Clemson University
TigerPrints

All Dissertations

Dissertations

12-2010

Need-based Moderators of Relational and Resource Concerns and Their Relationship to Procedural Justice

Jonas Johnson
Clemson University, jonas_johnson@hotmail.com

Follow this and additional works at: https://tigerprints.clemson.edu/all_dissertations

Part of the Psychology Commons

NEED-BASED MODERATORS OF RELATIONAL AND RESOURCE CONCERNS
AND THEIR RELATIONSHIP TO PROCEDURAL JUSTICE

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Industrial and Organizational Psychology

---

by
Jonas Paul Johnson
December 2010

Accepted by:
Mary Anne Taylor, PhD, Committee Chair
DeWayne Moore, PhD
Fred Switzer, PhD
Cindy Pury, PhD

ABSTRACT

The current study assesses how needs influence the relationship between resource and relational concerns and procedural justice. Previous research has examined antecedents of procedural justice but often omits a consideration of individual needs in this analysis. Tyler (1994) found that the variables trust, neutrality, and status recognition were related to procedural justice because they contained variance related to relational concerns. Further research by Heuer, Penrod, Lafer, & Cohn (2002) also found that trust, neutrality, and status recognition were related to procedural justice based on resource concerns as well as relational concerns. However, no studies have examined the extent to which an individual's needs will influence the relationship between these antecedents and procedural justice. In response to Baumeister & Leary's (1995) call for greater research into the influence of needs on psychological processes, and using the theoretical framework outlined by Heuer et al. (2002), we examined the potentially moderating effects of existence and relatedness needs (Alderfer ,1969) on trust, neutrality and status recognition. Thus, this study was conducted to examine the moderating effect of existence and relatedness needs on the relationship between the independent variables trust, neutrality, and status recognition and the dependent variable procedural justice.

A series of studies using 840 currently employed participants located throughout the United States were conducted where participants were asked to read a vignette describing a failed project at work which resulted in a negative performance review. Trust, neutrality, and status recognition were manipulated by describing the manager who conducted the performance review as trustworthy or untrustworthy, neutral or not neutral

and recognizing the individual's status within the organization or not recognizing the individual's status within the organization.

A study was conducted to examine the factor structures of three direct measures of resource and relational concerns which were developed to supplement the three independent variables of trust, neutrality, and status recognition. The three measures were a resource concern measure, and two relational concern measures which examined relational concerns an individual may feel in regards to a manager (first measure) and peer group (second measure). The study to examine the factor structures of these three measures used 200 participants. The results of the factor analyses indicated that on the resource concern measure, three of the four items loaded adequately on the factor with a maximal internal consistency of .77. The relational concern (peer) analysis indicated that all four items loaded on the factor with a somewhat lower maximal internal consistency of .67. The relational concern (manager) analysis indicated that all four items loaded on the factor with a maximal internal consistency of .75.

Finally, a study using 360 participants was conducted to examine the primary research question of whether existence and relatedness needs moderate the relationship between trust, neutrality, and status recognition and procedural justice. The results indicated relatedness needs (peer) marginally moderated the relationship between trust and procedural justice; however, none of the needs in the remaining eight hypotheses moderated the relationship between trust, neutrality, and status recognition and procedural justice. Post hoc analyses were conducted and the implications of the findings as well as future directions are discussed.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

Page

CHAPTER

Table of Contents (Continued)

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

When an individual is treated unjustly, that individual may react to the injustice in a manner that harms an organization, or the people within the organization (Folger & Skarlicki, 1998). Over the past forty years, researchers have attempted to uncover what individuals perceive to be unfair, why individuals care about fairness, and the factors that lead to perceptions of injustice (Colquitt, et al., 2001). As part of this effort, researchers have examined antecedents of two well-established justice factors, distributive justice and procedural justice. Two significant antecedents of these justice constructs are relational and resource concerns. Relational concerns reference issues of social identity and connectedness, while resource concerns revolve around more tangible resources such as pay (Arnolds & Boshoff, 2002).

While researchers have established the importance of these concerns, to date no researchers have examined the interaction between an individual's needs, and the resource and relational aspects of policies as predictors of the fairness of a procedure. It may be the case that relational and resource concerns are more important to those individuals who have unmet needs in areas that are most relevant to these concerns. Specifically, those with relatively high levels of these needs may be particularly reactive to policies that further compromise or threaten the needs.

The current study attempted to rectify the gap in the literature by testing the importance of existence and relatedness needs (Alderfer, 1969, Arnolds & Boshoff, 2002), as moderators of the effects of relational and resource concerns on perceived

1

fairness in a performance appraisal context. We anticipated that those individuals with unmet relatedness needs would view policies that violate relational concerns as more unfair than those individuals who have a more satisfactory level of this need. Similarly, those with unmet existence needs were expected to view policies that threaten their current level of resources as less fair than those whose existence needs are met. Thus, the main goal of the study was to examine whether individual level needs may exacerbate or lessen the impact of policies that violate relational or resource concerns on perceived procedural fairness. In structuring the current study, the relevance of relational and resource concerns will be discussed first. This discussion includes an explanation of how the broad categories of relational and resource concerns are linked to the specific variables of trust, neutrality and status recognition. Trust, neutrality, and status recognition are important indicators of resource and relational concerns, as indicated by prior research.

As a next step, the discussion will turn to the more specific issue of the relationship of trust, neutrality and status recognition to procedural justice. In this segment, the importance of these relational and resource concerns in the prediction of procedural justice is explored, using a model by Heuer, Penrod, Lafer, & Cohn (2002) as a theoretical framework.

Next, the potential relationship of existence and relatedness needs to justice will be examined. This includes a discussion of the simple main effects of these needs on justice perceptions. As a final step, the potential interaction between these needs and resource and relational concerns on procedural justice will be examined. Again, it is

2

anticipated that violations of these resource and relational concerns will have a stronger relationship to procedural justice for those who have more salient needs in these areas, or less favorable standings on existence and relatedness needs.

As noted, the variables that are closely linked indicators of the constructs of relational and resource concerns that will be used in this study are consistent with previous investigations of the role of these two concerns on fairness perceptions (Heuer et al., 2002; Tyler, 1994). Trust, neutrality, and status recognition are indicators of resource and relational concerns and will be used as such in the current study. In summary, this model proposes that individual needs interact with the resource and relational concerns of trust, neutrality, and status issues in the prediction of procedural justice.

Relational and resource concerns: trust, neutrality, and status recognition

One area of current exploration within the justice literature involves why individuals care about justice. Individuals have been found to care about justice for several reasons. Specifically, individuals may attend to justice concerns when they feel disadvantaged in relation to another individual. As an example, they may perceive this disadvantaged state is the result of unjust distribution of resources (e.g. pay) or the result of unjust changes in social standing (e.g. passed over for promotion) (Tyler, 1994). The former state of disadvantage, where one focuses on available resources, is called a resource concern. The latter state of disadvantage, where social standing and inclusion are more central issues, is referred to as a relational concern. While these two concerns may overlap (e.g., promotion carries a pay raise as well as social status), each concern

has rather unique aspects. Thus, the two concerns are treated as overlapping but distinct constructs (Kumasiro, Rusbult, Finkel, 2007).

The practical distinction between resource and relational concerns is mirrored in theoretical work. Since the early 1990s researchers have questioned why individuals care about the justice of organizational procedures and outcomes (Tyler 1994, Van den Bos & Lind, 2001), and have produced theories that focus on either a relational perspective, or a resource perspective (Tyler, 1994). The relational perspective of justice is concerned with relationships. Specifically, the relational perspective assesses an individual's identity with the group, status, position within the group, and how a decision maker influences these relationships. The resource perspective of justice is concerned with the individual's desire to maximize personal resources within the context of the group (Kumasiro, Rusbult, Finkel, 2007).

While early research proposed that an individual's perceived trust in the decision maker, the perceived neutrality of the decision maker, and the decision maker's recognition of the individual's social standing impacted justice perceptions through relational concerns (Tyler, 1994), more recent research has established that the same variables also impact resource concerns (Heuer et al., 2002). This is logical, since decision makers often have control over tangible resource concerns such as pay, and also can impact social standing and other variables more closely related to relational concerns. The two dimensions of concerns, relational and resource concerns, and their relationship to procedural justice, will be discussed in greater detail in order to examine the unique aspects of each dimension.

Relational Concerns

The first perspective on justice, also referred to as the relational model, explores how people perceive social events from a fairness perspective and emphasizes social forces within the group. Essentially, individuals are predisposed to identify themselves as members of a group. To determine their place within the group, individuals attend to those factors that may contain information about their standing in the social hierarchy. Because individuals are motivated by group membership, they may perceive a violation of justice when they experience an event that threatens their perception of their place in the group. For example, an individual who has the desire to be perceived as a valued member of society may perceive a violation of justice when treated rudely by a police officer (Tyler 1994). In an organizational setting, a person who is excluded from an important meeting may perceive a violation of justice because their status within the organization is questioned. Thus, relational concerns center on the perceptions of one's importance within the group (Gouveia-Pereira, Vala, Palmmonari & Mubini, 2003).

The relational concern construct has the underlying assumption that individuals have a desire to belong to social groups (Heuer et al., 2002). Indeed, research has confirmed that individuals do have a need to belong, although it is logical to assume that people have different levels of this need (Alderfer, 1969; Baumeister & Leary, 1995). Belonging to groups can provide individuals with many desirable outcomes. Specifically, belonging can create a sense of self-identity, self-esteem, and self-respect (De Cremer, van Knippenberg, van Dijke, 2006; Hogg & Abrams, 1988). Because belonging to a group and one's relative position within the group can make positive

5

contributions to these factors, individuals are likely to seek out information from which they can infer their position within the group's hierarchy. Attending to relational concerns provides individuals with information on identity, status, and position within the group (Gouveia-Pereira, Vala, Palmmonari & Mubini, 2003).

Relational concerns can be seen as a basis for reacting to perceived threats to an individual's relationships, such as identity, status, or group position. Researchers have identified several specific relational concerns which are often embedded in organizational policies that provide the individual information on perceived threats to relationship factors. Three of these concerns most relevant to the study at hand are Neutrality, Trust, and Status Recognition.

Neutrality refers to a lack of bias on the part of the individual making decisions. Neutrality is critical in the context of personnel decision making because a supervisor often has the ability to influence relationship factors such as status or group position within the organization. If the decision maker is biased in decision making situations which influence status or group position, the individual within the group will perceive that the decision may not have been made in a just manner and that certain individuals within the group may be unjustly favored. Thus, a lack of neutrality on the decision maker's part can contribute to concerns relevant to one's social standing in an organization, particularly for those whose relational concerns are particularly strong (Tyler, 1994).

Trust refers to whether an individual has confidence in the decision maker's intentions. This variable refers to whether the individual trusts that the decision maker

will be benevolent towards the individual in regards to decisions made. If the individual believes that the decision maker has negative intentions, the individual may perceive a negative decision to be the result of these intentions. Essentially, an individual who trusts the decision maker is able to believe that over a long period of time, the decision maker will work in the individual's best interest. In this manner, trust allows the individual to make predictions about not only current decisions that are personally relevant, but also future decisions that may impact personal well-being (Lewicki, Wiethoff, & Tomlinson, 2005; Tyler, 1994). Again, trust impacts relational concerns since violations of trust by a supervisor in a personnel decision making context may compromise the individual's standing in the organization.

Status recognition refers to how the decision maker treats the individual, and has a clear relationship to social and relational concerns. Respectful and dignified treatment provides information about how the decision maker perceives the individual in regards to status. Indeed research has shown that respectful treatment of rights, and dignified/polite treatment will have a positive impact on self perceived social status (Tyler & Bies, 1990). Conversely, being treated in a disrespectful manner conveys relevant relational information in that the target of such treatment would be more likely to feel devalued as a group member (Heuer, et al., 2002; Lewicki, Wiethoff, & Tomlinson, 2005; Tyler, 1994).

In summary, the variables of neutrality, trust, and status recognition are core elements of relational concerns in that they convey information on the value accorded to an organizational member. In contrast to this emphasis on social factors, the resource perspective emphasizes more tangible resources and rewards in the organization.

Resource Concerns

The resource perspective of justice emphasizes how the acquisition of resources, in comparison to a referent other, influences an individual's perception of justice (Lind, 2001; Tyler, 1994; Van den Bos & Lind, 2002). Essentially, this perspective posits that individuals are strongly motivated to maximize resources. Again, we would anticipate some variability in the importance of this need to individuals. In order to maximize resources, individuals work with a larger group of individuals who may also attempt to maximize their own resources. This group evolves rules, which dictate the fair disbursement of resources acquired by the group.

The resource perspective of justice suggests that individuals are dependent on the organization for resources. These individuals expect to be compensated in a manner that is consistent with perceived norms. While these norms are subject to individual interpretation, they are largely dictated by the group with whom the individual identifies, and the group leader. Indeed, the members of the group expect to be provided resources consistent with the rules developed by the group. When these rules are violated and an individual within the group does not receive the expected resources, that individual will perceive a violation in justice.

Trust, neutrality and status recognition may impact resource concerns. Trust may influence this concern because a trusted decision maker may be perceived as more likely to make decisions that have a positive resource-oriented outcome for the individual. A decision maker's perceived neutrality may influence an individual's perceived resource concerns because a decision maker biased against the individual would be less likely to

make positive decisions regarding outcomes such as pay, promotions, and bonuses. Finally, if an individual's self-perceived status is thought to be recognized by a decision maker the decision maker will be viewed as more likely to provide positive tangible outcomes such as pay. Thus, the same dimensions that impact relational concerns may have an impact on resource concerns as well (Heuer, et al., 2002). Surprisingly, while the relationship between procedural justice and resource concerns is well established, trust, neutrality, and status recognition have only been examined as influences on resource concerns in two studies (Heuer, et al., 2002; Tyler, 1994). Furthermore, only Heuer, et al. has examined the strength of the relationships between trust, neutrality, and status recognition and procedural justice in the context of resource concerns.

An underlying assumption of both the relational and resource oriented approaches to justice is that individuals are motivated to understand organizational procedures that impact these needs and are also motivated to have some impact on these policies. Thus, implicit to both the resource and relational views of procedural justice is the assumption that individuals wish to have control over the processes by which decisions are made. Because of this, individuals may be expected to have negative reactions to violations of expected processes. The importance of control over the process and an individual's right to have a voice in procedural outcomes was originally derived from Thailbut and Walker's (1975) examination of procedural justice. The authors referred to this type of control as process control. In addition, the resource and relational perspectives suggest that certain standards (neutrality and trust in the decision maker and status recognition concerns) are central to perceptions of fairness. These resource and relational concerns

9

are viewed as critical aspects of procedural justice, and predict reactions to organizational policies.

In summary, while many factors may serve to activate resource and relational concerns and subsequent judgments of procedural justice, we focus on the trust and neutrality of the person implementing an organizational procedure as well as the implied status of the person targeted by the procedure. In other words, when the person implementing a procedure is viewed as trustworthy and unbiased, and when the procedure has positive implications for the status of a given person, that individual is more likely to view the procedure as fair (Lind & Tyler, 1988). Thus, the three indicators that are associated with resource and relational concerns may have a significant relationship with procedural justice.

Furthermore, as will be discussed later, it may also be the case that specific individual-level needs will influence the relationship between these three indicator variables and procedural justice. For example, individuals who have a high need for group belongingness may perceive procedural justice of a policy more favorably when they have high levels of trust in the decision maker than those who have low levels of trust. This could be because an individual who has high levels of trust in a decision maker will be more likely to believe that future decisions will be more positive regarding the individual's place in the group. This relationship is the fundamental question explored in the current study and will be expanded upon throughout the current manuscript.

Relationship between indicators of trust, neutrality and status recognition and resource and relational concerns

As noted, trust, neutrality and status recognition are indicators of both resource and relational concerns. Researchers have found that the strength of the relationship between trust, neutrality, status recognition and resource versus relational concerns may vary, although results are somewhat inconsistent in this area. Trust has been found to be more strongly related to resource concerns than neutrality and status recognition. Furthermore, trust and neutrality have been found to be more strongly related to resource concerns than status recognition (Heuer et al., 2002). In regards to relational concerns, the two studies that have examined the relationship between trust, neutrality, and status recognition uncovered different results in regards to relationship strength. Heuer et al. revealed that status recognition was most strongly related to relational concerns, followed by trust, and then neutrality. Tyler (1994) found that neutrality was most strongly related to relational concerns followed by status recognition and then trust.

Overall, perhaps the most stable finding is that while all three indicators of trust, neutrality, and status recognition are related to both resource and relational concerns, the strength of this relationship varies. Trust is more consistently and strongly related to resource concerns, although it is still relevant to relational concerns. Status recognition seems more strongly related to relational concerns than to resource concerns. It is critical to note that no significance tests were applied to these relationships and the differences reported are merely differences between effects.

In summary, the variables of trust, neutrality, and status recognition have been shown to be variables that evoke relational and resource concerns. These three variables are hypothesized to have a relationship to resource and relational concerns for several reasons. As noted earlier, each of these three variables has an empirical and logical relationship to relational and resource concerns. Early theory in this area expanded initial work in procedural justice by showing that individuals were concerns with relational concerns as well as resource concerns, giving credence to the notion that both are important predictors of justice perceptions. Indeed, Lind & Tyler (1988) originally examined trust, neutrality, and status recognition as relational variables to establish whether there was a relational component to procedural justice beyond the resource focus specified by the initial work of Thailbut and Walker (1975). While Thailbut and Walker conceptualized procedural justice as driven primarily by resource concerns, Lind and Tyler's work extended this early theory by positing that trust, neutrality and status recognition conveyed information relevant to relational concerns as well. In fact, their work revealed that the three variables accounted for variance in procedural justice perceptions beyond the resource focus specified by Thailbut and Walker (Tyler, 1994). This work was extended by more recent research which found that the three indicator variables also contain information relevant to resource in addition to relational concerns (Heuer et al., 2002). The research as a whole in this area supports the notion that both resource and relational concerns are critical to perceptions of procedural justice, and also suggests that the concerns, while related, offer some unique prediction of procedural justice.

Because previous research has not uncovered consistent differences in the magnitude of the relationships between trust, neutrality, status recognition and the dependent variable of procedural justice, we are not able to specifically hypothesize these differences. Furthermore, because only two studies have empirically examined this relationship there is not enough data to conduct a meta-analysis. In other words, we cannot predict which of the variables of trust, neutrality and status recognition will have the strongest relationship to procedural justice. However, it seems clear, based on the summary of prior research, that these variables are significantly related to procedural fairness. Specifically, if a decision maker is seen as trustworthy, the individual may be more likely to believe that the decision maker will make decisions that are fair. A neutral decision maker will be more likely to be associated with procedural fairness because the decision maker will not make any decisions based on biases. If the individual's status is recognized by the decision maker the individual may be more likely to believe that procedures will be fair because the decisions will be known to accurately reflect the individual's standing in the group (Heuer et al. 2002; Tyler, 1994).

In the next segment, we explore the relationship between three specific indicators of resource and relational concerns (trust, neutrality, and status recognition) and the dependent measure of procedural justice. The construct of procedural justice was chosen as a dependent variable because of its relevance to understanding fairness in organizational settings. We review past research which has clearly established that procedural fairness impacts reactions to organizations and to organizational decision makers (Greenberg, 1990; Leventhal, 1980).

After a discussion of the construct of procedural justice and its relationship to resource and relational concerns, we introduce the concept that those individuals with higher levels of needs that are relevant to resource and relational concerns may react more strongly to violations of trust, neutrality and status recognition. There may be a stronger relationship between these violations of the three variables of trust, neutrality and status recognition and procedural justice for those who have higher levels of needs related to resource and relational concerns. While past research has shown that relational and resource concerns do impact procedural justice, a consideration of individual needs has not been incorporated into current models. After establishing the linkage between resource and relational concerns and procedural justice, we will incorporate the role of these needs into the current study, using Heuer et al.'s (2002) model as a basis for our predictions.

Trust, Neutrality and Status Recognition as Predictors of Procedural Justice

Early work on procedural justice and the resource linkage

Before engaging in a discussion of procedural justice and its relationship to the predictors of interest, we will briefly distinguish this construct from related fairness constructs. In an effort to understand how individuals perceive justice, researchers have identified three main types of justice concerns that contribute to perceptions of injustice. These three types of justice perceptions -- distributive, procedural and interactional justice -- identify the different ways in which individuals perceive fairness. Distributive justice refers to the fairness of the outcomes that an individual has received (Adams, 1965). Procedural justice refers to the fairness of the procedures used to determine the

14

outcome, and Interactional justice refers to the fairness of the interpersonal interactions surrounding the event (Bies & Moag, 1986; Thibaut & Walker, 1975). While each dimension of justice is important, the current study will focus only on procedural justice, and will use the model proposed by Heuer et al. (2002) as a basis for making predictions. An overview of earlier research will be provided as a foundation for the more modern perspective of procedural justice.

Early work by Thibaut and Walker (1975) proposed a theory of procedural justice in a legal setting, and first proposed the construct of procedural fairness. Their initial work led to the Process-Control model of procedural justice. The researchers were among the first to provide a resource perspective on fairness and proposed that resource concerns are an antecedent to justice perceptions (Tyler, 1994). Thus, this was an important first step in establishing the importance of resource concerns in procedural justice perceptions.

While Thibaut and Walker's work emphasized the potential importance of resource distribution as a core component of procedural justice, the mechanics of the resource-justice relationship were clarified by later work. The construct of procedural fairness moved into the psychological consciousness when Leventhal (1980) took the legalistic view of procedural justice espoused by Thibaut and Walker and applied it to other situations and settings in organizations. In Leventhal's concept of procedural justice the construct is defined as the fairness of the procedure used to reach an outcome. Essentially, this construct considers the formal procedures that are used to reach organizational decisions. According to Leventhal's (1980) theory:

there are six criteria a procedure should meet if it is to be perceived as fair. Procedures should (a) be applied consistently across people and across time, (b) be free from bias (i.e., ensuring that a third party has no vested interest in a particular settlement), (c) ensure that accurate information is collected and used in making decisions, (d) have some mechanism to correct flawed or inaccurate decisions, (e) conform to personal or prevailing standards of ethics or morality, and (f) ensure that the opinions of various groups affected by the decision have been taken into account (p.426).

Violations of these criteria would be expected to lead to perceptions of procedural unfairness.

Central to the current study, trust and neutrality of the decision maker are implied by standards a, b, c and e. However, while this view of procedural justice has led to valuable research, it did not specifically address the status recognition concerns so central to justice that were identified by later researchers (Tyler & Lind, 1992; Tyler, 1994). So while Leventhal's work made an important contribution to understanding resource concerns, it did not provide guidance as to the importance of more socially oriented factors. A model proposed by Heuer et al. (2002) extended this early work by incorporating relational concerns into a more comprehensive model of the determinants of procedural justice. This model will be reviewed in the following segment.

Procedural justice and Relational/Resource concerns

While early work focused on the link between resource concerns and procedural justice, later work examined the relationship between both relational and resource concerns and justice constructs. In two such studies, the authors used SEM to determine the extent to which resource and relational concerns contribute to justice constructs (Heuer et al., 2002; Tyler, 1994). Central to the current study, researchers have examined

the relevance of resource/relational concerns of trust, neutrality, and status recognition to both resource and relational concerns and then to justice constructs. Interestingly, while these three variables were originally hypothesized to influence either relational or resource concerns, recent research has shown that these variables provide information for both resource and relational concerns. As noted earlier, resource and relational concerns appear to be overlapping constructs, and both constructs impact procedural justice. A stream of relatively recent research clarifies this relationship.

Tyler (1994) used SEM to examine the relationship between resource and relational concerns and procedural justice. In order to complete his study, Tyler used the three indicator variables of trust, neutrality, and status recognition as exogenous variables and procedural justice as the endogenous variable. Tyler's goal was to examine the extent to which these three variables were relevant to both resource and relational concerns (Sunshine & Heuer, 2002; Tyler & Lind, 1992). He also examined whether relational or resource concerns were more central to procedural justice decisions.

Tyler's (1994) models tested several relationships. Essentially, he explored the extent to which the data he collected fit various models. The results of Tyler's studies appeared to indicate that relational concerns are more important to procedural justice than resource concerns. He examined this relationship across two studies and in both situations found that models that focused on relational concerns fit the data better than models that focused on resource concerns. Because the models were not nested, Tyler was not able to conduct significance tests about the relative explanatory power of alternative models and conclusions were made based on the model fit. Specifically,

17

because the resource and relational concerns were not tested in the same model it was not possible to conduct a significance test across the two models to see whether resource or relational concerns were more important in driving justice perceptions. In terms of conclusions, Tyler (1994) argued that individuals primarily attend to relational concerns when making determinations of justice. He does note that resource concerns do appear to play a role in determinations of justice, but the role is secondary to relational concerns.

Fundamentally, this study showed that the variables trust, neutrality, and status recognition carry information relevant to relational concerns, and thus constituted an important extension of the early research on procedural justice. Furthermore, the study showed that an individual's relational concerns might influence their reactions to procedural justice situations. Indeed, the results of the study support the assertion that an individuals' perception of relational factors may influence procedural justice. Additionally, Tyler's study revealed a significant relationship between resource variables and procedural justice. However, the author argued that the relationship between resource concerns and procedural justice was not as meaningful as the relationship between relational concerns and procedural justice.

While Tyler's work was an important contribution in the literature regarding the relative importance of relational and resource concerns; more recent research has clarified the relationship between these factors and procedural justice. Eight years after Tyler published his study on relational and resource concerns, Heuer et al. (2002) reexamined the influence of these concerns on procedural justice. Understanding the role

18

of resource and relational concerns to procedural justice, and the role of trust, neutrality and status recognition as indicators of these concerns was the goal of Heuer's research.

As noted earlier, resource concerns can stem from threats to an individual's resources, such as pay or continued employment. While Tyler's research suggested that the variables of trust, neutrality and status recognition influence relational concerns (Tyler & Lind, 1992; Tyler, 1994), it was not clear in his study whether these factors were also critical or important to resource concerns. Essentially, Heuer et al. (2002) challenged the idea that trust, neutrality, and status recognition impact procedural justice purely through their linkage to relational concerns, and demonstrated that these same factors also significantly affect resource concerns (Heuer et al, 2002). Findings of this work showed that concerns about trust, neutrality, and status recognition provided information to individuals relevant to both resource and relational concerns. Furthermore, both resource and relational concerns predicted procedural fairness.

Specifically, these authors used the indicator variables of trust, neutrality and status recognition to examine the relationship between relational/resource concerns and procedural justice. These studies, conducted in the United States and El Salvador, provided evidence that trust, neutrality and status recognition provide information on both relational and resource concerns. This is in contrast to earlier work, and proposed that these variables had a broader impact on both material and social concerns than earlier researchers hypothesized. Given the significance of this study for our understanding of the relationship between trust, neutrality, and status recognition to both relational and resource concerns, their work will be examined in greater detail.

The results of their first study (El Salvador) indicated highly significant indirect effects of trust $t = 5.43$, $p < .001$, neutrality $t = 3.15$, $p < .001$, and status recognition $t = 3.95$, $p < .001$ on procedural justice. The full model had a CFI of 1.00. In testing the overall impact of resource concerns on procedural justice the researchers constrained the direct linkages between neutrality, and status recognition and procedural justice. The direct link between trust and procedural justice was removed from the model because it was non-significant. The CFI for this model was .90 and represented a significant drop from the full model $\chi^2_{difference}$ (2) $= 60.27$, $p < .001$. Second, the researchers constrained the linkages between trust, neutrality, and status recognition and a measure of resource concerns. The CFI for this model was lower than the previous model with a CFI of .84 and also represented a drop from the full model $\chi^2_{difference}$ (6) $= 128.97$, $p < .001$.

The findings were replicated in a second study by the authors based on an American sample. The results of this second study also indicated significant indirect effects of trust $t = 2.95$, $p < .01$, neutrality $t = 2.06$, $p < .05$, and status recognition $t = 3.39$, $p < .001$ on procedural justice. The full model, which proposed that resource concerns mediated the effects of these variables on procedural justice, was a better fit to the data than a model that proposed that the variables had simple direct effects on procedural justice.

Together, the results of these two studies provide evidence that the variables trust, neutrality, and status recognition contain information used from both a resource and relational perspective. The findings suggested that trust, neutrality, and status recognition had a significant impact on procedural justice, and that their impact was mediated by

resource concerns. This was significant since prior research had suggested that these factors impacted procedural justice only through their relationship to relational concerns.

Our earlier discussion provides logical arguments for the relationship between trust, neutrality, status recognition and resource and relational concerns, and this newer line of research shows that both broad categories of concerns are related to procedural justice. Evidence found by Tyler (1994) and Heuer et al. (2002) shows that these variables, and relational/resource concerns impact procedural justice. In sum, past work supports the relevance of trust, neutrality, and status recognition as indicators of resource and relational concerns. In turn, this same research suggests that resource and relational concerns predict procedural justice.

We propose that a consideration of individual needs may add to Heuer's model of fairness. Consistent with prior research, we propose that neutrality, trust, and status recognition cues impact resource and relational concerns. We extend this research by proposing that the impact of these variables on procedural justice is moderated by an individual's standing on needs relevant to resource and relational concerns.

While Heuer et al. (2002) provided evidence that the variables trust, neutrality, and status recognition carry information relevant to relational and resource concerns, the question remains as to what makes an individual attend to the relational or resource elements of these variables. Indeed, no research to date has examined individual difference variables which may moderate the relationship between resource and relational concerns and procedural justice. The question of whether additional variables affect this relationship is particularly interesting. Specifically, consider that Heuer et al. (2002)

found the three indicator variables to contain information relevant to both resource and relational concerns. Why do these indicator variables carry information relevant to both relational and resource concerns? Is there something inherent in these variables that impact both broad categories of concerns, or are additional individual difference variables influencing the relationship?

It seems logical that significant variability may exist in the extent to which individuals' existence or relatedness needs influence individuals' behaviors and cognitions and that this variability is linked to individual differences in reactions to policies that further threaten these needs. If this is the case, then one could hypothesize that these individual differences could contribute to our understanding of procedural justice. If some people are more sensitive to manipulations that affect resource or relational concerns than others, then it may follow that these differences may add to the prediction of procedural justice. Specifically, those who have high levels of needs related to resource or relatedness areas may react more strongly to threats to those areas.

In the next segment, we examine how individual differences in existence and relatedness needs may interact with resource and relational concerns in the prediction of procedural justice. In the first segment, we review information relevant to these individual needs, and then turn to a more detailed examination of the relationship between needs, relational and resource concerns, and procedural justice.

ERG theory: Existence and relatedness needs

In assessing intrinsic motivation, researchers have examined the structure and operationalization of individual's needs. This body of research has evolved significantly

from the early needs theories such as that put forth by Maslow (1943). This theory popularized the concept of needs in organizations, but the structure of Maslow's model had some significant drawbacks. Specifically, subsequent research showed that the hierarchical nature of needs as proposed by Maslow's did not fit the data gathered in organizations. Needs did not operate as proposed by the rigid structure specified in the model (Arnolds & Boshoff, 2002). In addition, another drawback of Maslow's theory is that it was structured as a more general model of human development as opposed to a model that examined motivations, which made application in organizational settings difficult. Finally, the development of Maslow's theory was not based on strong empirical evidence, and subsequent research did not support the structure of the theory (Arnolds & Boshoff, 2002).

To address the drawbacks in Maslow's theory, Alderfer (1969) developed an empirically based model of human needs tied to motivations. This research has uncovered three basic needs: existence, relatedness and growth (Alderfer, 1969).

While the structure of needs as determined by Maslow has always been controversial, recent research has provided evidence for the validity and existence of these needs and the simpler structure posited by Alderfer within the context of organizations (Arnolds & Boshoff, 2002). In addition, reference to needs can be seen in related theories of motivation. Indeed, Latham and Pinder's (2005) review of the motivation literature noted that needs fundamentally underlie motivation theory. The authors specify that, 'Need-based theories explain why a person must act; they do not explain why specific actions are chosen in specific situations to obtain specific outcomes

(p. 488).' In this manner, needs are seen as fundamental underpinnings of motivation theories which drive an individual's decision to act. The actions that an individual will take are subsequently decided through processes outlined in the specific motivation theory. For example, in goal setting theory, an individual may perform at a higher level given a challenging goal, but that person will not act if the outcome of the goal does not satisfy the individual's underlying need.

More recent theories have incorporated needs into their conceptualization of the underpinnings of motivated behavior. For example, Social Cognitive Theory uses the concept of self-observation as a determinant of an individual's motivation for behavior. Essentially, self-observation revolves around identifying and implementing behaviors related to attaining valued internal goals (Bandura, 1986). These valued internal goals can be seen to include intrinsic drives or needs. Additionally, Goal Setting theory specifically suggests that a portion of motivation is directed by needs (Phillips & Gully, 1997; Tubbs & Ekeberg, 1991).

This implicit and explicit incorporation of needs in motivation theory provides credence to the use of needs in the current study. Indeed, the continued consideration of needs in modern theory, in conjunction with recent evidence that ERG-based constructs have utility in understanding motivation (Arnolds & Boshoff, 2002), is a primary reason why the older ERG theory of needs was deemed the most appropriate theory for use in the current study.

While continuing research efforts have explored these needs in greater detail, the original source for these needs is Alderfer (1969). Indeed, since Alderfer's original

empirical examination of these needs, the structure of these needs as constructs within industrial and organizational research has remained consistent (Arnolds & Boshoff, 2002). Because of this, the needs constructs will be described in the original manner as expounded by Alderfer's (1969) ERG theory.

ERG Theory proposes that individuals are motivated by three basic needs: existence, relatedness and growth needs. The existence need refers to competition for basic, tangible resources. These needs are highly resource related and are illustrated by factors such as pay and fringe benefits. Indeed, Alderfer (1969) states that: "One of the basic characteristics of existence needs is that they can be divided among people in such a way that one person's gain is another's loss when resources are limited" (p.145). Thus, gaining resources is the fundamental motivation for an individual attempting to meet the existence need.

In an organizational setting, financial resources may be viewed as a rather visible and valued existence resource (Alderfer, 1969). Consistent with this contention, research suggests that individuals are sensitive to the distribution of financial resources and that this resource may drive perceptions of procedural justice (Aquino, 1995; Greenberg, 1990; Jones, 1998; Trevor, & Wazeter, 2007).

The relatedness need refers to an individual's social needs. In an organizational setting, it would include the person's desire for inclusion in a higher status group. Relatedness needs refer to individuals' desire to maintain relationships and can be seen as desires for status, belongingness, acceptance and social interaction. Indeed, past work has established the importance of social inclusion in organizational networks (Brewer &

Kramer, 1986). In further specifying the relatedness need, Alderfer (1969) states that:

"The exchange of acceptance, confirmation, understanding, and influence are elements of

the relatedness process" (p.146). These elements describe some of the manners in which

individuals navigate social hierarchies. Thus, having relational concerns, and taking

steps to ensure a positive place in the social hierarchy are fundamentally driven by the

relatedness need. Indeed, additional research has provided evidence that individual have

a strong desire to belong to a group (Baumeister & Leary, 1995; Carvallo & Gabriel,

2006; Hornsey & Jetten, 2004).

Finally, growth needs refer to an individual's desire for self-actualization,

personal growth, and self-fulfillment (Alderfer, 1967, Arnolds & Boshoff, 2002). It may

be that growth needs are impacted by specific organizational procedures such as

continuing education or flex time but the connection to more general organizational

procedures such as performance appraisals is less clear. Because this need does not

directly address the central research question, specifically the resource or relational

concerns imbedded in a policy, it will not be discussed further.

An important aspect of Alderfer's theory is that he proposed that individuals differ

in their standing on these needs. While it seems logical to expect that existence and

relatedness needs are not pressing for all individuals, it also seems logical to expect that

not all people are on equal standing as far as need satisfaction. This may be a relevant

factor in understanding procedural justice. In the context of the current study, one would

expect that as a need increases in importance, aspects of procedures that threaten these

needs would have a stronger relationship to justice perceptions.

Although the need-procedural justice relationship has not been explored, research suggests that these needs may determine other organizational outcomes of interest. Thus, we briefly review this related research. Arnolds & Boshoff (2002) conducted one of the most complete contemporary explorations of ERG theory. The researchers explored the relationship between the three ERG needs and the variables self esteem and job performance. Utilizing SEM, the authors explored the direct effect of the ERG needs on self esteem and the indirect effect of the needs on job performance. Through this model the authors found evidence that relatedness needs are related to job performance. The indirect effect of existence needs on job performance was not significant for this model.

In contrast to this finding of Arnolds and Boshoff, their previous work did find evidence for the relationship between existence needs and organizational outcomes of interest. In this study, Arnolds and Boshoff (2000) found evidence that existence factors such as pay were related to job performance. Again, while this research is not central to procedural justice, it does supply evidence that needs are related to outcomes of interest to firms. It may be the case that sample-specific differences, such as the existing level of satisfaction with pay, drives the relationship between this factor and organizational outcomes.

While no research has assessed the relationship between needs and justice perceptions it seems quite logical that the two are related. For example, if an individual's satisfaction with an existence need (such as pay) is low that individual may be more reactive to pay related procedural injustice than an individual whose satisfaction with the existence need is high. Similarly, if one is dissatisfied with their social status within an

27

organization, then they may be more sensitive to social status information than one who is satisfied and secure. Thus, the current model is consistent with Heuer's suggestion that trust, neutrality, and status recognition are relevant to both resource and relational concerns. However, reactions to each of these variables may be intensified for those individuals whose needs in each area are high.

As will be discussed, the need variables of existence and relatedness may influence the manner in which individuals perceive justice. This relationship may exist through existence and relatedness needs acting as a moderator of the relationship between violations of trust, neutrality and status recognition and procedural justice. Researchers have found that these relational and resource concerns are antecedents of justice perceptions and logically, it may be expected that relational and resource concerns may be influenced by relatedness and existence needs treated as individual difference variables. This will be explored in the next segment.

Interaction of needs with relational and resource concerns

In the current study, we propose that resource and relational concerns impact procedural justice, but that this relationship is moderated by existence and relatedness needs of the individual. Specifically, we would expect that individuals who have high existence and relatedness needs would react more strongly to potential violations of trust, neutrality and status recognition. The relationship between these violations and procedural justice should be stronger for those who have related salient needs.

The current study will examine existence and relatedness needs as moderators as opposed to mediators for two specific reasons. Because the current study uses the

predictor variables of trust, neutrality and status recognition as the primary independent variables it is more likely that existence and relatedness needs (conceptualized as individual difference variables) will act as moderator variables. Specifically, it can be expected that existence and relatedness needs will change the relationship between trust, neutrality, and status recognition and procedural justice because the needs likely do not explain the relationship between the indicator variables and the DV. It is more likely that the needs variables will change the strength of the relationship between the indicator variables and the DV. For example, the relationship between trust in a decision maker and the subsequent perception of procedural justice will likely be dependent on the level relatedness needs in an individual. When relatedness needs are salient, the relationship between trust and procedural justice may be stronger than when relatedness needs are low.

Clarifying the relationship between trust, neutrality, status recognition and overall resource and relational concerns

In addition to examining needs as a potential moderator of the relationship between trust, neutrality and status recognition and procedural fairness, we hoped to make an additional contribution by attempting to develop new direct measures of resource and relational concerns. These direct measures will be used to examine the extent to which the relationship between trust, neutrality, and status recognition and procedural justice are determined by resource and relational concerns. Earlier research has provided indirect evidence that trust, neutrality, and status recognition may carry information relevant to resource and relational concerns, but the current methodology

will allow us to determine the extent to which this is supported by more direct measurements of the underlying constructs (Heuer, et al. 2002; Tyler, 1994). This is more in keeping with standards for construct validation, which would dictate that finding two clusters in the indicators of trust, neutrality and status recognition and labeling them "resource concerns" and "relational concerns" is not definitive evidence that two separate constructs exist, nor does it provide information on the nature of the two underlying constructs. Rather, we will directly measure resource and relational concerns and look at the relationship between these measures and the three indicator variables as a first step in the current study. This provides stronger support for the relationship between these three indicator variables and the underlying constructs, and clarifies the relationship between each indicator (trust, neutrality, and status recognition) and the associated constructs of relational and resource concerns.

Because previous research examined relational concerns as a direct relationship between the three indicator variables and procedural justice, and resource concerns as an indirect effect between the three indicator variables and procedural justice (Heuer et al., 2002) a direct comparison between the resource and relational effect sizes is not possible. However, given the current study's goal of examining the strength of these relationships in the context of existence and relatedness needs, previous methods of parsing variance through direct and indirect effects must be supplemented with additional methods to examine the specific research question.

As noted earlier, the current study will develop two direct measures of resource and relational concerns to address these concerns. Evidence that shows that measures of

resource and relational concerns mediate the interactive effects of the three indicator variables (trust, status recognition and neutrality) and needs on procedural justice would provide a more compelling argument that these two concerns underlie the effects of the indicators. Specifically, we would expect the interaction between trust, neutrality, and status recognition and existence and relatedness needs to be diminished when variance related to resource and relational concerns are controlled. These two direct measures are discussed in greater depth in the next section. It is necessary to show that each of the three indicators has a somewhat unique relationship to both relational and resource concerns. If all three variables are equally related to both underlying factors, then the current model would be incorrect, since it assumes that relational and resource dimensions are overlapping but somewhat independent. Because of this, it would be expected that trust, neutrality, and status recognition will load more strongly on either relational or resource concerns.

Previous research has examined whether trust, neutrality, and status recognition were differentially related to resource and relational concerns, but the results have been inconsistent (Tyler, 1994; Heuer, et al. 2002). Specifically, Tyler (1994) found that trust, neutrality, and status recognition were not related to resource concerns. However, using a different methodology, Heuer et al. (2002) found that these three variables were related to resource concerns, though the relative strengths of the relationships were inconsistent across studies. Because the findings of the previous research were inconsistent, any a priori specification of relationship strength in the current study is necessarily exploratory.

However, it is still valuable to specify which of the IVs would be expected to load more strongly on relational or resource concerns, as provides theoretical direction for the study.

In regards to the relative strengths of trust, neutrality, and status recognition on resource and relational concerns, a careful examination of the previous research does provide some information on which on how the IVs may load on the relational and resource concerns. Specifically, it may be expected that status recognition will load more strongly on relational concerns. Both Heuer et al. (2002) and Tyler (1994) found that status recognition had moderate to strong loadings on relational concerns (.52 and .19 respectively). Heuer et al. found a smaller relationship between status recognition and resource concerns (.12). This lends credence to the idea that status recognition will load more strongly on relational concerns. This relationship may be expected because an individual's perception of a decision maker's perceived recognition of his/her status may be seen by the individual as having greater bearing on the individual's place within the group.

Likewise, it may be expected that the variable neutrality will load more strongly on relational concerns though the evidence for this relationship is not as strong as the evidence for status recognition and relational concerns. Heuer et al. (2002) and Tyler (1994) both showed small to moderate factor loadings on relational concerns (.15 and .22 respectively). Heuer et al. showed a smaller relationship between neutrality and resource concerns (.09). These findings provide some evidence indicating that neutrality may be more related to relational concerns than resource concerns though not as strongly as status recognition. It may be expected that neutrality is more related to relational

concerns because a decision maker who is not perceived as neutral may be expected to treat other individuals within the group differently. This could be seen as problematic for a person's place within the group's social hierarchy. However, neutrality can also be seen as having an impact on resource concerns. A decision maker who is not neutral towards an individual could also be expected to make resource decisions that negatively impact the person. This may be why the difference between the factor loadings for resource and relational concerns are not as large as with status recognition.

Finally, the variable trust has a higher level of inconsistency within the literature than the other two IVs. Tyler (1994) found that trust loaded highly on the relational concern (.50). However, Heuer et al. (2002) found that trust did not significantly load on relational concerns, using the same methodology as Tyler. Heuer et al. did find that trust loaded on resource concerns at a level of .19. Because of the drastic differences in the loadings across the two studies, we consider any estimates of differential strength of the loading of trust on relational or resource concerns are exploratory. Based on the limited research, we would anticipate that trust may load on both concerns. Based on Heuer et al.'s findings, it may be expected that trust will influence resource concerns. This may be expected because a trusted decision maker may be expected to deliver resources in a manner which the individual deems fair. As with the findings of neutrality, it may also be expected that trust does influence relational concerns. This could be expected because a trusted decision maker will be expected to treat the individual in a manner which is fair from a relational perspective though this relationship is uncertain given the findings of previous research.

The first goal of the present study is to examine needs as potential moderators of the relationship between trust, neutrality and status recognition and subsequent judgments of procedural fairness. By testing the relationship between each of the three indicator variables with each need, we may be able to better examine if and why existence and relatedness needs moderate the relationship between relational/resource concerns and procedural justice. The current study will attempt to expand the understanding of why individual's care about justice by exploring the potential interaction between an individual's needs and specific indicators of resource and relational concerns (trust, neutrality, and status recognition). Furthermore, we hope to make a stronger argument that the interactive effects of these variables on justice are due to the underlying effects of broad based resource and relational concerns.

A secondary goal of the current study is to attempt to clarify the relationship between trust, neutrality and status recognition and the underlying constructs of resource and relational concerns. By utilizing direct measures of relational and resource concerns to remove variance related to these constructs we will be able to examine the extent to which existence and relatedness needs are relevant to the relationship between trust, neutrality, and status recognition and procedural justice. While this was not the main goal of the current study, the factor structure of resource and relational concerns was examined before proceeding to an examination of the proposed interactions between needs and indicators of resource and relational concerns. Examining the psychometric qualities of the relatedness and resource measures was necessary before investigating

whether these constructs mediated the Needs X Indicators interaction on procedural justice.

To summarize, the current study examines how differences in individual's needs moderate reactions to trust, neutrality and status recognition violations, and how the interaction between these variables effect procedural justice. As in previous research, the three IVs trust, neutrality, and status recognition are used as indicator variables to examine relational and resource concerns. However, we attempt to improve on previous methodologies by using direct measures of relational and resource concerns.

In order to accomplish these goals, the current study conducts a two phase method. The first phase attempts to establish the factor structure of the direct measures of relational and resource concerns. Specifically, in the first phase we factor analyze the structure of the direct measures of resource and relational concerns utilizing CFA. It is necessary to examine these measures prior to the investigation of the central research question to ensure that resource and relational concerns have some unique variance within each of these two constructs.

These relationships have not been directly tested in prior research, so we designed measures to capture the constructs of interest as part of the current study. Since these are new scales, we hoped to be able to examine whether any questions are not working as expected. Because we examine the structure of two new measures in the first phase, our analyses are exploratory. As a result, we did not making specific hypotheses for the first phase, other than predicting that resource and relational concerns are overlapping constructs with some unique variability.

This first phase, establishing some evidence of the distinctiveness of resource and relational concerns, is important in the execution of the second phase of the work. The main goal of the first phase of the study is to examine direct measures of resource and relational concerns and refine these measures for use in the second phase. In the second phase of the work, we planned to examine whether controlling resource and relational concerns mitigated the interactive effects of individual needs and status recognition, neutrality, and trust on fairness perceptions.

In the second phase, we examine the relationship between direct measures of status recognition, neutrality and trust and the broader constructs of resource and relational concerns. While status recognition, neutrality and trust are manipulated in Phase Two of the study, we also measure these three variables directly. This serves two purposes. First, it allows us to examine whether our manipulations of status recognition, trust and neutrality function as intended; second, it allows us to conduct exploratory work on the relationship between measures of these three variables and the refined measures of resource and relational concerns.

The study's second phase examines the central research question of whether existence and relatedness needs moderate the relationship between trust, neutrality, and status recognition and procedural justice. Specifically, trust, neutrality, and status recognition have been found to be related to perceptions of justice. If existence and relatedness needs do influence the extent to which individual's attend to trust, neutrality, and status recognition it may be expected that existence and relatedness needs will have a moderating effect on the relationship between trust, neutrality, status recognition and

36

perceptions of justice. For example, an individual may be more likely to perceive injustice at the hands of a trusted decision maker if that individual has low satisfaction with existence and relatedness needs. To the extent that status recognition is more related to relatedness than to existence needs, it may also be expected that the strongest reactions come from those with low relatedness needs.

If the proposed interactions between individual needs and trust, neutrality and status recognition proved significant, then further analyses were to be conducted to examine whether these effects are due in part to resource and relational concerns. However, establishing that a significant interaction exists was a necessary first step before these analyses were conducted.

In terms of the interactions, we expected that individuals who have greater need for existence and relatedness would be expected to attend more closely to specific indicators of resource and relational concerns, and these concerns may have a stronger relationship to procedural justice judgments for these individuals. For example, an individual who has an unsatisfied need for relatedness will likely attend to status recognition more than an individual who has a satisfactory level of relatedness because status recognition carries information related to the individual's place within the social hierarchy. Likewise, an individual who has unmet existence needs may be more likely to attend to status recognition because the decision maker who "plays favorites" can be viewed as more likely to disperse resources that may not be based on objective evaluations of performance. Therefore, the current study hypothesizes:

H1a: When individuals are exposed to violations of status recognition, those who have high levels of relatedness needs will see the procedure as more unfair than those who have low levels of relatedness needs (Relatedness need X Status Recognition interaction)

H1b: When individuals are exposed to violations of status recognition, those who have high levels of existence needs will perceive the procedure as more unfair than those who have low levels of existence needs (Existence need X Status Recognition interaction)

An individual who has an unsatisfied need for relatedness may be more likely to attend to the neutrality of the decision maker because an unbiased decision maker may be expected to make decisions impacting relational concerns in a more just manner. Conversely, an individual who is low in need for relatedness may not attend to the decision maker's neutrality as much because an unbiased decision regarding group position is not important to the person. Likewise, an individual who is high in existence needs may be more likely to attend to the neutrality of the decision maker because an unbiased decision maker may be expected to make decisions impacting resources more justly. An individual low in existence needs may not attend to neutrality to the level of someone high in existence needs because an unbiased decision maker fair allotment of resources is not as important. Therefore, the current study hypothesizes:

H2a: When individuals are exposed to violations of neutrality, those who have high levels of relatedness needs will perceive the procedure as more unfair than those who have low levels of relatedness needs (Relatedness needs X Neutrality interaction)

H2b: When individuals are exposed to violations of neutrality, those who have high levels of Existence needs will perceive the procedure as more unfair than those who have low levels of Existence needs (Existence needs X Neutrality interaction)

An individual high in need for relatedness may be more likely to attend to issues of trust in the decision maker because a decision maker who is viewed as having the individual's best intentions in mind may be expected to deliver more just decisions impacting group membership. The individual low in need for relatedness may be less likely to attend to issues of trust in the decision maker because issues of group membership are less important to the person. Likewise, an individual high in existence needs may be more likely to attend to issues of trust because a decision maker who is viewed as having the individual's best intentions in mind may be expected to deliver more just decisions impacting resources. The individual low in existence needs may be less likely to attend to issues of trust because resource acquisition is not as important to the person. Therefore, the current study hypothesizes:

H3a: When individuals are exposed to violations of trust, those who have high levels of relatedness needs will perceive the procedure as more unfair than those who have low levels of relatedness needs (Relatedness needs X Trust interaction)

H3b: When individuals are exposed to violations of trust, those who have high levels of Existence needs will perceive the procedure as more unfair than those who have low levels of existence needs (Existence needs X Trust interaction)

The above hypotheses represent the overall relationships examined in the second phase of the current study. While this second phase examines the research questions of interest, we reiterate that the work in Phase One was a necessary step in understanding the relationship between trust, status recognition and neutrality and the underlying constructs of resource and relational concerns. These Phase One analyses focus on the relationship between the overarching constructs of resource and relational concerns and allow us to refine measures of these constructs.

If the proposed interactions were indeed significant, we planned to conduct additional analyses to examine whether resource and relational concerns drive this relationship. To help understand how relational and resource concerns influence the interactions hypothesized above, it may be useful to remove the variance associated with relational and resource concerns from the models. This could be achieved by controlling the variance associated with resource and relational concerns in the IVs: trust, neutrality, and status recognition and examining changes in the predictive strength of these factors once this variation is removed. Because the current study hypothesizes the moderating effect of existence and relatedness needs on the relationship between trust, neutrality, and status recognition, and procedural justice is due to variance associated with relational and resource concerns, controlling the variance associated with the two concerns were expected to decrease the moderating effect of needs on the aforementioned relationships.

Additionally, controlling for relational vs. resource concerns may decrease the moderating effect of the needs differently depending on the concern/need combination. While many of these relationships are exploratory due to the reasons cited earlier, we are

able to make some preliminary hypotheses. Specifically, resource concerns may be expected to decrease the moderating effect of existence needs more than relatedness needs because resource concerns are theoretically closer to existence needs than relatedness needs. This is because resource and existence needs are both closely linked to material goods whereas relatedness needs are more closely linked to membership within a group. However, it may still be expected that controlling the variance associated with resource concerns will decrease the moderating effect of relatedness needs. This is because an individual's place in the group can be influenced by the resources controlled and thus may be subject to resource concerns.

This same pattern of results may also be true for relational concerns. Because relational concerns and relatedness needs are more closely related to a person's place in the group than existence needs, it may be expected that the decrease in the moderating effect of relatedness needs will be greater than the decrease in the moderating effect of existence needs. However, it may still be expected that the moderating effect of existence needs will decrease when relational concerns are controlled because a person's place in the group can carry implications for the materials controlled. Therefore, the current study hypothesizes:

> *H4a:* Removing the variance associated with resource concerns from the IVs trust, neutrality, and status recognition will decrease the moderating effect of existence needs on the relationship between these IVs and the DV, procedural justice.

41

H4b: Removing the variance associated with resource concerns from the IVs trust, neutrality, and status recognition will decrease the moderating effect of relatedness needs on the relationship between these IVs and the DV, procedural justice. This decrease will be smaller than when relational concerns are controlled.

H4c: Removing the variance associated with relational concerns from the IVs trust, neutrality, and status recognition will decrease the moderating effect of relatedness needs on the relationship between the IVs and the DV, procedural justice.

H4d: Removing the variance associated with relational concerns from the IVs trust, neutrality, and status recognition will decrease the moderating effect of existence needs on the relationship between the IVs and the DV, procedural justice. This decrease will be smaller than when resource concerns are controlled.

Additionally, there is the possibility that there is a three way interaction between each of the IVs: trust, neutrality, and status recognition and the two needs variables: relatedness and existence. For example, an individual who is highly concerned about existence and relatedness needs and is low on trust in the decision maker may perceive much higher levels of procedural injustice than an individual who is only highly concerned about existence needs. Because the relative strengths of the moderating effects of existence and relatedness needs on the relationship between the IVs and the DV were not known, directly hypothesizing these relationships in a manner that specifies the nature of the interaction was not possible. Because of this, analyses which examined a three way interaction were planned in an exploratory manner.

CHAPTER TWO

METHOD

<u>Participants</u>

Because the results of the first phase were needed to make refinements to the resource and relational concern measures used in the second phase, separate samples were needed for Phase One and Phase Two of the current study. The first phase used 200 participants. The first phase was estimated to require a sample of this size based on MacCallum, Widaman, Zhang, and Hong's (1999) examination of sample size in factor analysis. The determination of sample size for the current study relies on this article because the primary research goal of phase one was to examine the factor structure of the new direct measures of resource and relational concerns. MacCallum et al.'s research indicated that communality, p:r ratio, and sample size were primary determinants in the ability of a model to accurately detect the factor structure of a model. The current study is not able to estimate the communality of these measures due to a lack of previous research into the question. However, in the current study we were able to adjust the p:r ratio. By increasing the p:r ratio, which creates a model that is highly overdetermined, a sample can be estimated which will provide an adequate sample regardless of communality. Specifically, the MacCallum et al. found that at a sample size of 200, a p:r ratio of 10:3 will provide admissible solutions at a rate of 99% when communality is wide, and admissible solutions at a rate of 95.2% when communality is low. In order to ensure that the current study provided an admissible solution, the p:r ratio was set to 12:3.

Thus, based on the findings of MacCallum et al., a sample of 200 should have provided adequate power for phase one of the current study.

The second phase used 360 participants. This sample size was calculated utilizing Maxwell's (2000) paper on power analysis. The effect sizes were estimated utilizing Heuer et al.'s (2002) study on the relationship between trust, neutrality, and status recognition and procedural justice. This study was used because it examines the relationship between the IVs and DV in the same method which will be used in the current study. Based on this study, the average correlation between the IVs and DV were calculated to be .22 and the R^2xy was calculated to be .05. To reach the desired power of .8, L was calculated to be 7.85. Utilizing these numbers and the calculations outlined in Maxwell's paper, the required sample size was calculated to be 321. However, we were able to collect a larger sample of 360 which increased this study's ability to detect effects and decreased the probability of Type II error.

Procedure

For phase one, participants filled out measures of resource and relational concerns. As noted, one purpose of phase one was to examine the relationship of these two constructs to one another and to establish that they are relatively independent. Scale refinements were made based on the results of phase one and the refined scales were used in phase two.

For phase two, the main goal was to examine the hypothesized interactions between individual needs and the manipulated variables of trust, status recognition, and

neutrality, and to examine whether this relationship is due in part to the underlying

constructs of relational and resource concerns.

A second goal of phase two was to examine the relationship between relational

and resource concerns and direct measures of trust, status recognition, and neutrality. In

past work, researchers have assumed that the effects of trust, neutrality and status

recognition stem from the underlying constructs of resource and relational concerns. The

data from Phase two allowed us to examine whether these assumptions are well-founded.

In Phase Two, a new sample of participants was asked to complete a

questionnaire concerning a work situation. Specifically, the individuals were asked to

read a vignette which described a scenario where the individual was part of a team which

was unsuccessful in attempts to fulfill a customer's contract. The details of each scenario

were varied by experimental condition as described below. Subsequently, the individuals

were asked a series of questions concerning the situation. For the specifics of each

scenario see Appendix A. Direct measures of relational and resource concerns as well as

the measures of trust, neutrality and status recognition were be given after participants

read the vignettes.

Design

Pilot

Two pilot studies were conducted with the goal of developing and refining the

vignettes to be used in the final study. The first pilot study was conducted with a sample

of 20 currently employed individuals throughout the United States. Because the findings

of the first study were inconclusive, a second pilot study was conducted with a sample of

254 currently employed individuals. Both studies used the same methodology in order to examine whether the manipulations of trust, neutrality and status recognition were perceived as intended

Within the studies, two vignettes were compared, one providing substantial information concerning the situation of interest and a second which only provided the necessary details regarding the situation. Because the study was manipulating the variables trust, neutrality, and status recognition each participant was asked to respond to measures of these three variables in response to four vignettes. These four vignettes were for both the long and short versions and high trust/neutrality/status recognition and low trust/neutrality/status recognition. The final version of the vignettes can be seen in appendix A.

Main Study

As previously noted, the current study used a two phase design. The data for each phase was collected with a separate sample. The first phase used the 15 item measure of resource concerns and the 16 item measure of relational concerns. Phase one examined the structure of the direct measures of resource and relational concerns.

The second phase used the scenarios incorporating trust, neutrality, status recognition, and also included measures of existence needs, relatedness needs, procedural justice, and the refined measures of resource and relational concerns. Participants also completed direct measures of trust, neutrality and status recognition in phase two.

Phase two then examined the relationships discussed in the abovementioned hypotheses, in which the interactive effects of trust, neutrality and status recognition and

needs were examined. If the interactions were significant, the effect of removing variance due to resource and relational concerns was to be examined.

Phase two of the study used a structural equation model to identify potential interactions between needs and the three independent variables in the prediction of procedural justice. This portion of the study manipulated three independent variables (trust, neutrality, and status recognition) in predicting justice. Individuals participating in the study were randomly assigned to one of eight conditions: 1) low trust/ low neutrality/ low status recognition, 2) low trust/ low neutrality/ high status recognition, 3) low trust/ high neutrality/ low status recognition, 4) low trust/ high neutrality/ high status recognition, 5) high trust/ low neutrality/ low status recognition, 6) high trust/ low neutrality/ high status recognition 7) high trust/ high neutrality/ low status recognition, 8) high trust/ high neutrality/ high status recognition.

Participants were provided with a vignette which described a situation in which independent variables were manipulated as described above. Each vignette described a workplace situation where the individual is a member of a team which failed to deliver on a contract. The vignette then described an individual's subsequent performance appraisal and conversations with the decision maker and peers concerning the event. Trust was manipulated by specifically mentioning whether the decision maker was known to be trustworthy or untrustworthy. Neutrality was manipulated by indicating whether the decision maker was known to be neutral. Status recognition was manipulated by indicating whether the decision maker acknowledged the individual's standing within the team.

In addition, phase two allowed us to examine the relationship between measures of trust, neutrality, and status recognition and the two broader constructs of resource and relational concerns. Thus, phase two also served as a means to examine the relationship between resource and relational concerns and direct measures of the three variables that were manipulated in phase two.

Measures

Procedural Justice. Procedural justice was measured through Daly and Geyer's (1994) measure. The measure was the four item procedural fairness subscale. The scale has been found to have a coefficient alpha of .76 and correlates with intention to remain with the organization, distributive justice, and voice/justification (Daly & Geyer, 1994). Item wording was modified to reflect the experimental situation. (See Appendix B)

Relational Concerns. Relational concerns were measured through two scales developed for the current study. One scale measured relational concerns towards a manager and a second scale measured relational concerns towards a peer group. Each measure was constructed by creating a bank of questions thought to be related to the construct and then running pilot studies to determine the final list of questions. (See Appendix C)

Previous research describes relational concerns as the level of concern individuals feel about their relationships with the social groups to which they belong and the authority figures within those groups. Specifically, these concerns are defined by the individual's feelings about their membership in the group and as such they are motivated to maintain their self perceived place within the group. Furthermore, relational concerns

assume that individuals gain a psychological reward from group identification and membership (Heuer et al. 2002; Tyler, 1994). The current study examined two specific elements of an individual's perceptions of group membership: perceptions of a manager's view of the individual within the group and interpersonal relationships within the group. These two sub dimensions were used because previous research has established these constructs as critical to interpersonal relationships (Anderson, Ames, & Gosling, 2008; Mullin & Hogg, 1999; Smith, et al., 1998). Questions related to the direct measures of relational concerns were designed to tap into this underlying construct and the two sub dimensions. It is critical to note that relational concerns differ from relatedness needs in that the relational concern measure examines specific work related concerns; whereas the relatedness needs measure is a global measure examining an individual's need to belong.

Resource Concerns. Similar to the Relational measure, this scale was developed for the current study. The measure was constructed by developing a series of questions thought to be related to the construct and then utilizing pilot studies to examine the performance of the questions within the measure. (See Appendix D)

Resource concerns were described in the previous literature as concerns an individual feels regarding the allotment and of material items. Specifically, previous research suggests that resource concerns related to perceived fairness may include the paycheck an individual receives as a result of work performed (Heuer et al. 2002; Jones, Scarpello, & Bergmann, 1999; Jones, 1998; Tyler, 1994). The questions for the direct measure of resource concerns outlined in appendix D were designed to tap into this construct. It is critical to note that resource concerns differ from existence needs in that

the resource concern measure examines specific work related concerns; whereas the existence needs measure is a global measure examining an individual's need for resources.

Existence Needs. Existence needs were measured through Arnolds and Boshoff's (2002) Existence Need scale. This measure was originally based on Alderfer's (1967) scale. However, because Arnolds and Boshoff conducted a more rigorous CFA on the measures than was available to Alderfer, this scale was chosen for the base measure of the current study. Arnolds and Boshoff showed that the four items loaded with existence needs in a way that supported the construct validity of the scale. The Cronbach's Alpha reported for this measure was .79. The current study found the maximal internal consistency to be .89. (See Appendix E)

Relatedness Needs. Relatedness needs were examined through Arnolds and Boshoff's (2002) measure of relatedness. Similar to the existence measure, Arnolds and Boshoff's measure was used because they were able to use CFA to examine the factor structure. The authors showed that the eight questions loaded with relatedness needs in the manner one would expect given a prior expectations regarding factor structure. Specifically, four items examined relatedness needs in regards to superiors and four items examined peer relatedness needs. Arnolds and Boshoff found the Cronbach's Alpha of the superior scale to be .79 and the Cronbach's Alpha of the peer scale to be .65. The current study found the maximal internal consistency for the superior scale to be .85 and the peer scale to be .87. (See Appendix F)

Trust, Neutrality and Status Recognition. These three constructs were measured

through scales developed by Heuer et al. (2002) and Tyler (1994). The use of scales from

these studies was critical to the current study as it enabled a thorough check of the

manipulations as each of these variables. Trust was measured through Heuer et al.'s

(2002) four item scale. The scale was found to have a Chronbach's Alpha of .85 and was

used over Tyler's (1994) trust scale as Heuer et al.'s was found to be more reliable.

Neutrality was used through Tyler's four item measure of neutrality. This scale was

found to have a Chronbach's Alpha of .79. This scale was used in lieu of Heuer et al.'s

measure because Heuer et al.'s two item scale was found to have a Chronbach's Alpha of

.30, well below acceptable limits. Heuer et al.'s four item scale measuring status

recognition was used as it appeared to be a more reliable scale (Chronbach's Alpha= .95)

than Tyler's two item scale (Chronbach's Alpha= .84). The current study found the

Chronbach's Alpha to be .88 for the trust measure, .88 for the neutrality measure, and .87

for the status recognition measure. (See Appendix G)

CHAPTER THREE

RESULTS

As a first step, a detailed analysis of the characteristics of the sample was obtained. This is followed by the results of the pilot analyses. Next, the adequacy of the measures used in the main study was assessed. Finally, after scale revisions, the main analyses of the hypotheses were conducted.

Participants

Participant characteristics are first provided for the entire sample, and then for each phase of the study. Data were collected from 840 participants throughout the United States. The average age of the participants was 43.12 with a standard deviation of 12.62 years. The age range was 54 years with a minimum age of 20 and a maximum age of 74. Fifty six point one percent of the participants in the sample were females and 43.9% were male. Twenty seven percent of the participants in the sample were single, 56.3% of the sample was married, 13.8% of the sample was divorced, and 2.3% were widowed. Thirteen point three percent of the participants in the sample had a high school degree or equivalent, 31.3% had some college, 40.2% had a college degree, 12.6% had a master's degree, and 2.7% had a doctorate.

Point nine percent of the sample lived in areas with populations smaller than 5,000. This is defined as urbanized category 4 by the US Census Bureau and represents 1.654% of the US population. Seventeen point seven percent of the sample lived in areas with populations between 5,000 and 49,999. This is defined as urbanized category 3 by the US Census Bureau and represents 8.918% of the US population. Nineteen point one

percent of the sample lived in areas with populations between 50,000 and 199,999. This is defined as urbanized category 2 by the US Census Bureau and represents 10.372% of the US population. Sixty two point three percent of the sample lived in areas with populations greater than 200,000. This is defined as urbanized category 1 by the US Census Bureau and represents 58.274% of the population (US Census, 2000).

Pilot Studies

In the first pilot study, the means for each group were compared by simple comparison as the sample size of 20 did not provide adequate power to conduct a significance test. The group means follow. Short version high conditions: trust=2.59, neutrality=2.76, status recognition=2.93; short version low conditions: trust=2.51, neutrality=2.71, status recognition=2.84; long version high conditions: trust=2.29, neutrality=2.74, status recognition=2.79; long version low conditions: trust=2.11, neutrality=2.81, status recognition=2.71. The results of this pilot study were inconclusive with the mean differences of trust (Short*diff*=.08, Long*diff*=.17) and neutrality (Short*diff*=.05, Long*diff*=-.08) favoring the long version and the mean difference of status recognition (Short*diff*=.09, Long*diff*=.08) favoring the short version (See table 1). As a result of these inconclusive findings a second pilot study was run.

The second pilot study used the same methodology as the first pilot study with an increased sample size of 254. Six paired sample *t*-tests were conducted between the high and low conditions for trust, neutrality, and status recognition for the long vignette and again for the short vignette. The *t* values were then compared between the long and short vignettes. For the short trust vignette, $t(252)=20.13$, *p<.01, d=2.54, r=.79,* low

trust=1.68, high trust=2.04. For the long trust vignette, $t(252)=18.84$, $p<.01$, $d=2.37$, $r=.77$, low trust=1.45, high trust=1.80. For the short neutrality condition, $t(252)=18.69$, $p<.01$, $d=2.36$, $r=.76$, low neutrality=.94, high neutrality=1.17. For the long neutrality condition, $t(252)=16.60$, $p<.01$, $d=2.09$, $r=.72$, low neutrality=.80, high neutrality=1.01. For the short status recognition condition, $t(252)=19.54$, $p<.01$, $d=2.46$, $r=.78$, low status recognition=1.59, high status recognition=1.94. For the long status recognition condition, $t(252)=18.60$, $p<.01$, $d=2.34$, $r=.76$, low status recognition=1.48, high status recognition=1.82 (See table 2). Because the results consistently indicated higher t-values for the short vignette these are the vignettes that were used in the final study.

Manipulation Checks

Independent samples t-tests were conducted between individuals in the high trust, neutrality, and status recognition and low trust, neutrality, and status recognition groups using the sample from the main study. The results indicated that the trust and neutrality manipulations were successful but the status recognition manipulation was not. For the trust condition, $t(358)=-4.8$, $p<.001$, $d=-.51$, $r=.25$. The means were as follows: low trust= *2.14,* high trust= *2.60.* For the neutrality condition, $t(358)=-5.98$, $p<.001$, $d=-.63$, $r=.30$. The means were as follows: low neutrality= *1.97*, high neutrality= *2.50.* For the status recognition condition, $t(358)=-.89$, $p=.38$, $d=-.09$, $r=.05$. The means were as follows: low status recognition= *2.67*, high status recognition= *2.76* (See table 3).

Initial Analyses of Measures

Factor analyses were conducted on the independent and dependent variables to ensure the measures met standards for psychometric adequacy. In instances where

specific items did not fit the model or observations contributed unduly to kurtosis those

items or observations were removed from the measure. Additionally, because most

models had high levels of kurtosis, robust measures were used throughout this section.

Each subsection notes any items or observations which were removed and provides

supporting analyses which justify these actions. Additionally, a full measurement model

was conducted to determine the correlations between all variables used in this study. The

results of this model are seen in table 4. Specific results for each measure used in the

study are reported below.

Existence Need- Moderator Variable

A CFA was run with a sample of 360 on the five item existence need scale (see

Appendix B). The CFI for this model was .97. The analysis revealed that all five items

appeared to be contributing to the overall model: Item 1: $Z=23.42$, $p<.001$, $b=1.08$,

$R^2=.73$, Item 2: $Z=13.59$, $p<.001$, $b=.70$, $R^2=.48$, Item 3: $Z=24.52$, $p<.001$, $b=1.08$,

$R^2=.70$; item 4: $Z=12.43$, $p<.001$, $b=.72$, $R^2=.38$; item 5 $Z=18.81$, $p<.001$, $b=.95$, $R^2=.61$.

The normalized estimate of kurtosis was 5.21 with no observations contributing to this

value to a greater extent than other observations. The maximal internal consistency for

this model was .89. Because this measure appeared to be working in the manner it was

designed this is the final version of the measure that was used in the main study.

Relatedness Needs- Manager Focused- Moderator Variable

A CFA was run with a sample of 360 on the four item relatedness need scale

focused on the manager (see Appendix B). The CFI for this model was .97. The analysis

revealed that all four items appeared to be contributing to the overall model: Item 1:

Z=12.45, p<.001, b=.73, R^2=.53, Item 2: Z=17.63, p<.001, b=.90, R^2=.74, Item 3:

Z=15.06, p<.001, b=.88, R^2=.57; item 4 Z=7.56, p<.001, b=.54, R^2=.23. The normalized

estimate of kurtosis was 8.00 with no observations contributing to this value to a greater

extent than other observations. The maximal internal consistency for this model was .85.

Because this measure appeared to be working in the manner it was designed this is the

final version of the measure that was used in the main study.

Relatedness Needs- Peer Focused- Moderator Variable

A CFA was run with a sample of 360 on the eight item relatedness need scale

focused on peers (see Appendix B). The CFI for this model was .75. A review of the

data indicated that the seventh and eighth items did not fit within the factor structure of

the measure. These two items were not significant: Item 7: Z=-.79, p=.43, b=-.06,

R^2=.00; Item 8: Z=-.24, p=.81, b=-.02, R^2=.00. Item 7 was: "I do not like to be alone" and

item 8 was "My feelings are easily hurt when I feel that others do not accept me". The

data for each remaining item assessing peer focused relatedness needs were: Item 1:

Z=15.36, p<.001, b=.81, R^2=.59, Item 2: Z=14.89, p<.001, b=.76, R^2=.69, Item 3:

Z=14.92, p<.001, b=.75, R^2=.65; item 4 Z=13.10, p<.001, b=.71, R^2=.50, Item 5: Z=7.86,

p<.001, b=.48, R^2=.28; item 6 Z=4.05, p<.001, b=.26, R^2=.09. The normalized estimate

of kurtosis was 16.30 with one observation contributing to this value to a greater extent

than other observations. The maximal internal consistency for this model was .87.

As a result of the above findings the CFA was rerun without the one observation

which appeared to be contributing disproportionately to the model's kurtosis and without

items seven and eight. The normalized estimate of kurtosis was 14.53. The CFI for this

model was .89. The six items contributed significantly to the overall model: Item 1: $Z=15.15$, $p<.001$, $b=.80$, $R^2=.58$, Item 2: $Z=14.90$, $p<.001$, $b=.74$, $R^2=.67$, Item 3: $Z=14.93$, $p<.001$, $b=.73$, $R^2=.64$; item 4 $Z=12.97$, $p<.001$, $b=.70$, $R^2=.49$, Item 5: $Z=7.89$, $p<.001$, $b=.46$, $R^2=.27$; item 6 $Z=5.84$, $p<.001$, $b=.28$, $R^2=.11$. The maximal internal consistency for this model was .87. Because this model did not appear to fit the data well with a CFI of .89 a subsequent CFA was run without item 6 ("I want other people to accept me"), which did not appear to be contributing to the model at the same level of the other items.

Because of these findings the CFA was rerun without the one observation which appeared to be contributing disproportionately to the model's kurtosis and without items six, seven, and eight. The normalized estimate of kurtosis was 13.56. The CFI for this model was .996. The five items contributed significantly to the overall model: Item 1: $Z=15.11$, $p<.001$, $b=.80$, $R^2=.58$, Item 2: $Z=14.89$, $p<.001$, $b=.74$, $R^2=.68$, Item 3: $Z=14.95$, $p<.001$, $b=.74$, $R^2=.65$; item 4 $Z=12.75$, $p<.001$, $b=.70$, $R^2=.48$, Item 5: $Z=7.50$, $p<.001$, $b=.44$, $R^2=.25$. The maximal internal consistency for this model was .87. Because this model appeared to fit the data well, this measure was used in the abovementioned form.

Procedural Justice-Dependent Variable

A CFA was run with a sample of 360 on the four item procedural justice scale (see Appendix B). The CFI for this model was .98. The analysis revealed that all four items appeared to be contributing to the overall model: Item 1: $Z=19.96$, $p<.001$, $b=.90$, $R^2=.67$, Item 2: $Z=20.55$, $p<.001$, $b=.89$, $R^2=.73$, Item 3: $Z=17.93$, $p<.001$, $b=.83$, $R^2=.63$;

item 4 $Z=13.83$, $p<.001$, $b=.75$, $R^2=.51$. The normalized estimate of kurtosis was 29.20 with four observations contributing to this value to a greater extent than other observations. An LM test was run which indicated that variables one (The manager made the decision in a way that was not fair to me.) and two (The way the decision was reached was not fair to me.) had a high level of co-variation: $\chi^2=40.45$, $p<.05$. The maximal internal consistency for this model was .88.

As a result of the above findings the CFA was rerun without the four observations which appeared to be contributing disproportionately to the model's kurtosis. Additionally, variables one and two were allowed to co-vary. The normalized estimate of kurtosis was 19.74. The CFI for this model was .999. The four items contributed significantly to the overall model: Item 1: $Z=14.60$, $p<.001$, $b=.78$, $R^2=.53$, Item 2: $Z=16.12$, $p<.001$, $b=.79$, $R^2=.59$, Item 3: $Z=20.86$, $p<.001$, $b=.91$, $R^2=.77$; item 4 $Z=16.84$, $p<.001$, $b=.84$, $R^2=.66$. The maximal internal consistency for this model was .89.

Phase One: Factor analysis of Relational and Resource concern measures

As noted earlier, the first phase of the study involved developing and refining measures of Relational and Resource concerns. This was a necessary first step before examining whether these concerns contained variance related to the interaction between needs and trust, neutrality and status recognition on the dependent measure of procedural justice.

Resource Concerns

A confirmatory factor analysis (CFA) was conducted with a sample of 200 on the four items assessing resource concerns indicated in Appendix C. This analysis revealed a CFI of .95. A review of the data indicated that the second item did not fit within the factor structure of the measure and, while significant $Z=2.47$, $p=.01$, $b=.20$, provided an R^2 of .05 which was below the other indicators. This item was: "I have the ability to pay for the basic things in life". Specifically, the data for each item assessing resource concerns was: Item 1: $Z=4.51$, $p<.001$, $b=.23$, $R^2=.17$, Item 3: $Z=8.24$, $p<.001$, $b=.73$, $R^2=.59$; item 4: $Z=8.06$, $p<.001$, $b=.71$, $R^2=.54$. Additionally, the normalized estimate of kurtosis indicated a value of 10.98, which a single observation contributed to substantially. As a result of these two findings, the second item was removed from the scale and the observation was removed from the analysis. The maximal internal consistency for this model was .74.

The saturated CFA was rerun with the abovementioned changes. The normalized estimate of Kurtosis was 3.27. All three items revealed significant Z tests. Specifically, the data revealed that: Item 1: $Z=4.24$, $p<.001$, $b=.26$, $R^2=.14$, Item 3: $Z=7.62$, $p<.001$, $b=.80$, $R^2=.70$; item 4 $Z=7.10$, $p<.001$, $b=.66$, $R^2=.46$. As a result of these findings, the revised three-item resource scale was used in further analyses. The maximal internal consistency for this model was .77.

Relational Concerns- Peer

A CFA was conducted with a sample of 200 on the four item relational scale which focused on peer relational concerns (see Appendix D). This model revealed a CFI

of 1.00. The analysis revealed that all four items appeared to be contributing to the overall model, Item 1: $Z=2.57$, $p=.01$, $b=.28$, $R^2=.08$ Item 2: $Z=2.71$, $p=.006$, $b=.30$, $R^2=.09$, Item 3: $Z=4.17$, $p<.001$, $b=.46$, $R^2=.30$; item 4: $Z=5.98$, $p<.001$, $b=.74$, $R^2=.59$. Additionally, the normalized estimate of kurtosis indicated a value of 8.26. The maximal internal consistency for this model was found to be .67.

Relational Concerns- Decision Maker

A CFA was run with a sample of 200 on the four item relational scale which focused on decision maker relational concerns (see Appendix D). The CFI for this model was .95. The analysis revealed that all four items appeared to be contributing to the overall model: Item 1: $Z=5.22$, $p<.001$, $b=.36$, $R^2=.31$, Item 2: $Z=9.03$, $p<.001$, $b=.61$, $R^2=.58$, Item 3: $Z=6.65$, $p<.001$, $b=.47$, $R^2=.22$; item 4 $Z=5.62$, $p<.001$, $b=.43$, $R^2=.25$. The normalized estimate of kurtosis was 10.94 with one observation contributing to this value to a greater extent than other observations. The maximal internal consistency for this model was .71.

As a result of the above findings the CFA was rerun without the observation which appeared to be contributing disproportionately to the model's kurtosis. The normalized estimate of kurtosis was 8.98. The CFI for this model was .95. The four items contributed significantly to the overall model: Item 1: $Z=5.38$, $p<.001$, $b=.37$, $R^2=.32$, Item 2: $Z=9.35$, $p<.001$, $b=.62$, $R^2=.67$, Item 3: $Z=6.56$, $p<.001$, $b=.46$, $R^2=.20$; item 4: $Z=5.75$, $p<.001$, $b=.44$, $R^2=.26$. The maximal internal consistency for this model was .75.

After the necessary revisions were made to the measures, nine Structural Equation Models were constructed to test the three hypothesis tests. The following is a brief description of the processes used common to all models followed by detail on each specific model. Each model was constructed using the four item procedural justice scale as the dependent variable. Each model had two sets of independent variables. The first was the dichotomous experimental condition (trust, neutrality, and status recognition). The second was the specific need (resource, relatedness-peer, and relatedness-manager). Finally, the interaction factor was added to the model with a direct path to the dependent variable. The interaction items were calculated by taking the mean centered product of the two independent variables in each model. Specifically, each item from the needs based independent variable was multiplied with the dichotomous manipulated independent variable. The three interaction items with the highest factor loadings were then used in the full model (Marsh, Wen, & Hau, 2004). Robust measures were used throughout these analyses to account for high levels of kurtosis. Results of the Z-tests are shown in table 5. The nine structural models can be seen in figures one through 9.

Hypothesis 1- Status Recognition

H1a: When individuals are exposed to violations of status recognition, those who have high levels of relatedness needs will see the procedure as more unfair than those who have low levels of relatedness needs (Relatedness need X Status Recognition interaction)

H1b: When individuals are exposed to violations of status recognition, those who have high levels of existence needs will perceive the procedure as more unfair than those who have low levels of existence needs (Existence need X Status Recognition interaction)

61

Part a: Interaction between status recognition and manager focused

relatedness needs

A structural equation model was conducted between status recognition; the four item relatedness needs measure focusing on the manager, and the three item interaction term testing the interaction of relatedness needs and status recognition on the dependent variable procedural justice. Four observations from the previous factor analyses and three additional observations were found to contribute to kurtosis and were removed from the model.

After removing the outliers, the model had an acceptable fit to the data, comparative fit index= .97, nonnormed fit index=.95, *RMSEA=*.05 (See fig. 1). The kurtosis for this model was 19.20. The equations indicated that the independent variable status recognition was not a significant predictor of the dependent variable procedural justice, *Z=-.05, p=.96, b=-*.01(.1). The moderator variable of relatedness needs was also not a significant predictor of the dependent variable procedural justice, *Z=.36, p=.72, b=*.02(.06). The interaction factor was also not a significant predictor of the dependent variable, *Z=.04, p=.97, b=*.002(.06). Overall, these results do not provide support for the hypothesized interaction between status recognition and manager focused relatedness needs.

Interaction between status recognition and peer focused relatedness needs

A structural equation model was conducted between status recognition; the five item relatedness needs measure focusing on peers, and the three item interaction term testing the interaction between relatedness needs and status recognition on the dependent

variable procedural justice. Five observations from the previous factor analyses and one additional observation were found to contribute to kurtosis and were removed from the model.

 After these revisions, the model had an acceptable fit to the data, comparative fit index= .97, nonnormed fit index=.96, *RMSEA=*.04 (See fig. 2). The kurtosis for this model was 24.43. The equations indicated that the independent variable status recognition was not a significant predictor of the dependent variable procedural justice, *Z=.04, p=.97, b=*.004(.10). The moderator variable of relatedness needs was also not a significant predictor of the dependent variable procedural justice, *Z=-.10, p>.92, b=*.01(.06). The interaction factor was also not a significant predictor of the dependent variable, *Z=-.33, p=.74, b=*.02(.06). Overall, these results do not provide support for the hypothesized interaction between status recognition and manager focused relatedness needs.

Part b: Interaction between status recognition and existence needs

 A structural equation model was conducted between status recognition; the five item existence needs measure, and the three item interaction term testing the interaction between existence needs and status recognition on the dependent variable procedural justice. Four observations from the previous factor analyses which were found to contribute to kurtosis were removed from the model.

 After removing the outliers, the model had an acceptable fit to the data, comparative fit index= .99, nonnormed fit index=.98, *RMSEA=*.03 (See fig. 3). The kurtosis for this model was 13.73. The equations indicated that the independent variable

status recognition was not a significant predictor of the dependent variable procedural justice, *Z=.18, p=.86, b=.02(.10)*. The moderator variable of relatedness needs was also not a significant predictor of the dependent variable procedural justice, *Z=1.37, p=.17, b=.08(.06)*. The interaction factor was also not a significant predictor of the dependent variable, *Z=-.42, p=.68, b=.02(.06)*. Overall, these results do not provide support for the hypothesized interaction between status recognition and manager focused relatedness needs.

Hypothesis 2- Neutrality

H2a: When individuals are exposed to violations of neutrality, those who have high levels of relatedness needs will perceive the procedure as more unfair than those who have low levels of relatedness needs (Relatedness needs X Neutrality interaction)

H2b: When individuals are exposed to violations of neutrality, those who have high levels of Existence needs will perceive the procedure as more unfair than those who have low levels of Existence needs (Existence needs X Neutrality interaction)

Part a: Interaction between neutrality and manager focused relatedness needs

A structural equation model was conducted between neutrality; the four item relatedness needs measure focusing on the manager, and the three item interaction term testing the interaction between relatedness needs and neutrality on the dependent variable procedural justice. Four observations from the previous factor analyses and two additional observations were found to contribute to kurtosis and were removed from the model.

After removal of these items, the model had an acceptable fit to the data, comparative fit index= .97, nonnormed fit index=.96, *RMSEA*=.05, *SRMR*=.04 (See fig. 4). The kurtosis for this model was 21.35. The equations indicated that the independent variable neutrality was a significant predictor of the dependent variable procedural justice, *Z=6.25, p<.001, b=*.61(.10). The moderator variable of relatedness needs was not a significant predictor of the dependent variable procedural justice, *Z=.51, p=.61, b=*.03(.06). The interaction factor was also not a significant predictor of the dependent variable, *Z=-.31, p=.76, b=*.02(.06). Overall, these results do not provide support for the hypothesized interaction between neutrality and manager focused relatedness needs. Instead, neutrality had a main effect on perceptions of procedural justice. Specifically, the results indicate that individuals in the high neutrality group had higher perceptions of procedural justice than individuals in the low neutrality group. This is seen with a *b* for neutrality of .61(.10).

Part b: Interaction between neutrality and peer focused relatedness needs

A structural equation model was conducted between neutrality; the five item relatedness needs measure focusing on peers, and the three item interaction term testing the interaction between relatedness needs and neutrality on the dependent variable procedural justice. Five observations from the previous factor analyses and two additional observations were found to contribute to kurtosis and were removed from the model.

After these revisions, the model had an acceptable fit to the data, comparative fit index= .97, nonnormed fit index=.96, *RMSEA*=.05, *SRMR*=.03 (See fig. 5). The kurtosis

65

of the model was 26.30. The equations indicated that the independent variable neutrality was a significant predictor of the dependent variable procedural justice, *Z=6.24, p<.001, b=*.61(.10). The moderator variable of relatedness needs was not a significant predictor of the dependent variable procedural justice, *Z=-.78, p=.44, b=*-.05(.06). The interaction factor was also not a significant predictor of the dependent variable, *Z=1.57, p=.12, b=*.09(.06). Overall, these results do not provide support for the hypothesized interaction between neutrality and manager focused relatedness needs. However, it does provide evidence of the main effects of neutrality on justice. Specifically, the results indicate that individuals in the high neutrality group had higher perceptions of procedural justice than individuals in the low neutrality group. This is seen with a *b* for neutrality of .61(.10).

Part b: Interaction between neutrality and existence needs

A structural equation model was conducted between neutrality; the five item existence needs measure, and the three item interaction term testing the interaction between existence needs and neutrality on the dependent variable procedural justice. Four observations from the previous factor analyses and one additional observation were found to contribute to kurtosis and were removed from the model.

The model had an acceptable fit to the data, comparative fit index= .99, nonnormed fit index=.98, *RMSEA=*.04, *SRMR=*.03 (See fig. 6). The kurtosis for this model was 15.63. The equations indicated that the independent variable neutrality was a significant predictor of the dependent variable procedural justice, *Z=6.17, p<.001, b=*.61(.10). The moderator variable of existence needs was not a significant predictor of the dependent variable procedural justice, *Z=1.33, p=.18, b=*.08(.06). The interaction

factor was also not a significant predictor of the dependent variable, *Z=1.03, p=.30,*
b=.06(.06). Overall, these results do not provide support for the hypothesized interaction
between neutrality and existence needs.

In summary, the results provided evidence of a main effect of neutrality on
perceptions of procedural justice in that individuals in the high neutrality group had
higher perceptions of procedural justice than individuals in the low neutrality group. This
is seen with a *b* for neutrality of .61(.10). The effects of neutrality did not interact with
individuals' existence or relatedness needs.

Hypothesis 3- Trust

H3a: When individuals are exposed to violations of trust, those who have
high levels of relatedness needs will perceive the procedure as more
unfair than those who have low levels of relatedness needs
(Relatedness needs X Trust interaction)

H3b: When individuals are exposed to violations of trust, those who have
high levels of Existence needs will perceive the procedure as more
unfair than those who have low levels of existence needs (Existence
needs X Trust interaction)

Part a: Interaction between trust and manager focused relatedness needs

A structural equation model was conducted between trust, the four item
relatedness needs measure focusing on the manager, and the three item interaction term
testing the interaction between relatedness needs and trust on the dependent variable
procedural justice. Four observations from the previous factor analyses and two
additional observations were found to contribute to kurtosis and were removed from the
model.

After these revisions, the model had a moderately acceptable fit to the data, comparative fit index= .94, nonnormed fit index=.91, *RMSEA=.09*, *SRMR=.04* (See fig. 7). The kurtosis for this model was 18.24. The equations indicated that the independent variable trust was a significant predictor of the dependent variable procedural justice, *Z=3.51, p<.001, b=.35(.10)*. The moderator variable of relatedness needs was not a significant predictor of the dependent variable procedural justice, *Z=.22, p=.83, b=.01(.06)*. The interaction factor was also not a significant predictor of the dependent variable, *Z=1.16, p=.25, b=.07(.06)*. Overall, these results do not provide support for the hypothesized interaction between trust and manager focused relatedness needs. Instead, results provide support for a main effect of trust on procedural justice. Specifically, the results indicate that individuals in the high trust group had higher perceptions of procedural justice than individuals in the low trust group. This is seen with a *b* for trust of .35(.10).

Part b: Interaction between trust and peer focused relatedness needs

A structural equation model was conducted between trust, the five item relatedness needs measure focusing on peers, and the three item interaction term testing the interaction between relatedness needs and trust on the dependent variable procedural justice. Five observations from the previous factor analyses were found to contribute to kurtosis and were removed from the model.

The model had an acceptable fit to the data, comparative fit index= .98, nonnormed fit index=.97, *RMSEA=.05*, *SRMR=.04* (See fig. 8). The kurtosis for this model was 27.29. The equations indicated that the independent variable trust was a

significant predictor of the dependent variable, *Z=3.57, p<.001, b*=.36(.10). The moderator variable of relatedness needs was not a significant predictor of the dependent variable procedural justice, *Z=-1.44, p=.15, b*=.08(.06). The interaction factor was a marginally significant predictor of the dependent variable, *Z=1.77, p=.08, b*=.11(.06). Overall, these results provide some support for the hypothesized interaction between trust and peer focused relatedness needs. The results provide support for a main effect of trust on procedural justice. Specifically, the results indicate that individuals in the high trust group had higher perceptions of procedural justice than individuals in the low trust group. This is seen with a *b* for trust of .36(.10). Furthermore, the marginally significant interaction term indicates that individuals in the high trust group who have higher satisfaction with peer focused relatedness needs will perceive procedures as more fair which is consistent with the hypothesized interaction (see fig. 10).

Part b: Interaction between trust and existence needs

A structural equation model was conducted between trust, the five item existence needs measure, and the three item interaction term testing the interaction between existence needs and trust on the dependent variable procedural justice. Four observations from the previous factor analyses and one additional observation were found to contribute to kurtosis and were removed from the model.

After revisions, the model had an acceptable fit to the data, comparative fit index= .96, nonnormed fit index=.94, *RMSEA*=.06, *SRMR*=.04 (See fig. 9). The equations indicated that the independent variable trust was a significant predictor of the dependent variable procedural justice, *Z=3.23, p=.001, b*=.29(.09). The moderator variable of

existence needs was not a significant predictor of the dependent variable procedural justice, $Z=1.21$, $p=.23$, $b=.06(.05)$. The interaction factor was also not a significant predictor of the dependent variable, $Z=.89$, $p=.37$, $b=.04(.05)$. Overall, these results do not provide support for the hypothesized interaction between trust and existence needs. Instead, the results provide support for a main effect of trust on procedural justice. Specifically, the results indicate that individuals in the high trust group had higher perceptions of procedural justice than individuals in the low trust group. This is seen with a *b* for trust of .29(.09). In summary, trust has main effects on the dependent variable of procedural justice. These were not moderated by individuals' relatedness needs or by existence needs.

Post-Hoc Analyses

To better understand these data and provide directions for future research, a number of post hoc analyses were conducted. Specifically, there is a possibility that needs mediate the relationship between independent variables trust, neutrality, and status recognition and the dependent variable procedural justice. Additionally, if the variance contained in the independent variables trust, neutrality, and status recognition are due to resource and relational concerns there is the possibility that resource concerns will mediate the relationship between the independent variables trust, neutrality, and status recognition and the dependent variable procedural justice. As a result, we examined these two relationships to help direct future research in this area.

In determining whether existence and relatedness need function as a mediator rather than a moderator of the relationship between trust, neutrality, and status

recognition and the dependent measure, two statistical methods were used. First, mediation was tested using structural models and the Baron and Kenny (1986) method. Second, the Baron and Kenny method was supplemented with a Sobel test which examined the indirect relationship of the IV on the DV through the mediator variable (Preacher & Leonardelli, 2006). Each of the two regression equations (IV to mediator and Mediator to DV) used to conduct the Sobel were constructed using structural models. To test mediation using the Baron and Kenny method, nine structural models were created with a direct link from the independent variable to the dependent variable and an indirect link from the independent variable to the mediator variable and then from the mediator variable to the dependent variable. Additionally, nine Sobel tests were conducted to determine if the independent variables had an indirect effect on procedural justice through the mediator variable. A significant indirect effect provides evidence that the mediator variable does, in fact, mediate the relationship between the independent variable and the dependent variable.

Our first step in examining whether the need variables mediated the relationship between the independent variable and the dependent variable was to examine whether there was a significant relationship between the independent variable and the mediator variable within the structural models. The models indicated that there were no significant relationships between the independent variables trust, neutrality, and status recognition and the mediator variables existence needs, relatedness needs (peer), and relatedness needs (manager). Additionally, the Sobel tests indicated that there was no indirect effect of the independent variables on the dependent variable through the mediator variables:

71

trust-existence: $Z=1.06$, $p=.29$, $b=.06(.06)$, Sobel: $Z=.83$, p=.41; trust-relatedness(peer):

$Z=.34$, $p=.73$, $b=.03(.35)$, Sobel: $Z=-.29$, p=.77; trust-relatedness(manager): $Z=-1.12$,

$p=.26$, $b=-.09(.08)$, Sobel: $Z=-.22$, p=.82; neutrality-existence: $Z=.67$, $p=.50$, $b=.08(.12)$,

Sobel: $Z=-.59$, p=.56; neutrality-relatedness(peer): $Z=.67$, $p=.50$, $b=.06(.09)$, Sobel: $Z=-.46$, p=.64; neutrality-relatedness(manager): $Z=-1.18$, $p=.24$, $b=.08(.08)$, Sobel: $Z=-.22$,

p=.82; status recognition-existence: $Z=-1.95$, $p=.05$, $b=-.24(.12)$, Sobel: $Z=-1.04$, p=.30;

status recognition-relatedness(peer): $Z=-.08$, $p=.94$, $b=-.08(.09)$, Sobel: $Z=-.48$, p=.63;

status recognition-relatedness(manager): $Z=-1.21$, $p=.23$, $b=-.10(.08)$, Sobel: $Z=-.22$,

p=.82. Thus, given there was no relationship between the needs and trust, neutrality and

status, and no significance within the Sobel tests, we found no evidence that needs would

serve as mediators.

We also examined the possibility that the impact of trust, neutrality and status

recognition was mediated by relational and resource concerns. This relationship was not

tested using direct measures in prior research. Rather, it was simply assumed that these

three variables were related to relational and resource concerns. If trust, neutrality, and

status recognition do carry information related to relational and resource concerns it may

be expected that relational and resource concerns will mediate the relationship between

trust, neutrality, and status recognition and the dependent measure. The concern

measures created for this study mediating the relationship between the independent

variables and the dependent variable would provide evidence supporting the validity of

the new resource and relational concern measures.

To examine these relationships, nine structural models were created with direct

links from the independent variables trust, neutrality, and status recognition to the

dependent variable procedural justice and indirect links from the independent variables to

the mediator variables resource and relational concerns, and then from the mediator

variables to the dependent variable. A necessary condition for mediation to be present is

a significant relationship between the independent variables and the mediator variables

within the structural model. Additionally nine Sobel tests were conducted to examine the

indirect relationship of the independent variables on procedural justice through the

mediator variables. The results indicated that none of the links between the independent

variables and the mediator variables were significant nor were the Sobel tests significant:

trust-resource concerns: $Z=-.02$, $p=.98$, $b=-.001(.04)$, Sobel: $Z=.03$, p=.98; trust-

relational concerns (peer): $Z=.68$, $p=.50$, $b=.01(.02)$, Sobel: $Z=.63$, p=.53; trust-

relational concerns (manager): $Z=.03$, $p=.98$, $b=.002(.06)$, Sobel: $Z=-.02$, p=.99;

neutrality-resource concerns: $Z=-.41$, $p=.68$, $b=-.02(.04)$, Sobel: $Z=.34$, p=.73;

neutrality- relational concerns (peer): $Z=-1.05$, $p=.29$, $b=-.02(.02)$, Sobel: $Z=.95$, p=.34;

neutrality- relational concerns (manager): $Z=.75$, $p=.75$, $b=-.05(.06)$, Sobel: $Z=.72$,

p=.47; status recognition- resource concerns: $Z=.46$, $p=.65$, $b=.02(.04)$, Sobel: $Z=-.42$,

p=.67; status recognition- relational concerns (peer): $Z=1.06$, $p=.29$, $b=.02(.02)$, Sobel: Z

$=-1.00$, p=.32; status recognition- relational concerns (manager): $Z=-.04$, $p=.97$, $b=-$

$.002(-.04)$, Sobel: $Z=.07$, p=.95. These findings are significant in that it suggests the

relationships between these variables (trust, neutrality, and status recognition) and the

underlying constructs of relational and resource concerns may not be as strong as

suggested in prior research. Of course, an alternative explanation could be that the measures used in the current study contributed to the weakened relationships between these variables.

However, it should be noted that the correlations between resource and relational (peer and manager) concerns do indicate significant relationships between all three direct concern measures and the dependent variable procedural justice. (See table 4) Specifically, resource concerns were found to be related to procedural justice $r=-.18$, $p<.05$. Relational concerns (peer) were also found to be related to procedural justice $r=-.24$, $p<.05$. Finally, relational concerns (manager) were found to be related to procedural justice $r=-.29$, $p<.05$. These results indicate that individuals who have higher levels of resource, and relational (peer and manager) concerns are more likely to perceive procedures as less fair than individuals who have lower levels of resource concerns. This indicates that the direct measures of resource and relational concerns may have functioned as designed, which lends credence to the validity of these three variables as direct measures of resource and relational concerns.

CHAPTER FOUR

DISCUSSION AND CONCLUSIONS

The discussion section is structured in the following manner: First, a general overview of the theory used for the study is discussed along with an overview of findings. This is followed by a discussion of the pilot studies and the manipulations. Next, the phase one factor analyses examining relational and resource concerns are discussed. A discussion of the phase two hypothesis tests is held next, which precedes a discussion of sampling differences across needs research. Finally, conclusions are made concerning the results of the current study. Limitations and future directions are discussed throughout.

General discussion

Over the past several decades, researchers have been examining the factors that contribute to an individual's perceptions of fairness. Substantial work has been conducted with the goal of defining specifically what individuals perceive to be fair and unfair. Building on this body of research, current researchers are beginning to examine which specific factors, unique to an individual, lead that person to view a situation as fair or unfair. Previous work by Tyler (1994) and Heuer et al. (2002) have shown that concerns an individual may have about a situation's impact on his or her resources or relational status will have a significant impact on perceptions of procedural justice. Specifically, Tyler conducted early research on resource and relational concerns. His work uncovered the indicator variables of trust, neutrality, and status recognition and provided evidence for the use of these variables in uncovering the relationships between

relational concerns and procedural justice. Following Tyler's lead, Heuer et al. provided a clarification of the information carried by the indicator variables trust, neutrality, and status recognition. Heuer et al. found that these three variables carried information relevant to resource concerns as well as relational concerns.

Several researchers have called on the research community to further examine the impact of needs in psychological research (Baumeister & Leary, 1995; Latham & Pinder, 2005). Specifically, Latham and Pinder's review of the motivation literature calls for further research into the impact of needs on motivational processes. One of the most logical areas of the motivation literature to examine the influence of needs is the area of justice. This is especially true given the similarities between relational and resource concerns and Alderfer's (1969) examination of existence and relatedness needs. Both relational concerns and relatedness needs cover information related to an individual's relationships with other people. Also, both resource concerns and existence needs include information relevant to a person's control of material goods.

The fundamental difference between relational concerns and relatedness needs is that relational concerns encompass a person's cognitive worries regarding his or her relationships with others and relatedness needs cover a person's intrinsic drive for relationships with others. Likewise, resource concerns include a person's worries regarding the resources they control whereas existence needs cover a person's intrinsic drive for the resources s/he needs to live. As noted earlier, previous research has shown that resource and relatedness needs are related to procedural justice. If existence and

relatedness needs are also related to procedural justice then existence and relatedness needs, and resources and relational concerns may interact to predict procedural justice. Specifically, an individual who has low satisfaction with existence needs may find resource concerns as more salient than an individual with low satisfaction with existence needs. Additionally, an individual who has low satisfaction with relatedness needs may find relational concerns as more salient than an individual with low satisfaction with relatedness needs.

Central to this conjecture is the conceptualization of existence and relatedness needs as individual difference variables. Indeed, it may be expected that individuals will perceive different levels of resources as being necessary to live and individuals may also perceive different levels of social interaction as necessary. This conceptualization is consistent with previous research (Arnolds & Boshoff, 2002).

However, to our knowledge, no research has examined the relationships of needs with procedural justice. In an expansion beyond the findings of Tyler and Heuer et al., the current study examined whether an individual's need for resources or need to belong would also impact procedural justice. Furthermore, we also explored whether there was an interaction between the earlier studied resource and relational concerns, and existence and relatedness needs.

The results of this study do not support the hypothesized main effects of relatedness and existence needs on procedural justice. Furthermore, eight of the nine interactions tested between needs and concerns on procedural justice were not significant and one was marginally significant. Specifically, the study tested nine specific

hypotheses which examined the interaction between the indicator variables of trust, neutrality, and status recognition and existence and relatedness needs. The main effects of trust, neutrality, and status recognition were significant predictors of procedural justice which replicates previous findings by Heuer et al. (2002) and Tyler (1994). Furthermore, relatedness needs (peer) were found to marginally moderate the relationship between trust and procedural justice.

While eight of the nine hypotheses were not found to be significant, two direct measures of resource and relational concerns were created which may aid in future research. However, post hoc analyses to determine whether these direct measures mediated the relationship between the independent variables trust, neutrality, and status recognition and the dependent variable procedural fairness did not yield significant results. This could indicate that the direct measures did not work as designed. There is also the possibility that the independent variables trust, neutrality, and status recognition are related to the dependent variable procedural justice for a reason unrelated to an individual's concerns about resources or their relationships. This is supported by the significant correlation between resource and relational concern measures and procedural justice. A useful direction for future research may be a closer examination of the relational and resource concern constructs and the use of trust, neutrality, and status recognition as indicator variables for these constructs.

In addition, we conducted a post hoc analysis to determine if existence and relatedness needs mediated the relationship between trust, neutrality, and status

recognition and procedural justice. This analysis did not reveal any mediating effects of needs on the relationship between the independent variables and the dependent variable.

In order to ensure that the results of this study were as accurate as possible, great care was taken in the preparation of the measures for the main study. A confirmatory factor analysis was conducted for each measure and items which were found to not contribute to the model and outliers which unduly skewed the distribution were removed. Furthermore, an examination of the means indicates that range restriction was likely not a problem. The three needs variables, which did not have significant main effects, all have means ranging from 3.35-3.65 on a five point scale.

Pilot Studies

Two pilot studies were conducted in order to refine the vignette to be used in the subsequent studies. The first study had a sample size of twenty and yielded inconsistent results and because of this a second pilot study was run with a larger sample of 254. The second pilot study indicated that a shorter vignette yielded stronger manipulations of trust, neutrality, and status recognition. The methodology of these two studies used the two vignettes from each of the two vignette types, one long and one short. The two vignettes from each type were for high trust, neutrality, and status recognition, and low trust, neutrality, and status recognition. Each participant was shown all four vignettes and asked to respond to the trust, neutrality, and status recognition measures for each. This method amplified the differences between the different vignettes by allowing the participants to view the differences between the vignettes.

Manipulations

An analysis was conducted on the main sample (n=360) to assess the manipulations of the conditions. The results indicated that the manipulations of trust and neutrality successful manipulated the constructs of interest. However, the status recognition manipulation was not successful in the main study. As a result of the problems with this manipulation the main study was not able to detect the relationships between status recognition and procedural justice. Thus, the fact that the current study was not able to replicate the previous findings of Heuer et al. (2002) and Tyler (1994) should not be interpreted as a refutation of the relationship between status recognition and procedural justice. With a stronger manipulation, status recognition is expected to be a significant predictor of procedural justice as was found in previous research. A stronger manipulation for this variable is suggested for future research.

The lack of manipulation for status recognition may be linked to increased variation within the manipulations of the main study as compared to the pilot studies. Specifically, the pilot study used a within subjects design where participants were able to view the high and low conditions for trust neutrality and status recognition. This could have led to a decrease in the variance within the pilot studies which led to larger effect sizes for the manipulations. The between subjects design of the main study may have had higher variance than the pilot study because participants only viewed one condition as opposed to multiple conditions. Additionally, the reason why the manipulations in the pilot study were more significant than those of the main study may have been due to a contrast effect. (Scherer & Lambert, 2009; Simpson & Ostrom, 1976). Specifically,

because participants had been primed with the high condition of trust, neutrality, and status recognition first, the low conditions for these variables may have seemed lower in contrast. Future researchers should make every effort to strengthen the manipulations of these independent variables to overcome this variance.

Phase One Discussion

Resource concern measure

A factor analysis was conducted on the newly constructed resource concern measure. The results of the factor analyses indicated that one item did not fit with the other items in the resource concern measure. The maximal internal consistency of the measure was .77 which is a slightly low level of reliability. However, this measure did correlate significantly with procedural justice, which may indicate that this variable did measure resource concerns. With further refinement in future research, this measure may provide a quality direct measure of resource concerns.

Having a direct measure of resource concerns would be valuable to future research endeavors. Previous research has used the variables trust, neutrality, and status recognition as indicator variables for resource concerns. While there is evidence for the use of these three variables as indicator variables for resource concerns, they are indirect measures and a more direct measure may provide a more construct valid method of measurement. As noted earlier, a post hoc analysis did not reveal a relationship between the independent variables trust, neutrality, and status recognition and the direct measure of resource concerns. However, the fact that this study uncovered a significant correlation between the resource concern measure and procedural justice, but there was

no significant relationship between resource concerns and trust, neutrality, and status recognition indicates that there may be some nuances to these relationships that have not yet been uncovered. It is suggested that future research more fully examine the constructs of resource concerns to better determine the nature of this construct.

Relational concern measures

In examining the elements of relational concerns it became clear that there relational concerns focused on two distinct groups, peers and managers. Previous research considered relational concerns only as a single construct. However, once we began constructing a direct measure of relational concerns it became clear that individuals could be concerned with their relationships with peer groups and with managers. As a result, the current study split relational concern questions to correspond with each of the groups an individual may be concerned about.

The factor analysis examining the four item peer focused relational concern measure revealed that one of the items did significantly contribute to the overall model. As a result this item was dropped. The remaining three items adequately fit the model. This supports the idea that these three items are measuring the same construct. However, the internal consistency of .67 is low which may indicate that this measure may not be as reliable as expected. Additionally, the factor analysis assessing the manager focused relational concerns revealed that all four items contributed significantly to the overall model. A CFI of .95 indicated a somewhat low fit to the model and an internal consistency of .75 indicated that the reliability of the items were lower than expected. Despite the lower than desired reliability for each measure, the peer and manager focused

relational concern measure did correlate significantly with procedural justice in the expected direction, which provides some initial evidence that this variable does measure the intended construct. However, further work is needed to refine the measurement of this construct.

It is suggested that these measures be given consideration for use in future research. As noted in the previous section, the use of direct measures of relational concerns may increase the ability of future researchers to detect relationships between antecedents of procedural justice and the dependent variable procedural justice. Before either of these two measures can be used in future research, it is suggested that they are further refined to increase the reliability of the measures. Furthermore, in light of the post hoc analyses which examined the direct measures of relational concerns as mediators of the relationship between the independent variables trust, neutrality, and status recognition and the dependent variable procedural justice it is suggested that further research be conducted to determine whether the lack of mediation was due to a failure of the direct measures to measure concerns or a misidentification of the reasons why trust, neutrality, and status recognition were related to procedural justice.

Resource and relational concerns- measurement

The future of resource and relational concern research depends on further defining and operationalizing the nature of these constructs. The current study notes several inconsistencies in the manner by which resource and relational concerns and the indicator variables trust, neutrality, and status recognition interact. The current section notes

additional considerations which may help to frame some of the future research into these constructs.

Resource and relational concerns, as measured in this study, are more global or serve as general dispositions, which is consistent with previous definitions of these constructs. Trust, neutrality, and status recognition are situation-specific in the current study which is also consistent with previous research. Thus, to successfully measure the extent to which trust, neutrality, and status recognition are indicators of direct measures of resource and relational concerns the variables will need to be reframed so both indicators and direct measures of concerns are at the same level of analysis.

The constructs of resource and relational concerns are currently operationalized as being dependent on interactions with management. However, it may be the case that individuals will feel relational and resource concerns due to factors beyond interactions with management such as general economic trends or negative interactions with customers. It may be useful for future researchers to examine resource and relational concerns as constructs which may be influenced by many factors which may include but not be limited to interactions with persons of authority.

In regards to the general development of resource and relational concerns into fully operationalized constructs, we have laid out some general steps that may aid in defining and more fully examining these constructs. We believe the current study provided a good first step in developing direct measures of resource and relational concerns which may be applied to concerns regarding managers. However, further research should be conducted to refine the wording in the specific items with a goal of

increasing reliability before the measure can be used in future research. Beyond manager focused resource and relational concerns, further research should be conducted to develop new measures that may address relational and resource concerns both on a global level and a specific sub dimension level. Critical to the development of these measures is testing for convergent and discriminant validity between new measures and theoretically related or unrelated measures.

The current discussion of measurement issues within resource and relational concerns was brought about by this specific issue. The newly developed direct measures of resource and relational concerns were expected to be related to trust, neutrality, and status recognition, and the fact that they were not found to be related within the context of the current study raises some concerns as to the validity of these measures. Additionally, resource and relational concerns and trust, neutrality, and status recognition were found to have significant relationships to the theoretically related dependent variable- procedural justice. These findings suggest that the direct measures and indicator measures were measuring something. However, the lack of a relationship between these two measurements indicates that the two types of measures were measuring distinct constructs. Because of this, it is critical that future research into this area first conducts research to develop new measures of resource and relational concerns and second investigates the extent to which the measures predict or do not predict conceptually related/unrelated constructs.

Hypotheses

The results of this study marginally supported one of the nine hypotheses. The additional eight were not supported. The idea that existence and relatedness needs will interact with resource and relational concerns to predict procedural justice has a theoretical rationale and is logical, but was not supported in this study. In a replication of previous research, trust and neutrality were found to be significant predictors of procedural justice. Additionally, relatedness needs (peer) were found to marginally moderate the relationship between trust and procedural justice. However in examining the main effects of trust, neutrality, and status recognition on procedural justice and the subsequent interaction between of those concerns and existence and relatedness needs was not supported for the remaining eight hypotheses.

Fundamentally, the reason why these hypotheses were not found to be significant can be traced to the main effects of needs on procedural justice. The main effects of existence and relatedness needs were not found to be significant predictors of procedural justice for all nine hypotheses. This is surprising given the theoretical support for the relationship between needs and procedural justice. As noted earlier, Latham and Pinder's (2005) review of the motivation literature indicated that needs fundamentally underlie motivation theory. The authors specify that, 'Need-based theories explain why a person must act; they do not explain why specific actions are chosen in specific situations to obtain specific outcomes (p. 488).' Furthermore, goal setting theory notes that needs are a fundamental underpinning for motivation and earlier research indicated that the needs espoused by Alderfer (1969) were linked to perceptions of satisfaction (Arnolds &

Boshoff, 2002). However, despite this rationale, it appears that existence and relatedness needs as espoused by Alderfer did not influence procedural justice in this structured experimental design

Even though this study did not find significant main effects or interactions with the majority of the needs variables, this does not mean that needs do not influence procedural justice. There are several reasons why the methodology used in this study may not have been able to detect effects that were present. Specifically, it may have been that the vignettes used in this study were not salient to the participants. In other words, if there was insufficient scientific realism for the participants to feel their needs were threatened they would not be expected to react in the manner hypothesized. As is the case with many experimental designs, the consequences of procedural justice violations are different than those in actual organizational settings. In other words, the methodology may have lacked external validity if violations of trust, neutrality, and status recognition had little relevance in the minds of participants.

The method used in the current study was chosen for several reasons. By using a questionnaire based methodology we were able to gather a representative sample of the US working population in a manner that would not be possible in industry. Using this type of representative sample increases the generalizability to the greater population and from this regard is superior to a student laboratory scenario. By using a student population we would have been able to increase the realism of the study, but we would have lost the generalizability of a representative sample. Unfortunately, it is not likely that this type of research would be possible within an organization for practical and

ethical reasons. First, few top officers would allow researchers to provide negative outcomes to employees to determine whether existence and relatedness needs were related to the fairness of the organization's procedures. Furthermore, a methodology of this type would be grossly unethical. A researcher may be able to conduct research on the negative outcomes that naturally occur in organizations, but it would likely be a challenge to convince top officers to allow such research due to liability concerns. Thus, based on the available options for methodologies, the one used in the current study was chosen.

In order for future researchers to further explore these hypotheses, the methodology should be modified to increase the scientific realism of the method. If this is conducted with a representative sample of the US population, care should be taken to strengthen the realism to participants. Within the context of a laboratory setting, a researcher may be able to construct an experimental manipulation which adequately threatens an individual's needs; however, this would be at the expense of being able to generalize to the greater working population.

Comparison of the current study to previous need based research

As noted earlier, Arnolds and Boshoff (2002) found significant results between needs and job satisfaction in an applied sample. There may be some reasons why Arnolds and Boshoff found existence and relatedness needs to be related to perceptions of satisfaction and this study did not find a relationship between existence needs and procedural justice. One reason may be due to the South African sample. Specifically, there may be cultural differences between perceptions of needs which would cause

88

individuals in South Africa to view threats to existence and relatedness needs differently than individuals in the United States. Existence needs are discussed first followed by relatedness needs.

One reason for this difference for existence needs may be due to the relative socioeconomic status of the samples from the United States and South Africa. Arnolds and Boshoff used a sample of front line service workers who may have been closer to the poverty line than individuals in the US. There is evidence to support this idea when compensation and cost of living between the US and South Africa are compared. The International Labour Organization's (ILO) annual salary survey indicates that individuals working in the financial, insurance, real estate and business services sectors may expect to earn 125,016 rand per year which is the equivalent to ~16,000 dollars US (ILO, 2008). It may be expected that the front line employees in this sector are paid less than the mean salary for all employees, so the actual salary for these employees may be less than $16,000. However, because there are no data to indicate that this is true we will use the value of $16,000 for this comparison. If the US sample collected for the current study is representative of the general population, the mean wage for these participants may be expected to be $26,036, which is the mean wage for all working and non working individuals in the US (US Census, 2007). The difference between the wages for those in South Africa and the U.S. are clearer when cost of living is considered.

A recent comparison of cost of living in the U.S. and South Africa for individuals earning $16,000 per year indicates that the cost of living in South Africa is actually 26.6% higher than the cost of living in the United States (ERI, 2010). Further, the

analysis notes that individuals earning $16,000 per year in the U.S. will likely be short

$722 per year. As a result, individuals living in South Africa earning $16,000 per year

will not be able to afford the cost of living at ERI's standards. It is critical to note that

the data ERI collects regarding housing only covers fully modernized housing. Certainly,

individuals are able to live in South Africa earning $16,000 per year, but they will not be

able to live in fully modernized housing. As demonstrated by this comparison, the

individuals participating in the current study likely earn more than the individuals who

participated in the Arnolds and Boshoff (2002) study. Furthermore, it is also likely that

the participants in the Arnolds and Boshoff study were closer to the poverty line than the

participants in the current study.

Thus, it may be that the raw amount of resources at an individual's disposal has

an impact on perceptions of procedural fairness in the face of a threat to existence needs.

Specifically, it may be that once an individual has a certain level of resources at his/her

disposal that individual will not perceive a threat to existence needs to be procedurally

unfair. A valuable question for future research to examine may be whether the raw

amount of resources available to an individual influences that person's perceptions of

fairness.

Similar to cross cultural differences between the United States sample and South

African sample with regards to existence needs, there may also be cross cultural

differences due to relatedness needs. Specifically, South African culture puts a strong

emphasis on relationship ties through tribalism (Moran, Harris, & Moran 2007).

Specifically, individuals who have moved to a city in search of work maintain strong ties

with their home and will frequently be called upon to support not only themselves, but also provide resources to individuals at their place of origin. Furthermore, those individuals who leave and provide support to those in the place of origin will see an increase in status relative to their peers. This is contrasted with the United States which emphasizes individual self sufficiency. Thus, relatedness needs may have been more salient for the South African population because they maintain closer interpersonal ties than individuals in the United States.

Conclusions

The current study attempted to determine whether existence and relatedness needs influenced procedural justice and whether these needs further interacted with concerns to predict procedural justice. This study found marginal evidence that relatedness needs (peer) moderated the relationship between trust and procedural just but did not find evidence for the main effects of any needs variables or interactions for eight of the nine moderator variables, but this does not mean that these relationships do not exist in nature. By examining one methodology to answer these questions we hope that future researchers will be able to use this study to direct examinations of these relationships through other means. Future research may be able to detect these relationships through in a laboratory setting. By bringing participants into a lab the experimenter will have greater control over the strength of the manipulations and the strength of the scenario. In this manner an experimenter may be able to adequately threaten needs, which appears to be a major limitation of the current study. This method will lose some of the ability to

generalize to the greater population, but it may also provide some evidence for a very interesting research question.

Additionally, it is suggested that further work be conducted to more fully define the constructs of resource and relational concerns. The current study measured resource and relational concerns using two methods. First, using trust, neutrality, and status recognition as indicators of resource and relational concerns, and second, newly constructed direct measures of resource and relational concerns. If these two methods did measure the same construct, we would expect that trust, neutrality, and status recognition would be related to the three relational concern variables, which was not found.

In light of these results it is surprising that trust, neutrality, and the direct measures of resource and relational concerns all have significant relationships with procedural justice. If the direct measures of resource and relational concerns had failed, we would not expect a relationship with procedural justice to exist in the expected direction. Furthermore, trust and neutrality were hypothesized to be related to procedural justice because of underlying information related to resource and relational concerns. The fact that trust, neutrality, and relational/resource concerns are related to the dependent variable, but the indicator and direct measures of relational and resource concerns are not related to each other raises a question as to why these variables are related to procedural justice. Because of these inconsistent findings, it is suggested that the constructs of relational and resource concerns be examined more closely with a goal of better determining their nature.

	Short- high condition	Short- low condition	Long- high condition	Long- low condition	Short difference	Long difference
Trust	2.59	2.51	2.29	2.11	.08	.17
Neutrality	2.76	2.71	2.74	2.81	.05	-.08
Status Recognition	2.93	2.84	2.79	2.71	.09	.08

Table 1. Means of pilot study 1.

	Short t	Short- low condition	Short- high condition	Long t	Long- low condition	Long- high condition
Trust	20.13[*]	1.68	2.04	18.84[*]	1.45	1.80
Neutrality	18.69[*]	.94	1.17	16.60[*]	.80	1.10
Status Recognition	19.54[*]	1.59	1.94	18.60[*]	1.48	1.82

Note: [*] p <.01.; Degrees of freedom for all t-tests= 252. For each measure; higher values on each scale indicate higher perceptions of the given construct; ** likert type scale (scale 1-5)

Table 2. t-tests and means of pilot study 2.

	t-test	Low mean	High mean
Trust	-4.80[*]	2.14	2.60
Neutrality	-5.98[*]	1.97	2.50
Status Recognition	-.89	2.67	2.76

Note: [*] p <.001.; Degrees of freedom for all *t*-tests= 358. For each measure; higher values on each scale indicate higher perceptions of the given construct; ** likert type scale (scale 1-5)

Table 3. *t*-tests and means for the manipulation checks.

Subscale	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Procedural Justice**	3.59	.90	.91											
2. Resource Concerns**	4.04	.65	-.18*	.78										
3. Relational Concerns Peer**	4.15	.63	-.24*	.40*	.59									
4. Relational Concerns-Manager**	3.81	.63	-.29*	.59*	.58*	.82								
5. Trust**	2.36	.89	.77*	-.13*	-.24*	-.34*	.87							
6. Neutrality**	2.24	.87	.70*	-.22*	-.35*	-.38*	.85*	.84						
7. Status Recognition**	2.72	.84	.50*	-.09*	-.26*	-.24*	.64*	.68*	.87					
8. Relatedness Needs-Manager**	3.58	.85	.00	-.03	.03	.17*	.04	.04	.09	.87				
9. Existence Needs ***	3.35	.97	.07	-.09	.02	-.01	.11	.13*	.13*	.23*	.87			
10. Relatedness Needs- Peer **	3.65	.57	-.06	.08	.19*	.30*	-.01	-.03	.05	.49*	.33*	.87		
11. Trust manipulation	1.50	.50	.20*	-.01	.04	.01	.26*	.19*	.16*	-.06	.06	.02		
12. Neutrality manipulation	1.50	.50	.36*	-.04	-.08	-.05	.05	.31*	.22*	-.07	.04	.04	.00	
13. Status Recognition manipulation	1.50	.50	.00	.04	.08	-.01	.04	-.02	.05	-.07	-.11	-.05	.00	.00

Note: *p <.05.; Values in diagonal indicate reliabilities. For each measure; higher values on each scale indicate higher perceptions of the given construct for self report measures; Low values on manipulations indicate high condition; ** likert type scale (scale 1-5)

Table 4. Means, SD, correlations, and reliabilities for each variable.

	Z-test		Z-test
H1- Status Recognition		H3- Trust	
Needs-Manager		Needs-Manager	
SR-PJ	-.05	Trust-PJ	3.46[*]
Need-PJ	.36	Need-PJ	.22
Interaction term	.04	Interaction term	1.16
Needs-Peer		Needs-Peer	
SR-PJ	.04	Trust-PJ	3.57[*]
Need-PJ	-.10	Need-PJ	-1.44
Interaction term	-.33	Interaction term	1.77
Needs-Existence		Needs-Existence	
SR-PJ	.18	Trust-PJ	3.23[*]
Need-PJ	1.37	Need-PJ	1.21
Interaction term	-.42	Interaction term	.89
H2- Neutrality			
Needs-Manager			
Neutrality-PJ	6.25[*]		
Need-PJ	.51		
Interaction term	-.31		
Needs-Peer			
Neutrality-PJ	6.24[*]		
Need-PJ	-.78		
Interaction term	1.57		
Needs-Existence			
Neutrality-PJ	6.17[*]		
Need-PJ	1.33		
Interaction term	1.03		

Note: [*] $p < .05$.

Table 5. Z-tests for the hypothesis tests.
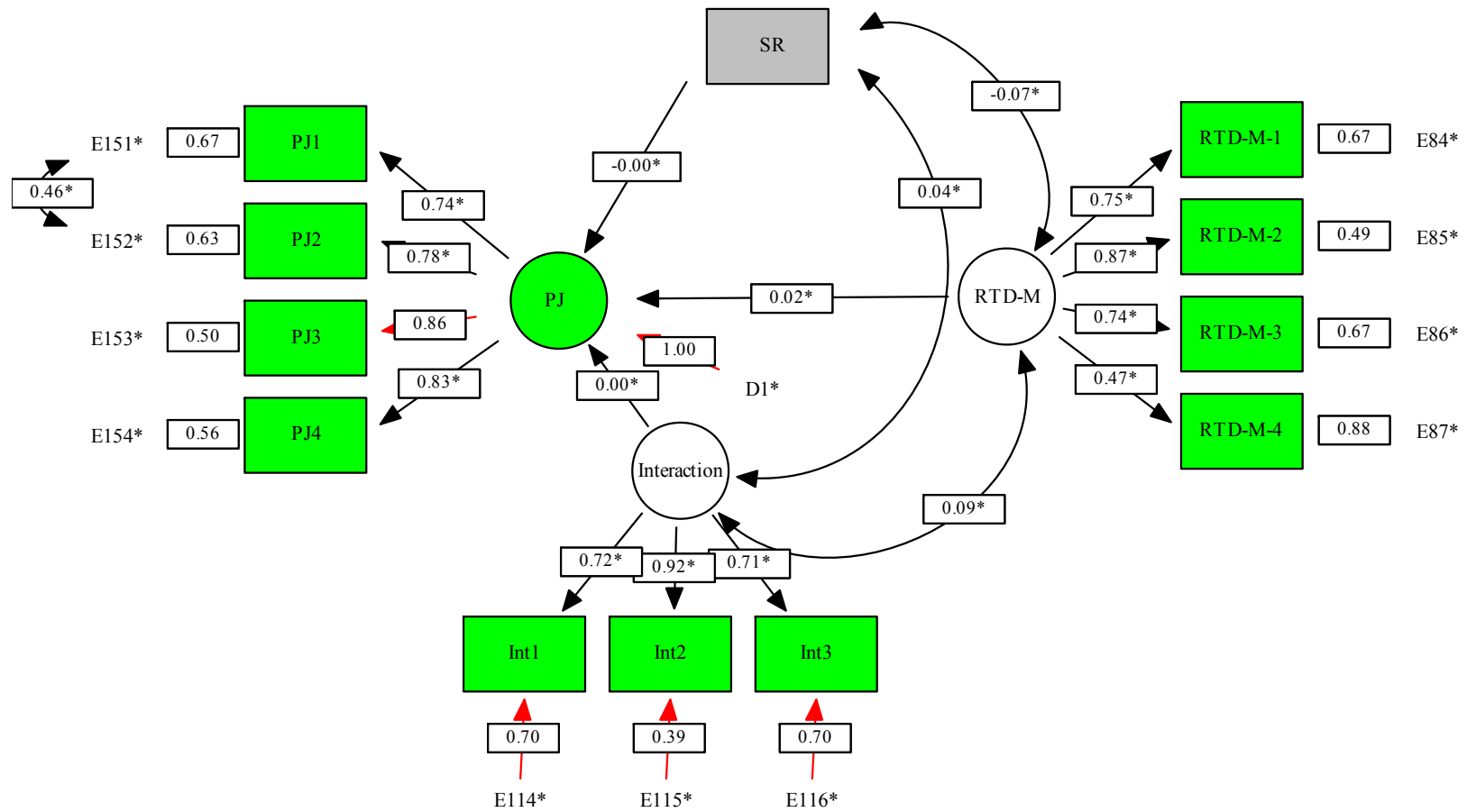
Fig. 1-relatedness needs-manger vs. status recognition
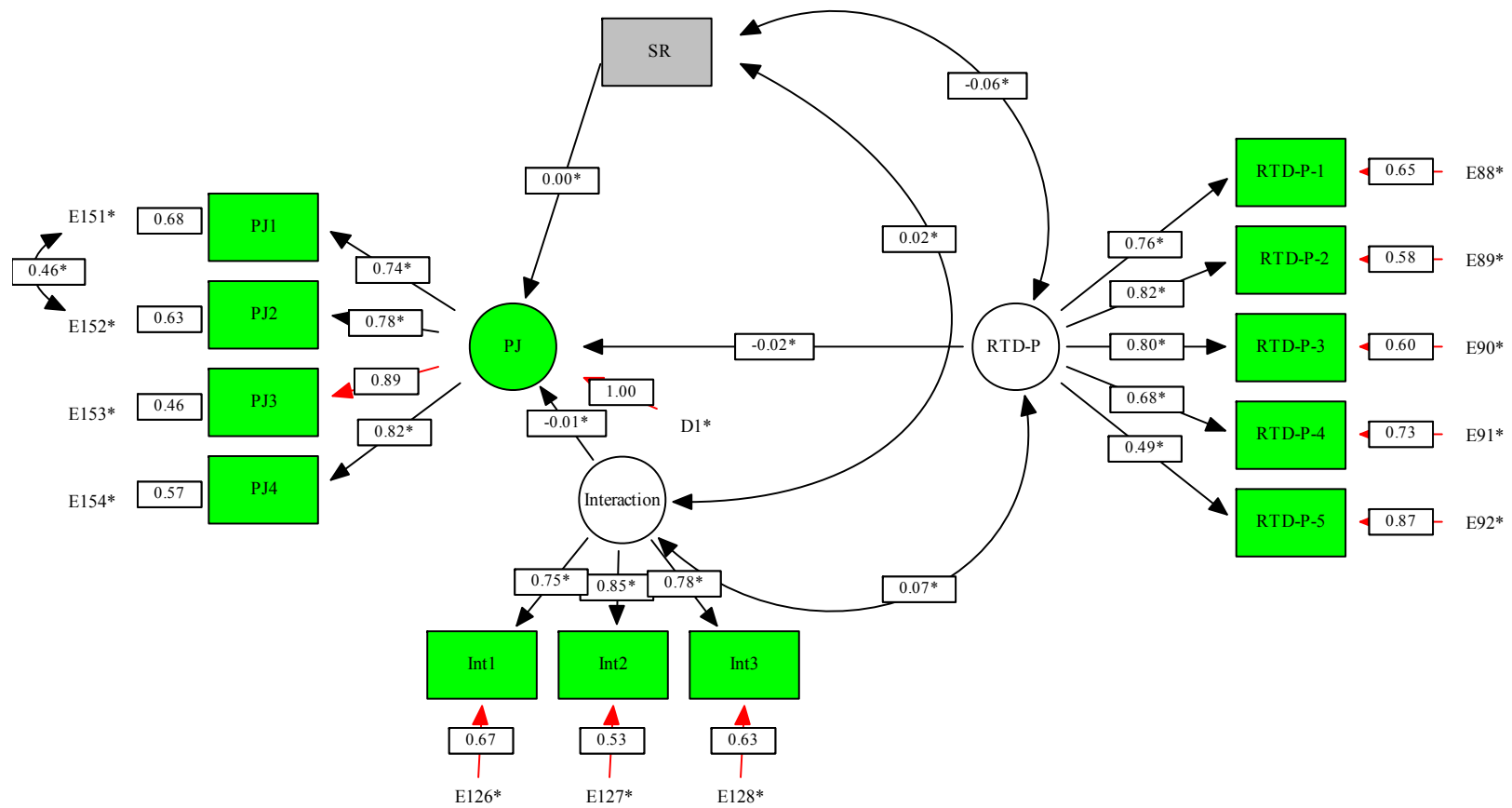
Fig. 2- relatedness needs-peer vs. status recognition
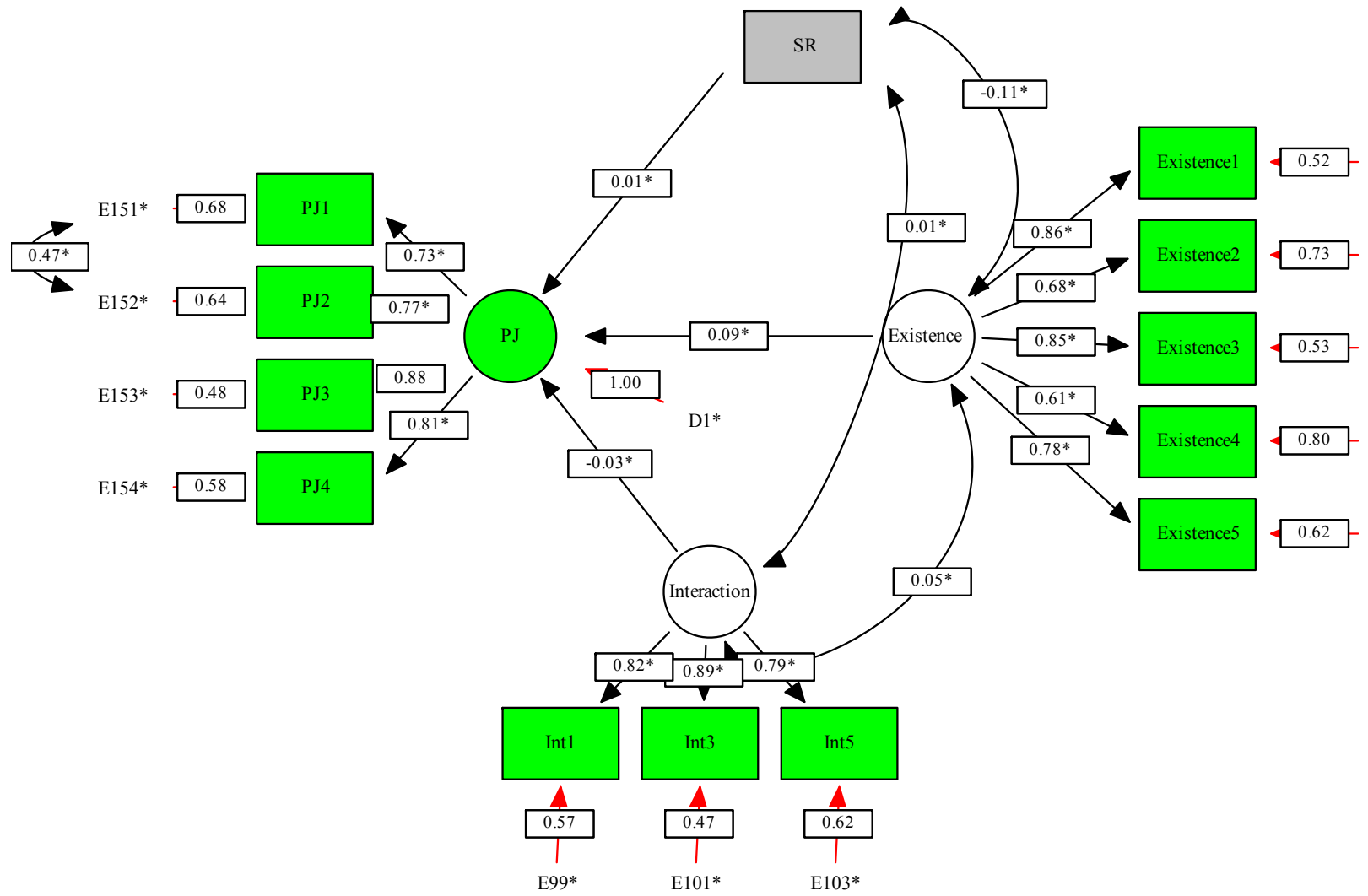
Fig. 3- existence needs vs. status recognition
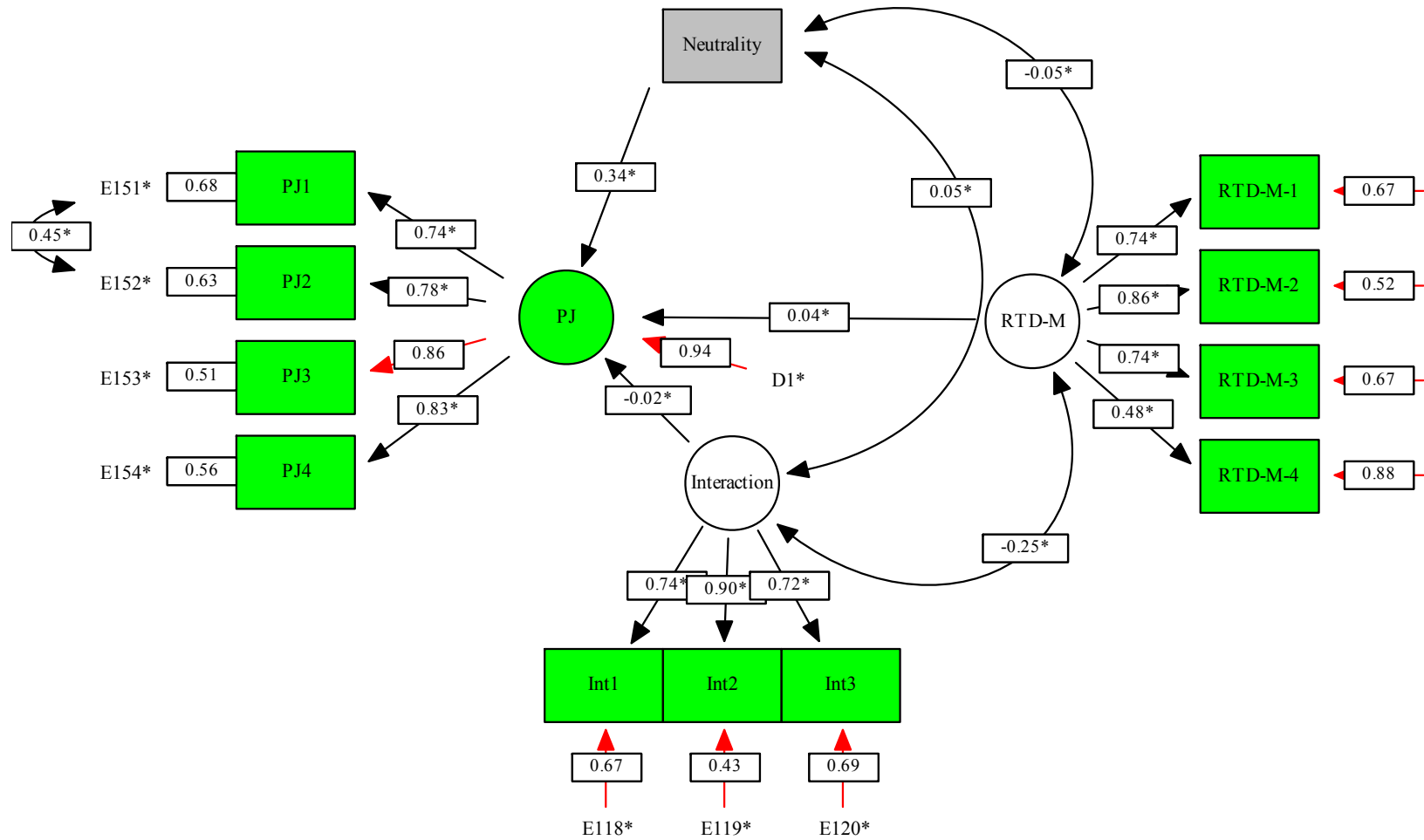
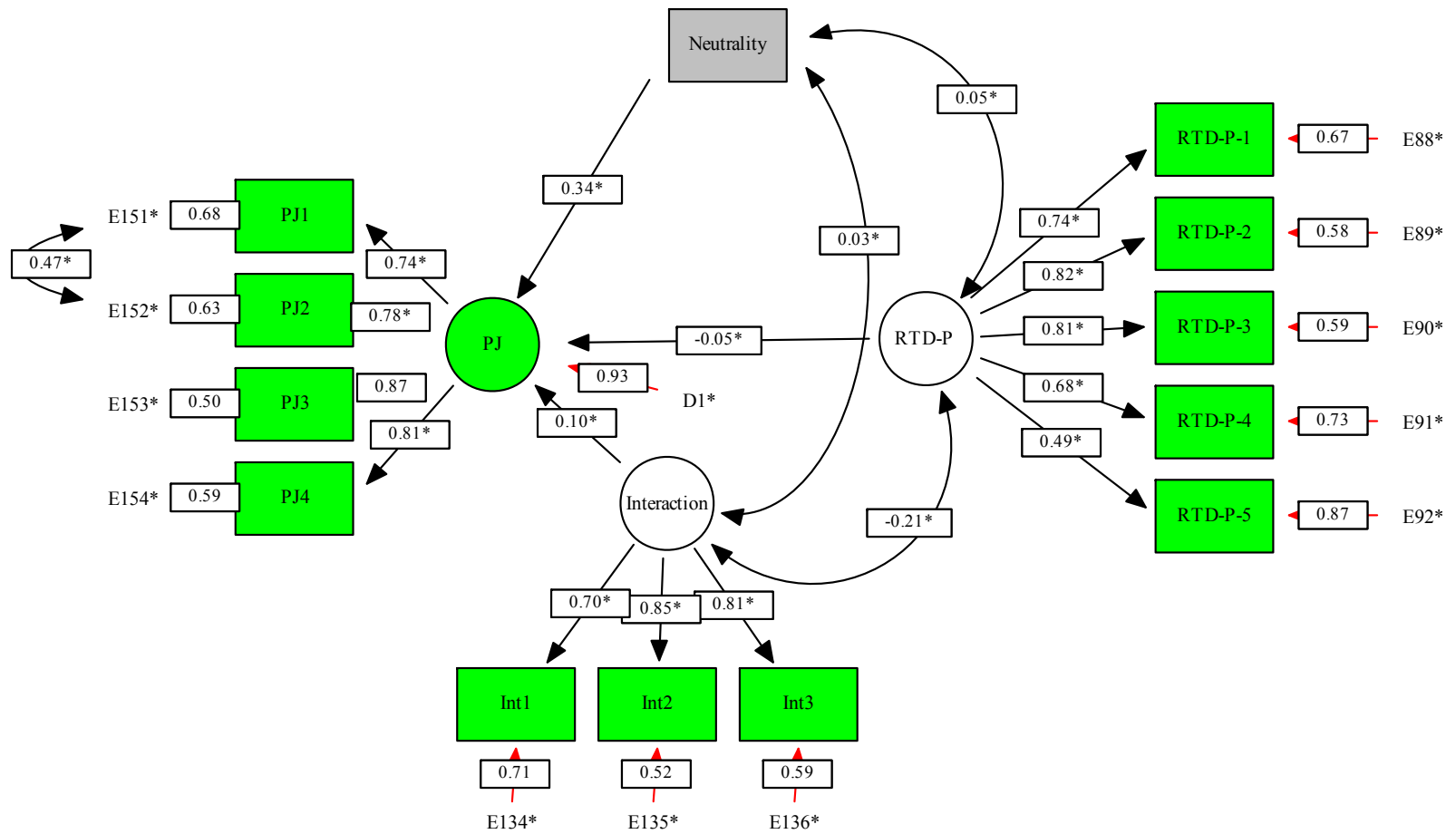*Fig. 4-relatedness needs-manger vs. neutrality*

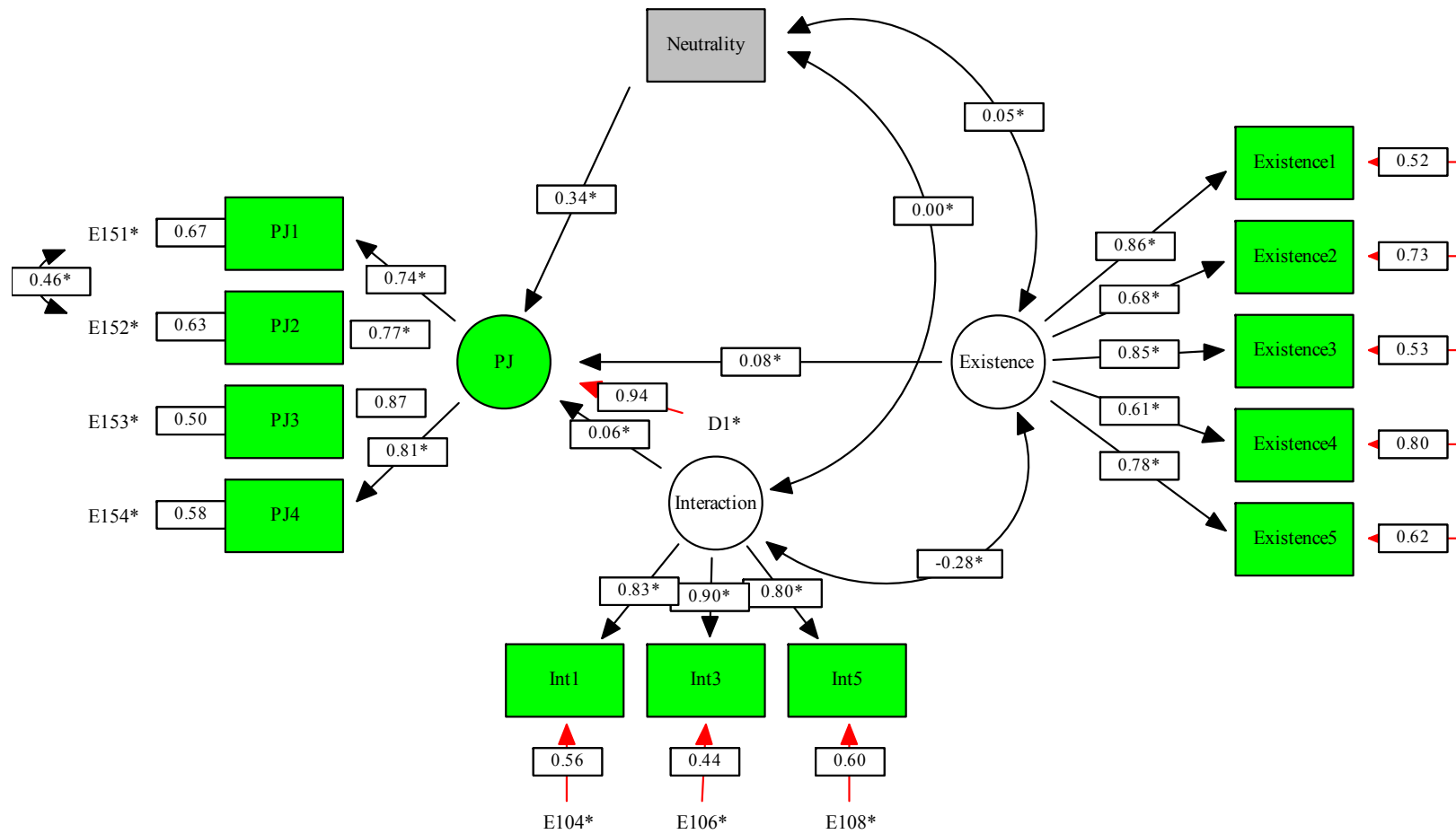*Fig. 5- relatedness needs-peer vs. neutrality*

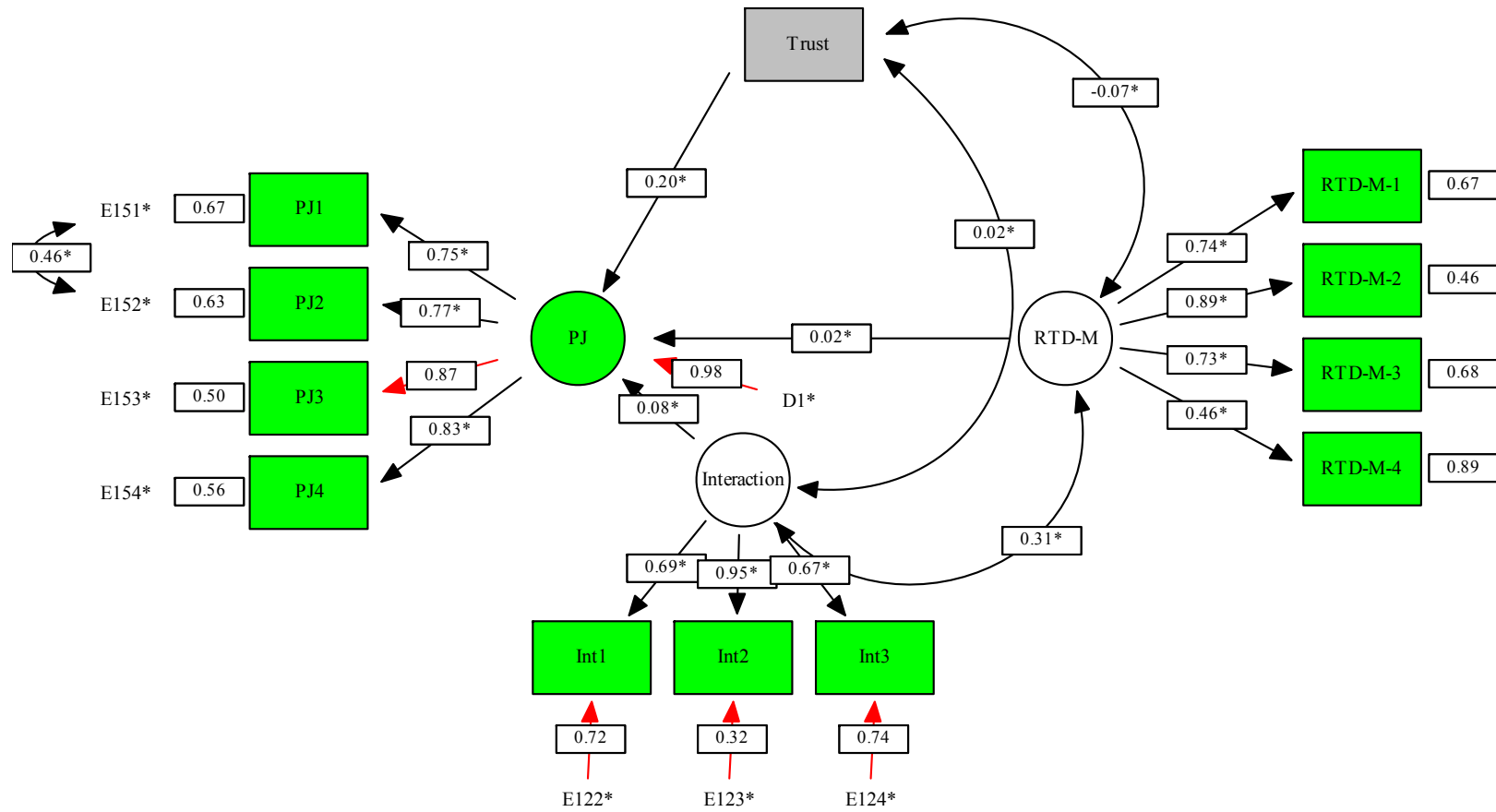*Fig. 6- existence needs vs. neutrality*
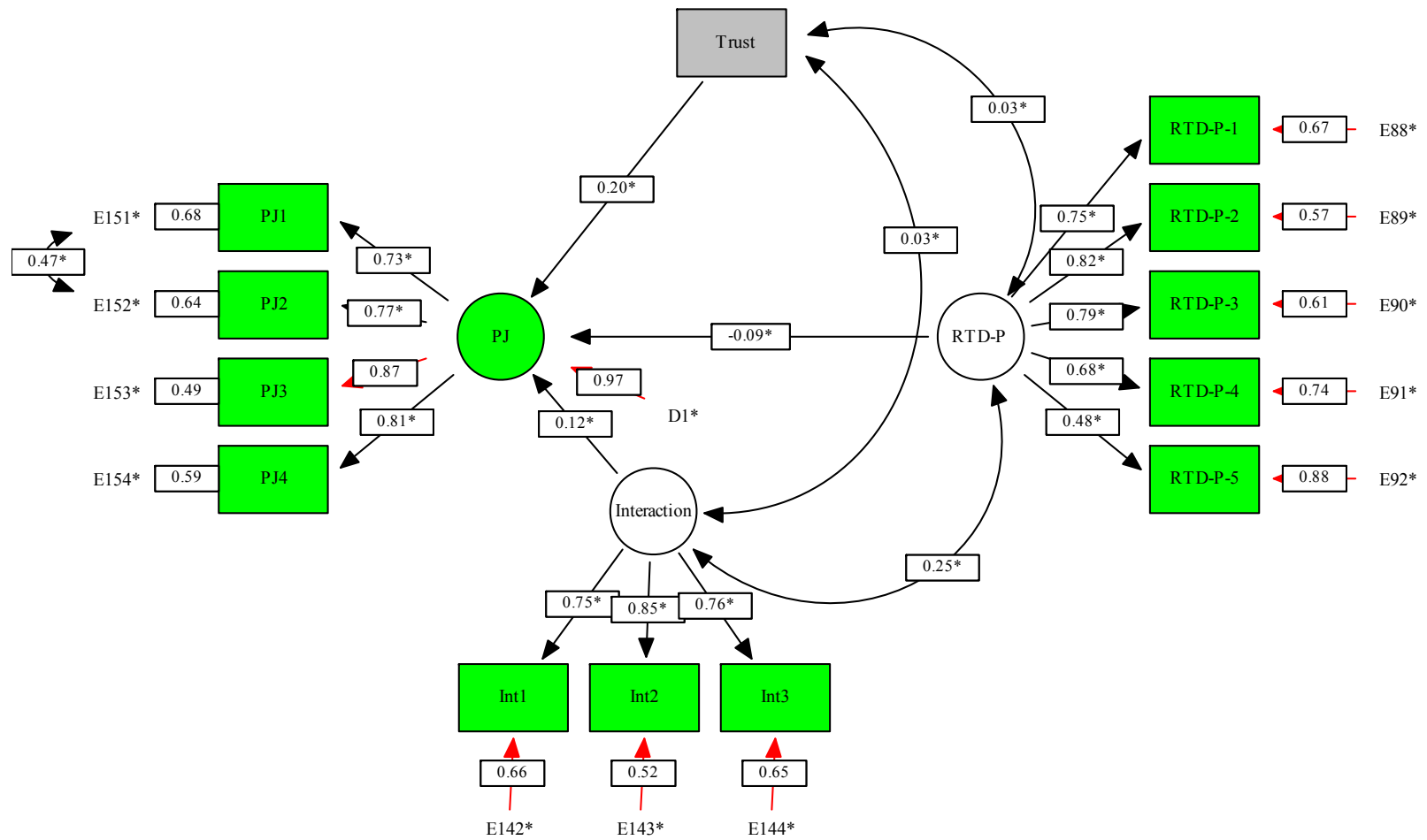
Fig. 7-relatedness needs-manger vs. trust
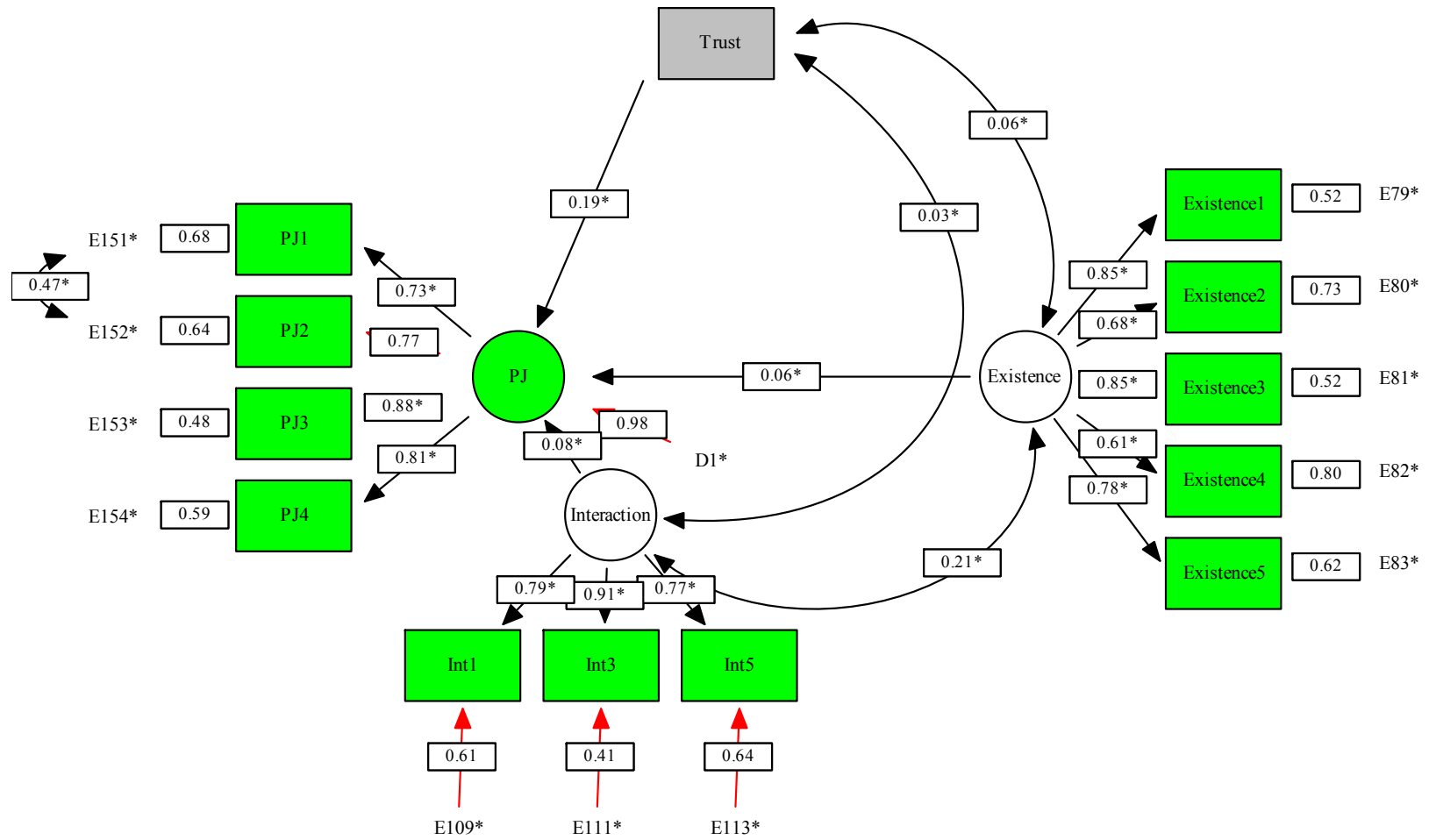
Fig. 8- relatedness needs-peer vs. trust

Fig. 9- existence needs vs. trust
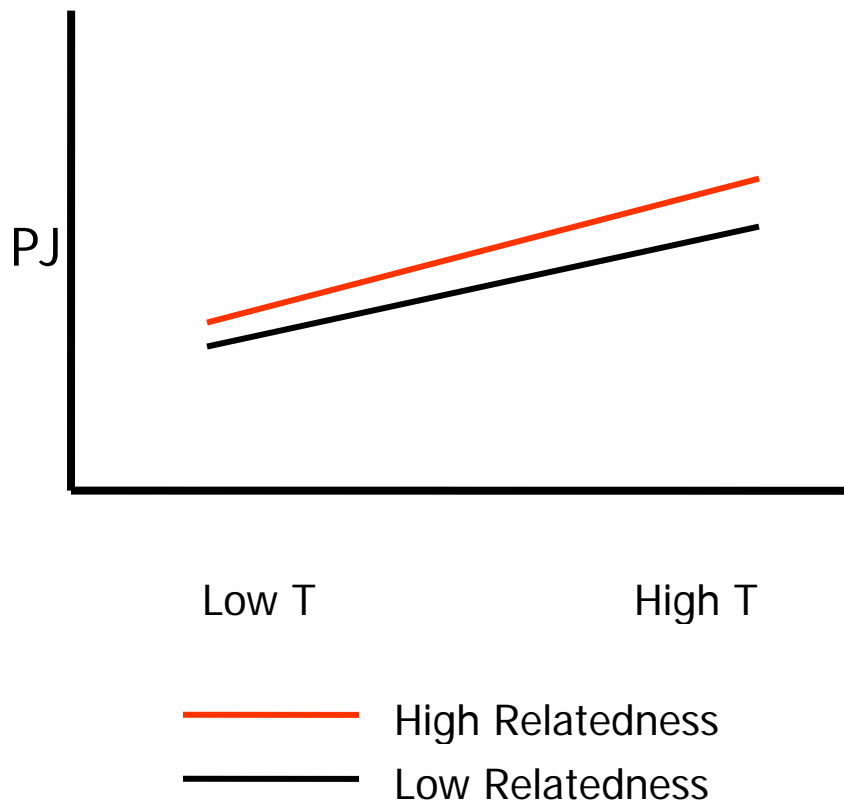
Relatedness-P x Trust

Fig. 10- Interaction between relatedness needs- peer and trust

APPENDICES

Appendix A

Experimental Conditions

High Trust/ High Neutrality/ High Status Recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of higher status than your co-workers, and you believe your boss feels the same. In previous experiences you have found that this person has been honest and trustworthy. Additionally, this person has shown no signs of favoritism in previous interactions.

Low trust/ Low neutrality/ Low status recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of lower status than your co-workers, and you believe your boss feels the same. In previous experiences with your boss you have suspected this person of lying. Additionally, this person has played favorites in previous interactions.

Low trust/ Low neutrality/ High status recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of higher status than your co-workers, and you believe your boss feels the same. In previous experiences with your boss you have suspected this person of lying. Additionally, this person has played favorites in previous interactions.

Low trust/ High neutrality/ Low status recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of lower status than your co-workers, and you believe your boss feels the same. In previous experiences with your boss you have suspected this person of lying. Also, this person has shown no signs of favoritism in previous interactions.

Low trust/ High neutrality/ High status recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of higher status than your co-workers, and you believe your boss feels the same. In previous experiences with your boss you have suspected this person of lying. Additionally, this person has shown no signs of favoritism in previous interactions.

High trust/ Low neutrality/ Low status recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of lower status than your co-workers, and you believe your boss feels the same. In previous experiences you have found that this person has been honest and trustworthy. Also, this person has played favorites in previous interactions.

High trust/ Low neutrality/ High status recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of higher status than your co-workers, and you believe your boss feels the same. In previous experiences you have found that this person has been honest and trustworthy. Also, this person has played favorites in previous interactions.

High trust/ High neutrality/ Low status recognition

Imagine you are in a workplace setting working on a major contract with several co-workers. Your team is not able to deliver on the contract in the timeline that the customer needs and the contract falls through. Several weeks later your boss performs the annual performance appraisal and you receive a negative review. Upon conferring with your co-workers you discover that they received higher performance ratings. This surprises you because you generally view yourself to be of lower status than your co-workers, and you believe your boss feels the same. In previous experiences you have found that this person has been honest and trustworthy. Additionally, this person has shown no signs of favoritism in previous interactions.

Procedural Justice Questions

On the following pages, there are phrases describing different perceptions of the situation described above. Please use the rating scale below to describe how accurately each statement describes *your* perception of the situation. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale.

Please answer the following questions thinking about the manager described above.

1=Strongly disagree 5=Strongly agree

1.	The manager made the decision in a way that was not fair to me.	① ② ③ ④ ⑤
2.	The way the decision was reached was not fair to me.	① ② ③ ④ ⑤
3.	The manager was fair to me in any decisions made.	① ② ③ ④ ⑤
4.	The steps that were taken to make decisions were fair to me.	① ② ③ ④ ⑤

Appendix C

Resource Concern Questions

1=Strongly disagree 5=Strongly agree

5. The manner in which a manager gives out raises is important to me. ① ② ③ ④ ⑤

6. I don't mind when managers give their favorite employees somewhat larger raises than other employees. ① ② ③ ④ ⑤

7. When people in supervisory positions make a decision I usually consider its financial implications on me. ① ② ③ ④ ⑤

8. I am frequently concerned with how workplace events impact me financially. ① ② ③ ④ ⑤

Relational Concern Questions

1=Strongly disagree 5=Strongly agree

9. I don't care for managers who play favorites socially.   ① ② ③ ④ ⑤
10. When a manager makes a decision I usually consider   ① ② ③ ④ ⑤
    its implications on my relationships with others.
11. When a supervisor makes a decision that might strain   ① ② ③ ④ ⑤
    my relationships with my coworkers, it is upsetting to
    me.
12. If an event at work had the potential to have a negative   ① ② ③ ④ ⑤
    impact on my social relationships I would be very
    concerned.

1=Strongly disagree 5=Strongly agree

13. It would concern me if a manager made a decision   ① ② ③ ④ ⑤
    which jeopardized my status at work.
14. If my boss were to give me a negative performance   ① ② ③ ④ ⑤
    review I would worry that it would threaten my status
    at work.
15. If a manager made a decision that impacted me   ① ② ③ ④ ⑤
    negatively I would be concerned about losing face in
    front of my peers.
16. It is important to me that my boss recognizes my   ① ② ③ ④ ⑤
    status in a workgroup.

Existence Need Questions

In the following section, please describe how accurately each statement describes *you*. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale.

In responding to these questions, think about how you feel about the general level of resources in your life, taking into account all of the resources accessible to you, not just those at work.

	1=Strongly disagree 5=Strongly agree
17. I have enough resources at my disposal to live comfortably.	① ② ③ ④ ⑤
18. I have the ability to pay for the basic things in life	① ② ③ ④ ⑤
19. I am satisfied with my current financial quality of life.	① ② ③ ④ ⑤
20. The cost of living in this area is manageable.	① ② ③ ④ ⑤
21. I think I have all the resources I need to be happy.	① ② ③ ④ ⑤

Relatedness Need Questions

In responding to these questions, think about how you feel about your relationships with the people who are most important to you in your life. This should include people outside your work setting.

1=Strongly disagree 5=Strongly agree

22. I can count on my peers to give me a hand when I need it.	① ② ③ ④ ⑤
23. My peers will speak out in my favor if needed.	① ② ③ ④ ⑤
24. I can tell my peers honestly how I feel.	① ② ③ ④ ⑤
25. My peers welcome opinions different from their own.	① ② ③ ④ ⑤
26. I need to feel that there are people I can turn to in times of need.	① ② ③ ④ ⑤
27. I want other people to accept me.	① ② ③ ④ ⑤
28. I do not like being alone.	① ② ③ ④ ⑤
29. My feelings are easily hurt when I feel that others do not accept me.	① ② ③ ④ ⑤

1=Strongly disagree 5=Strongly agree

30. Authority figures frequently encourage me to make suggestions.	① ② ③ ④ ⑤
31. Authority figures frequently take account of my wishes and desires.	① ② ③ ④ ⑤
32. Authority figures frequently keep me informed about what is happening with organizations in which I'm involved.	① ② ③ ④ ⑤
33. Authority figures frequently let me know when I could improve my performance.	① ② ③ ④ ⑤

Appendix G

Trust, Neutrality, and Status Recognition Questions

Trust

1=Strongly disagree 5=Strongly agree

34. The manager was honest. ① ② ③ ④ ⑤
35. The manager had my best interests in mind. ① ② ③ ④ ⑤
36. The manager tried to be fair. ① ② ③ ④ ⑤
37. The manager thoroughly considered my views during ① ② ③ ④ ⑤
    this encounter.

Neutrality

1=Strongly disagree 5=Strongly agree

38. The methods used by the manager favor one person ① ② ③ ④ ⑤
    over another.
39. The manager did some things that seemed dishonest or ① ② ③ ④ ⑤
    improper.
40. The manager got the information needed to make good ① ② ③ ④ ⑤
    decisions about how to handle the issues involved.
41. The manager tried to bring the issues into the open so ① ② ③ ④ ⑤
    that they could be solved.
42. This manager was neutral when he made decisions that ① ② ③ ④ ⑤
    impacted me.
43. This manager seems like he would be impartial in ① ② ③ ④ ⑤
    dealings with other people.
44. The manager did not favor one person over another. ① ② ③ ④ ⑤
45. This manager was equitable in the way he treated the ① ② ③ ④ ⑤
    people who worked for him.

Status Recognition

1=Strongly disagree 5=Strongly agree

46. The manager treated me politely. ① ② ③ ④ ⑤
47. The manager treated me with dignity. ① ② ③ ④ ⑤
48. The manager respected my status during this ① ② ③ ④ ⑤
    encounter.
49. The manager treated me disrespectfully. ① ② ③ ④ ⑤

REFERENCES

Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 2, pp. 267-299). New York, NY: Academic Press.

Alderfer, C. (1969). An empirical test of a new theory of human needs. *Organizational Behavior & Human Performance*, 4, 142-175.

Anderson, C., Ames, D. R., & Gosling, S. D. (2008). Punishing hubris: The perils of overestimating one's status in a group. *Personality and Social Psychology Bulletin,* 34, 90-101.

Aquino, K. (1995). Relationships among pay inequity, perceptions of procedural justice, and organizational citizenship. *Employee Responsibilities and Rights Journal*, 8, 21-33.

Arnolds, C. A., & Boshoff, C. (2002). Compensation, esteem valence and job performance: An empirical assessment of Alderfer's ERG theory. *International Journal of Human Resource Management*, 13, 697-719.

Bandura, A. (1986). *Social Foundations of Thought and Action*. Englewood Cliffs, NJ: Prentice-Hall.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin,* 117, 497-529.

Bies, R. J., & Moag, J. F. (1986). Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research on Negotiations in Organizations* (Vol. 1, pp. 43-55). Greenwich, CT: JAI Press.

Brewer, M. B., & Kramer, R. M. (1986). Choice behavior in social dilemmas: Effects of social identity, group size, and decision framing. *Journal of Personality and Social Psychology*, 50, 543-549.

Carvallo, M., & Gabriel, S. (2006). No Man Is an Island: The Need to Belong and Dismissing Avoidant Attachment Style. *Personality and Social Psychology Bulletin*, 32, 697-709.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C., & 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.

Daly, J. P., & Geyer, P. D. (1994). The role of fairness in implementing large-scale change: Employee evaluations of process and outcome in seven facility relocations. *Journal of Organizational Behavior,* 15, 623-638.

De Cremer, D., van Knippenberg, D., & van Dijke, M. (2006). Self-Sacrificial Leadership and Follower Self-Esteem: When Collective Identification Matters. *Group Dynamics: Theory, Research, and Practice*, 10, 233-245.

ERI-Economic Research Institute. (2010). Custom ERI Relocation Analysis Report-United States National-South Africa National at $16,000. *Relocation Assessor,* [Software], (July 2010 data release). Available from http://www.erieri.com.

Folger, R., & Skarlicki, D. P. (1998). A popcorn metaphor for employee aggression. In R. W. Griffin, A. O'Leary-Kelly, & J. M. Collins (Eds.), *Dysfunctional behavior in organizations: Violent and deviant* behavior (pp. 43-81). Greenwich, CT: Elsevier Science/JAI Press.

Gouveia-Pereira, M., Vala, J., Palmmonari, A., & Mubini, R. (2003). School experience, relational justice and legitimation of institutional. *European Journal of Psychology of Education,* 3, 309-325.

Greenberg, J. (1990). Employee theft as a reaction to underpayment inequity: The hidden cost of pay cuts. *Journal of Applied Psychology,* 75, 561-568.

Heuer, L., Penrod, S., Hafer, C. L., & Cohn, I. (2002). The role of resource and relational concerns for procedural justice. *Personality and Social Psychology Bulletin*, 28, 1468-1482.

Hogg, M. A., & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes.* Florence, KY: Taylor & Frances/Routledge.

Hornsey, M., & Jetten, J. (2004). The individual within the group: Balancing the need to belong with the need to be different. *Personality and Social Psychology Review*, 8, 248-264.

International Labour Organization. (2010). Wages by economic activity-South Africa. Retrieved July 14, 2010, from: http://laborsta.ilo.org/

Jones, F., Scarpello, V., & Bergmann, T. (1999). Pay procedures—what makes them fair? *Journal of Occupational and Organizational Psychology*, 72, 129-145.

Jones, F. (1998). Pay procedures and voluntary turnover: Does procedural justice matter? *Psychological Reports*, 83, 475-482.

Kumasiro, K., Rusbult, C. E., & Finkel, E. J. (2007). Navigating personal and relational concerns: The quest for Equilibrium. *Journal of Personality and Social Psychology*, 95, 94-110.

Latham, G. P., & Pinder, C. C. (2005). Work Motivation Theory and Research at the Dawn of the Twenty-First Century. *Annual Review of Psychology*, 56, 485-516.

Leventhal, G. S. (1980). What should be done with Equity Theory? New approaches to the study of fairness in social relationships. In K. Gergen, M. Greenberg, & R. Willis (Eds.), *Social Exchange: Advances in Theory and Research* (pp.27-55), New York, NY: Plenum.

Lewicki, R. J., Wiethoff, C., & Tomlinson, E. C. (2005). What is the role of trust in organizational justice? In J. Greenberg, & J. A. Colquitt (Eds.), *Handbook of Organizational Justice* (pp. 247-270). Mahwah, NJ: Lawrence Erlbaum.

Lind, E. A. (2001). Fairness heuristic theory: Justice judgments as pivotal cognitions in organizational relations. In J. Greenberg, & R. Cropanzano (Eds.), *Advances In Organization Justice* (pp. 56-88). Palo Alto, CA: Stanford University Press.

Lind, E. A., & Tyler, T. R. (1988). *The Social Psychology of Procedural Justice.* New York, NY: Plenum Press.

Marsh, W. M., Wen, Z., & Hau, K. T. (2004). Structural Equation Models of Latent Interactions: Evaluation of Alternative Estimation Strategies and Indicator Construction. *Psychological Methods,* 9, 275-300.

Maslow, A. H. *(1943).* A theory of human motivation. *Psychological Review*, 50, 370-396.