of internal coping resources (avoidant). Perceived social support relates more strongly to anxious individuals as they do not seek out help, as opposed to avoidant individuals who undermine the importance of relationships overall. The likely interplay in this study is that anxious attachment influences an employees perceived social support in their team, which then in turn influences their trust. This is in contrast to avoidant individuals who continually deny the importance of relationships with others and hesitate to depend on anyone else (Richarts & Schat, 2011). Avoidant individuals may see the level of perceived social support as sufficient as they have never needed to use it—but also do not have a high level of trust for their coworkers because they do not have intimate relationships with any of their coworkers. An ad hoc regression to predict perceived social support confirms that anxious attachment was the strongest predictor (B

= -.29, $p < .01$), whereas avoidant was non-significant, indicating some support for the notion that anxious attachment may function through perceived social support, whereas avoidant attachment may have a more direct influence on coworker trust. This would be fitting, as someone who has a general trust in others is related to development of and satisfaction with relationships with others, which is a key component of social support.

Looking at past research, most studies that included referents of both peers and supervisors did so in on combined measure, making it impossible for the reader to disentangle the relative influence of each type of relationship. When the referents were measured separately, there were small, but statistically significant correlations between coworker and supervisor trust. Within this study, the correlations between the coworker and supervisor trust variables varied from $r = .17$ to $r = .58$, all $p < .01$. While these correlations ranged from weak to strong, the regression models indicated that while there is shared variance, there may be different outcomes where the predictive value of coworker versus supervisor trust is unique. That is—there may only be differential influence on a subset of outcome variables. For example, perceived social support was predicted by all three measures of coworker trust (which showed much lower intercorrelations), and was not significantly predicted by supervisor trust. Development and subsequent testing of theory addressing what different referents may related to, and where the difference does or does not matter, would be a fruitful avenue in terms of learning about the nature of interpersonal relationships in the workplace. The development of theory related to different trust referents in organizations should not be limited only to coworker and supervisor, but also include senior management, peers (if applicable), and others.

Despite the lack of significant results using the coworker rated outcome variables, they warrant further investigation with a larger sample size of dyads, as the power to detect effects

would be stronger. This is particularly true for the coworker ratings of stress, where it could be paired with a self-rating measure of stress that is at a more appropriate level of detail for correspondence.

Future Directions and Implications

There are contributions from this study for future directions in predicting trust, as well as being better able to predict the outcomes of trust. The pattern of results and relationships show that in order to have a holistic perspective on how individuals form trusting relationships, multiple dispositional constructs should be taken into account, including propensity to trust and attachment style. Although the regression results indicated that only some of the variance is explained by personality alone, the results particularly for the subsample examining trust in coworkers overall, most trusted coworker, and supervisor trust were promising. Because trust involves being vulnerable to someone else, it is most likely best explained as an interaction between the personality of the trustor, and how the trustor perceives the trustee. Thus, future endeavors would benefit from examining how ability, benevolence and integrity of the target interact with the tendencies towards trust from the trustor. This would enable researchers to delineate the relative weight and importance of predicting trust in teams and organizations.

Overall, this study provides evidence that the theory underlying trust in organizations should be expanded to take into account a more detailed approach to trust, exploring the rationale behind the different relationships based on the approach to trust. Results from the factor analysis showed that the three approaches to measuring coworker trust are distinct, with minimal overlap, and analysis demonstrated that the different approaches are predictive of different outcomes. These results provide additional support for Luo's (2005) theory of particularized trust, which

asserts that employees can and do differentiate between trusting groups of people versus specific people. This study expanded on Luo's approach; the original model specified the importance of looking at those who an employee strongly trusts and strongly distrusts, whereas this model looked at both of those at the peer level, peers overall, and supervisor trust.

Another way in which the trust literature should be expanded is by integrating targeted ratings of trust with specific types of trust. McAllister (1995) asserted that trust has both cognitive and affective foundations; cognitive based feelings of trust are the ratings or beliefs based on 'good reasons' that are based on evidence of an individual being trustworthy. Affective-based beliefs, on the other hand, are based on emotional connections between individuals. It is possible that dispositional characteristics that applied to coworkers and not to supervisors (e.g., hostile attribution bias, propensity to trust) fall more into influencing affective foundations of trust, and can be overcome when taking into account the cognitive based evidence of trust.

The expansion of trust research is largely analogous to the expansion that the literature of organizational justice is currently undergoing; the introduction of multifoci justice (Rupp, 2011) crosses different types of organizational justice (e.g., distributive, procedural, informational, and interpersonal justice) with different levels in the organization. This includes looking in, focusing on "how am I treated?"; looking around, for "how are we treated?"; and looking out, examining "how are others treated?" or "how does my organization treat external groups?" A cross-level examination of three types of justice (procedural, informational, and interpersonal justice) and two levels of rating targets (supervisor and organizational) revealed that four forms of justice climate (organization-focused procedural and informational justice, and supervisor-focused procedural and interpersonal justice) were significantly related to various work outcomes (Liao

& Rupp, 2005). The trust literature would greatly benefit from this level of in depth scholarship and study, and this study lays some of the foundational capabilities to do so.

The current study showed that depending on the outcome variable, there are differential effects of the four methods for measuring trust; for self-ratings, perceived social support was driven most strongly by trust in coworkers overall, and organizational citizenship behavior was most strongly influenced by most trusted coworker and supervisor trust. Somewhat surprisingly, most trusted coworker was not predictive of job satisfaction, whereas trust in coworkers overall, least trusted coworker, and supervisor trust were. When looking at coworker ratings of OCB, stress and job satisfaction, only supervisor trust had significant correlations with both stress and job satisfaction. None of the measures of coworker trust had a significant relationship with any of the coworker rated outcome variables. These relationships can and should be investigated through other means as well. For example, the Jones and James (1979) perceived organizational climate survey includes several climate factors that could be used as proxies for trust, including facilitation and supportiveness in leadership, directiveness in leadership, and work group cooperation in immediate workgroup. Although they are proxies, as opposed to direct measures, it would allow researchers to further explore the interaction between employee opinions and beliefs towards peers versus a supervisor.

Engaging in building out theory would enable researchers to have better informed, less exploratory research questions than those in this study. While a number of the results in this study meet the quotient of making sense, there is not theory to support them; current theory on organizational trust takes a higher level, less nuanced approach to trust. As researchers understand the construct of trust in a more in-depth way, more in depth theoretical models should also be developed. It would be beneficial to know explore how the different types of looking at

coworker trust relate to, e.g., commitment and turnover intentions. Once a specific approach to measuring trust is decided upon, it will be possible to examine supervisor-coworker trust interactions, and explore if there are any compensatory or additive effects on outcome variables. Beyond theory and definitions, research on trust would benefit from using more innovative methods to understand the complexity of the phenomena.

A takeaway from this study is the role of social support in terms of positive organizational outcomes. In a series of ad hoc regressions looking at the outcome variables, perceived social support was the strongest predictor of job satisfaction, and increased the adjusted R^2 statistic substantially. While it was not a significant predictor of OCB or stress, its strong relationship with organizational trust and strength in predicting job satisfaction indicate that it may play a larger role in interpersonal relationships within organizations than current research would suggest. Further, it would be beneficial for future work to reinvestigate the relationship between trusting relationships, social support, and stress, using a more appropriate scale.

In terms of practical implications, an increasingly large number of organizations are taking a matrixed approach to management and organizational structure. Within a matrixed organization, employees may not regularly see or work with their direct supervisor. This is particularly frequent in consulting roles, where the employee reports to a project manager, who may or may not be their manager. Within an organization with weakened supervisor-employee relationships, coworker trust may play an even more important role than in traditional organizations, with stronger influence on employee outcomes. Perceived social support may also play a larger role than normal in terms of influencing the employee experience within matrixed organizations.

While the primary implications of this study are within organizations, there are implications outside of work as well. We frequently have to work with others—in volunteer organizations, homeowners or condo associations, religious groups, and many others. It is beneficial to know that trust in the group overall is related to satisfaction and social support, but is not the most influential in terms of going the extra mile. Similarly, there may be a persnickety or troublesome individual in a group, but that experience does not significantly influence willingness to put in extra work or perceived social support. This is indicative of interpersonal dynamics and team composition questions beyond that of personality and work style, and should be studied further.

Limitations

A considerable limitation of this study is that almost all of the data was collected via self-report survey. When the same method is used to collect data at the same time, common method variance becomes an issue; this is exacerbated when the independent and dependent variables are collected from the same person (Podsakoff & Organ, 1996). Common method variance can create false relationships amongst the variables, as the variance is more attributable to the method (in this case, self-report survey) than the constructs the measures represent (Podsakoff et al, 2003). This can result in systematic measurement errors that can inflate or deflate the observed relationships between constructs, possibly leading to both Type I and Type II errors.

There are four main approaches to addressing CMV (Podsakoff et al, 2003); the first two are ex ante, meaning that they are implemented during the research design phase. This includes (1) using other sources of information for some of the key measures, particularly the dependent measure; and, (2) engaging in procedural remedies, such as mixing the questions or using

different scale types. In this study, we attempted to collect dependent measures from a separate source by collecting coworker ratings of stress, OCB and satisfaction, though the sample size of coworker ratings is low, which is a limitation in itself. Because of the low sample size, there was not sufficient power to detect any significant effects via regression. Further, the other ratings did not correlate with any of the ratings of coworker trust. The other ratings also indicated very high levels of intercorrelation, and thus also may be subject to common method variance.

Beyond the other ratings, some of the scales in this study used different response options, representing the second ex ante form of addressing common method variance; trust in coworkers overall used a 100 point sliding scale, and the JIG and SIG use scales of Yes, No and Maybe, and the CRT-A a multiple choice assessment. While collecting other ratings of key measures is considered the best approach because of avoiding the issue all-together, engaging in procedural remedies like using different scale types can also be effective in addressing common method variance.

There are also ex post approaches to addressing CMV; these include (3) specifying complex relationships within the regression models to the point where participants are unlikely to be able to visualize the relationships, and (4) using statistical methods to identify and control for CMV. The relationships in this study are likely not complex enough to render participants unable to visualize or guess them, which eliminates the first ex post approach to CMV. In terms of the second ex post approach to CMV, multiple statistical approaches, including the Harmon one-factor analysis, were ruled out for not having specific guidelines for interpretation and being sensitive to the number of variables involved. The approach proposed by Lindell and Whitney (2001), which suggests adding a scale measuring a variable that is theoretically unrelated to any study variable, was ruled out due to the length of the survey containing only the variables of

interest. Common method variance is a potential issue in this study, but in addition to the actions taken above, there are three different samples (mTurk, Snowball and Subject Pool), with potentially very different contextual factors influencing the individuals completing the survey. The participants within subject pool were all students, the snowball is a mix of professionals based in the United States, and the mTurk population is a mix of domestic and international workers. Further, the factor analysis on different types of trust amongst coworkers displayed three clean factors with minimal cross loadings, despite being the same item stem with different targets. As noted above, the relationship between most trusted and least trusted coworker is not only non-significant, but almost non-existent ($r = .06, ns$). Based on the factors above, while we cannot say that there are no issues with CMV in this study, it also cannot be said that all of the results can be attributed to the method, as opposed to the constructs.

As discussed earlier, another limitation is the measure used for assessing stress in participants. It asks about stress at a very high level, which is mismatched with the predictor variables in this study. The study would have been better suited to use a more specific measure of stress, as opposed to one that is so broad that many factors could potentially contribute to it. The final limitation is the somewhat inconsistent sampling; the subject pool sample proved to be somewhat problematic, though that was largely taken care of by only including respondents with a specific amount of prior work experience. Further, if the measure of hostile attribution had been included in the subject pool data collection, there would be stronger power overall for those analysis, and a cleaner set of analysis. Last, as this study is correlational in nature, only limited causal inferences can be made.

In order to overcome these limitations, a number of steps could be taken to facilitate a better replication of this study. The first would be having a larger sample of individuals who

completed the measure on hostile attribution bias, so that those hypotheses could be studied across the entire sample, as opposed to a subsample. Second, for the scales asking for ratings about specific people (e.g., most trusted coworker, least trusted coworker, and supervisor), ratings of ability, benevolence, and integrity could be included in order to attempt to explain more of the variance in ratings. It may also be possible to integrate a form of these scales for coworkers overall, using sliding percentage bars like were used for measuring trust in coworkers overall. The last two improvements that can be made consist of choosing a better measure for employee-rated stress, and having a larger sample size of pairs of coworkers. Despite these limitations and potential improvements, however, this study provides a strong foundation for the expansion of trust research to understand why we trust other people, and how different ways of examining trust can influence an employee's experience at work.

Conclusion

Overall, this study supports that we need to take a more complete and nuanced approach to how we study trust within organizations. Both components of trusting relationships need to be studied simultaneously (personality characteristics and characteristics of the target individual), and when looking at outcomes, both supervisor and coworker trust should be measured. Further, additional theory needs to be developed, and research done, to address the different ways in which trust can be measured and result in different outcomes. In an applied setting, this study begins to show additional ways that managers can help shape employee perceptions and attitudes.

Further, this study allows a unique perspective on how individuals' dispositions contribute to their trusting relationships within organizations, examining the tendency to attribute

others' behavior as hostile in motive, adult attachment, and propensity to trust. The results show that, dependent on the target, each shows predictive power in understanding what about personality leads to us trusting one another. These data also provide insight into the relative contributions of coworker and supervisor trust on perceived social support, organizational citizenship behaviors, and job satisfaction. Specifically, this study showed that the three referents are predicted by different dispositional characteristics, and have differing influence on the outcome variable. This study also provided the basis of a scale that can be used to assess stress in others, greatly decreasing the number of items while maintaining internal consistency and a strong correlation with the original. Thus, while the study has limitations, they are outweighed by the contributions and implications for research and industry.

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Appendix A: Focal Participant Scales

CRT-A Example Item

People in a rich neighborhood in New York were pushed around for years by a homeless man. This man slept in alleys, stayed drunk or high on drugs, and cursed and threatened to hurt many of the residents. The police were called many times. But the homeless man always got a lawyer and returned to the neighborhood and caused trouble.

Which of the following is the most logical conclusion regarding the people who lived in this neighborhood?

- a. They were used to dealing with the cold weather.
- b. They were afraid of the man, and would not fight back.
- c. They worked in New Jersey.
- d. They did all that they could do within the law.

Adult Attachment: Fraley, Waller & Brennan (1999)

Anxiety:

I'm afraid I will lose other people's love
I often worry that other people will not want to stay with me
I often worry that other people don't really love me
I worry that other people won't care for me as much as I care about them
I often wish that other people feelings for me were as strong as my feelings for him or her
I worry a lot about my relationships
When other people are out of sight, I worry that they might become interested in someone else
When I show my feelings for other people, I'm afraid they will not feel the same about me
I rarely worry about my other people leaving me
Other people makes me doubt myself
I do not often worry about being abandoned
I find that other people don't want to get as close as I would like
Sometimes other people change their feelings about me for no apparent reason
My desire to be very close sometimes scares people away
I'm afraid that once other people get to know me, they won't like who I really am
It makes me mad that I don't get the affection and support that I need from other people
I worry that I won't measure up to other people
Other people only seems to notice me when I'm angry

Avoidance:

I prefer not to show other people how I feel deep down.
I feel comfortable sharing my private thoughts and feelings with other people
I find it difficult to allow myself to depend on other people
I am very comfortable being close to other people
I don't feel comfortable opening up to other people
I prefer not to be close to other people

I get uncomfortable when other people want to be very close
I find it relatively easy to get close other people
It's not difficult for me to get close other people
I usually discuss my problems and concerns with other people
It helps to turn to other people in times of need
I tell other people just about everything
I talk things over with other people
I am nervous when other people get too close to me
I feel comfortable depending on other people
I find it easy to depend on other people
It's easy for me to be affectionate with other people

Propensity to Trust:

Schoorman et al 1996

One should be very cautious with strangers.
Most experts tell the truth about the limits of their knowledge.
Most people can be counted on to do what they say they will do.
These days, you must be alert or someone is likely to take advantage of you.
Most salespeople are honest in describing their products.
Most repair people will not overcharge people who are ignorant of their specialty.
Most people answer public opinion polls honestly.
Most adults are competent at their jobs.

Social Support:

Adapted from Winefield et al, 1992

How often do they really listen when you talk about your concerns or problems?
How often do you feel that they are really trying to understand your problems?
How often do they try to take your mind off your problems by telling jokes or chatting about other things?
How often do they help you in practical ways, like doing things for you?
How often do they answer your questions or give you advice about how to solve your problem?
How often can you use them as examples of how to deal with your problems?

Trust:

Adapted from Cook and Wall (1980)

Sliding bar of percentage for each item from 1-100

Overall Coworkers

Please rate the percentage of your coworkers that you believe the following statements apply to:

If I get into difficulties at work, I know my coworkers would help me out
I can trust the people I work with to lend a hand if needed
My coworkers can be relied upon to do as they say
I have full confidence in the skills of my coworkers
My coworkers would keep doing their work even if our supervisors were not around
I can rely on my coworkers to not make my job more difficult by performing work carelessly

Most Trusted

Think about one coworker you have the best relationship and complete the following on a scale of 1-7:

If I get into difficulties at work, I know this individual would help me out

I can trust this individual to lend a hand if needed

This individual can be relied upon to do as they say

I have full confidence in the skills of this individual

This individual would keep doing their work even if our supervisors were not around

I can rely on this individual to not make my job more difficult by performing work carelessly

Least Trusted

Think about one coworker you have the poorest relationship and complete the following on a scale of 1-7:

If I get into difficulties at work, I know this individual would help me out

I can trust this individual to lend a hand if needed

This individual can be relied upon to do as they say

I have full confidence in the skills of this individual

This individual would keep doing their work even if our supervisors were not around

I can rely on this individual to not make my job more difficult by performing work carelessly

Organizational Citizenship Behavior

VanDyne & LePine (1998)

I volunteer to do things for this work group

I help orient new employees in the workgroup

I attend work functions that help the work group

I assist others in this group with their work for the benefit of the group

I get involved to benefit this work group

I help others in the work group learn about the work

I help others in the group with their work responsibilities

Stress in General (SIG)

(Part of the JDI Suite)

When thinking about your job, do the following adjectives describe it?

Demanding

Pressured

Calm

Many stressful things

Hassled

Nerve-racking

Overwhelming

Abbreviated Job in General (AJIG)

Part of the JDI Suite

Think of your job in general. All in all, what is it like most of the time?

Good

Undesirable

Better than most
Disagreeable
Makes me Content
Excellent
Enjoyable
Poor

Demographics:

Gender:

Race

Years of Work Experience:

Industry:

Highest educational attainment:

On a scale of 1 to 10, how much would you say that your work is dependent on your coworkers?

Appendix B: Coworker Scales

Organizational Citizenship Behavior

Van Dyne & LePine (1998)

Think about your coworker's behavior in the workplace. On a scale of 1-7, how much does each of the following statements describe their behavior?

This particular coworker volunteers to do things for this work group

This particular coworker helps orient new employees in the workgroup

This particular coworker attends work functions that help the work group

This particular coworker assists others in this group with their work for the benefit of the group

This particular coworker gets involved to benefit this work group

This particular coworker helps others in the work group learn about the work

This particular coworker helps others in the group with their work responsibilities

Abbreviated Stress Scale

Adapted from Frazier, Moser, Riegal, McKinley, Blakely, Kim & Garvin, 2002

My coworker seems agitated at work

My coworker has told me that they feel stressed out

My coworker becomes upset easily

My coworker is unable to retain information

My coworker seems distracted from their work

My coworker is irritable

My coworker is restless

My coworker is withdrawn

Adapted JIG:

Think about how your coworker views their job in general. All in all, what is it like most of the time?

Good

Undesirable

Better than most

Disagreeable

Makes them content

Excellent

Enjoyable

Poor

Original Stress Scale

Adapted from Frazier, Moser, Riegal, McKinley, Blakely, Kim & Garvin, 2002

My coworker seems agitated at work

My coworker has told me that they feel stressed out

My coworker's voice frequently changes pitch

When talking to my coworker, they change topic frequently

My coworker has trouble concentrating
I have seen my coworker cry at work
My coworker can have trouble verbalizing their thoughts and ideas
My coworker easily becomes upset
My coworker frequently complains about work
My coworker can be obsessive about work
My coworker is unable to retain information
My coworker makes inappropriate jokes
My coworker seems distracted from their work
My coworker talks a lot
My coworker is irritable
My coworker laughs at inappropriate times
My coworker speaks very quickly
My coworker is restless
My coworker is withdrawn from work

Paige J. Deckert
Curriculum Vitae

Education

- Ph.D.**, Psychology, The Pennsylvania State University, 2016
M. S., Psychology, The Pennsylvania State University, 2012
B. S., Psychology, Highest Departmental Distinction, University of Illinois, 2009

Publications

- Gill, P., Horgan, J.G., & Deckert, P.J. (2015). Chapter 8: A Situational Crime Prevention Approach. In *Lone-Actor Terrorists: A behavioural analysis* (131-168). New York, NY: Routledge.
- Gill, P., Horgan, J.G., & Deckert, P.J. (2014). Bombing alone: Tracing the motivations and antecedent behaviors of lone-actor terrorists. *Journal of Forensic Sciences*, 59, 425-435.
- Murphy, K.R., Deckert, P.J., Kinney, T.B., & Kung, M. (2013). Judgments regarding the relative importance of competencies are not useful for choosing the test batteries that best predict performance. *International Journal of Selection and Assessment*, 21, 419-429.
- Murphy, K.R., & Deckert, P.J. (2013). Performance Appraisal. In K.F. Geisinger (Ed.) *APA Handbook of Testing and Assessment in Psychology* (611-627). Washington, DC: American Psychological Association.
- Murphy, K.R., Deckert, P.J., Hunter, S.T. (2013). What personality does and does not predict, and why: Lessons learned and future directions. In N.D. Christensen and R.P. Tett (Eds.) *Handbook of Personality and Work* (633-650). New York, NY: Routledge.
- Jacobs, R., Deckert, P.J., & Silva, J. (2011). Adverse impact is far more complicated than the Uniform Guidelines indicate. *Industrial Organizational Psychology: Perspectives on Science and Practice*, 4, 558-561.

Recent Research Presentations

- Parr, A.D., Deckert, P.J., Ginther, N., & Jacobs, R.R. (2015, April). Reducing group differences: Adding oral exercises to selection systems. In Deckert, P.J., & Hatfield, J.D., (co-chairs) Innovative Strategies for Minimizing Adverse Impact. Symposium conducted at the 30th annual conference for the Society for Industrial Organizational Psychology, Philadelphia, PA.
- Deckert, P.J., & Cronin, C.B. (May, 2015). Co-chairs of Scientist or Leader? Misconceptions, challenges and new considerations. Symposium conducted at the 30th annual conference for the Society for Industrial Organizational Psychology, Philadelphia, PA.
- Deckert, P.J., Horgan, J.G., Jayne, B.S., & Crayne, M.P. (2013, June). Understanding terrorist roles, types and functions: A job analysis of the global jihadi movement. Presentation given at the 7th annual conference for the Society of Terrorism Research, London, UK.

Teaching Experience

- Instructor**, The Pennsylvania State University, PSYCH 484: Motivation and Job Attitudes, Summer 2013, (Instructor, online World Campus).
- Instructor**, The Pennsylvania State University, PSYCH 484: Motivation and Job Attitudes, Fall 2013, Spring 2014 (Independent Instructor).