

The Pennsylvania State University

The Graduate School

College of the Liberal Arts

PUTTING THE “US” INTO TRUST: THE EFFECTS OF DYADIC CONGRUENCY ON  
PERFORMANCE APPRAISAL OUTCOMES

A Thesis in

Psychology

by

Paige J. Deckert

© 2012 Paige J. Deckert

Submitted in Partial Fulfillment

of the Requirements

for the Degree of

Master of Science

August 2012

The thesis of Paige J. Deckert was reviewed and approved\* by the following:

Rick Jacobs  
Professor of Psychology  
Thesis Co-Adviser

Kevin Murphy  
Professor of Psychology  
Thesis Co-Adviser

Aaron Pincus  
Professor of Psychology

Melvin M. Mark  
Professor of Psychology  
Head of the Department of Psychology

\*Signatures are on file in the Graduate School

## ABSTRACT

Research on trust within organizations typically only measures trust unidirectionally from the employee perspective, making the fundamental assumption that dyads have equal (and thus congruent) levels of trust between the two individuals. This is problematic because trust is theorized as a bidirectional construct, allowing for variation in level of trust in the dyad. Further, there is evidence showing that manager-employee dyads with incongruent levels of trust have different outcomes than high or low congruent dyads in terms of job satisfaction, organizational citizenship behavior, and turnover intentions. This article serves to extend our knowledge on trust incongruent dyads in the work place by looking at performance appraisal outcomes. In a sample of 26 manager-employee dyads, results showed that congruency trended towards significance in prediction of the outcome variables. Exploratory analyses showed that employee and supervisor ratings of ability, benevolence and integrity had power in predicting outcome variables and dyadic congruence. Limitations and future directions are discussed.

## TABLE OF CONTENTS

List of Tables .....	v
Acknowledgements.....	vi
Introduction.....	1
Literature Review.....	2
Overview of Trust and Social Exchange Theory .....	2
Dyadic Trust and Job Performance.....	4
Dyadic Trust and Performance Appraisal Accuracy .....	7
Dyadic Trust and Performance Appraisal Usefulness .....	9
Dyadic Trust and Performance Appraisal Satisfaction.....	11
Dyadic Trust and Interpersonal Justice.....	13
Dyadic Trust and Overall Justice.....	16
Exploratory Analysis: Antecedents to Trust.....	17
Method .....	18
Present Study .....	18
Participants.....	18
Procedure .....	19
Materials .....	20
Analysis.....	22
Results.....	24
Comparison of Managerial Responses versus Non-Managerial Responses .....	25
Preliminary Considerations.....	25
Tests of Hypothesis 1 .....	30
Tests of Hypothesis 2.....	33
Test of Hypothesis 3 .....	34
Test of Hypothesis 4 .....	36
Test of Hypothesis 5 .....	37
Exploratory Results.....	40
Discussion.....	43
Study Findings .....	43
The Issue of Misclassification .....	49
Limitations .....	51
Theoretical Contributions .....	53
Practical Contributions.....	55
Future Directions .....	56
Conclusion .....	58
References.....	83
Appendix: Surveys.....	90

## LIST OF TABLES

1. Descriptive Statistics of Focal Variables .....	59
2. Correlation Table of Focal Variables.....	60
3. Descriptive Statistics of Initial versus Final Sample .....	61
4. Means and Standard Deviations of Outcome Variables by Categorization 1.....	62
5. Means and Standard Deviations of Outcome Variables by Categorization 2.....	63
6. Multilevel Analysis of Dyadic Trust on Perceived Accuracy .....	64
7. Correlations of Predictor Variables .....	65
8. Results for Stepwise Regression on Performance Appraisal Accuracy.....	66
9. Multilevel Analysis of Dyadic Trust on Usefulness.....	67
10. Multilevel Analysis of Dyadic Trust on Performance Appraisal Satisfaction.....	68
11. Results for Stepwise Regression on Performance Appraisal Satisfaction.....	69
12. Multilevel Analysis of Dyadic Trust on Interpersonal Justice.....	70
13. Results for Stepwise Regression on Interpersonal Justice.....	71
14. Multilevel Analysis of Dyadic Trust on Overall Justice for Sample 1 .....	72
15. Multilevel Analysis of Dyadic Trust on Overall Justice for Sample 2 .....	73
16. Results for Stepwise Regression on Overall Justice for Sample 1 .....	74
17. Results for Stepwise Regression on Overall Justice for Sample 2 .....	75
18. Exploratory Analysis Correlations.....	76
19. Stepwise Regression Results for Predicting Median Split Congruence in Sample 1 .....	77
20. Stepwise Regression Results for Predicting Median Split Congruence in Sample 2 .....	78
21. Multiple Regression Results for Predicting Median Split Congruence in Sample 2 .....	79
22. Multiple Regression Results for Predicting Difference Score Congruence in Sample 2 .....	80
23. Stepwise Regression Results for Predicting Median Split Congruence in Sample 2 .....	81
24. Stepwise Results for Predicting Difference Score Congruence in Sample 2.....	82

## ACKNOWLEDGEMENTS

I would like to recognize and thank my thesis advisors, Drs. Rick Jacobs and Kevin Murphy, for their encouragement, support, and guidance throughout this thesis. Both of them pushed me to a higher level through their suggestions and insights, as well as challenging my assumptions and ideas. I would also like to thank Dr. Aaron Pincus, who drove me to think more critically about the interdependent nature of trust, and how this could be properly accounted for methodologically. I also want to extend gratitude to the many individuals who helped me procure this sample, particularly Wendy Butterbaugh. Finally, I would like to thank my friends, family, and the I/O faculty for all of their support and encouragement throughout this project and the past three years—it has meant more to me than you realize. To my Mom, Dad, Judy, Sean, Andy, Sarah, Emma, Ann, and Wayne, I could not have gotten to where I am today without your sacrifices, support and ever kind and encouraging words. I would like to extend particular thanks to my Grandma Millie and Grandma Amy, who both showed unwavering confidence in me and support for me, but did not get to see me reach this point.

## Introduction

One of the most fundamental components in workplace relationships is trust. Trust has an effect on a number of outcomes relevant to the organization, including task performance, citizenship behavior, and counter productive behavior (Colquitt, Scott and LePine, 2007). The majority of research on trust, however, makes the fundamental and problematic assumption that a relationship can be fully understood by surveying only half of the dyad—the employee. This is not the first time an issue like this has come up in organizational research. Hunter, Bedell-Avers and Mumford (2007) point out that the typical leadership study asks subordinates to rate the overall performance of their leaders, despite that they only see them in one aspect of their job. What is seen as saving the manager’s time for easier organizational access is more realistically a methodological shortcut that prevents us from understanding the nature of the complete relationship.

Schoorman, Mayer and Davis (2007) note that one of the limitations of their seminal paper (Mayer, Davis and Schoorman, 1995) was that the conceptualization was unidirectional, failing to look at reciprocity of trust in relationships. Brower, Schoorman and Tan (2000) argued that trust is not necessarily mutual and is not reciprocal, which allows for the possibility that individual A may trust individual B, but B does not trust A. Studies that do not treat these levels of trust as equivalent are not common (Serva, Fuller, & Mayer, 2005). Brower, Lester, Korsgaard and Dineen (2009) represented a significant breakthrough in terms of the study of trust from the perspective of both members of the employee-manager dyad; their results indicated only 51% of their dyads had mutual levels of trust. This highlights the importance of examining trust from the dyadic perspective, especially in terms of how dyads with incongruent levels of trust may be different from dyads with mutual trust, either high or low.

This study represents a unique contribution to the literature trust on multiple fronts. First, it extends the previous work of Brower and colleagues (2009) by revisiting traditional trust topics from the dyadic perspective; they focused on task performance, organizational citizenship behavior, and turnover intentions, whereas the main focus of this study is reactions to performance appraisal. Second, Brower and colleagues collapsed the incongruent dyads into one group, masking the results and implications involved in *who* in the dyad has a higher level of trust; this is especially likely to be important in terms of performance appraisal. The present study has 26 paired dyads with 26 unique managers; this enables the authors to take a dyadic approach to data analysis and also the incongruent dyads to be kept separate to look at different resulting effects. Justice perceptions were also collected, allowing for consideration of them simultaneously with trust. Lastly, how the different dimensions of trustworthiness play into trust congruency are explored.

## **Literature Review**

### **Overview of Trust and Social Exchange Theory**

Trust is defined as “the intention to accept vulnerability to a trustee based on the positive expectation of his or her actions” (Colquitt et al, 2007: 909). The many beneficial aspects of high trust are well documented; it is related to increased task performance, citizenship behavior and cooperation, in addition to lower levels of stress, counterproductive work behaviors, and turnover intentions (Colquitt et al, 2007; Dirks & Ferrin, 2001). Mayer (2007) went as far to argue that a lack of trust is what causes dysfunctional workplaces. Despite this, there is little known about when two individuals do not trust each other at the same or similar levels.

The majority of research on trust draws on Blau's (1964) social exchange theory, which outlines how relationships can grow into loyal and mutual commitments on the basis of exchange. It also suggests that the trust of both parties may have an important influence of the behaviors of the employee. Employee trust in their manager means that they have a favorable attitudes towards the exchange and thus should lead to higher levels of job performance (via extra effort) and citizenship behaviors in order to maintain the relationship (Dirks & Ferrin, 2002; Konovsky & Pugh, 1994; Mayer & Gavin, 2005). It is likely, however, that the trust of both parties also has an influence on the behaviors of the manager. Typically framed in terms of employee gain, it has been shown that when an employee is trusted by his or her manager, they are more likely to receive benefits and have increased feelings of self-esteem (Pierce & Gardner, 2004).

It is easy to see how this can be reframed in order to look how trust changes the manager's behavior: the manager gives increased benefits to the employees that he or she trusts in order to maintain the exchange relationship. The employee-centered conceptualization leads to the argument that employees are even more motivated to perform well and have increased commitment to the exchange relationship (Brower et al., 2000; Pierce and Gardner, 2004). It ignores, however, the notion that a manager also may have vested interest in maintaining exchange relationships, and is reminiscent of the rational systems approach to organizations where role depersonalization is championed arguing that employees are interchangeable (Scott & Davis, 2006). Conceptualizing trust in this manner suggests that trust is not necessarily interdependent in the dyad; the level of this interdependency unknown. Brower and colleagues (2009) results indicated  $r = .16, p < .05$ . Though significant, the effect is smaller than one would expect; this could have serious ramifications concerning previous research that assumed managers and employees had equal levels of trust, and warrants further examination.

## **Dyadic Trust and Job Performance**

Rotundo and Sackett (2002) offer a three-pronged approach to job performance: task performance, citizenship behaviors, and counterproductive work behaviors. Colquitt and colleagues (2007) found moderate relationships between trust and all three of these facets; this means that employees who trust their manager have higher levels of task performance, engage in more citizenship behavior, and lower levels of counterproductive work behavior ( $r_c = .33, .27,$  and  $-.33$ , respectively). Social exchange theory offers the exchange of reciprocity to explain these relationships; successful exchanges create a feeling of obligation to reciprocate and thus have high expectations in terms of those exchanges (Cropanzano & Mitchell, 2005). Within this context, reciprocity is best conceptualized as a series of interdependent exchanges (the other two approaches to reciprocity are as a norm and as a folk belief; please see Cropanzano and Mitchell, 2005 for a review).

Interdependence is considered to be a defining characteristic of social exchange; it typically involves outcomes based on the combination of efforts, in addition to mutual and complementary arrangements (Molm, 1994). Interdependence within the social exchange framework focuses on contingent interpersonal exchanges, which are characterized by the action of one individual leading to the response of another. Gergen (1969) stated in terms of if one person supplies a resource or benefit, the other should respond in kind. Given how reciprocity is discussed within social exchange literature, it is surprising that the majority of the trust literature takes the one sided approach of employee benefits discussed previously. This makes it clear that there is also the expectation that the supervisor should respond in kind to the employee. Within

the context of our study, this can be viewed as expectations within the performance appraisal: that it will be accurate and useful.

It is important to note that job performance and performance ratings are not the same thing. It has been suggested that managers pay special attention to the relationships between ratings and the rewards or sanctions employees subsequently receive; often, they rate in a way that will result in the desired rewards as opposed to ratings that reflect the employees true performance (Murphy & Cleveland, 1995). This is one example of how a rater's goals can affect performance appraisal ratings. It was traditionally thought that performance ratings did not always reflect job performance because of shortcomings of the rater—lack of skills, training, knowledge, opportunity to observe employee performance, etc. (Murphy, 2008). It was thought that if managers were given better tools, that performance appraisal would be more accurate. Research throughout the late 1970s and 1980's challenged this set of assumptions and lead to the conclusion that the relationship between performance and performance ratings is more complicated (DeCotiis & Petit, 1978; Landy & Farr, 1980; Longenecker, Sims & Gioia, 1987). Banks and Murphy (1985) proposed an alternate explanation that raters are not motivated to provide accurate ratings.

Indeed, consensus has started to emerge that raters in fact pursue a variety of goals when completing employee performance appraisals, and accuracy is not likely to be the most important of those goals (Levy & Williams, 2004; Longenecker, et al, 1987; Murphy & Cleveland, 1995; Murphy, Cleveland, Skattebo & Kinney, 2004). When asked, raters report that common goals in performance appraisal include motivating their employees, enhancing their own reputation, and maintaining harmonious relationships with the work group (Bjerke, Cleveland, Morrison & Wilson, 1987; Longenecker et al., 1987). If we are to believe that managers also can be

motivated to maintain an exchange relationship with employees they hold in high regard, it is likely that this is one of the motivations that can affect performance appraisal ratings.

This helps to illustrate that performance appraisal does not occur divorced from the remainder of the organization. Rather, social, organizational and environmental factors influence many aspects of performance, including rater goals; this falls within the social-organizational approach to performance appraisal. A series studies showed that although job performance does have an influence on performance ratings, performance appraisal cannot be fully understood when taking the simplistic approach that it only measures job performance (Tziner, Murphy & Cleveland, 2001; Tziner, Murphy, Cleveland, Beaudin & Marchand, 1998; Murphy et al., 2004).

By looking at the performance appraisal as something that does not merely reflect job performance, but also the exchange, it can be reasoned that performance ratings will vary based on the trust between the manager and their employee. In dyads with high mutual trust, not only does the employee put forth extra effort in terms of task performance and organizational citizenship behavior, but that their manager will also reciprocate this extra effort with high ratings that will lead to the desired rewards. In dyads with low mutual trust, neither individual will engage in reciprocal behaviors because there is no base line positive exchange. Thus, there will be lower output from the employee, and no motivation to inflate ratings for the manager, leading to the lowest performance ratings of the four groups. In terms of the trust incongruent dyads, the relationship becomes less clear. Dyads where the employee has a higher level of trust means that they will be putting forth more effort in terms of performance, but since their manager does not feel the same motivation to reciprocate for that, they are not as motivated to increase the ratings of that particular employee. In the contrasting situation, the manager is

motivated to maintain this exchange and give high performance ratings, even though the employee may not be putting in as much effort.

### **Dyadic Trust and Perceived Accuracy**

One of the most fundamental components in performance appraisal acceptance is whether it is perceived as accurate and fair. An analysis of 295 court cases from 1980-1995 showed that these were the two largest factors that impacted judicial decisions (Werner & Bolino, 1997). Fairness and accuracy have often been treated as similar constructs within performance appraisal research (e.g., Landy, Barnes & Murphy, 1978; Landy, Barnes-Farrell, & Cleveland, 1980; Fulk, Brief, & Barr, 1985). In illustrating the interrelation of fairness and accuracy, Werner and Bolino (1997) noted that the same actions thought to improve appraisal accuracy (the use of job analysis, behavior based appraisal and validation) are also thought improve the fairness (Field & Holley, 1982; Thibaut & Walker, 1978; Veglahn, 1993). Thus, they are typically studied as one construct, or only one is used (this is the case in the literature concerning justice and performance appraisal; see Greenberg, 1996). A notable exception to this is Taylor, Tracey, Renard, Harrison and Carroll, 1995, where  $r = .73$  was noted between employee perceptions of accuracy and employee perceptions of fairness. It should be noted, however, that these perceptions of fairness are situated within the context of performance appraisal, as opposed to the larger context of the organization, which will likely be affected differently.

This study used accuracy as opposed to fairness; this is to reduce possible intercorrelations of this contextualized judgment with non-contextualized forms of justice, in addition providing a more parsimonious rating rather than the multi-faceted approach of justice.

It should be noted that the literature reviewed includes results that treated fairness and accuracy as a combined construct.

Trust in supervisor is related to employee perceptions of accuracy and fairness in performance appraisal, though the strength of the relationship is unclear. Fulk, Brief and Barr (1985) found an  $r = .47$ , indicating that this relationship is quite strong, whereas Mayer and Davis' (1999) results indicated it is more along the lines of  $r = .23- .25, p < .01$ . Dyads with high congruent levels of trust will likely have the highest overall employee ratings of fairness, because accuracy will be included in a mutual exchange between the manager and the employee; the manager will be compelled to give an accurate rating of their perception of the employee's performance, which will be high due to increased levels of task performance and OCB on the part of the employee. The employee will further expect this accurate performance appraisal from their manager, and thus rate it accordingly. It is also possible within this set of dyads that the manager will be more so focused on high ratings than accurate ratings. This hypothesis remains unchanged in this situation, because their trust for the manager will serve as a lens through which they will view the ratings as accurate. Further, employees would see high ratings as accurate due to their increased inputs in terms of task and citizenship performance. Dyads with low congruent levels of trust will have the lowest ratings of employee perceived accuracy; the manager will not be motivated to provide accurate ratings, nor will the employee be primed to think of the ratings as accurate. In terms of trust incongruent dyads, employee high dyads will have higher levels of perceived accuracy. Fundamentally perceived accuracy is a construct on the level of the employee, and thus it is their feelings of trust that will drive the relationship. In dyads where the supervisor has a higher level of trust, they will be more motivated to give an accurate

performance appraisal to their employee; because the employee does not trust them as much, however, they are likely to see it as less fair than dyads where the employee trusts their manager.

*Hypothesis 1: Dyads with different levels of trust will vary in perceived accuracy: high congruent trust will have the highest levels of perceived accuracy, followed by employee high dyads, then supervisor high dyads; dyads with low congruent trust will have the lowest accuracy perceptions.*

### **Dyadic Trust and Perceived Usefulness**

Mayer and Davis' (199) work on the role of trust in performance appraisal takes an opposite approach to the relationship than this one: they implemented a system, and then watched how the outcomes change; they found that implementing a performance appraisal system that employees found acceptable increased ratings of trust, ability, benevolence, and integrity. We argue, however, that this relation is bidirectional- initially having a higher level of trust in a manager will lead to positive outcomes in regards to the performance appraisal process and outcomes. Farr and Jacobs (2006) argue that trust is a focal point for the ratee for a number of reasons, with a key take home of the chapter being that building trust in those who are being rated will lead to positive outcomes in the appraisal process. Indeed, it's been argued that trust is the key to an effective psychological contract in the workplace (Kramer, 1999). Keeping and Levy (2000) argued that in addition to accuracy, a very important outcome for employees is that their performance appraisal be viewed as useful. Dirks and Ferrin (2001) reviewed studies showing that trust lead to higher levels of perceived accuracy in terms of information provided by others, in addition to increased amounts of information that were of higher quality.

A logical extension of the findings that trust leads to increased levels of information in a performance appraisal, that it is of higher quality, and is perceived to be more accurate is that the employee will view the performance appraisal as more useful than an employee who receives less information, of lower quality, and does not perceive it as accurate. Further, it is important to stress the fact that it is perceived usefulness- trust likely acts as a lens through which an employee views their manager, and subsequently their managers actions, judgments, and feedback. Thus, the more an employee trusts their manager, the more likely they are to view the feedback as being high quality and useful. In terms of the social exchange inherent to trust, interpreting the performance appraisal and feedback in a negative manner would sever the positive social exchange because the employees would likely no longer see them in a positive light or as being high in ability to perform their jobs. Further, in order to maintain a positive exchange with employees they trust, managers would seek to give them more useful appraisals with accurate and high quality information. As ability to perform their job is also a component of workplace trust, it could be easily justified by managers that they put the extra work into their performance appraisals to make them useful because they trust that they will use the feedback to try and improve their performance.

As a result, employees in dyads with high congruent trust will likely have the highest levels of perceived usefulness for their performance appraisal. This is because the supervisor is motivated to give them a high quality and useful appraisal, and the employee is also motivated to perceive it in this manner, so that both members can maintain a positive social exchange. Because this variable focuses on the employee level outcomes, dyads with employee high trust will likely have the next highest ratings of perceived accuracy. This is a result of the employee being motivated to see the appraisal as useful, even if the manager does not put in the same effort

as they would for a trusted employee. Supervisor high trusting dyads will be lower than employee high dyads, because even though the manager may be motivated to give their employee a high quality and useful appraisal, the employee is not motivated to see it that way due to the lack of social exchange. Finally, low trust congruent dyads should have the lowest levels of perceived accuracy for their performance appraisal, as the manager will not be compelled to put more time into gathering as much or of as high quality information about the employee, and the employee is not motivated to see it as high quality, accurate, or actionable.

*Hypothesis 2: Dyads with different levels of trust will vary in perceived usefulness: high congruent trust will have the highest levels of perceived usefulness, followed by employee high dyads, supervisor high dyads, with dyads having low congruent trust having the lowest perceptions of usefulness.*

### **Dyadic Trust and Appraisal Satisfaction**

Satisfaction with performance appraisal is also an important outcome variable in terms of reactions to performance appraisal. Mani (2002) found in a study of employee attitudes that trust in supervisors was key in determining satisfaction with performance appraisal. Further, Hedge and Teachout (2000) found that trust in other raters and the appraisal process were significant predictors for satisfaction for supervisors. This shows that trust is important in terms of satisfaction for both members of the dyad concerning the performance appraisal, though it appears that managerial trust in the employee they are appraising has not been examined empirically. It is likely, however, that the level of trust a manager has in their employee will influence the ratings that they give them.

Given the argument that individuals who trust their manager are more likely to go above and beyond in terms of task performance and citizenship behavior, it can be extrapolated that these individuals are also more likely to receive high scores and positive feedback. Aronson, Wilson and Akert (2007) argue that via self-enhancement theory, individuals want to be perceived in a positive light, and desire positive feedback. As a result, individuals who receive positive feedback should be more satisfied with their performance appraisal. There is, however, a caveat to this. Kluger and DeNisi (1996) introduced the concept of a feedback sign, which is concerned with whether an individual receives positive or negative feedback relative to their goal. Receiving feedback that one performed at a lower level than the individual perceived would induce a negative feedback sign. On the other hand, receiving feedback that one performed at or above the level they perceived to perform at results in a positive feedback sign. In a literature review conducted by Ilgen and colleagues (1979), it was indicated across studies that individuals are more likely to reject feedback (a sign of dissatisfaction) that results in a negative feedback sign than feedback results in a positive feedback sign. Though this cannot be interpreted as flat out saying that individuals prefer positive feedback, it can be integrated with concepts discussed previously in the paper.

It has been argued that individuals in high congruent trust would likely receive the highest performance ratings due to this desire from both parties to maintain a positive social exchange. As a result, it is unlikely that these individuals will experience a negative feedback sign; as a result, they will have the highest levels of satisfaction with their performance appraisal. Low congruent trust dyads will likely be in the middle in terms of their satisfaction with their performance appraisal. Their manager is not motivated to give them higher performance ratings

in order to maintain a positive social exchange, and the employee does not necessarily expect these higher ratings, so the probability is low that they could receive a negative feedback sign. Coupled with self-enhancement theory, it is likely that the employee will be displeased by one or both of these sources, resulting in the lowest scores of satisfaction. In terms of the incongruent dyads, employee high dyads are likely to receive a negative feedback sign because they have higher perceptions of their performance than their manager's do; further, they are motivated to try to maintain the level of social exchange by being showing satisfaction. On the other hand, employees in supervisor high dyads will receive higher performance scores, and thus it is probable that they will experience a positive feedback sign. As a result, we predict that supervisor high dyads will have higher levels of satisfaction than employee dyads.

*Hypothesis 3: Dyads with different levels of trust will vary in employee satisfaction: employees in dyads with high congruent trust will have the highest levels of satisfaction, followed by supervisor dyads, employee high dyads, with dyads having low congruent trust having the lowest levels of satisfaction.*

### **Dyadic Trust and Interpersonal Justice**

Organizational justice examines fairness in the workplace; this is the non-contextualized approach to fairness, as opposed to fairness/accuracy as described above. There are four distinct components of organizational justice: distributive, procedural, informational, and interpersonal (Greenberg, 1993; Colquitt, 2001). Distributive justice is high when outcomes are seen as fair and equal, whereas procedural justice looks at fairness in terms of the processes and procedures leading to decisions and outcomes. Informational justice is the extent to which the explanations

provided communicate the information necessary to think critically about the procedures used and the distribution of the outcomes. It is simple to see how these three components of justice work together when making judgments on fairness in organizations. Interpersonal justice, the focus of this paper, is slightly different in that it concerns how the individuals carrying out procedures treat employees. High interpersonal justice occurs when employees are treated in a polite and respectful manner.

Justice and trust have been studied together primarily in terms of procedural, distributive, and informational justice. Colquitt and colleagues (2001) found moderate correlations between trust and procedural justice ( $r_c = 0.62$ ), informational justice ( $r_c = 0.51$ ), and distributive justice ( $r_c = 0.57$ ), lacking sufficient data to assess the relationship between trust and interpersonal justice. Given its nature, it is likely that there is a strong relationship between trust and interpersonal justice; research on interpersonal justice, however, is generally somewhat disjoint and missing in places. Masterson and colleagues (2000) found that interactional justice (an umbrella term encompassing both informational and interactional justice) was significantly related to task performance, though no relationship was found meta-analytically between interpersonal justice and task performance (Colquitt et al, 2001). Interactional justice is related to trust in supervisor ( $r = .66$ ; Ambrose & Schminke, 2003), but without a study that measures interpersonal, informational, and interactional justice, in addition to trust, it is not possible to tease out the unique contributions of interpersonal versus informational justice. Colquitt et al (2000) found a relationship of  $r = 0.57$  between employee perceptions of interpersonal justice and their subsequent evaluation of an individual in authority, which is the closest target of measurement that this relationship can be extrapolated from. These inconsistent results and in some cases just lack of research (e.g., no studies assessing interpersonal justice and trust) show

the importance for additional inquiry into how employee's perceptions of interpersonal justice affect workplace attitudes and behaviors.

Dyads with high mutual trust will likely have the highest perceptions of interpersonal justice from the employee perspective. Because of wanting to maintain a positive exchange, managers will treat employees they trust with higher regard, showing more politeness. In response, employees will see their managers as high on interpersonal justice. It is likely that if an employee who trusts their manager sees that manager acting in an interpersonally unjust manner towards another employee, they will blame the employee and make the attribution that they deserve it, as opposed to altering their perceptions about their manager. Employees in dyads with low trust congruency will likely have the lowest levels of interpersonal justice; the manager is not as motivated to treat the employee in a polite and respectful manner, and the employee is not motivated to see their manager in a positive light. Thus, they are more likely to made negative attributions to their manager when experiencing or witnessing interpersonal injustices.

Concerning dyads with incongruent levels of trust, employee's who trust more will have higher levels of interpersonal justice than dyads where the manager trusts more. As with perceived accuracy, interpersonal justice is a phenomenon that is rated on the employee level.

Consequently, even though the employee may be treated with higher levels of courtesy in a manager high dyad, they may not perceive it as just as an employee who trusts their manager more, and is motivated to see them in a positive light.

*Hypothesis 4: Dyads with different levels of trust will vary in levels of interpersonal justice: high congruent dyads will have the highest level of interpersonal justice,*

*followed by the incongruent dyads, where congruent low trust dyads having the lowest levels of interpersonal justice.*

### **Dyadic Trust and Overall Justice**

Overall justice is the perspective that encompasses procedural, distributive, interactional and interpersonal justice. This resulted from researchers questioning the benefits of focusing on the specific justices (e.g., Ambrose & Arnaud; Hauenstein et al, 2001). Overall justice has continued to receive attention because it compensates for some of the criticisms of the specific justices; notably, that they are so specific that they do not fully and accurately describe an employees' experience, whereas overall justice is more inclusive in terms of the employees entire workplace experience. Greenberg (2001) suggested that individuals make holistic judgments of fairness, and Lind (2001) confirmed a holistic justice impression drives behavior, even though employees can differentiate the specific types. Hauenstien et al (2001) went even further to argue that perceptions of general fairness are likely the causal mechanism in terms of an employee taking action. Ambrose and Schminke (2009) found that overall justice mediates the relationship between the specific justices and job satisfaction, commitment, and turnover intentions in employees. Further, it also mediated the relationship for supervisor ratings of employee behavior (task performance, citizenship behavior, and counterproductive work behavior). Further exploration will give insight as to how overall justice is connected to other employee attitudes, in this case trust.

As compared to the rest of the outcome variables of interest in this paper, this variable is not primarily based on an exchange relationship between the employee and their manager. Rather, it is more so concerned with how the individual is treated by the organization as a whole,

and how the organization as a whole acts in terms of fairness. As a result, levels of overall justice should not significantly vary based on the level of trust or congruency within dyads, providing evidence that perceptions of the overall fairness of the organization are not a function of the relationship of an employee with their manager.

*Hypothesis 5: Dyads with different levels of trust will not vary in levels of overall justice.*

### **Exploratory Analysis: Antecedents to Trust**

Ability, benevolence, and integrity are considered the antecedents to trust, or trustworthiness (Mayer et al, 1995). Ability is the collection of skills, competencies and characteristics that allows an individual to have influence, e.g., when an individual has a lot of knowledge about the work that needs to be done. Benevolence is considered to be the extent to which the trustor believes the trustee will want to behave in a manner that is beneficial to the trustor, irregardless of a profit motive. Someone consistently going out of their way to help a coworker for reasons without personal benefit is high on benevolence. Integrity is defined as the perception that the trustee adhered 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 considered to be of high integrity.

All three facets of trustworthiness correlate moderately with trust, resulting in uncorrected correlation coefficients of  $r = .55$ ,  $r = .52$ , and  $r = .53$ , for ability, benevolence, and integrity, respectively, (Colquitt et al, 2007). Each antecedent of trust has a unique impact, and how they combine depends on the situation (Mayer & Davis, 1999). Performance appraisal is an

event that is often looked at with ill feelings from both managers and employees, and it is important to look at how relationships differ in specific contexts (Johns, 2006). Colquitt and colleagues (2007) found that in managerial and service type jobs, the integrity-trust relationship is significantly stronger when looking at supervisors as opposed to coworkers. Within the specialized situation of performance appraisal, it is likely that the antecedents to trustworthiness contribute differently than in a broader sense of context, with the specific implication of integrity having a stronger effect. Analyses will be performed to determine how the different components of trustworthiness contribute in terms of predicting trust levels and congruency.

## **Method**

### **Present Study**

In order to better understand the complexities involved in trust congruency and the workplace, the present study sought to examine trust congruency and performance appraisal outcomes concurrently. Surveys were distributed to employees and managers to determine levels of trust between the dyads, their impressions of ability, benevolence and integrity. Employee perceptions of overall justice, interpersonal justice, performance appraisal accuracy, satisfaction, and usefulness were measured as outcome variables. All study materials can be found in the Appendix

### **Participants**

Participants in this study were employees and managers in a chain of convenience stores in the Eastern United States. Each dyad consisted of a manager from that location and a direct employee for whom the manager is responsible for giving their performance review. Each dyad

was unique in that each contained a different manager. 169 employees filled out survey one, and 53 filled out survey two. Across these two surveys, only 48 employees overlapped. Though 124 managers filled out the survey, only 79 overlapped with survey one. When looking at complete dyads (both employee surveys and the manager survey), the sample was reduced to 26 complete dyads.

## **Procedure**

Data were obtained from three total surveys administered through the organization's learning management system. Individual's with a yearly review coming up were identified via company records and given the option of completing the survey on the computer in each store during work time. Participants were assured that their responses would remain confidential, and would only be presented in aggregate form. Because there is only one computer in each store, managers and employees completed the survey at different times; this also encourages open and honest responses from both members of the dyad. Both employees and managers completed the Time 1 survey prior to the employee's performance appraisal. The dyad then went through the performance appraisal process. The employee then completed the Time 2 survey.

Given the nature of the study, it was important to break up data collection in this manner. Jawahar and Williams (1997) showed that performance ratings differ based on the purpose of the performance appraisal. They found that performance ratings used for administrative purposes were typically 1/3 of a standard deviation higher than performance appraisals used for employee development or research. Further, this difference was exacerbated when looking at field studies and when made by organizational managers for employees. As a result, archival performance data was not appropriate. In this study, the performance appraisal is being used for multiple

purposes: research and administrative. Though Jawahar and Williams (1997) did not find differences in performance appraisal scores for those with multiple purposes, it was based on limited data. Thus it is important to look at the performance rating scores and be cognizant that ratings could be affected.

Placing the study within the current performance appraisals afforded the opportunity for surveying employees both before and after the appraisal. Given the nature of the first survey assessing constructs like trust and justice, responses would likely be swayed based on the outcome of the performance appraisal. Assessing the variables at two separate times should result in lower levels of spillover between the measures, lower levels of intercorrelation among the variables, and lower cognitive load on the participants.

## **Materials<sup>1</sup>**

**Time 1 Measures for Both Employees and Managers.** Trust was measured using Schoorman and colleagues (1996) 4-item scale, where the subject was changed from “higher management” to “my supervisor” for employees, and “my employee” for supervisors. Responses were given on a 5-point likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). An example item is: “If I had my way, I wouldn’t let my supervisor have any influence over issues that are important to me.” This is identical to the scale used by Brower and colleagues (2008) for their sample of hotel workers.

In order to look at truthworthiness from the perspective of the manager and employee, Mayer and Davis’ (1999) scales on ability, benevolence and integrity were used. As with the scale on trust, the subject was changed from “higher management” to “my supervisor” for

---

<sup>1</sup> Complete surveys are included as the appendix.

<sup>2</sup> Another 44 responses involved supervisors whose employees did not fill out survey 1. An additional 5 employees filled out survey 2 without completing survey 1 nor having a their manager complete a survey.

employees, and “my employee” for managers. Responses for all scales are on a likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The scale for ability is comprised of 6 items, an example of which is “My supervisor has much knowledge about the work that needs to be done.” Benevolence is measured via a 4-item scale; a sample item is “My employee would go out of his or her way to help me.” A four-item scale measures integrity; “My supervisor has a strong sense of justice” is an example item.

**Time 1 Measures: Employee.** Overall justice was measured using Ambrose and Schminke’s (2009) measure. It is comprised of 6 items; 3 that look at the individual’s experience with justice in the organization, and three that assesses the fairness of the organization overall. An example of the former is “Overall, I am treated fairly by my organization.” “For the most part, this organization treats its employees fairly” is an example of the latter. At the request of the organization, the following item was also added to the Time 1 Employee survey: I believe I have a thorough understanding of what is expected of me. All questions added for the organization were measured on a 1-5 likert-type scale.

**Time 2 Measures.** The Time 2 survey took place after their performance appraisal session; they were prompted to think back on their performance review before completing this survey. Perceived accuracy was measured via a 7-item scale, with responses ranging from 1-5 (Strongly Disagree to Strongly Agree). An example from this scale is “The evaluation of the skills I have is pretty accurate.”

Usefulness of the performance appraisal was measured by a 4-item scale (Greller, 1975). An example item is “This appraisal helped me learn how I can do my job better.” Performance appraisal satisfaction is being measured by three-items (Greller, 1975), including “I feel good about the way my appraisal was conducted.” Responses for both scales ranged from 1-5.

Interpersonal justice was assessed using Donovan and colleagues' (1997) Perceptions of Fair Interpersonal Treatment scale (PFIT). Typically this scale is used for assessing fairness from the perspective of both managers and employees, but since the outcome variables are focused on the employee experience, only they will fill it out. An example item is "My boss plays favorites."

### **Analysis**

Data were provided to the author by the organization. They were imported to and analyzed using *SPSS 20.0*. Before any analyses were performed, a series of steps were used to clean the data. Frequencies were first checked to determine if any data were missing or out of range. There were many missing data points in terms of individuals and their managers not filling out all of the phases of the survey. When accounting for managers and employees that both took the initial surveys, 79 participants remained. After merging for data on both employee surveys and the manager survey, 26 complete dyads remained. Second, reverse-worded items for surveys were recoded according to the instructions given by the instrument. Third, reliabilities were examined via Cronbach's  $\alpha$ . For scales that failed to demonstrate acceptable reliability, the distributions of responses and relationships among items were investigated. Where appropriate, items were dropped in order to increase the reliability of the instruments. For scales where the items were non-normally distributed, assessments of homoscedasticity and skew were run. These values were within an acceptable range for all scales. Nonetheless, a series of transformations was explored on the scales, including logarithms and square root. This yielded even poorer scores of reliability, and thus the original scale scores were utilized in the remainder

of the analyses. Composite measures were subsequently computed for all variables. Following the cleaning of the data, several steps were taken with the data.

Descriptive statistics were run, including means, standard deviations, and correlations. This included determining the degree of interrelatedness for the measures of trust in manager from the employee, and trust in the employee rated by the manager. There are two standards of when to use dyadic data analysis in regards to sample size, both from David Kenny. The sample of 26 falls within the first standard (which is based on the size of the correlation), but outside of the second (a rule of thumb saying that in studies with fewer than 35 dyads, a reasonable course of action is to treat the dyads as non-independent). Based on these results, two separate sets of analyses were performed for each hypothesis. The first took into account the interdependency between the predictor variables. The model that allows for estimation in this type of design is called the Actor Partner Interdependence Model (APIM). Simply, this model takes into account both the scores of the manager and the employee on the outcome variable while taking into account that the data is not independent.  $X$  is the mixed predictor variable; in this case, trust.  $Y$  is the outcome variable, be it ratings of performance appraisal accuracy, interpersonal justice, etc.  $X_i$  and  $X_i'$  represent the employee and manager ratings of trust, respectively; within the model,  $X_i$  and  $X_i'$  predict  $Y$ , where  $X_i$  on  $Y$  is called the actor effect, and  $X_i'$  on  $Y$  is called the partner effect. Using this model, we are able to look at the effects of both the employee and the manager on the outcome variables via multi-level modeling.

For this set of analysis, data was set up in the fashion of pairwise coding, where each dyad takes up two lines, with an additional variable noting which member of the dyad the scores came from. Additional analyses were performed using the second standard from Kenny et al., (2006), which stated that studies with less than 35 dyads should treat the variables as

independent. For these, multiple regression was used. For both types of analyses, variables were created that represented the categorization of the dyad; one variable utilized a median split, and the other a difference score categorization method. Multiple regression was also used for the exploratory analyses.

## Results

Means, standard deviations and scores of scale reliability can be found in Table 1. Intercorrelations of the study variables are in Table 2.

---

Insert Table 1 about here

---

There are clusters of moderate to high intercorrelations among the variables; this includes the employee ratings of ability, benevolence and integrity ( $r = .49-.72$ ), supervisor ratings of ability, benevolence, and integrity ( $r = .72-.88$ ). Given that these are the three components thought to make up trust, the relationships are not surprising. Similarly, specific variables are highly correlated with others; overall justice is significantly related to employee ratings of trust, ability, benevolence, and integrity ( $r = .45-.59$ ), interpersonal justice is significantly related to employee ratings of trust, ability, benevolence and integrity ( $r = .45-.59$ ), and performance appraisal satisfaction is significantly related to performance appraisal usefulness, overall justice, and interpersonal justice ( $r = .51-.72$ ). These issues of multicollinearity will be dealt with as they arise within the analyses.

---

Insert Table 2 about here

---

### **Comparison of Managerial Responses versus Non-Responses**

Out of the 169 employees who filled out survey 1, only 79 of their supervisors also filled out the survey<sup>2</sup>. In order to determine if there were differences between these two samples, a number of independent sample t-tests were run on the variables measured in employee survey one. These include employee ratings of managerial trust, ability, benevolence and integrity, in addition to feelings of overall justice within the organization.

In terms of employee rated trust in their manager, there was no significant difference between the employees whose manager filled out a survey versus those whose manager did not  $t(90, 79) = -.36, p = .72$ . Ratings of manager ability, however, were significantly different for the two groups of respondents,  $t(90, 79) = -1.97, p = .05$ . Ratings of manager benevolence and integrity were non-significant,  $t(90, 79) = -.57, p = .57, t(90, 79) = -1.01, p = .31$ , respectively. Differences in ratings of overall justice were marginally significant between the two groups,  $t(90, 79) = 1.74, p = .08$ . Thus, though employees whose managers filled out a survey had higher ratings on all variables, the majority of the differences did not reach a level of significance.

### **Preliminary Considerations**

In research of this nature, it is important to establish whether the ratings of trust between the manager and employee are independent or dependent. Organizing the data in a dyadic form,

---

<sup>2</sup> Another 44 responses involved supervisors whose employees did not fill out survey 1. An additional 5 employees filled out survey 2 without completing survey 1 nor having a their manager complete a survey.

and looking at Pearson's  $r$  between the two variables showed a relationship of  $r = .49, p < .05$ . As discussed previously, the Actor Partner Interdependence Model was used when using employee and supervisor trust as predictors in subsequent analyses.

**Congruence Designation by Median Split.** In terms of establishing congruency, the method set forth by Brower and colleagues (2008) was first used. The median was calculated for both scales (3.125 for the supervisor ratings; 4.00 for the employee ratings). Each variable was then split and recoded, taking each of the two variables into account when placing each dyad within a category. Low mutual trust was coded as 1, supervisor high trust as 2, employee high trust as 3, and high mutual trust as 4. The distribution of this sample was 35% low mutual trust, 12% supervisor high trust, 15% employee high trust, and 38% high mutual trust. This sample of 26 will be referred to as Sample 1.

Given the attrition rate between the two employee surveys, the two groups were compared to look for potential differences. When examining the correlation between employee and supervisor trust, the sample including 79 participants yielded a lower result,  $r = .34, p < .01$ , though is still statistically significant. This sample will be referred to as Sample 2. Means and standard deviations of the two groups are listed in Table 3.

---

Insert Table 3 about here

---

Given the dyadic nature of this data, however, differences were also look for in the distribution of the dyads in samples 1 and 2. In terms of congruence, the medians for this group were 4 and 3.50 for employee and supervisor ratings of trust, respectively. The same coding

procedures used for sample 1 were performed for sample 2, with a resulting distribution of 32% low congruent, 11% supervisor high, 28% employee high, and 38% high congruent. A Chi-square statistic was run to see if the distribution of sample 1 varied from sample 2 in terms of categorization. In order to compensate for the different sample sizes, expected values were calculated by taking the percentage of the population in sample 1, and determined which number that would result in the sample percentage in sample 2. For example, low congruent trust accounted for 35% of the population in sample 2. This was translated to an expected value of 28 for the chi-square. Results showed that the distribution of sample 2 differed significantly from the distribution of sample 1,  $X^2(3) = 10.29, p = .02$ .

**Congruence by Difference Scores.** It is possible, however, that a median split is not the best way to look at this data. By splitting the data, we could be losing valuable data in terms of dyads whose trust varies quite substantially in terms of an absolute difference, but still falls within the same half of the data. Further, it could lead to categorizing a dyad as having incongruence when there difference is quite small, but happens to fall on opposite sides of the medians. As a result, congruence will also be examined via difference scores. For the difference score method, supervisor trust was subtracted from employee trust. Differences ranged from -1.75-2.00. Dyads with differences  $\leq -1$  or  $\geq 1$  were considered to have incongruent levels of trust, supervisor high and employee high respectively. Differences that ranged between -0.75 and 0.75 were considered to be congruent. High versus low congruence was hand coded based on the pair of scores. When using all four categories, the distribution was as follows: 23% low congruent trust, 12% supervisor high trust, 38% employee high trust, and 27% high congruent trust.

The identical procedure was performed for sample 2. These difference scores ranged between -1.75 and 3.25. When using all four categories, the distribution was 28% low congruent trust, 5% supervisor high trust, 30% employee high trust, and 38% high congruent trust. A Chi-square statistic was run to see if the distribution of sample 1 varied from sample 2 in terms of categorization. In order to compensate for the different sample sizes, expected values were calculated by taking the percentage of the population in sample 1, and determined which number that would result in the sample percentage in sample 2. For example, low congruent trust accounted for 23% of the population in sample 2. This was translated to an expected value of 18 for the chi-square. Results showed that the distribution of sample 2 differed significantly from the distribution of sample 1,  $X^2(3) = 9.98, p = .02$ .

**Comparing the Classification Methods.** The distributions of the two classification types were also compared via  $X^2$  goodness of fit tests. For each, the categorization arrived at via the median split was used as the baseline, with the counts from the difference score categorization serving as the comparison. For sample 1,  $X^2(3) = 6.39, p = .09$ . It is important to note that one cell did not meet the minimum sample size of five. While a  $X^2$  statistic is typically independent of sample size, this does not hold when the minimum cell frequency is not met. As a result, this may not fully represent the differences between the two distributions; as a result, both will be used in the hypothesis testing of the paper, despite only marginal significance. For sample 2,  $X^2(3) = 8.34, p = .04$ . This illustrates that the distributions provided by the two types of classification are significantly different from one another, and should both be examined in hypothesis testing. Means and standard deviations for each dependent variable by group for each method of categorization can be found in tables 4 and 5. Due to the small numbers of dyads in each cell, an analysis of variance was not run on this data.

---

Insert Table 4 about here

---

---

Insert Table 5 about here

---

**Correlations Among Performance Appraisal Specific Outcome Variables.** There is an interesting pattern of correlations among the performance appraisal specific outcomes—satisfaction, usefulness, and satisfaction. Both accuracy and satisfaction are significantly related to usefulness ( $r = .47$  and  $.51$ , respectively), but they are not significantly related to each other ( $r = .27$ ). When examining the partial correlation between performance appraisal satisfaction and accuracy controlling for usefulness, the relationship is reduced to  $.04$ ,  $p = .87$ . This indicates that there does seem to be differences between these three variables, or at least between performance appraisal satisfaction and performance appraisal usefulness. Further, when all scale items are entered into a principal components analysis, three factors with eigenvalues greater than one result. Though there are statistically significant correlations among many of the variables within this data set, the majority of the issues come from the dependent variables, rather than independent variables. Particularly, the correlation between interactional justice and performance appraisal satisfaction,  $r = .72$ , is particularly high. When performing an exploratory factor analysis, however, the two scales did not hang together as one factor. Multicollinearity

among independent variables will be dealt with as it arises; specifically, within the independent and exploratory analyses.

### **Test of Hypothesis 1**

Hypothesis 1 regarded perceived accuracy in terms of the employee's performance appraisal. It predicted that dyads with high congruent trust would have the highest levels of perceived accuracy, followed by employee trust high dyads, supervisor trust high dyads, and low congruent trust dyads.

**Dyadic Approach.** In order to compensate for the level of interdependency in the ratings of employee and supervisor rated trust, multi-level modeling was used in accordance with the Actor Partner Interaction Model, as laid out in Kenny, Kashy, and Cook (2006). Individual ratings of trust entered at level 1, which looks within dyads, and the category coding entered at level 2, which looks between dyads. Please see table 6 for full results. The first model used the categorization variable arrived at via the median split method. For this model, only the intercept was significant, which indicates that the means are different from zero:  $F(1, 22) = 13.55, p = .00$ . None of the predictors were significant; for employee,  $F(1, 22) = .56, p = .46$ ; for supervisor trust,  $F(1, 22) = 1.06, p = .32$ ; for the median split categorization,  $F(1, 22) = .12, p = .73$ . Not only did congruency fail to predict ratings of performance appraisal accuracy, employee and supervisor ratings of trust failed. The model was run again using the congruency categorization arrived at via the difference score methodology. As before, the intercept was the only statistically significant component:  $F(1, 22) = 22.60, p = .00$ . The three other variables, however, were all trending towards significant. For employee trust,  $F(1, 22) = 2.66, p = .11$ ; for supervisor trust,  $F(1, 22) = 2.10, p = .16$ ; for congruency measure based on difference scores,  $F(1, 22) = 2.15, p$

= .15. This provides preliminary evidence towards dyadic congruency helping explain employee ratings of performance appraisal accuracy, depending on how dyadic congruency is measured.

---

Insert Table 6 about here

---

**Independent Approach.** As noted previously, Kenny and colleagues (2006) gives two guidelines for when to use dyadic data analyses approaches in terms of having enough power to properly determine the relationship between the predictor variables of interest. Their second guideline indicates that studies with fewer than a reasonable course of action for studies with fewer than 35 dyads is to approach the variables as if they are independent of one another. For multiple regression, a minimum ratio of 5:1 is needed in terms of independent cases to predictor variables. Sample 1 has an  $N = 26$ ; as a result, there is just over an 8:1 ratio. It should be noted, however, that this is below preferred ratio of 15 independent cases for every independent variable. Due to correlations among the variables, variance inflation factors (VIF) and tolerance will be reported. See Table 7 for the correlations among employee trust, supervisor trust, and the two measures of congruency.

---

Insert Table 7 about here

---

For model 1, employee trust, supervisor trust and congruency by median split were entered into a regression equation predicting employee ratings of performance appraisal accuracy. Only the constant was significant, and the overall analysis of variance was not  $F(3, 22) = 1.17, p$

= .35. When looking at the VIFs of the model, the maximum was 5.66, which is below the cutoff of 10. The average VIF, however, was 3.85. Kutner, Nachtsheim, Neter and Li (2005) argue that an average VIF exceeding 1 indicates that there are serious multicollinearity issues among the variables. For tolerance, low values indicate multivariable correlation. The minimum tolerance for the variables was 0.18, with an average tolerance of 0.32. With such strong evidence of multicollinearity, the two options are either trying to combine the collinear variables, or drop some from the model. In this case, however, neither of these choices are an option, because they are unique variables of interest. As a result, the independent model is not appropriate to test the relationships with, as the p-values cannot be trusted. Analyses will not be pursued for any of the hypotheses using the independent approach, as this issue would be identical across them, as the same predictor variables are of interest.

**Follow-up tests.** In order to try and explain more of the relationship between trust and employee ratings of performance appraisal accuracy, a stepwise linear regression was done. This is because there are six possible predictor variables, which results in a ratio of 4.33 cases for each independent variable. This violates the minimum ratio of 5:1 cases to predictors. In terms of exploratory analysis, employee ratings of ability, benevolence and integrity were entered as possible variables, as were supervisor ratings of ability, benevolence and integrity. The resulting regression was significant,  $F(1, 24) = 5.15, p = .03$ . The predictor of accuracy that reached the cutoff was employee ratings of their supervisor's benevolence,  $B = .38, t = 2.27, p = .03$ . This resulted in an  $R^2$  of .18. Please see table 8 for the full results.

---

Insert Table 8 about here

---

## Test of Hypothesis 2

Hypothesis 2 discussed an employee's perceived usefulness of the performance appraisal. It predicted that employees in dyads with high mutual trust would have the highest levels of perceived usefulness, followed by employee high dyads, supervisor high dyads, and employees in dyads with low congruent levels of trust would have the lowest levels of perceived usefulness.

**Dyadic approach.** As with hypothesis 1, multi-level modeling was first used to examine hypothesis 2. Individual ratings of trust were entered at level 1, which looks within dyads, and the category coding entered at level 2, which looks between dyads. The first model used the categorization variable arrived at via the median split method. For this model, only the intercept was significant, which indicates that the means are different from zero:  $F(1, 22) = 20.24, p = .00$ . None of the predictors were significant; for employee,  $F(1, 22) = .11, p = .75$ ; for supervisor trust,  $F(1, 22) = .51, p = .48$ ; for the median split categorization,  $F(1, 22) = .32, p = .86$ . Not only did congruency fail to predict ratings of performance appraisal accuracy, employee and supervisor ratings of trust also failed. Model 2 used the dummy variable for congruency that combined the two types of congruency. As with model 1, the intercept was significant;  $F(1, 22) = 32.33, p = .00$ , but all of the predictor variables were non-significant. For employee trust,  $F(1, 22) = .59, p = .45$ ; for supervisor, trust,  $F(1, 22) = .44, p = .52$ ; for the difference score based categorization,  $F(1, 22) = .11, p = .75$ . See the full results in Table 9. In both sets of dyadic analyses, trust congruency had no significant on employee perceptions of the usefulness of their performance appraisal. As a result, there was no evidence that supported hypothesis 2, that dyadic congruency would help explain employee ratings of performance appraisal usefulness.

---

Insert Table 9 about here

---

**Follow-up tests.** In order to try and explain more of the relationship between trust and employee ratings of performance appraisal usefulness, a stepwise linear regression was done. Employee ratings of ability, benevolence and integrity were entered as possible variables, as were supervisor ratings of ability, benevolence and integrity. The stepwise regression failed to enter any of the possible variables into the equation, showing that none significantly predicted employee ratings of performance appraisal usefulness.

### **Test of Hypothesis 3**

Employee satisfaction with the performance appraisal was the outcome of interest for hypothesis 3. It hypothesized that employees in dyads with low trust congruence would have the lowest levels of satisfaction for their performance appraisal, followed by employee high trust dyads, supervisor trust high dyads, with employees in dyads with high trust congruence would have the highest levels of performance appraisal satisfaction.

**Dyadic Approach.** The first model used the categorization variable arrived at via the median split method. For this model, only the intercept was significant, which indicates that the means are different from zero:  $F(1, 22) = 24.9235, p = .00$ . None of the predictors were significant; for employee,  $F(1, 22) = .44, p = .51$ ; for supervisor trust,  $F(1, 22) = .22, p = .64$ ; for the median split categorization,  $F(1, 22) = 0.22, p = .65$ . Not only did congruency fail to predict ratings of performance appraisal satisfaction, employee and supervisor ratings of trust

also failed. Model 2 used the congruency variable arrived at via using a median split. As previously, none of the predictors were significant;  $F(1, 22) = .44, p = .51$ ,  $F(1, 22) = .22, p = .64$ , and  $F(1, 22) = .22, p = .65$ , for employee trust, supervisor trust, and congruency, respectively. The intercept was still significant,  $F(1, 22) = 24.35, p = .00$ . Please see Table 10 for the full results. In both sets of dyadic analyses, trust congruency had no significant on employee perceptions of their satisfaction with their performance appraisal. These results provide no support for hypothesis 3.

---

Insert Table 10 about here

---

**Follow-up tests.** As with hypotheses 1 and 2, a stepwise linear regression was done to try and explain possible sources of variance in the employee ratings of performance appraisal satisfaction. Both employee and supervisor ratings of ability, benevolence and integrity were entered as possible variables for the stepwise regression. Please see table 11. The results showed an overall significant model,  $F(1,25) = 5.58, p = .03$ . Employee ratings of their supervisors integrity was the sole predictor left in the model,  $B = .43, t = 2.36, p = .03$ . This resulted in an  $R^2$  of .19.

---

Insert Table 11 about here

---

## Test of Hypothesis 4

Hypothesis 4 looked at interpersonal justice, arguing that employees in dyads with high trust congruence will have the highest levels of interpersonal justice, followed by employee high incongruent dyads, supervisor high incongruent dyads, with low trust congruent dyad employees have the lowest levels of interpersonal justice.

**Dyadic Approach.** Model 1 used the categorization variable arrived at via the median split method. For this model, only the intercept was significant, which indicates that the means are different from zero:  $F(1, 22) = 29.92, p = .00$ . None of the predictors were significant; for employee,  $F(1, 22) = .02, p = .89$ ; for supervisor trust,  $F(1, 22) = .28, p = .60$ ; for the median split categorization,  $F(1, 22) = 0.41, p = .53$ . Not only did congruency fail to predict ratings of performance appraisal satisfaction, employee and supervisor ratings of trust also failed. Results were similar for Model 2, which used the categorization based on difference scores; the slope was significant  $F(1, 22) = 40.15, p = .00$ , but none of the predictors were;  $F(1, 22) = 1.39, p = .25$ ,  $F(1, 22) = 1.71, p = .20$ , and  $F(1, 22) = .35, p = .56$ , for employee trust, supervisor trust, and dyadic congruency. Please see table 12 for full results. Results failed to support hypothesis 4, as dyadic congruency had no significant effect on interpersonal justice.

---

Insert Table 12 about here

---

**Follow-up tests.** In order to further explore predictors of interpersonal justice, a step-wise linear regression was performed. This produced two models: one single predictor, and one

with two predictors. For model 1, the overall model was significant  $F(1,24) = 18.93, p = .00$ , and employee ratings of their supervisors benevolence predicted ratings of interpersonal justice,  $B = .66, t = 4.29, p = .00$ . This resulted in an  $R^2$  of .43. The second model was significant overall,  $F(1, 24) = 13.92, p = .00$ . In terms of independent variables, both employee ratings of supervisor benevolence and ability were significant:  $B = .43, t = 2.54, p = .03$  and  $B = .41, t = 2.40, p = .03$ , respectively. Model 2 had an  $R^2$  of .55, resulting in a  $\Delta R^2$  of .12, which was significant at  $p < .05$ . Please see Table 13.

---

Insert Table 13 about here

---

### **Test of Hypothesis 5**

Overall justice was the outcome of interest for hypothesis 5, arguing that dyadic congruence should not have an effect on employees' perceptions of overall justice within the organization. Overall justice was measured in survey 1, which means that it can be tested within samples 1 and 2.

**Dyadic Approach.** Model 1 used the categorization variable arrived at via the median split method. For this model, only the intercept was significant, which indicates that the means are different from zero:  $F(1, 22) = 6.33, p = .02$ . Employee trust was trending towards significance:  $F(1, 22) = 2.16, p = .15$ . However, supervisor trust and dyadic congruency failed to predict perceptions of overall justice:  $F(1, 22) = 1.50, p = .23$ , and  $F(1, 22) = .41, p = .53$ , respectively. Please see Table 14 for the full results. Model 2 used the categorization of dyadic congruency arrived at via the difference score methodology. The slope for this model was

significant,  $F(1, 22) = 15.83, p = .00$ . None of the independent variables, however, reached significance when trying to predict overall justice. For employee trust,  $F(1, 22) = 1.24, p = .28$ ; for supervisor trust,  $F(1, 22) = 1.02, p = .32$ , and for dyadic congruency,  $F(1, 22) = .002, p = .96$ . These results provide initial support for hypothesis 5, that dyadic congruency does not have an effect on the employees perceptions of overall justice within the organization.

---

Insert Table 14 about here

---

For sample 2, the same procedure was followed as in sample 1. Model 1 had a significant intercept,  $F(1, 75) = 25.86, p = .00$ , and employee rated trust was a marginally significant predictor of their feelings of overall justice ( $B = .26, t = 1.89, p = .06$ ). Supervisor rated trust was a non-significant predictor, though dyadic congruency via the median split was trending towards significance ( $B = .14, t = 1.46, p = .15$ ). Model 2 used the categorization variable arrived at via difference scores. As with before, the slope was significant ( $F(1, 75) = 27.94, p = .00$ ). Employee rated trust was also a significant predictor of ratings of overall justice within the organization,  $B = .33, t = 2.61, p = .01$ . Both supervisor rated trust ( $F(1, 75) = 1.16, p = .29$ ), and dyadic congruency ( $F(1, 75) = .94, p = .34$ ), failed to predict employee ratings of overall justice. Please see Table 15 for the full results. The results from sample 2 show somewhat mixed results in that the congruency arrived at via median split was trending towards significance. The results, however, do still provide support for hypothesis 5 that dyadic congruency does not have an effect on employee ratings of overall justice, but indicates that how congruency is assessed may influence results.

---

Insert Table 15 about here

---

**Follow-up tests.** Stepwise regressions were run for both samples 1 and 2 on overall justice. For both, employee and supervisor ratings of ability, benevolence and integrity were entered as possible predictors. For sample 1, a one-predictor model emerged; employee rated benevolence of their supervisors predicted ratings of overall justice,  $B = .62, t = 3.56, p = .00$ . This provided an  $R^2$  of .35. See table 16.

---

Insert Table 16 about here

---

Since overall justice was measured in the time 1 survey, data is available for 79 dyads. As a result, the stepwise regression was also run on sample 2. Please see Table 17. Ratings of ability, benevolence and integrity from both employees and their managers were offered. Only one model emerged from the regression, which had an  $R^2$  of .35. Employee ratings of their manager's benevolence predicted overall justice,  $B = .63, t = 3.56, p = .00$ . Thus, though dyadic congruency does not significantly predict feelings of overall justice, they could be significantly predicted by ratings of supervisor benevolence—a component of trust.

---

Insert Table 17 about here

---

## Exploratory Results

Exploratory analyses were performed to look at how employee and supervisor ratings of ability, benevolence and trust are related to and can predict trust congruency. Correlations between the predictor variables and the outcome variable were run for two samples: the 26 full dyads with all the waves of data, and 79, which included participants who only lacked the second employee survey. Please see Table 18 for a comparison of the correlations.

---

Insert Table 18 about here

---

Though the correlations are fairly similar across the two populations and indices, there are some potentially interesting and notable differences. First, for the median split categorization, almost all of the magnitudes are stronger for sample 1 than sample 2. This is the opposite for the difference score index in terms of employee ratings: all are larger in sample 2. The same pattern follows, however, in terms of the supervisor ratings. Across both categorizations, supervisor rated variables tended have stronger relationships than the employee rated variables.

Due to the exploratory nature of these analyses, a series of regressions were used to try and predict the categorizations. For sample 1, a stepwise regression was done using employee and supervisor ratings of ability, benevolence and integrity as possible variables. When the median split congruence was the dependent variable, two models emerged. In model 1, supervisor rated ability significantly predicted congruence,  $B = 1.81$ ,  $t = 5.57$ ,  $p = .00$ , and resulted in an  $R^2$  of .56. In model 2, both supervisor ratings of ability and employee ratings of

benevolence predicted median split congruence,  $B = 1.52$ ,  $t = 4.87$ ,  $p = .00$ , and  $B = .77$ ,  $t = 2.59$ ,  $p = .02$ , respectively. This resulted in a  $\Delta R^2$  of .10, for an overall  $\Delta R^2$  of .66. See table 19.

---

Insert Table 19 about here

---

For the difference score based categorization, 1 model emerged. Supervisor rated ability significantly predicted congruence,  $B = 1.32$ ,  $t = 3.67$ ,  $p = .00$ . This resulted in an  $R^2$  of .36. See table 20.

---

Insert Table 20 about here

---

Since sample 2 contained 79 dyads, it was possible to use a normal regression with all of the variables. See table 21. When all of the variables were entered into the regression equation, only employee benevolence significantly predicted the median split measure of congruence,  $B = .55$ ,  $t = 1.97$ ,  $p = .04$ . This model resulted in an  $R^2$  of .29, but showed warning signs of having high levels of multicollinearity.

---

Insert Table 21 about here

---

The same procedure was performed for the difference score categorization. In this regression, supervisor integrity was marginally significant in prediction,  $B = .47$ ,  $t = 1.64$ ,  $p = .10$ . Please see table 22. This model also showed strong evidence of multicollinearity issues.

---

Insert Table 21 about here

---

Due to the issues with non-significance and multicollinearity, stepwise regressions were also done on sample 2. For the median split categorization, three models resulted; please see Table 22. In model 1, supervisor rated ability was the lone predictor,  $B = 1.12, t = 5.57, p = .00$ . This provided an  $R^2$  of .28. Model 2 contained supervisor ratings of employee ability in addition to employee ratings of supervisor benevolence:  $B = .84, t = 4.27, p = .00$  and  $B = .67, t = 3.65, p = .00$ . Adding employee ratings of benevolence increased the  $R^2$  to .38, an increase of .10,  $p = .00$ . Model 3 included supervisor ratings of employee integrity,  $B = .45, t = 2.23, p = .03$ , to supervisor ratings of ability,  $B = .50, t = 2.01, p = .05$ , and employee ratings of benevolence,  $B = .60, t = 3.42, p = .00$ . This increased the  $R^2$  by .05 to .43,  $p = .02$ .

---

Insert Table 21 about here

---

When predicting the difference score categorization via stepwise regression, two models emerged; see Table 22. For model 1, supervisor ratings of employee integrity was the sole predictor,  $B = .75, t = 4.32, p = .00$ . This model had an  $R^2$  of .19. Model 2 also included employee ratings of supervisor benevolence,  $B = .55, t = 2.78, p = .01$ , in addition to supervisor rated integrity,  $B = .59, t = 3.30, p = .00$ . This raised the  $R^2$  to .25, an increase of .06,  $p = .01$ .

---

Insert Table 22 about here

---

## Discussion

This study attempted to study the dyadic effects of trust on performance appraisal outcomes for employees, particularly the influence of the congruence of the trust in the relationship between the employee and their supervisor. Two different types of congruency categorization were used: arrived at via median split and via differences scores. The phenomena of dyadic trust congruency was examined in terms of the outcome variables of performance appraisal accuracy, usefulness, and satisfaction, in addition to measures of overall and interactional justice. Follow up tests were run on all of the outcome variables using stepwise regression, looking at the effects of ratings of ability, benevolence and trust in predicting each outcome variable. Further, these variables were used to try and predict the level of congruency in the dyads. Overall, the results were largely disappointing in terms of illuminating this more nuanced approach to the effects of trust at work.

## Study Findings

Dyadic congruency failed to emerge as a significant predictor in any of the models, though it trended towards significant in the prediction of performance appraisal accuracy. Looking at tables 4 and 5, the means and standard deviations for all of the variables based on grouping are listed. There is a general trend in increasing scores across the groups, in that group 4 always has higher scores than group 1, but they vary quite a bit in terms of effect size and sample size within the group. Given the small number of data points, with some cells having as few as 2 entries, it is not appropriate to run analyses of variance on any of the outcome variables only measured in survey 1. When looking at overall justice, however, a one-way ANOVA shows that there are significant differences between the groups based on trust congruence;  $F(3,$

75) = 5.71,  $p = .00$  for the difference score congruency, and  $F(3, 75) = 8.56, p = .00$  for the median split. It is interesting, however, that even though the ANOVA is significant for overall justice in sample 2, dyadic congruency was not a significant predictor in either model. It is possible that given a larger sample size the differences for the other outcome variables would be significant, though there is still the question of whether congruency could predict above and beyond the effects of the employee and supervisor ratings of trust.

It is also important to consider the differences as a result of which categorization variable was used: the median split or the difference score. The median split may not take into account true incongruencies in trust, as it looks at the median scores of the entire sample as opposed to looking at the scores of each individual dyad and making a categorization. In terms of Akaike's Information Criterion (AIC), none of the models varied more than 1.0 in terms of fit between both types of congruencies, and there was no consistent pattern in terms of which index had better fit. The two methods need to be explored in more detail to one another, and possibly other types of categorization as well. This includes the possibility of using latent class analysis to explore the possibility of classes of employees based on ratings of trust, ability, benevolence and integrity, and using the quantitatively derived classes to categorize dyads.

In prediction of hypothesis 1, that dyadic congruency would predict perceived accuracy, the two different methods of categorization showed very different results. When using the median split method, none of the predictors were anywhere close to significant. When using the difference score method, however, all of the predictors were trending towards significance, with  $p$ -values ranging from .11 to .16. Especially given the small number of dyads, this shows promising preliminary evidence towards the ability of congruence as determined by difference scores when predicting workplace outcomes. In terms of using the antecedents of trust (ability,

benevolence and integrity) to predict performance appraisal, employee rated benevolence was the only predictor that emerged from the stepwise regression. This is interesting, because benevolence refers to their supervisor looking out for them and being kind, as opposed to being accurate in their ratings.

In terms of hypothesis 2, none of the variables measured significantly predicted performance appraisal usefulness. This includes both the multilevel model that included employee and supervisor ratings of trust and dyadic congruency, but also the stepwise regression failed to produce any models with the employee and supervisor ratings of ability, benevolence and integrity. This is different from the literature on trust and performance appraisal, which has seen a relationship between these variables. When looking at tables 4 and 5, it shows that the differences in perceived usefulness do not vary greatly between the groups, and there is no real pattern across the categories. Further, all of the groups have scores above 4.21, which indicates that the employees receive their performance appraisal as usefulness despite their relationship with and perceptions of their manager.

In terms of hypothesis 3, performance appraisal satisfaction, none of the variables emerged as significant in the multilevel model; that means not only did dyadic congruence fail to predict employee ratings of performance appraisal, so did employee and supervisor ratings of trust. In terms of employee trust, this is again counter to previous research. Within the congruency measure arrived at via the dyad's difference score, the means follow the predicted trends, and generally follow the predictions when looking at the categorization arrived at via the median split. Due to the small number in this group, though, it is hard to ascertain whether the means are accurate and stable representations of the average level of the phenomena. As a result,

these trends show that the phenomena are worthy of exploring in a study with a larger sample size, where there is more statistical power.

In terms of the step-wise regression performed to explain other possible predictors of satisfaction, employee ratings of their supervisor's integrity was a significant predictor. Though no specific hypotheses were made, it makes sense that an employee who sees their supervisor as full of integrity would be more satisfied with their performance appraisal outcome, as integrity encompasses the notion that the supervisor is fair in their behaviors and judgments, in addition to being consistent with their behavior. Individual differences and trust have really only been looked at in terms of the propensity to trust; this indicates that how trustworthy someone is considered may influence workplace outcomes.

For the multi-level model of interpersonal justice, there were no significant predictors. For the difference score categorization, both employee and supervisor rated trust were trending towards significance. It is logical that interpersonal justice would have a relationship with employee rated trust in their manager, as the scale asks about that specific manager, whereas the other scales ask about the performance appraisal process. It also highlights that the construct of dyadic congruency may not apply to as many aspects of the workplace as originally thought; some may be subsumed through each of the measures of trust. It is interesting that supervisor rated trust in their employee was a stronger predictor, though still non-significant. This implies that the level of trust a manager has for their employee affects how they behave towards them in terms of justice, but also how they behave towards other employees when the focal employee is around. This would be useful to study within cohorts of employees with the same manager, in order to examine the variance in each employee group's perceptions of interpersonal justice

based on their relationship with their manager; this would provide stronger evidence of the relationship between the two variables.

For the stepwise regressions, two models emerged: one containing employee ratings of their manager's benevolence, and the other containing employee rated benevolence and ability of their supervisors. These further highlights that how others view an individual may give us insight into their reactions and workplace phenomena. Given the nature of the items in the benevolence scale, it is unsurprising that it is related to interpersonal justice—inherently, they both tap that their manager shows kindness and concern for them as a person. The strong positive predictor of employee ratings of supervisor ability and interpersonal justice indicates that employees may perceive acting in a just way to be a proxy for their competence- or looked at from the other perspective, acting in interpersonally unjust ways are seen as a sign of incompetence.

Overall justice was examined over both samples of employees. In the multilevel analysis with the median split categorization for sample 1, employee rated trust trended towards significance, but supervisor rated trust and dyadic congruency did not. Similarly, dyadic congruency assessed via differences scores showed no predictive power in overall justice, and nor did employee or supervisor ratings of trust. This provides preliminary evidence in terms of hypothesis 5, that dyadic congruency will have no effect on the employees perceptions of justice in the organization as a whole. For sample 2, employee rated trust was a significant predictor for both models. This was initially somewhat surprising, considering that the items on the scale of overall justice ask about the organization as a whole. Organizational structure, however, likely has something to do with this. Given that the organization is a chain of stores, most employees probably rarely interact with someone from corporate. As a result, their manager is the only

liason and impression they have in terms of the organization. Thus, this provides a potential moderator in the model of overall justice.

When using employee and supervisor ratings of ability, benevolence and integrity across the two samples, employee ratings of their supervisor's benevolence emerged as the lone predictor for both. This is particularly interesting because it again highlights that qualities of specific managers are important for how the employee views the organization as a whole. This has important implications in terms of how management decides to staff chain type organizations, since the supervisor is possible only face of corporate in the store, and greatly influences how the employee perceives the organization as a whole.

In terms of the exploratory analyses, the outcomes were fairly interesting. When looking at the median split approach to sample 1, the two variables that predicted congruence in a stepwise regression were supervisor ratings of ability and employee ratings of benevolence. For the difference score approach, supervisor rated ability alone best predicted congruence. This shows that there are many influences on the relationship between an employee and their manager. Given the predictive power of supervisor rated ability, highlights that competence is a big factor in terms of trust in the workplace. It is likely that supervisors impressions of an employees competence and their levels of trust are intertwined when a new employee starts. The two variables are very highly correlated,  $r = .83$ . Trying to tease apart the formation of these impressions could provide an interesting future line of work.

With sample 2, a series of regressions were performed. First, all six variables were entered simultaneously in order to try and tease apart effects. These results were largely dissatisfying, and there were high VIF scores and low measures of tolerance amongst the independent variables. As a result, more stepwise regressions were performed. For the median

split measure of congruence, supervisor rated ability, employee rated benevolence, and supervisor rated integrity formed the best predictors. Across many of these results is the pattern that what the supervisor thinks of the employee is strongly related to the employees perception of their appraisal process, their entire organization, and even congruency, a mezzo level variable on the dyadic level. Indeed, when comparing the descriptive statistics, the manager rated variables consistently had lower means than the employee rated variables, and also higher standard deviations. When using the difference score method in sample 2, supervisor rated integrity of their employee and employee rated benevolence were the strongest predictors. Across all of these findings, it shows the importance not only of measuring trust from both directions, but also in looking beyond the general construct of trust. The exploratory analyses have shown that ratings of ability, benevolence and integrity have strong predictive power and should be included in studies focusing on trust in the workplace.

### **The Issue of Misclassification**

Whenever individuals, or in this case, dyads, are being placed into groups, there is always the potential issue of misclassification. There are two ways misclassification could potentially occur: in a study that only takes into account the employees perspective on the trust relationship, failing to take into account the effects of the supervisor's level of trust, but also when the classification itself is not completed with proper thought or care. Unfortunately, the sample size of 26 is not large enough to explore the potential downfalls of misclassification of only using half the dyad—Kenny and colleagues (2006) argue, however, that any representation of a dyad by only one person is a misrepresentation of the relationship and a huge flaw in the representation of the relationship. For sample 2, 79 individuals would have been enough to look

at misclassification of dyads, but the only outcome variable we have for all 79 employees is overall justice, which was shown not to vary across the groups for either form of classification.

There are two possible ways that this could be explored within the context of this study: latent class analysis, and data simulation. LCA uses a model that relates sets of variables into classes; each class is characterized by patterns of conditional probabilities. This can be used to create “profiles” of employee-manager trust relationships. As a subset of structural-equation modeling, LCA requires you specifying the number of classes, and gives output onto how well this number fit the data; this would allow researchers to look at the fit of the model to the data in terms of trust profiles, to see if there are the four used in this paper. Each class is characterized by different response patterns on the observed variables. Further, LCA produces parameter estimates, the probabilities of membership for each class, and the probability of each item response as conditional on their class. The probabilities of membership can be integrated into the APIM regressions for further explanatory power for the outcome variables. Based on these latent classes, levels of the employee perceived outcome variables could be examined. These probabilities of membership would also allow us to look at how fit statistics and results change when dyads are misclassified.

This could also be explored via simulating data. Given proper perimeters, a sample data set could be created and then analyses run to examine the effects of misclassification at, e.g., the 5%, 10%, 20% level, etc. This would also provide a larger data set, allowing for higher percentages of dyads to be misclassified. Both of these approaches would allow us to understand how the issue of misclassification functions in this type of relationship, and also what the ramifications are for the model.

## Limitations

This study has drawbacks and limitations. The first is in terms of the methodology; 26 dyads is a small sample size, and does not provide the statistical power to detect possible effects. Indeed, independent analyses were pursued due to the sample size not reaching a standard from Kenny et al, (2006), but were dropped when VIF and tolerance scores indicated serious multicollinearity between the variables, and none of the variables could reasonably have been removed from the model. The sample size also lead to very small numbers within each of the cells- they ranged from 2-10. Even had incongruent groups been combined, there only would have been 6 in that cell when using the difference score measure of congruency. These small cell sizes precluded the ability to run robust analyses assessing the differences on outcomes variables by categorization.

There were also issues in terms of the scale reliability, as multiple did not reach the standard of  $\alpha = .70$ . Though items were dropped in order to raise scale reliability, this resulted in the scale on performance appraisal satisfaction consisting of only two items. All data was collected via survey, and so it is possible that there is an issue with common method variance. Precautions were taken, however, in terms of reducing the cognitive load for participants, establishing temporal precedence, and minimizing the intercorrelation of variables in this study by separating the independent variables from the dependent variables. Unfortunately, this is also what lead to a high level of attrition, as many employees who completed survey 1, containing the independent variables, did not complete survey 2, which contained the dependent variables.

There also is a limitation in terms of a lack of demographic variables. It is possible that some of the relationships are affected by variables such as gender or organizational tenure, among other possibilities. Lastly, though the employee had the opportunity to take the survey

right after their performance appraisal, we do not have the performance data, nor have any data on how long the break was between the two. The issues this leads to are twofold: we could not assess if there is a relationship between dyadic trust and the performance ratings, and there could have been changes in the size of the effect based on how long there was between receiving the performance appraisal and completing the survey.

There are many ways to measure trust, including mutual trust, but looking at trust bidirectionally indicates that there is room for new measures. Brower and colleagues (2009) cite the utility of a development of perceived mutual trust, which would assess not only how much individuals trust the other member of the dyad, but also their perception of how much that member trusts them. There have been attempts to measure perceived mutual trust in the past, but the option of trust not being mutual was not included (Mishra & Mishra, 1994; Smith & Barclay, 1997). This awareness of trust has important implications for future trust research: it is likely that in dyads of congruent distrust, there is a level of awareness in terms of perceived mutual (lack of) trust. This is because once an employee knows that their manager does not trust them, they are unlikely to trust their manager. Perceived mutual trust also likely influences the findings between incongruent dyads also, as one member perceives that there is a social exchange when there is not. This could possibly explain some of the ratings that differ between the different categorizations of dyads.

There is also a limitation concerning the analysis performed on the data, particularly in terms of the experimentwise error rate. The experimentwise error rate is the probability that one or more of the significance tests resulted in a Type I error, meaning that a true null hypothesis was incorrectly rejected. This is equivalent to  $\alpha_{ew} = 1-(1-\alpha_{pc})^c$ , where

- $\alpha_{ew}$  is the experimentwise error rate

- $\alpha_{pc}$  is the per-comparison error rate, and
- $c$  is the number of comparisons that were performed.

Given the large number of hypotheses, in combination with the low sample size and subsequent low power, it is hard to make any strong conclusions from the results of this study. As a result, the findings from this paper should only be used for hypothesis generation for future research.

The possibly contributions, however, outweigh the drawbacks. Mutual trust, or lack thereof, needs to be explored more to understand this component of the workplace. Trust has been shown in the past to be a good predictor of work outcomes, and more recently that the employee being trusted by the supervisor also has an effect on the employee's workplace outcomes. It is important to see how these effects extend to performance appraisal processes and outcomes, and further research on trust dyads.

### **Theoretical Contributions**

Trust and performance appraisal outcomes have been previously studied together, but only in a unidirectional manner. As a result, this study serves to further integrate the evolution of trust as being measured as a dyadic construct into research into performance appraisal; this will potentially help us understand more of the context of performance appraisal. This study also heeds Aguinis and Pierce's (2008) call for examining the nature and outcomes of dyadic trust relationships between the employee and their manager. Brower and colleagues (2008) examined task performance, organizational citizenship behavior, and turnover intentions; this paired with the current dependent variables shows a concerted effort to account for the dyadic effects of workplace trust. Looking at the results of the two studies, the importance of trust being measured from both perspectives when assessing workplace outcomes is shown, from a quantitative

perspective in addition to a theoretically. The current study is preliminary due to the sample size; given the exploration that needs to be done in terms of congruency measures, and the measures of categorization trending towards significant in some cases, the outcomes of congruency in the workplace are worth studying further with larger populations in order to try and uncover stronger effects.

This paper served to further integrate social exchange theory into performance appraisal and its outcomes. The exchange between a manager and the employee serves as a motivation for both of the individuals in a number of capacities. It has been argued that many motivations influence the relationship between actual performance and performance ratings (Murphy, 2008). Looking through the lens of trust and social exchange theory, however, shows us that exchange maintenance is likely a motivator through many aspects of work. There is little research on uneven exchanges, and thus this marks a significant step in trying to fill this gap.

By looking at how levels different levels of trust congruency impact performance appraisal, theory is extended by examining the nature of trust incongruent dyads and examining bidirectional trust in performance appraisal. In Brower and colleagues (2006), trust incongruent dyads had no significant effect in terms of task performance, organizational citizenship behaviors directed towards the organization, or turnover intentions; however, they did not take into account more options of congruency than the median split, which could be masking potential results. Further, they combined the dyads into “incongruent,” as opposed to looking at which individual had the stronger (or weaker) level of trust to look at possible effects. As a result, these variables should also be examined in terms of multiple forms of incongruence.

Lastly, this study provides the literature with more knowledge of the unique contributions that ability, benevolence and integrity have in the workplace. Mayer (2007) argued that these

constructs combine idiosyncratically to form trust. This study, however, shows that specific constructs rated by specific people (e.g., employee rated benevolence), predict important workplace outcomes. This also indicates that the relationships are likely not idiosyncratic, so long as the researcher makes the thoughtful effort to think about how each will influence the outcome variable. Much like personality in the workplace, it requires matching a predictor to a desired outcome.

### **Practical Contributions**

In addition to the theoretical contributions of this research, there are also practical implications in terms of how organizations understand their performance appraisal process. Individual performance appraisal can be a somewhat controversial topic, with some researchers arguing it that it should be banned from the workplace (e.g., Deming, 1986). This provides us with some preliminary evidence that the role of trust congruency may influence reactions to the performance appraisal, as well as reactions to justice in the workplace. Though Brower and colleagues (2008) found trust incongruent dyads had no effect with respect to task performance, OCBO, or turnover intentions, it is possible that trust incongruencies will affect acceptance, fairness, and usefulness in the performance appraisal process, with a big enough sample size to detect the effects and a better understanding of the best classification system for the process.

This means that organizations should not just focus on establishing feelings of trust and a positive exchange in the employee towards their manager, the performance system and the organization as a whole. Though these are very important, there should also be a focus on the

manager's feelings towards his or her employees. This must make us think about how we build trust within employees, and throughout the organization as a whole. Though there is research on this (see Farr and Jacobs, 2008 for a brief discussion), much of it results in a long list of items for the manager to do. This, however, is a multi-level issue, and thus is not just a job for their specific manager. It is also the responsibility of the company as a whole. If an organization wants to build trust amongst their employees, they should create, promote and endorse a climate where trust is valued. Mayer and Davis (1999) showed that one way to increase trust in the organization is to implement a performance management system that employees find acceptable. This means that organizations should be surveying their employees in order to ascertain how they feel about the current system, and how it could be improved. Further, looking at employee and manager perceptions may give insight to the organization on why individuals react the way they do to the performance appraisal system. Given the predictive power of the antecedents to trust, particularly employee ratings of their supervisor's benevolence and supervisor ratings of their employees ability and integrity, measures of these types of constructs could be integrated into the organizations hiring and promotions systems to foster the addition and promotion of those who foster trusting relationships.

### **Future Directions**

There are multiple points of important future research for this topic. First, a study similar to the present should be conducted with more dyads; in order to truly understand the effects a sample with higher power is necessary. It is possible that there are effects that could not be detected due to the lack of power. Second, not all of the scales demonstrate acceptable levels of reliability. Scales were chosen for consistency purposes within the stream of research, and so the

possibility of including other methods should be investigated for future iterations, including the possibility of new scales being created. This includes the scales of trust itself, the focal variable. The scales for employee rated and supervisor rated trust demonstrated sub-par reliability, .65 and .71, respectively, for a construct that has been established within the literature. This should also be looked at with possible control variables, performance scores, and a rating of the delay between the actual performance appraisal and the measures being completed.

Given that the study of bidirectional trust in the workplace is nascent, there are also other workplace outcomes that should be investigated. These include some typically “I” side outcomes, including promotion, but also more traditional “O” side outcomes, including stress, burnout, and work-life balance, among others. Further, the results of this study stress the importance that trust should not be the only predictor when looking at these types of dyadic interactions and their outcomes, but also perceptions of ability, benevolence and integrity. Employee ratings of their supervisor’s ability, benevolence and integrity also represent possible individual differences that affect how individuals perceive and react to their performance appraisal. They should be looked at in more depth, and more individual differences, such as the Big 5, should be integrated into future research.

Lastly, a notable finding in this is the importance of benevolence in the workplace. Across the analyses, benevolence was the most consistent predictor. Different relationships produced by supervisor benevolence versus employee benevolence are especially interesting in terms of understanding the interpersonal dynamics of the workplace. The supervisor’s perceived benevolence is much more important in the context of performance appraisal, and the employee’s perceived benevolence is likely very important in different contexts. Though the importance of being nice in the workplace has been talked about in the popular literature, it has

not received much empirical attention. This provides one indication that it is a strong avenue for future research.

Last, this study should serve as a reminder to keep in mind extraneous variables of the organization when designing studies, and also attempting to assess the generalizability of findings. Overall justice did not perform the same way here it has in the past; it is likely that there are other constructs where these issues have muddled effects. In this study, organizational structure is a potential variable that influenced the outcome. In future studies, this should be taken into account, and interaction with management other than the direct manager should be assessed.

### **Conclusion**

Overall, this study provides us with an initial glimpse at the effects of dyadic trust congruency on performance appraisal outcomes. Though no significant results were returned in terms of trust congruence, congruency trended towards significance in some cases, and other unanticipated findings resulted. Specifically, employee ratings of integrity for their supervisor predicted performance appraisal satisfaction. Interpersonal justice, on the other hand, was significantly predicted by employee ratings of supervisor benevolence and supervisor ratings of employee ability. Ratings of benevolence by the employee significantly predicted ratings of overall justice in two samples. Overall, this study served to integrate social exchange theory and new approaches to trust research with performance appraisal outcomes. It also encourages us to think about the role of trust in the workplace in a new and more nuanced manner.

Table 1

*Descriptive Statistics of Focal Variables*

Measure	Mean	SD	$\alpha$
<i>Employee Survey 1</i>			
Trust	3.96	0.75	.65
Ability	4.76	0.32	.82
Benevolence	4.39	0.56	.92
Integrity	4.45	0.61	.80
Overall Justice	4.40	0.60	.91
<i>Manager Survey</i>			
Trust	3.38	1.00	.71
Ability	4.34	0.53	.91
Benevolence	4.20	0.67	.93
Integrity	4.21	0.82	.90
<i>Employee Survey 2</i>			
Interpersonal Justice	4.45	0.43	.89
Satisfaction	4.62	0.48	.91
Usefulness	4.52	0.55	.92
Accuracy	4.32	0.50	.63

N= 26

Table 2

*Correlation Table of Focal Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Employee Trust	.52	.46**	.59**	.53**	.33**	.40**	.35**	.32**					.48**
2. Employee Ability	.41*	.90	.46**	.62**	.02	.24*	.21	.14					.51**
3. Employee Benevolence	.56**	.56**	.88	.73**	.27*	.36**	.36**	.33**					.68**
4. Employee Integrity	.49*	.56**	.72**	.84	.13	.31**	.27*	.21					.60**
5. Supervisor Trust	.49*	.14	.38	.26	.61	.55**	.62**	.62**					.31**
6. Supervisor Ability	.43*	.25	.36	.33	.83**	.91	.70**	.67**					.39**
7. Supervisor Benevolence	.39	.14	.35	.19	.81**	.76**	.90	.78**					.26*
8. Supervisor Integrity	.36	.07	.19	.16	.73**	.72**	.88**	.83					.35**
9. PA Accuracy	.30	.21	.42*	.14	.34	.14	.14	.07	---				
10. PA Satisfaction	.37	.43*	.40*	.43*	.13	.12	-.10	.09	.27	---			
11. PA Usefulness	.09	.33	.33	.25	-.11	-.15	-.21	-.17	.47*	.51**	---		
12. Interactional Justice	.37	.65**	.66*	.64**	.36	.20	.21	.21	.42*	.72**	.50**	---	
13. Overall Justice	.45*	.52**	.59**	.50*	.37	.23	.21	.26	.35	.56**	.31	.53**	.92

$p < .05$ ; \*\*  $p < .01$ . "Employee" versus "Supervisor" references the individual completing the rating form, so "Employee Trust" represents the employee rating their level of trust for their manager. Scale alphas contained in the diagonal are for  $N = 79$ , as are the correlations above the diagonal.

Table 3

*Descriptive Statistics of Initial versus Final Sample*

Measure	Initial Sample (N=79)		Final Sample (N=26)	
	Mean	SD	Mean	SD
<i>Employee Survey 1</i>				
Trust	3.85	0.69	3.95	0.75
Ability	4.70	0.45	4.76	0.32
Benevolence	4.33	0.65	4.39	0.56
Integrity	4.35	0.68	4.45	0.61
Overall Justice	4.31	0.66	4.40	0.60
<i>Manager Survey</i>				
Trust	3.39	0.77	3.38	1.00
Ability	4.22	0.59	4.34	0.53
Benevolence	4.11	0.67	4.20	0.67
Integrity	4.15	0.72	4.21	0.82

Table 4

*Means and Standard Deviations of Outcome Variables by Categorization 1*

Outcome Variables	LL	SH	EH	HH
Accuracy	4.18 (.28)	4.27 (.25)	4.13 (.90)	4.55 (.51)
Usefulness	4.52 (.44)	4.42 (.52)	4.44 (.66)	4.58 (.67)
Satisfaction	4.50 (.50)	4.33 (.58)	4.50 (.58)	4.85 (.34)
Interpersonal Justice	4.24 (.45)	4.39 (.34)	4.38 (.55)	4.69 (.52)
Overall Justice Sample 1	4.20 (.53)	3.89 (.86)	4.50 (.53)	4.68 (.52)
Overall Justice Sample 2 <sup>^</sup>	3.98 (.74)	3.98 (.65)	4.31 (.52)	4.65 (.50)

*Note.* For category 1,  $N = 9$ , category 2  $N = 3$ , category 3  $N = 4$ , category 4  $N = 10$ .

<sup>^</sup> indicates different sample sizes, which are 21, 13, 13 and 32 respectively.

Table 5

*Means and Standard Deviations of Outcome Variables by Categorization 2*

Outcome Variables	LL	SH	EH	HH
Accuracy	4.28 (.21)	4.42 (.12)	4.21 (.68)	4.50 (.52)
Usefulness	4.46 (.47)	4.62 (.53)	4.21 (.68)	4.46 (.52)
Satisfaction	4.35 (.48)	4.50 (.71)	4.70 (.48)	4.79 (.29)
Interpersonal Justice	4.29 (.29)	4.54 (.29)	4.35 (.43)	4.71 (.33)
Overall Justice Sample 1	4.17 (.56)	4.25 (.82)	4.25 (.66)	4.88 (.13)
Overall Justice Sample 2 <sup>^</sup>	3.87 (.76)	4.29 (.66)	4.58 (.47)	4.31 (.66)

*Note.* For category 1,  $N = 7$ , category 2  $N = 2$ , category 10  $N = 4$ , category 4  $N = 7$ .

<sup>^</sup> indicates different sample sizes, which are 22, 4, 23 and 30 respectively.

Table 6

*Multilevel Analysis of Dyadic Trust on Perceived Accuracy*

Independent Variables	B	SE	t	<i>p</i>	95% CI	
<b>Median Split Categorization</b>						
Intercept	3.20**	.87	3.70	.00	1.40	5.00
Employee Rated Trust	.19	.26	.75	.46	-.34	.72
Supervisor Rated Trust	.16	.15	1.03	.32	-.15	.47
Dyadic Congruency Category	-.06	.18	-.34	.73	-.43	.31
<b>Difference Score Categorization</b>						
Intercept	2.94**	.62	4.76	.00	1.66	4.23
Employee Rated Trust	.35	.22	1.63	.11	-.09	.80
Supervisor Rated Trust	.17	.12	1.45	.16	-.07	.41
Dyadic Congruency Category	-.22	.15	-1.47	.15	-.52	.09

Note. \*\**p* < .01 \**p* < .05 †*p* < .10

Table 7  
*Correlations of Predictor Variables*

	1	2	3	4
1. Employee Trust	---	.33**	.72**	.53**
2. Supervisor Trust	.50**	---	.63**	.51**
3. Congruency 1	.84**	.72**	---	.82**
4. Congruency 2	.80**	.54**	.79**	---

*Note:* \*\*p < .01 \*p < .05. Correlations below the diagonal are for sample 1. Correlations about the diagonal are for sample 2. Congruency 1 is median split, congruency 2 is difference score.

Table 8

*Results for Stepwise Regression on Performance Appraisal Accuracy*

Independent Variables	B	SE	Beta	<i>p</i>	<i>R</i> <sup>2</sup>
Employee Rated Benevolence	.38*	.17	.42	.03	.18

*Note.* \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 9

*Multilevel Analysis of Dyadic Trust Congruency on Usefulness*

Independent Variables	B	SE	t	p	95% CI	
<b>Median Split Categorization</b>						
Intercept	4.47**	.99	4.50	.00	2.41	6.52
Employee Rated Trust	.09	.29	.33	.75	-.51	.71
Supervisor Rated Trust	-.12	.17	-.71	.48	-.48	.24
Dyadic Congruency Category	.04	.20	.17	.86	-.39	.46
<b>Difference Score Categorization</b>						
Intercept	4.20**	.74	5.69	.00	2.70	5.74
Employee Rated Trust	.20	.25	.77	.45	-.34	.73
Supervisor Rated Trust	-.09	.13	-.66	.52	-.38	.20
Dyadic Congruency Category	-.06	.18	-.33	.75	-.43	.31

Note. \*\*p < .01 \*p < .05 †p < .10.

Table 10

*Multilevel Analysis for Dyadic Trust on Performance Appraisal Satisfaction*

Independent Variables	B	SE	t	p	95% CI	
<b>Median Split Categorization</b>						
Intercept	4.01**	.81	4.93	.00	2.32	5.69
Employee Rated Trust	.16	.24	.67	.51	-.33	.66
Supervisor Rated Trust	-.07	.14	-.47	.64	-.36	.23
Dyadic Congruency Category	.08	.17	.47	.65	-.27	.43
<b>Difference Score Categorization</b>						
Intercept	3.84**	.61	6.32	.00	2.57	5.10
Employee Rated Trust	.19	.21	.90	.38	-.25	.63
Supervisor Rated Trust	-.03	.11	-.32	.75	-.28	.20
Dyadic Congruency Category	.06	.15	.38	.70	-.25	.36

Note. \*\*p < .01 \*p < .05 †p < .10.

Table 11

*Results for Stepwise Regression on Performance Appraisal Satisfaction*

Independent Variables	B	SE	Beta	<i>p</i>	<i>R</i> <sup>2</sup>
Employee Rated Integrity	.34*	.14	.43	.03	.19

*Note.* \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 12

*Multilevel Analysis of Dyadic Trust on Interpersonal Justice*

Independent Variables	B	SE	t	<i>p</i>	95% CI	
<b>Median Split Categorization</b>						
Intercept	3.87**	.71	5.47	.00	2.40	5.33
Employee Rated Trust	.03	.21	.15	.89	-.40	.46
Supervisor Rated Trust	.07	.13	.53	.60	-.19	.32
Dyadic Congruency Category	.09	.15	.64	.52	-.21	.39
<b>Difference Score Categorization</b>						
Intercept	3.35**	.53	6.34	.00	2.25	4.44
Employee Rated Trust	.22	.18	1.18	.25	-.16	.60
Supervisor Rated Trust	.13	.10	1.31	.20	-.08	.34
Dyadic Congruency Category	-.07	.13	-.59	.56	-.34	.19

Note. \*\* $p < .01$  \* $p < .05$  † $p < .10$ .

Table 13

*Results for Stepwise Regression on Interpersonal Justice*

Independent Variables	B	SE	Beta	<i>p</i>	$\Delta R^2$
Model 1					.43**
Employee Rated Benevolence	.51**	.12	.66	.00	
Model 2					.11*
Employee Rated Benevolence	.33*	.13	.43	.02	
Employee Rated Ability	.23*	.19	.41	.03	
Total $R^2$					.55

*Note.* \*\* $p < .01$  \* $p < .05$  † $p < .10$ .

Table 14

*Multilevel Analysis of Dyadic Trust on Overall Justice for Sample 1*

Independent Variables	B	SE	t	<i>p</i>	95% CI	
<b>Median Split Categorization</b>						
Intercept	2.39**	.95	2.52	.02	.42	4.37
Employee Rated Trust	.42	.28	1.47	.15	-.17	1.00
Supervisor Rated Trust	.20	.17	1.22	.23	-.14	.55
Dyadic Congruency Category	-.13	.20	-.64	.53	-.53	.28
<b>Difference Score Categorization</b>						
Intercept	2.85*	.72	3.98	.00	1.36	4.33
Employee Rated Trust	.27	.25	1.14	.28	-.24	.80
Supervisor Rated Trust	.14	.14	1.01	.32	-.14	.42
Dyadic Congruency Category	-.01	.17	-.05	.97	-.36	.35

Note. \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 15

*Multilevel Analysis of Dyadic Trust on Overall Justice for Sample 2*

Independent Variables	B	SE	t	<i>p</i>	95% CI	
<b>Median Split Categorization</b>						
Intercept	2.77**	.54	5.09	.00	1.68	3.85
Employee Rated Trust	.26†	.14	1.89	.06	-.01	.54
Supervisor Rated Trust	.05	.11	.43	.67	-.18	.27
Dyadic Congruency Category	.14	.10	1.46	.15	-.05	.33
<b>Difference Score Categorization</b>						
Intercept	2.44**	.46	5.29	.00	1.52	3.37
Employee Rated Trust	.33**	.12	2.68	.01	.09	.58
Supervisor Rated Trust	.11	.10	1.08	.29	-.09	.31
Dyadic Congruency Category	.07	.08	.10	.34	-.08	.23

Note. \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 16

*Results for Stepwise Regression on Overall Justice for Sample 1*

Independent Variables	B	SE	Beta	<i>p</i>	<i>R</i> <sup>2</sup>
Employee Rated Benevolence	.63**	.18	.59	.00	.35**

*Note.* \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 17

*Results for Stepwise Regression on Overall Justice for Sample 2*

Independent Variables	B	SE	Beta	<i>p</i>	<i>R</i> <sup>2</sup>
Employee Rated Benevolence	.69**	.09	.68	.00	.46**

*Note.* \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 18

*Exploratory Analysis Correlations*

Measure	N <sub>1</sub> = 26	N <sub>1</sub> =79	N <sub>2</sub> = 26	N <sub>2</sub> =79
Employee Ability	.43*	.32**	.20	.22*
Employee Benevolence	.56**	.50**	.30	.40**
Employee Integrity	.42*	.37**	.27	.34**
Supervisor Ability	.75**	.54**	.60**	.42**
Supervisor Benevolence	.44*	.53**	.44*	.38**
Supervisor Integrity	.48*	.53**	.48*	.44**

*Note.* \*\*p < .01 \*p < .05. Subscript of 1 refers to a median split categorization, Subscript of 2 refers to difference score categorization.

Table 19

*Stepwise Regression Results for Predicting Median Split Congruence in Sample 1*

Independent Variables	B	SE	Beta	<i>p</i>	$\Delta R^2$
Model 1					.55**
Supervisor Rated Ability	1.81**	.32	.75	.00	
Model 2					.06*
Supervisor Rated Ability	1.52*	.31	.63	.00	
Employee Rated Benevolence	.77*	.30	.34	.02	
Total $R^2$					.63**

Note. \*\* $p < .01$  \* $p < .05$  † $p < .10$ .

Table 20

*Stepwise Regression Results for Predicting Difference Score Congruence in Sample 1*

Independent Variables	B	SE	Beta	<i>p</i>	$\Delta R^2$
Supervisor Rated Ability	1.32**	.36	.60	.00	.36**

*Note.* \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 21

*Multiple Regression Results for Predicting Median Split Congruence in Sample 2*

Independent Variables	B	SE	Beta	<i>p</i>	<i>R</i> <sup>2</sup>
					.44**
Employee Ability	.14	.33	.05	.67	
Employee Benevolence	.55*	.27	.30	.04	
Employee Integrity	-.03	.25	-.02	.90	
Supervisor Ability	.42	.27	.20	.13	
Supervisor Benevolence	.21	.28	.12	.45	
Supervisor Integrity	.35	.25	.20	.17	

Note. \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 22

*Multiple Regression Results for Predicting Difference Score Congruence in Sample 2*

Independent Variables	B	SE	Beta	<i>p</i>	<i>R</i> <sup>2</sup>
					.29**
Employee Ability	-.15	.37	-.06	.67	
Employee Benevolence	.41	.30	.22	.19	
Employee Integrity	.22	.28	.12	.44	
Supervisor Ability	.33	.31	.16	.29	
Supervisor Benevolence	-.07	.32	-.14	.82	
Supervisor Integrity	.47†	.29	.28	.10	

Note. \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 23

*Stepwise Regression Results for Predicting Median Split Congruence in Sample 2*

Independent Variables	B	SE	Beta	<i>p</i>	$\Delta R^2$
Model 1					.28**
Supervisor Rated Ability	1.12**	.20	.54	.00	
Model 2					.10**
Supervisor Rated Ability	.84**	.20	.41	.00	
Employee Rated Benevolence	.66**	.18	.35	.02	
Model 3					.03*
Supervisor Rated Ability	.50*	.25	.24	.05	
Employee Rated Benevolence	.60**	.28	.32	.00	
Supervisor Rated Integrity	.45**	.20	.26	.03	
Total R <sup>2</sup>					.43**

Note. \*\**p* < .01 \**p* < .05 †*p* < .10.

Table 24

*Stepwise Regression Results for Predicting Difference Score Congruence in Sample 2*

Independent Variables	B	SE	Beta	<i>p</i>	$\Delta R^2$
Model 1					.19**
Supervisor Rated Integrity	.75**	.18	.44	.00	
Model 2					.08**
Supervisor Rated Integrity	.59**	.18	.34	.00	
Employee Rated Benevolence	.55**	.20	.29	.01	
Total R <sup>2</sup>					.27**

Note. \*\**p* < .01 \**p* < .05 †*p* < .10.

## References

- Aronson, E., Wilson, T. D., & Akert, R. M. (2007). *Social psychology* (6<sup>th</sup> ed.). Upper Saddle River, New Jersey. Pearson Prentice Hall.
- Ambrose, M. L., & Arnaud, A. (2005). Distributive and procedural justice: Construct distinctiveness, construct interdependence, and overall justice. In J. Greenberg & J. Colquitt (Eds.), *The handbook of organizational justice* (pp. 59–84). Mahwah, NJ: Erlbaum.
- Ambrose, M.L., & Schminke, M. (2009). The role of overall justice judgments in organizational justice research: A test of mediation. *Journal of Applied Psychology, 94*, 491-500.
- Banks, C.G. & Murphy, K.R. (1985). Toward narrowing the research practice gap in performance appraisal. *Personnel Psychology, 38*, 335–345.
- Bjerke, D. C., Cleveland, J. N., Morrison, R. F., & Willson, W C. (1987). *Officer fitness report evaluation study*. Navy Personnel Research and Development Center Report, TR 88-4.
- Blau, P.M. (1964). *Exchange and Power in Social Life*, Wiley, New York.
- Brower, H.H., Lester, S.W., Korsgaard, M.A., & Dineen, B.R. (2009). A closer look at trust between managers and subordinates: understanding the effects of both trusting and being trusted on subordinate outcomes. *Journal of Management, 35*, 327-347.
- Brower, H.H., Schoorman, F.D., & Tan, H.H. (2000). A model of relational leadership: The integration of trust and leader-member exchange. *The Leadership Quarterly, 11*, 227-250.
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology, 86*, 386 – 400.

- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86*, 425–445.
- Colquitt, J.A., Scott, B.A., & LePine, J.A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology, 92*, 909-927.
- Cropanzano, R., & Mitchell, M.S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*, 874-900.
- DeCotiis, T., & Petit, A. (1978). The performance appraisal process: A model and some testable propositions. *Academy of Management Review, 3*, 635-646.
- Deming, W.E. (1986). *Out of the crisis*. Cambridge: MIT Center for Advanced Engineering Study.
- Dirks, K.T. & Ferrin, D.L. (2001). The role of trust in organizational settings. *Organizational Science, 12*, 450-467.
- Dirks, K.T. & Ferrin, D.L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*, 611-628.
- Farr, J. L., & Jacobs, R. (2006). Trust us: New perspectives on performance appraisal. In W. Bennett, C. E. Lance, & D. J. Woehr (Eds.), *Performance measurement: Current perspectives and future challenges* (pp. 321–337). Mahwah, NJ: Lawrence Erlbaum.
- Field, H.S., & Holley, W.H. (1982). The relationship of performance appraisal system characteristics to verdicts in selected employment discrimination cases. *Academy of Management Journal, 25*, 392-406.

- Fulk, J., Brief, A.P., & Barr, S.H. (1985). Trust-in-supervisor and perceived fairness and accuracy of performance evaluations. *Journal of Business Research, 13*, 301-313.
- Gergen, K. J. (1969). *The psychology of behavioral exchange*. Reading, MA: Addison-Wesley.
- Greenberg, J. (1993). The social side of fairness: Interpersonal and informational classes of organizational justice. In R. Cropanzano (Ed.), *Justice in the workplace: Approaching fairness in human resource management* (pp. 79-103). Hillsdale, NJ: Erlbaum.
- Greenberg, J. (2001). Setting the justice agenda: Seven unanswered questions about “what, why, and how.” *Journal of Vocational Behavior, 58*, 210–219.
- Greller, M.M. (1975). Subordinate participation and reaction to the appraisal interview. *Journal of Applied Psychology, 60*, 544-549.
- Hauenstein, N. M. T., McGonigle, T., & Flinder, S. W. (2001). A meta-analysis of the relationship between procedural justice and distributive justice: Implications for justice research. *Employee Responsibilities and Rights Journal, 13*, 39–56.
- Hedge, J. W., & Teachout, M. S. 2000. Exploring the concept of acceptability as a criterion for evaluating performance measures. *Group & Organization Management, 25*, 22–44.
- Hunter, S. T., Bedell-Avers, K. E., & Mumford, M. D. (2007). The typical leadership study: Assumptions, implications, and potential remedies. *The Leadership Quarterly, 18*, 435-446.
- Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology, 64*, 349-371.
- Jawahar, I.M., & Williams, C.R. (1997). Where all the children are above average: The performance appraisal purpose effect. *Personnel Psychology, 50*, 905-925.

- Johns, G. G. (2006). The essential impact of context on organizational behavior. *The Academy of Management Review*, 31(2), 386-408.
- Kenny, D.A., Kashy, D.A., & Cook, W.L. *Dyadic Data Analysis*. Guilford Press: New York.
- Keeping, L. M., & Levy, P. E. (2000). Performance appraisal reactions: Measurement, modeling, and method bias. *Journal of Applied Psychology*, 85, 708–723.
- Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119, 254-284.
- Konovsky, M.A., & Pugh, S.D. (1994). Citizenship behavior and social exchange. *Academy of Management Journal*, 37, 656-669.
- Kramer, R. M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual Review of Psychology*, 50, 569-598.
- Landy, E J., Barnes, J. L., & Murphy, K. R. (1978). Correlates of perceived fairness and accuracy on performance evaluation. *Journal of Applied Psychology*, 63, 751-754.
- Landy, E J., Barnes-Farrell, J. L., & Cleveland, J. N. (1980). Perceived fairness and accuracy of performance evaluations: A follow-up. *Journal of Applied Psychology*, 65, 355-356.
- Landy, F. J., & Farr, J. L. (1980). Performance rating. *Psychological Bulletin*, 87, 72–107.
- Levy, P.E. & Williams, J.R. (2004). The social context of performance appraisal: a review and framework for the future, *Journal of Management*, 30, 881–905.
- Lind, E. A. (2001). Thinking critically about justice judgments. *Journal of Vocational Behavior*, 58, 220–226.
- Longenecker, C.O., Sims, H.P., & Gioia, D.A. (1987). Behind the mask: The politics

- of employee appraisal. *Academy of Management Executive*, 1, 183-193.
- Mani, B. G. (2002). Performance appraisal systems, productivity, and motivation: A case study. *Public Personnel Management*, 31, 141–159.
- Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43, 738-748.
- Mayer, R. C. (2007). Employee loss of trust in management: Surviving in a new era. In J. Langan-Fox, C.L. Cooper & R.J. Klimoski (Eds.), *Research Companion to the Dysfunctional Workplace: Management Challenges and Symptoms*, (pp. 125-135), Cheltenham, U.K.: Edward Elgar Publishing Ltd.
- Mayer, R.C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84, 123-136.
- Mayer, R.C., Davis, J.H., & Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20, 709-734.
- Mayer, R.C., & Gavin. M.B. (2005). Trust in management and performance: Who minds the shop while the employees are watching the boss? *Academy of Management Journal*, 48, 874-888.
- Molm, L. D. (1994). Dependence and risk: Transforming the structure of social exchange. *Social Psychology Quarterly*, 57, 163-176.
- Murphy, K.R. (2008). Explaining the weak relationship between job performance and ratings of job performance. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 1, 148-160.
- Murphy, K.R. & Cleveland, J.N. (1995). *Understanding performance appraisal: Social,*

- organizational and goal-oriented perspectives*. Newbury Park, CA: Sage.
- Murphy, K.R., Cleveland, J.N., Skattebo, A.L. & Kinney, T.B. (2004). Raters who pursue different goals give different ratings. *Journal of Applied Psychology*, *89*, 158-164.
- Pierce, J.L., & Gardner, D.G. (2004). Self-esteem within the work and organizational context: Review of the organization-based self-esteem literature. *Journal of Management*, *30*, 591-622.
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy capturing approach. *Journal of Applied Psychology*, *87*, 66 – 80.
- Schoorman, F. D., Mayer, R. C., & Davis, J. H. (1996). Organizational trust: Philosophical perspectives and conceptual definitions. *Academy of Management Review*, *21*, 337-340.
- Schoorman, F.D., Mayer, R.C., & Davis, J.H. (2007). An integrative model of organizational trust: Past, present and future. *Academy of Management Review*, *32*, 344-354.
- Serva, M.A., Fuller, M.A., & Mayer, R.C. (2005). The reciprocal nature of trust: A longitudinal study of interacting teams. *Journal of Organizational Behavior*, *26*, 625-648.
- Scott, W.R., & Davis, G.F. (2006). *Organizations & Organizing: Rational, Natural and Open Systems*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Thibaut, J., & Walker, L. (1978). A theory of procedure. *California Law Review*, *66*, 541-566.
- Taylor, M.S., Tracy, K.B., Renard, M.K., Harrison, J.K., & Carroll, S.J. (1995). Due process in performance appraisal: A quasi-experiment in procedural justice. *Administrative Science Quarterly*, *40*, 495-523.
- Tziner, A., Murphy, K.R. & Cleveland, J.N. (2001). Relationships between attitudes

toward organizations and performance appraisal systems and rating behavior,  
*International Journal of Selection and Assessment*, 9, 226–39.

Tziner, A., Murphy, K.R., Cleveland, J.N., Beaudin, G. & Marchand, S. (1998). Impact of rater beliefs regarding performance appraisal and its organizational contexts on appraisal quality. *Journal of Business and Psychology*, 12, 457–67.

Veglahn, P.A. (1993). Key issues in performance appraisal challenges: Evidence from court and arbitration decisions. *Labor Law Journal*, October, 595-606.

Werner, J.M., & Bolino, M.C. (1997). Explaining US courts of appeals decisions involving performance appraisal: Accuracy, fairness, and validation. *Personnel Psychology*, 50, 1-24.



Overall, I'm treated fairly by my organization.  
Usually, the way things work in this organization are not fair.  
In general, I can count on this organization to be fair.  
In general, the treatment I receive around here is fair.  
For the most part, this organization treats its employees fairly.  
Most of the people who work here would say they are often treated unfairly.

Questions for Organization: QS1

I believe I have a thorough understanding of what is expected of me.

## **Employee Survey 2**

Performance Appraisal Accuracy

The evaluation of what skills I have is pretty accurate.  
How much work I get done is important to my performance review.  
Whether or not my supervisor likes me is important to my performance review. \*\*  
How much effort I put into my job is important to my performance review.  
How many "extra" things I do is important to my performance review.  
Finding the company ways to save money is important to my performance review.  
Coming up with good ideas for the company improves my performance review.

Performance Appraisal Usefulness

This appraisal helped me learn how I can do my job better.  
I learned a lot from the appraisal.  
The appraisal helped me understand my mistakes.  
I have a clearer idea of what my boss because of the appraisal.

Performance Appraisal Satisfaction

I was satisfied with the review  
I feel good about the way the appraisal was conducted  
There are many ways in which I would have liked the appraisal to be different.

Questions from Organization:

I was asked to provide input and feedback regarding the ratings and SMART goal during my evaluation.  
I was encouraged to provide input and feedback regarding the ratings and SMART goal during my evaluation.

Supervisor Interpersonal Justice

My supervisor praises employees for good work.  
My supervisor yells at employees.  
My supervisor plays favorites.  
I am trusted by my supervisor.  
My complaints are dealt with effectively..  
I am treated like a child.

My questions and problems are responded to quickly.  
I am lied to.  
My suggestions are ignored.  
My supervisor swears at me.  
My hard work is appreciated.  
My supervisor threatens to fire or lay off employees.

## **Supervisor Survey**

### Employee Trust

If I had my way, I wouldn't let this employee have any influence over issues that are important to me.  
I would be willing to let this employee have complete control over my future in this company.  
I really wish I had a good way to keep an eye on this employee.  
I would be comfortable giving this employee a task or problem that is critical to me, even if I could not monitor their actions.

### Employee Ability

This employee is very capable of performing his/her job.  
This employee is known to be successful at the things s/he tries to do.  
This employee has much knowledge about the work that needs done.  
I feel very confident about this employee's skills.  
This employee has specialized capabilities that can increase our top performance.  
This employee is well qualified.

### Employee Benevolence

This employee is very concerned about my welfare.  
My needs and desires are very important to this employee.  
This employee would not knowingly do anything to hurt me.  
This employee really looks out for what is important to me.  
This employee will go out of his/her way to help me.

### Employee Integrity

This employee has a strong sense of justice.  
I never have to wonder whether this employee will stick to his/her word  
This employee tries hard to be fair in dealing with others  
This employee's actions and behaviors are not very consistent. \*

### Question from Organization: QSM1

I am able to accurately rate my employee's performance according to the TCF mission oriented behaviors listed on the performance evaluation form