INTEGRATING JUSTICE AND JOB EMBEDDEDNESS: AN EMPIRICAL ANALYSIS TO UNLOCK THE DIFFERENTIAL EFFECTS OF JUSTICE DIMENSIONS ON JOB EMBEDDEDNESS AND THE ASSOCIATED BOUNDARY CONDITION

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Despite the availability of extant literature on organizational justice and job embeddedness, these constructs have not been studied together at the overall level even though scholars have recognized the importance of studying overall justice beyond the individual justice dimensions (Ambrose & Schminke, 2009). Deriving from fairness heuristic theory and the multiple needs model, the study looks at the impact of overall justice perceptions on job embeddedness. Adopting social exchange theory, I argue that overall justice translates into higher job satisfaction and lower turnover intentions through embedding an employee in the organization. Based on uncertainty management theory, I examine the extent to which risk aversion would intensify or diminish this aforementioned relationship. Lastly, I use the principles of agent-system model and conservation of resources theory to argue that there exist differential effects between the individual dimensions of these broad constructs. The proposed model was tested through self-reported survey data collected over one month at two time points from TurkPrime using Mechanical Turk workers. While the direct, mediation and moderation effects were tested using structural equation modeling, the differential effects were tested using confirmatory factor analysis. The results showed support for relationships proposed between

these overall constructs. Although the study did find support for equivalent relationship of each of the individual justice facets with the sacrifice dimension, it did not find support for differential effects of individual justice facets on the links dimension and the fit dimension. Overall, the results suggest that each justice facet has an equivalent impact on each dimension of job embeddedness. Taken together, these findings shed light on enhancing our understanding of depth of relationships between these two constructs. Recommendations for future research, limitations, and theoretical as well as applied implications are discussed.

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CHAPTER ONE: INTRODUCTION

Organizational justice has been defined as perceptions of fairness experiences in an organizational setting (Greenberg, 1990). The field of organizational justice developed from considerations of economic equity to assessments of procedural fairness and interpersonal interactions (Rupp, Shapiro, Folger, Skarlicki, & Shao, 2017). Corresponding to the fairness of each of these aspects, there are three dimensions of organizational justice (i.e., distributive justice, procedural justice, and interactional justice) (Cropanzano, Byrne, Bobocel, & Rupp, 2001). Specifically, Cropanzano, Byrne, and colleagues (2001) noted that fairness perceptions pertaining to outcomes are called "distributive justice," those pertaining to procedures are called "procedural justice," and those pertaining to interpersonal treatment are called "interactional justice" (p. 165).

Previous research has clearly established that fairness perceptions have an effect on a host of employee attitudes and behaviors (Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Colquitt et al., 2013). These meta analytic streams of research have suggested that fairness can impact outcomes such as job performance, counterproductive work behaviors, organizational citizenship behaviors, organizational commitment, job satisfaction, trust, withdrawal, turnover intentions, perceived organizational support, and leader member exchange. Although these findings depicted that the unique individual justice dimensions have a strong impact on several important organizational outcomes, organizational justice scholars have also acknowledged that the assessment of overall justice is important to understanding people's actions and reactions (Ambrose & Schminke, 2009; Lind, 2001a).

One area that has been overlooked in relation to overall justice is job embeddedness. Job embeddedness, characterized by three dimensions – the links dimension, the fit dimension, and

the sacrifice dimension, is defined as collection of forces within an organization and community that makes employees continue with their current jobs (Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). I believe that examining the relationship between overall justice and job embeddedness is important for two important reasons. Firstly, job embeddedness predicts why people stick with their current jobs and therefore, it is important to explore what determines job embeddedness to effectively manage employee retention in organizations (Mitchell et al., 2001). Secondly, plenty of research has suggested that job embeddedness has a positive impact on multiple important organizational outcomes such as lower voluntary turnover (Mitchell et al., 2001), lower turnover intentions (Jiang, Liu, McKay, Lee, & Mitchell, 2012), greater job performance and organizational citizenship behaviors (Lee, Mitchell, Sablynski, Burton, & Holtom, 2004), better innovation behaviors (Ng & Feldman, 2010). In addition, research has also shown that job embeddedness can diminish the influence of negative shocks (i.e., unanticipated unfavorable appraisal feedback, failure to receive promotion, getting information about being compensated at a lower rate than fellow colleagues) on job performance and organizational citizenship behaviors (Burton, Holtom, Sablynski, Mitchell, & Lee, 2010), job search behaviors, and counterproductive work behaviors (Holtom, Burton, & Crossley, 2012). However, researchers have acknowledged that there is a dearth of research on factors that predict job embeddedness (Murphy, Burton, Henagan, & Briscoe, 2013).

Although previous research has demonstrated that individual fairness perceptions and job embeddedness are related (e.g., Collins & Mossholder, 2017; Ghosh, Sekiguchi, & Gurunathan, 2017; Karatepe & Shahriari, 2014), there is no research that has examined overall justice as a predictor of job embeddedness. In this study, I examine the role of overall justice as a predictor of embeddedness of an employee. Specifically, I suggest that overall fairness perceptions of

employees would drive their job embeddedness, thereby, impacting their job satisfaction and turnover intentions. Given that overall fairness perceptions better predict similarly global outcomes (Ambrose & Schminke, 2009), therefore, it would stand to reason that examining this relationship would be beneficial to develop a more accurate understanding of the organizational justice-job embeddedness relationship.

Research has conclusively established that organizational justice impacts social relationships (i.e., the links dimension), the evaluation of organizational values (i.e., the fit dimension), and the assessment of material as well as social value (i.e., the sacrifice dimension) (Cropanzano, Byrne et al., 2001; Ghosh et al., 2017; Lind & Tyler, 1988; Mitchell et al., 2001; Scott, Colquitt, & Paddock, 2009; Sorensen, 2002; Tyler & Lind, 1992). Based on this research, it can be reasonably argued that there exists a connection between overall fairness perceptions formed out of the individual justice dimensions (Lind, 2001a) and job embeddedness. In spite of this logical theoretical underpinning, there has been no research connecting overall justice with job embeddedness and therefore, this overlook is surprising.

The limited empirical evidence of the relationship of organizational justice with job embeddedness leaves us with two critical gaps in these existing scholarships. The first gap that the study is trying to address is the "neglect" gap, which relates to identifying a research question that has not been studied yet (Sandberg & Alvesson, 2011, p. 28). The existing research has adopted an atomistic approach by studying the granular dimensions of organizational justice rather than considering its overall dimension in examining the impact of fairness experiences on embeddedness of an employee. As such, to my knowledge, there is no study that has explored the association between overall justice and job embeddedness of an employee. This oversight in

the integration of these two scholarships suggests that the conceptual understanding of these global constructs is underdeveloped.

The second gap that the study is looking to fill is the "application" gap, which relates to expanding and providing an additional perspective on the existing research (Sandberg & Alvesson, 2011, p. 29). Although fairness perceptions can be studied with respect to outcomes, procedures, and interpersonal treatment (Cropanzano, Byrne et al., 2001), the existing empirical evidence studying the differential impact of organizational justice on job embeddedness has limited its focus on just two aspects of justice (Ghosh et al., 2017). Studies have noted that failure to consider one of these dimensions may lead to finding effects that would not have been found if the excluded dimensions were also considered in the study (Cole, Bernerth, Walter, & Holt, 2010; Masterson, Lewis, Goldman, & Taylor, 2000). The current study seeks to synthesize this theoretical gap through simultaneously examining all the three facets of organizational justice with the three dimensions of job embeddedness and capturing the relative strengths of these unique relationships.

To address the above two research gaps, the study aims to answer four important research questions. The first question is, *"What is the relationship of overall justice with job embeddedness?"* The existing research exploring the relationship of organizational justice with job embeddedness has taken a fractional lens to study these constructs. Ambrose and Schminke (2009) noted that each of the justice dimensions when studied separately do not provide a sufficient assessment of employees' fairness experiences and their relevant outcomes. These scholars found that overall justice fully mediates the relationship between the individual justice facets and employee attitudes and therefore, it may be a more proximal predictor of employee outcomes in organizations. Given that their research suggested that overall justice should have a

more direct impact on attitudes and behavior, I believe that lack of focus on studying overall justice in the context of job embeddedness has led to an incomplete understanding of the organizational justice-job embeddedness relationship. Drawing on the multiple needs model (Cropanzano, Byrne et al., 2001) and fairness heuristic theory (Lind, 2001a; Van den Bos, Lind, & Wilke, 2001), I examine the relationship between these two broad constructs. Taken together, I argue that including overall justice is important to gain a deeper understanding of the interplay between these broad constructs and advance the scholarship in these two areas.

The second question is, *"Does the relationship between each dimension of organizational justice vary with each facet of job embeddedness?"* Upon limiting their focus on two justice dimensions – distributive justice and procedural justice, Ghosh and colleagues (2017) found that procedural justice is a better predictor of the fit dimension than distributive justice is whereas distributive justice is a better predictor of the sacrifice dimension than procedural justice is. Adopting the agent-system model (Bies & Moag, 1986; Masterson et al., 2000) and conservation of resources theory (COR) (Hobfoll, 1988, 1989), the current study provides an alternate explanation and predicts different relative strengths of relationships existing among these facets by considering all the three justice facets together in a single study.

The third question is, *"What employee outcomes are impacted by overall justice through job embeddedness?"* There is research suggesting that fairness perceptions of employees directly impact their social exchange relationships with employing organizations as well as supervisors (Rupp & Cropanzano, 2002). These relationships have consistently predicted multiple work attitudes such as job satisfaction, organizational commitment, turnover intentions, and organizational citizenship behaviors (Cropanzano, Prehar, & Chen, 2002; Masterson et al., 2000; Rupp & Cropanzano, 2002). Although organizational justice and job embeddedness have been

studied in relation to employee outcomes such as turnover intentions (Karatepe & Shahriari, 2014), job performance (Ghosh et al., 2017), citizenship behaviors, and production deviance (Collins & Mossholder, 2014), these existing studies have looked at these relationships disjointedly. Drawing on the principles of social exchange theory (Blau, 1964), I unite these disjointed research streams by uncovering the mediating role of job embeddedness on the relationship between overall fairness experiences and the associated employee attitudes such as job satisfaction and turnover intentions to gain a fuller understanding of these complex relationships.

The fourth question is "*What is the impact of an individual's personality on overall fairness perceptions in relation to job embeddedness*?" Ghosh and colleagues (2017) urged future researchers to identify more boundary conditions of relationships involving organizational justice and job embeddedness since our understanding of contextual factors that influence this relationship is limited. Though there are many potential moderating features of the overall justice-job embeddedness link, I theorize risk aversion as a boundary condition of this proposed relationship. Risk aversion has important implications for both micro and macro level outcomes (Desai, Sondak, & Diekmann, 2011). Drawing on Johanson (2000), Desai and colleagues (2011) noted that the lower the ability to deal with ambiguous situations, the higher is the risk aversion. These scholars further built on Budner's (1962) research to argue that the extent to which one can handle ambiguity would play a role in assessing any situation. In relation to the current study, I propose that risk-taking ability of employees would determine the impact of their holistic fairness perceptions on their job embeddedness. Essentially, I contend that the effect of overall justice on job embeddedness would depend on the extent to which a person is willing to take any risk. Drawing on uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos &

Lind, 2002), I predict that risk aversion should intensify the effect of general fairness perceptions, thereby, influencing the overall justice-job embeddedness relationship.

The study addresses these aforementioned research questions in a field study on TurkPrime using two self-reported surveys separated by one month. In the following sections, I provide an overview of the literatures on organizational justice and job embeddedness. Next, I present a theoretical rationale for the proposed relationships. Following this section, I discuss the methodology of data collection and the results of proposed relationships. Lastly, the discussion section reviews the limitations, future research, and theoretical as well as practical implications of this research. Figure 1 below represents the theorized model.

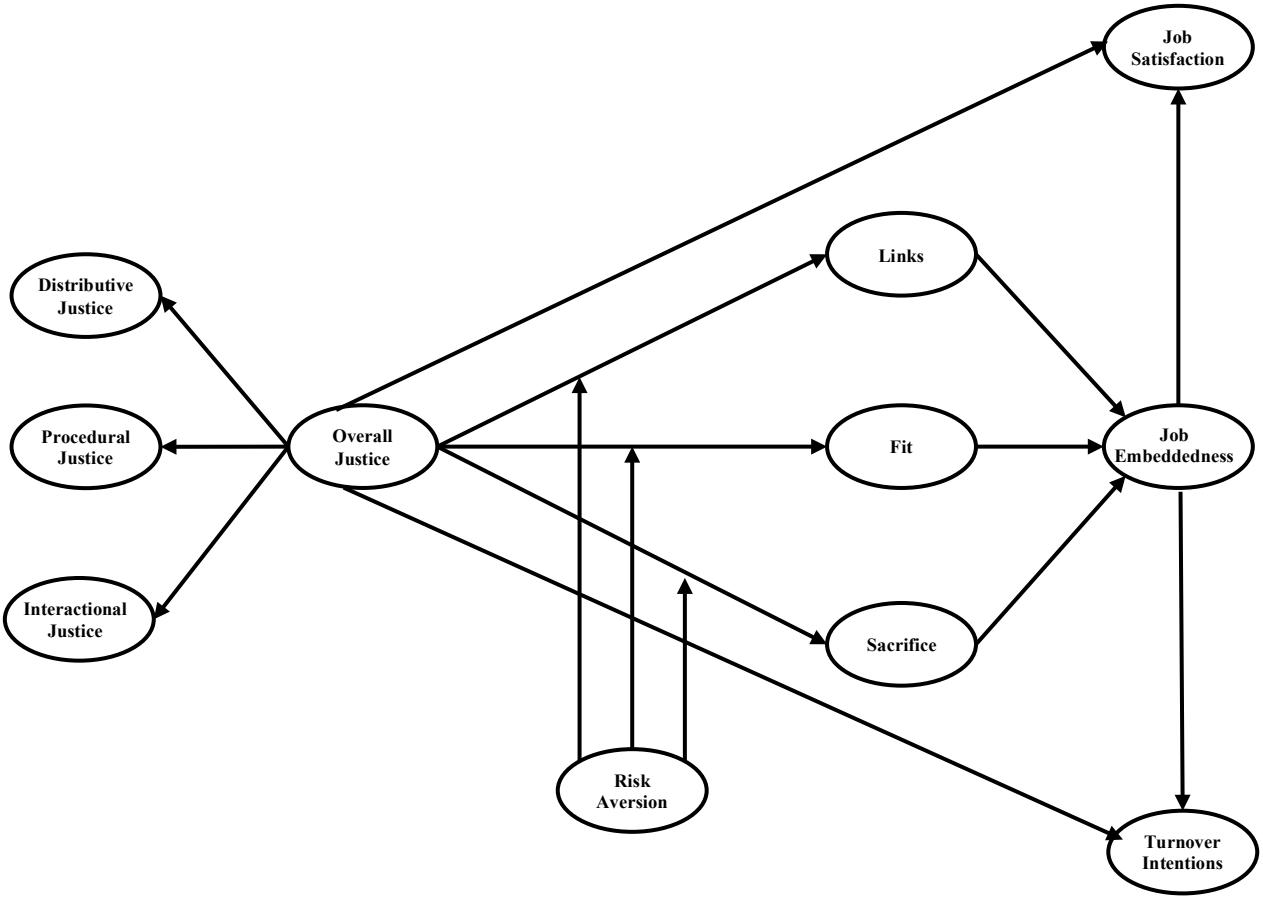

Figure 1: Theoretical Model Depicting the Hypothesized Relationships

CHAPTER TWO: THEORETICAL BACKGROUND AND HYPOTHESES

Three Dimensions of Organizational Justice

Distributive justice. As noted earlier, this facet of organizational justice is commonly understood as fairness perceptions of employees regarding their outcomes received (Cropanzano, Byrne et al., 2001). Colquitt and colleagues (2001) noted that this dimension was the beginning of organizational justice scholarship and that it developed primarily from Adams' (1965) work on equity theory. Adams (1965) theorized how people evaluate fairness of outcome decisions received in exchange of their contributions to work and described this component of fairness perceptions as distributive justice. His theory dictated that people have a tendency to compute a ratio of their contributions and resulting outcomes at work and then, compare the equality of this ratio with that of another individual (Adams, 1965). Adams (1965) noted that people consider contributions as useful qualities that they bring to their jobs such as needed education, applicable skills and experience, the amount of work that one puts into job, ethnicity, age, gender etc. In addition, he referred to outcomes as salary, benefits, status, or any additional advantages received by virtue of being in that position. He used social exchange theory (Blau, 1964) to argue that people interpret equality on comparison of these ratios as the provision of distributive justice by authorities whereas they interpret inequality between these ratios as injustice by authorities. He also clarified that inequity results not only when the ratio of earnings to contributions is less than that of another party (i.e., underpaid), but it can also occur when this ratio is greater than that of the other party in consideration (i.e., overpaid).

From the perspective of Adams (1965), equity theory proposes that a feeling of equity keeps people satisfied whereas a feeling of inequity makes them dissatisfied. He further added that this state of inequity leads to a state of anger in people when they are underpaid and guilt

when they are overpaid. According to him, people would either strive to attain equity or mitigate inequity to deal with associated dissatisfaction depending on the extent to which inequity is experienced. As such, he specified that people resolve this situation through actions such as changing the amount of contributions or outcomes, modifying perceptions to think differently about own contributions and outcomes, quitting the job, changing the location of their current job, persuading another employee to change the inputs or outputs or even making that employee quit, or shifting their focus of comparison to another employee.

Rupp and colleagues (2017) characterized Deutsch's (1975) work on distributive justice as an important contribution to the organizational justice literature. They noted that he further advanced this distributive justice theory by adding additional principles that people use to evaluate fairness of outcomes. Essentially, they noted that his revised theory on distributive justice comprised of three rules, namely equity (i.e., whether outcomes received are commensurate with contributions), equality (i.e., whether outcomes received are same as that of other people), and need (i.e., whether outcomes received are representative of unique needs of an individual).

Procedural justice. While distributive justice explains fairness perceptions of outcomes received, procedural justice explains the processes followed to ascertain these outcomes **(**Konovsky, 2000). Colquitt, Greenberg, and Zapata-Phelan (2005) characterized the research of Thibaut and Walker (1975) as foundational work for the emergence of procedural justice scholarship. Using a legal context, these two scholars introduced the concept of process control and decision control for structuring processes (see also Thibaut & Walker, 1978). Thibaut and Walker (1978) argued that decision control refers to the extent to which a disputant can change the ultimate decision whereas process control refers to the extent to which a disputant has control

over the process (i.e., facts and details provided) to evaluate and settle the case (see also Colquitt et al., 2005). These two organizational justice scholars reasoned that the provision of process control could help disputants experience fairness about procedures since they are best positioned to determine what information would strengthen their case.

As argued by Bobocel and Gosse (2015), the next development in the field of procedural justice was made by Leventhal's (1980)'s justice judgment model where he emphasized the criteria that people use to judge fairness of procedures. According to Leventhal (1980), any procedure is viewed as fair when it (a) delivers the same treatment to different individuals and timelines, (b) excludes any self serving interests and biases, (c) suggests true information, (d) offers potential to rectify an inaccurate outcome, (e) demonstrates interests of all parties that may potentially have an impact from the procedure, and (f) upholds values and morals of parties involved. Essentially, he argued that people employ these six features to evaluate fairness of procedures used to allocate outcomes.

Tyler (1989) noted that in addition to serving material purposes as emphasized in control theory by Thibaut and Walker (1975, 1978), procedural justice also serves a relational function for people as described in the group value model (see also Lind & Tyler, 1988). He theorized that this model assumes that people value relationships and their long-term impact in groups for earning identification in social settings. Tyler (1989) also argued that people base their assessment about fairness of procedures on (a) neutrality (i.e., whether decisions are taken objectively without involving bias), (b) trust (i.e., whether intentions involve demonstrating fairness in the behavior), and (c) standing (i.e., receiving respect suggests high status). As such, this model suggests that people's attitudes toward organizational authorities are based on the evaluation of these three relational facets (see also Lind & Tyler, 1988). To summarize, Tyler

(1989) maintained that people not only care for final outcomes, but also the strength of relationships with authorities and expect them to be fair (i.e., trustworthy, neutral, and respectful) in deciding on outcomes.

Interactional justice. Post the surge in attention to distributive justice and procedural justice, Bies and Moag (1986) shifted the attention of organizational justice scholars to interpersonal treatment. They introduced the concept of interactional justice and defined it as perceived fairness of interpersonal treatment by organization's authorities (e.g., the supervisor) as procedures are carried out. These organizational justice scholars proposed that interactional justice is experienced when decision makers demonstrate politeness and concern (i.e., respect), avoid improper comments or unsuitable questions (i.e., propriety), show honesty (i.e., truthfulness), and provide reasoning and information for their decisions (i.e., justification). Greenberg (1993b) later characterized this dimension into interpersonal and informational justice. He named showing respect and propriety of questions as the facets of interpersonal justice whereas being truthful and providing justification as the facets of informational justice. Therefore, while Bies and Moag (1986) suggested treating fairness in interpersonal treatment (i.e., interactional justice) as a unitary dimension, Greenberg (1993b) considered this as a broader construct and categorized it into parts – interpersonal justice and informational justice. Colquitt (2001) further validated this distinction between interpersonal justice and informational justice through meta-analytic evidence, which suggested that organizational justice has four aspects - distributive justice, procedural justice, interpersonal justice, and informational justice.[1]

[1] Although Greenberg(1993b) treated interactional justice as having sub-facets and Colquitt(2001) further demonstrated through meta-analysis that organizational justice has four dimensions, the current study recognizes interactional justice as one whole dimension rather than segregating it in two parts. This is consistent with Bies and Moag(1986) who also treated fairness perceptions pertaining to interpersonal treatment as a single dimension. The reason to study interactional justice as one dimension is that the focus of the present study is on understanding the

Overview of Overall Justice

As noted earlier in the paper, the focus of this research is on studying the impact of overall justice on job embeddedness. The choice of overall justice over the specific justice facets was guided by the bandwidth fidelity debate (Ones & Viswesvaran, 1996), which focused on whether broad or narrow measures should be chosen for independent and dependent variables. Hogan and Roberts (1996) noted that bandwidth pertains to the breadth of information provided and fidelity refers to the precision of information provided (see also Cronbach, 1960). The bandwidth fidelity debate generally concluded that bandwidth of the predictor should align with that of the criterion to increase construct validity (Ones & Viswesvaran, 1996). Likewise, the compatibility principle pointed to the necessity of matching the level of abstraction between behaviors and attitudes (Ajzen & Fishbein, 2005). Ajzen and Fishbein (2005) argued that the level of abstraction of these constructs would determine the strength of their relationship and therefore, it is important to equate the level of specificity between them. Echoing the same point, Colquitt and Shaw (2005) have emphasized examining overall justice to balance the specificity level when a global construct such as job satisfaction is under consideration (see also Ambrose & Schminke, 2009). Further, researchers have also argued that the level of measurement influences the explained variance in the outcome variable (Johnson, Rosen, Chang, Djurdjevic, & Taing, 2012). This group of scholars have stressed that the choice between broad and narrow constructs in any study should be made based on the generality of the outcome as higher order variables explain the most variance in general or overall constructs.

Another perspective on the usefulness of studying overall justice is provided by fairness heuristic theory (Lind, 2001a). According to Lind (2001a), this theory provides an explanation

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differential impact of fairness perceptions pertaining to interpersonal treatment received by employees in general rather than treating these as unique perceptions of employees.

about how people create general fairness assessments out of experiences related to outcomes, procedures, and/or interpersonal treatment (see also Van den Bos et al., 2001). Using a social and cognitive lens, this theory seeks to shed light on how fairness judgments are related to a variety of attitudinal and behavioral outcomes (see also Proudfoot & Lind, 2015). Lind (2001a) argued that the process of fairness judgments is characterized primarily by the "judgmental phase" (p. 69) and the "use phase" (p. 70).

As characterized by Lind (2001a), the "judgmental phase" is a short step characterized by the creation of proxy or general fairness impressions about outcomes, procedures, and/or interpersonal assessment (p. 69). As such, he suggested that these individual fairness perceptions help in carving a global assessment of fairness about an entity (see also Cropanzano, Byrne et al., 2001). He proposed that people develop a general evaluation of fairness experiences as a heuristic to evaluate whether or not to cooperate with organizational representatives. Specifically, he maintained that people have a tendency to not process fairness perceptions individually; rather they draw on their cognitive potential to derive overall justice evaluations from these singular justice dimensions. His underlying argument was that creating this fairness heuristic saves people from exhausting up this cognitive potential and therefore, they are inclined to use this proxy to evaluate authorities' behavior. He also explained "the substitutability effect", where any unaccounted fairness information is fulfilled by information available from the other facets (p. 73). His theory suggested that people do not necessarily wait to process each of the elements of fairness to form the fairness heuristic; rather, their assessment of one or more dimensions of fairness can also lead them to form overall fairness perceptions. Essentially, he reasoned that it is overall justice perceptions that characterize the individual justice facets and are representative of fairness experiences of an employee.

Lind (2001a) theorized that the next phase is characterized as the "use phase" when the overall assessment of people becomes the driver of their attitudes and behaviors (p. 70). For example, he noted that overall fairness perceptions derived out of combined or individual assessment of the distinct justice facets may then impact constructs such as trust, pro-social behavior, self esteem, or additional evaluations of each of the justice dimensions. These actions and reactions at work can be favorable or unfavorable for the organization depending on whether people conclude the overall fairness assessment is fair or unfair (see also Proudfoot & Lind, 2015). As such, Lind (2001a) noted that this overall assessment should be precise and firm; however, he acknowledged that there are two exceptions to this case: (a) when an employee believes that the relationship evaluated using the heuristic is transforming and (b) when an employee perceives that fairness of outcomes, procedures, and/or interpersonal treatments have drastically changed so much that they are misaligned with general fairness assessments. Lind (2001a) characterized these experiences of people as "phase shifting events" (p. 77). He meant that either or both of these conditions could motivate them to shift back to the judgmental phase and revise their overall assessment of fairness perceptions. Accordingly, he maintained that these revised perceptions would then influence employee outcomes including reframing perceptions of the individual justice dimensions. Essentially, he argued that it is the general assessment of fairness that impacts an individual's subsequent behavior rather than the specific justice facets. Therefore, he concluded that studying overall justice is important to understand its strong effects in organizations. The above arguments clearly throw light on the importance of examining the impact of overall justice on job embeddedness in the current study.

Additional support for this decision can be drawn from the existing research available on overall justice. As argued by Ambrose and Schminke (2009), despite the influential role played

by each of these dimensions on actions and reactions of employees (Cohen-Charash & Spector, 2001; Colquitt et al., 2001; Colquitt et al., 2013), justice scholars have also expressed their interest in studying overall justice (Ambrose & Arnaud, 2005; Hauenstein, McGonigle, & Flinder, 2001; Jones & Martens, 2009; Kim & Leung, 2007; Tornblom & Vermunt, 2009). Ambrose, Wo, and Griffith (2015) summarized that it has been well documented in the organizational justice literature that people use holistic fairness judgments at the workplace. They noted that since the inception of procedural justice, scholars have recognized the importance of overall fairness perceptions in their work although the empirical attention given to this construct is more recent (see also Greenberg, 2001; Leventhal, 1980; Lind & Tyler, 1988; Lind 2001b). They outlined some reasons for increased attention to this construct. Firstly, they pointed out that Ambrose and Schminke (2009) have argued that this construct offers succinct and adequate representation of people's fairness experiences in organizations. Secondly, they further reasoned that this construct merits attention in the justice literature because of the amount of variance it explains in outcomes. As such, these scholars maintained that overall justice construct explains a larger amount of variance in outcomes under consideration as compared to the individual justice dimensions (see also Ambrose & Arnaud, 2005; Barclay & Kiefer, 2014; Jones & Martens, 2009). Consistent with this argument, it has also been empirically tested that it is overall justice that has a stronger impact on employee and organizational outcomes rather than the individual justice dimensions (Ambrose & Schminke, 2009). Thirdly, Colquitt, Greenberg, and Scott (2005) have argued that studying overall justice would produce more uniform results than studying the individual facets, leading to an expedited contribution to the existing literature. As such, they argued that the effect sizes of overall justice tend to be steadier than those of the

individual justice assessments. This argument is aligned with Lind's (2001a) work, which also emphasized that overall justice offers a stable assessment of fairness perceptions.

Given that this research is focused on examining the effect of organizational justice on broad outcomes (i.e., job embeddedness and job satisfaction), studying a broader predictor (i.e., overall justice) should yield a stronger relationship between these constructs. Thus, the global nature of job satisfaction and job embeddedness constructs in this study calls for including a global predictor (i.e., overall justice) instead of the individual justice facets. The above arguments from existing research in conjunction with the tenets of fairness heuristic theory and the bandwidth fidelity debate suggests that the study would benefit from focusing on overall justice rather than the individual justice dimensions in investigating the impact of fairness perceptions on job embeddedness.

Overview of Job Embeddedness

Zhang, Fried, and Griffeth (2012) summarized that job embeddedness was conceptualized to address the limited explanatory power of existing turnover models (see also Lee et al., 2004; Mitchell et al., 2001). Mitchell and colleagues (2001) provided a seminal perspective on job embeddedness, primarily defining it as the integration of forces leading an employee to stay with the organization. As such, they argued that this construct reflects those factors that hold people to their current jobs rather than influencing them to leave. These scholars characterized job embeddedness as an overall construct, which is defined by three aspects: the links dimension, the fit dimension, and the sacrifice dimension. Yao and colleagues (2004) argued that job embeddedness sheds light on how these social, psychological, and financial reasons impact an employee's decision to continue with the current job.

Mitchell and colleagues (2001) argued that people embed themselves not only in their professional lives but also in their personal lives. As such, they noted that the nature of these three aspects of job embeddedness could be explained further by two classifications: organizational embeddedness (i.e., on-the-job embeddedness) and community embeddedness (i.e., off-the-job embeddedness). Although these scholars proposed that investigating both these aspects would be important in understanding employee retention, I believe that the current study would benefit the most from limiting its attention to only organizational embeddedness. There are multiple reasons that justify the appropriateness of prioritizing on-the-job embeddedness over off-the-job embeddedness in the present study. First of all, the bandwidth fidelity debate proposed that equating the breadth of information outlined by a predictor with that of an outcome variable strengthens the validity of constructs in consideration (Ones & Viswesvaran, 1996). Secondly, Lee and colleagues (2004) maintained that organization-driven links, fit, and sacrifice impact other organizational outcomes such as citizenship behaviors and job performance more than community-driven links, fit, and sacrifice. Thirdly, Colquitt and Shaw (2005) have also argued that the level of specificity should be same for both the justice measure and any outcomes of interest. Fourthly, Allen (2006) also argued that organizational embeddedness is a better predictor of employee actions than community embeddedness since both share the same context. Essentially, the above four arguments suggest that behaviors under consideration should be driven by same sources. Given that fairness perceptions of an employee are defined within the realm of an employing organization (Colquitt, 2001), I expect that organizational justice would be a stronger predictor of organizational embeddedness in contrast to community embeddedness and therefore, the current study would focus only on on-the-job embeddedness (i.e.,

organizational embeddedness). The next few paragraphs explain the three dimensions that characterize job embeddedness.

Three Dimensions of Job Embeddedness

The links dimension. Mitchell and colleagues (2001) argued that the links dimension pertains to relationships that employees develop with other parties. Essentially, they proposed that these relational ties exert strong forces on an employee that create an attachment to the current organization. According to them, these connections can comprise of both personal (i.e., community related) and professional ties (i.e., organization related). Their job embeddedness theory acknowledged that some social connections might be more influential than others. As such, these scholars noted that this dimension includes only those relationships that are pertinent to an employee. Since the focus of the current study in on studying on-the-job embeddedness, the definition of the links dimension would be limited to connections within the organization (i.e., coworkers and the supervisor). Pertaining to its impact on job embeddedness generally, these researchers argued that the more associations people establish with colleagues, team members, supervisors, senior leadership etc. at work (i.e., establish more social connections), the more embedded they become in their jobs. Essentially, Mitchell and colleagues (2001) maintained that quitting the job means disrupting the existing network of these important relationships within an individual's life and therefore, an individual would want to maintain these social bonds and resist quitting the job.

The fit dimension. Mitchell and colleagues (2001) noted that the fit dimension assesses the similarity of an employee's value system and career objectives with those of the organization. These scholars advocated that fit within the organization largely relates to the alignment of moral standards, professional goals, and long term plans of an individual with those

of the firm (i.e., the organizational level) and the expectations of the current job (i.e., the individual level) (see also Yao et al., 2004). Consistent with the links dimension, they went on to argue that the higher the comparability and resemblance of an individual's current job with these personal elements (e.g., ethical principles, present, and future work-related aspirations), the more embedded that individual would be on-the-job. In other words, they theorized that a stronger fit with the present job would result in higher job embeddedness of an individual.

The sacrifice dimension. Mitchell and colleagues (2001) proposed the sacrifice dimension as the third facet to impact job embeddedness of an individual. They argued that this dimension relates to an individual's assessment of the amount of tangible and intangible benefits that would have to be parted with at the time of leaving the job. In alignment with predictions about the links dimension and the fit dimension, these scholars proposed that the more employees have to sacrifice upon ending the employment relationship, the less likely they would quit that job. Per these scholars, the higher sacrifice would result in enhancing job embeddedness of an employee. Mitchell and colleagues (2001) also substantiated their explanation by providing examples of the sacrifice dimension such as the immediate project that an employee is interested in contributing to, attractive compensation package, and the potential to grow within the current job (see also Shaw, Delery, Jenkins, & Gupta, 1998). Overall, these scholars maintained that the underlying role of this dimension is that an employees' sacrifice would continue to build up as the amount of assessed benefits to be given up by them continue to grow and henceforth, their embeddedness in the organization.

Although these three aspects characterize job embeddedness, the proponents of this theory (i.e., Mitchell et al., 2001) have emphasized the formative nature of this construct by arguing that it is the summation of these forces that influence the decision of employees to stick

with their jobs. Mitchell and colleagues (2001) noted several details about this construct to justify their argument. Firstly, they argued that the causality of this construct flows from the indicators (i.e., the links dimension, the fit dimension, and the sacrifice dimension) to the construct (i.e., job embeddedness). These scholars maintained that the perceived compatibility of values with an organization causes one to get more embedded whereas being embedded into a job would not necessarily enhance perceptions of fit with the organization. Secondly, they theorized that any change in one dimension would not lead to change in the other two dimensions and therefore, they did not expect these job embeddedness dimensions to be correlated with one another. Thirdly, these scholars also added that each facet of job embeddedness is an important element of the overall construct and captures a unique feature of an individual's job. For example, they noted that the links dimension emphasizes interpersonal connections, the fit dimension emphasizes the assessment of compatibility of an individual with the organization, and the sacrifice dimension emphasizes the estimation of costs of parting with the organization. As such, they meant that excluding any single dimension from the construct would change its meaning and therefore, it is important take a holistic perspective since these dimensions are not interchangeable (see also Jarvis, Mackenzie, & Podsakoff, 2003).

While job embeddedness is treated as a formative construct, the links dimension, the fit dimension, and the sacrifice dimension are treated as reflective constructs in this study for two reasons. Firstly, each of the indicators of these constructs is not a unique characteristic; rather they have the same theme (Jarvis et al., 2003). For example, all items pertaining to the links dimension in this study are focused on the relationship with the supervisor or coworkers, all items pertaining to the fit dimension in this study are focused on the perceived compatibility with the existing organization, and all items pertaining to the sacrifice dimension in this study are

focused on assessing the cost or value of leaving the organization (Mitchell et al., 2001). Jarvis and colleagues (2003) noted that reflective constructs are interchangeable since not every indicator has a distinct contribution to the underlying construct. From their perspective, since excluding an item from any of these three constructs is not likely to change their respective meaning, these three constructs are justified to be considered reflective. Here is an example, "I fit with the company's culture" and "My values are compatible with the organization's values" (Mitchell et al., 2001, p. 46) have the same theme related to shared values. This suggests that these two indicators of the fit dimension share similar content and hence, they satisfy a condition for the fit dimension to be considered a reflective construct (see also Jarvis et al., 2003). Secondly, there is covariation among these items such that change in an item brings change in other item as well suggesting that these items are correlated (Jarvis et al., 2003). For example, consider these items, "The perks on this job are outstanding", "The benefits are good on this job." (Mitchell et al., 2001, p. 47). It can be inferred that a change in perks that employees receive at their jobs is likely to affect their perception of benefits received at work, suggesting that these items covary with one another (Jarvis et al., 2003; see also Holtom, Mitchell, & Lee, 2006). Following Jarvis and colleagues (2003), the covariation between these items provides support for the reflective nature of the sacrifice dimension.

Establishing the Relationship Between Overall Justice and Job Embeddedness

Prior research has suggested that overall justice predicts similarly broad outcomes (e.g., satisfaction) (Ambrose & Schminke, 2009; Jones & Martens, 2009). As such, one can expect it to impact job embeddedness as this is a global reflection of an employee's enmeshment in the organization (Mitchell et al., 2001). However, since job embeddedness consists of three facets capturing a unique part of job embeddedness rather than manifestations (Mitchell et al., 2001), it

is important to make the argument for the specific connection of overall justice to each facet of job embeddedness.

Drawing on the multiple needs model of justice (Cropanzano, Byrne et al., 2001), I establish causal associations between overall justice and the individual facets of job embeddedness. Cropanzano, Byrne, and colleagues (2001) proposed that there are multiple underlying psychological needs that determine why individuals respond to un/fair treatment. These scholars argued that there are three models that explain why people value fairness – the instrumental model that is grounded in control needs, the relational model that is grounded in belonging and self-esteem needs, and the moral virtues model that is grounded in meaningful existence needs. Adopting the multiple needs model of justice (Cropanzano, Byrne et al., 2001), I suggest that the underlying motivation of an employee to value fairness can help establish the association of overall justice with the individual facets of job embeddedness. In other words, I argue that the fulfillment (or lack) of these psychological needs correspond to the individual dimensions of job embeddedness. Prior to setting up the relationship between overall justice and each component of job embeddedness, I will explain the multiple needs model of justice below.

As described by Cropanzano, Byrne, and colleagues (2001), the instrumental perspective argues that justice has value for employees because of the control it permits them over outcomes and processes that impact them. Namely, they argued that fair processes yield control that enhances the possibility of both earning beneficial outcomes (e.g., money, promotions etc.) and predicting how organizational authorities would distribute outcomes in the future (see also Aguilera, Rupp, Williams, & Ganapathi, 2007). Goldman and colleagues (2008) further emphasized the instrumental function of fairness by focusing on the role of justice in diminishing the effect of uncertainty in life. These scholars drew on uncertainty management theory to argue

that justice serves a control function by helping an individual manage uncertainty about future outcomes whereas injustice leads to a loss of control by putting the receipt of favorable outcomes at risk (Colquitt et al., 2006; Lind & Van den Bos, 2002; Van Den Bos & Lind, 2002). Overall, the fundamental principle of the instrumental model is that people seek fair treatment as a mechanism to make precise predictions about future, allowing them to pursue other goals of interest (Cropanzano, Byrne et al., 2001)

Cropanzano, Byrne, and colleagues (2001) also emphasized the relational value that fairness brings to an employee by fulfilling their needs for belongingness and positive self-regard. They noted that this model was traditionally called the group-value model. This model proposed that people look for social connections and being a part of the group where fairness is valued makes them feel esteemed, respected, and well regarded in that social setting (Lind & Tyler, 1988; Tyler, 1989; Tyler & Lind, 1992). According to Cropanzano, Byrne, and colleagues (2001), the relational model is grounded in the theory that fairness is indicative of status and respect to an individual when three conditions are met by organizational authorities (a) non-partiality, (b) altruistic concerns, and (c) respectful treatment (see also Lind & Tyler, 1988; Tyler, 1989; Tyler & Lind, 1992). As such, they demonstrated a connection between fairness perceptions and the satisfaction of relational needs by arguing that these relational assessments of people about organizational decision makers have a strong connection with their perceptions about self-worth and identity. These scholars proposed that people value fairness since fair treatment within a group is indicative of a great relationship with supervisors as well as other members. In other words, they theorized that fair treatment provides a viable route to satisfy the need for positive self-regard and belongingness.

Cropanzano, Byrne, and colleagues (2001) also proposed the moral virtues framework, which suggests that people care about justice to seek fulfillment of meaningful existence need in addition to valuing fairness for self-serving reasons. The scope of this framework is broader than the instrumental and relational models such that people are not just limited to fairness perceptions about themselves, but they are also motivated to seek fairness for other people (see also Cropanzano, Rupp, Mohler, & Schminke, 2001). Namely, Cropanzano, Byrne, and colleagues (2001) argued that people seek respect for their moral standards and norms and therefore, fair treatment by organizational authorities reflects that morality has been pursued (see also Folger, 1998). They further added that people are driven by the need for meaning in their lives such that the actions of organizational authorities are evaluated on ethical grounds pertaining to the treatment any individual should be offered. In other words, their argument was that whether or not a decision or an outcome is considered fair depends on whether the human need for respect and dignity is met (see also Goldman et al., 2008). Overall, the fundamental principle of the moral component is that injustice casts doubt on moral standards held by organizational authorities whereas justice reinforces that ethical norms have been followed, satisfying the need for meaningful existence (Cropanzano, Byrne et al., 2001)

In the next three sections, I draw on fairness heuristic theory to establish how general fairness perceptions clearly map on to the individual dimensions of job embeddedness. Drawing upon fairness heuristic theory (Lind, 2001a), it can be argued that it should be overall fairness perceptions that influence employee's job embeddedness above and beyond its relationship with the respective justice dimensions. In establishing how general fairness perceptions clearly map on to the individual dimensions of job embeddedness, I connect the links dimension with the

fulfillment of relational needs, the fit dimension with the fulfillment of moral needs, and the sacrifice dimension with the fulfillment of instrumental needs.

The links dimension as an outcome of overall justice. I propose that there is a strong theoretical association between fairness perceptions and the links dimension of job embeddedness rooted in the relational component of the multiple needs model. As noted earlier, this relational model indicates that employees manifest a desire for building strong relationships and uplifting their self-esteem and thus, experiencing fair treatment from the supervisor should serve as another opportunity to fulfill this desire (Cropanzano, Byrne et al., 2001). Drawing on these perspectives of Cropanzano, Byrne, and colleagues (2001), I argue that general fairness perceptions make employees feel valued and respected and thereby, enhancing conditions for fostering more connections by fulfilling their need for positive self-regard and belonging. Next, I draw on social exchange theory as a theoretical mechanism to explain the relationship of overall justice with the links dimension given its bearing on the impact of fairness perceptions on interpersonal relationships (Blau, 1964; Masterson et al., 2000). In sum, I suggest that holistic fairness perceptions provide an opportunity to build connections with both the supervisor and coworkers.

As summarized earlier, the relational model argues that people adopt a long-term approach with respect to evaluating their relationships in an organization (Lind & Tyler, 1988; Tyler, 1989). Extending the application of this model to job embeddedness, this suggests that experiencing fair treatment should encourage people to foster stronger relational ties (i.e., establish more links; Mitchell et al., 2001) since it makes them feel valued and appreciated (see Cropanzano, Byrne et al., 2001). As such, Cropanzano, Byrne, and colleagues (2001) maintained that receiving fair outcomes (i.e., promotion, bonus etc.), experiencing fair procedures, and fair

interpersonal treatment should make employees feel respected, appreciated as a part of the group, and that their efforts are valued by the organization. Social exchange theory (Blau, 1964) would then predict that employees should feel obligated to reciprocate the receipt of fair treatment from their supervisors through strengthening their relationships with them (i.e., the links dimension; Mitchell et al., 2001) as a way to express appreciation for experiencing fair treatment within the organization.

Empirical research has also supported that fairness perceptions can incline people to establish more connections with others. Fair interpersonal treatment is associated with a great relationship with the supervisor (Masterson et al., 2000; Cropanzano et al., 2002). Alexander and Ruderman (1987) found that fair procedures and fair outcomes are associated with higher trust in organizational authorities, assessment of the supervisor, and lower group conflict (see also Cropanzano et al., 2002). With respect to the current study, these findings have two implications for job embeddedness of an employee. Firstly, it can be inferred that the increased trust in the supervisor as a result of the provision of fair treatment should encourage an employee to invest in establishing a link with the supervisor. Additionally, it can also be said that lower conflict and harmony as a result of fairness experiences should also foster links among group members by minimizing the opportunities for clashes. In essence, the findings from the research mentioned above suggest that fairness at the workplace promotes links (i.e., connections with coworkers and the supervisor) and thus, enhances job embeddedness of an employee (see also Mitchell et al., 2001). Sinclair (2003) found that perceptions of fair outcomes and fair procedures increase cooperation among teams, leading to improved effectiveness in their work. This implies that the relational implications of fair treatment should also extend to colleagues by building strong ties among them. Given that fairness perceptions provide an opportunity to fulfill the need for

belongingness and positive self-regard, the satisfaction of these needs should help these perceptions to serve as an antecedent of the links dimension (Blau, 1964; Cropanzano, Byrne et al, 2001).

As noted earlier, fairness heuristic theory provides a theoretical explanation about the roots of overall fairness judgments (Lind, 2001a). As such, Lind (2001a) argued that individuals develop general perceptions about fairness experiences at the workplace, which then guide their subsequent behaviors. Given that he theorized that the fairness heuristic grounded in the singular justice facets plays a primary role in resulting actions or reactions of an individual, it can be expected that it should be overall fairness judgments that should help an individual fulfill the need for positive self regard and belongingness (see also Cropanzano, Byrne et al., 2001). Following fairness heuristic theory (Lind, 2001a) and the above arguments grounded in relational model and social exchange, I propose that overall fairness perceptions should fulfill the relational needs of employees, which should then trigger them to reciprocate the fair treatment by voluntarily fostering healthy relationship with both the supervisor and coworkers. Based on these arguments, I expect overall justice to influence the links dimension and therefore, hypothesize the following:

Hypothesis 1(a): Overall justice is positively associated with the links dimension.

The fit dimension as an outcome of overall justice. I suggest that the theoretical connection between fairness perceptions and the fit dimension of job embeddedness is grounded in the moral virtues component of the multiple needs model. As mentioned before, this model indicates that employees look for meaning in their lives and they expect their authorities to abide by ethical norms and principles about how humans should be treated (Cropanzano, Byrne et al., 2001). The present study suggests that employees interpret perceptions of fairness as indicative

of core values held by an organizational culture, contributing to their evaluations of fit with that organization. Essentially, I argue that the provision of fair treatment should be perceived as a reflection of organizational culture. As a result, this should leave a positive impact on the fit dimension through satisfaction of the need for meaningful existence.

Scott and colleagues (2009) argued that a supervisor's discretion with respect to exhibiting fairness might be constrained by organizational mandates depending on the facet of fairness in question. They theorized that there is a need for compliance with prevailing organizational practices and norms, also called as systemic factors, which may impose some restrictions. I argue that one of the potential systemic factors that may impact any supervisor's actions when extending fair treatment is organizational culture (Erdogan, Liden, & Kraimer, 2006). Erdogan and colleagues (2006) defined organizational culture as acceptable norms and values that direct the behavior of individuals in a social setting, suggesting that an individual's behavior is a reflection of values held by a particular culture (see also Schein, 1990). In other words, the fairness of a supervisor's actions in treating employees should be determined by the values embraced by the organization.

I expect organizational culture to be a systemic factor that should influence a supervisor's decision of exhibiting un/fair treatment and ultimately impact employee perceptions of the fit dimension for two reasons. Firstly, Colquitt and colleagues (2001) noted that organizational justice is perceived to be a socially influenced phenomenon, which suggests that the norms of fair treatment may have a different interpretation from one organizational situation to another (see also Erdogan et al., 2006; Lamertz, 2002). Drawing on Lamertz (2002), Erdogan and colleagues (2006) argued that an event interpreted as fair to some extent in one organization might not have the same interpretation in another organization. I believe that this difference in

interpretation should then influence how employees interpret the values held by that organization, influencing their perceptions of fit. Secondly, culture also plays a controlling function for employees by directing their behavior such that any violation of shared norms gets prompt attention by members of the organization, leading to initiation of a quick remedial action (Erdogan et al., 2006; O'Reilly & Chatman, 1996; Sorensen, 2002). Following the work of O'Reilly and Chatman (1996), Erdogan and colleagues (2006) maintained that culture should guide actions of a supervisors such that their behavior is reflective of norms prevailing in the organization else it would be called into question by organizational authorities. Given that this study implies that un/fair treatment offered by supervisors would be understood as an acceptable behavior by the organization, I believe that this information should provide input to employees for evaluation of their fit with organizational values and norms. Previous research has shown that employees evaluate a supervisor's actions as reflective of underlying goals and policies of the organization (Mayer, Nishii, Schneider, & Goldstein, 2007). Given that Mayer and colleagues (2007) suggested that the behavior of supervisor still provides information to employees regarding prevailing organizational norms of human dignity and respect, I believe that employees can also use this knowledge to assess their compatibility with values and practices of the organization.

Recall that fairness heuristic theory (Lind, 2001a) sheds light on the development of overall fairness perceptions formed out of the individual justice facets. Lind (2001a) advocated that people process and respond to fairness information in a holistic manner instead of evaluating these experiences at an individual level. Specifically, he proposed that this fairness heuristic established out of provision of un/fair treatment should determine any ensuing behavior rather than the individual justice facets. Rooted in fairness heuristic theory (Lind, 2001a) and the

preceding arguments, it can be argued that these general fairness perceptions should help an employee understand whether an organization upholds moral standards of treating its employees and adherence to these ethical guidelines should then suggest that the need for meaningful existence is met (see also Cropanzano, Byrne et al., 2001). With regards to the fit dimension, the previous discussion suggests that it should be overall fairness judgments that would serve to help employees in evaluating their compatibility with the value system of their organization (i.e., the fit dimension; Mitchell et al., 2001). In other words, I predict that employees would evaluate the fairness heuristic to assess core values and norms endorsed by an organization, providing inputs to evaluate their embeddedness with their organization. Consequently, overall fairness perceptions should cultivate a sense of fit in employees by communicating whether the organization values moral standards and ethical principles, behaves in a socially responsible manner, and follows ethical norms in treating its employees. Hence, it can be predicted that overall justice should contribute to the satisfaction of moral needs, as it is reflective of whether the organization behaves in a morally correct way (see also Cropanzano, Byrne et al., 2001). Thus, I expect that these general fairness perceptions of employees would strengthen their perceptions of fit with their organizations. Following these arguments, I anticipate overall justice to impact the fit dimension and therefore, hypothesize the following:

Hypothesis 1(b): Overall justice is positively associated with the fit dimension.

The sacrifice dimension as an outcome of overall justice. I argue that the instrumental framework of the multiple needs model provides the most suitable theoretical mechanism to illustrate the relationship between overall justice and the sacrifice dimension. As explained earlier, this model maintains that people seek fulfillment of their control needs and use fairness perceptions as a medium to satisfy this need by reducing uncertainty through ensuring the

provision of justice in the future as well (Cropanzano, Byrne et al., 2001). I argue that employees would then be motivated to continue with their current jobs in order to not lose upon this added advantage of the satisfaction of their control needs, thus, contributing to their bundle of benefits at work (i.e., the sacrifice dimension; Mitchell et al., 2001). Essentially, I suggest that the sacrifice dimension is the most instrumental facet of job embeddedness and corresponds best to the psychological need for control.

As noted by Cropanzano, Byrne, and colleagues (2001), fair treatment fulfills an employee's psychological need for control by providing visibility into the future and assuring favorable outcomes to follow. I contend that experiencing fair treatment within an organization should contribute to the sacrifice dimension by enhancing predictability of the provision of fair treatment by supervisors in future as well. Thibaut and Walker (1978) noted that fair procedures provide employees with two types of control in decision-making process – process control through an opportunity to present evidence that can influence decisions indirectly and decision control through consideration of their input directly (see also Thibaut & Walker, 1975). These two organizational justice scholars maintained that procedural justice is characterized by process control since it allows people to contribute to procedures used and thus, influence ultimate decisions. Pertaining to the current study, this research suggests that this control equips employees to predict their future since they can determine the information to be evaluated to ascertain the outcome, thus fulfilling their psychological need for control and adding another element to the potential costs of leaving the present job. As Tyler (1994) noted, this control theory applies to not only fairness perceptions of procedures but also fairness perceptions of outcomes. As such, his argument suggested that fair distribution of deserved outcomes (i.e., salary, promotion decisions, bonus, recognition, etc.) suggests how future decisions pertaining to

these outcomes would be made, thus enhancing their predictability, lowering uncertainty, and bestowing control over the future. Given that employees have a psychological need for control (Cropanzano, Byrne et al., 2001), the resulting effects of fair distribution of outcomes suggests that these should also add to the list of benefits that employees would assess upon thinking of quitting the job. Campbell and colleagues (2013) argued that fair interpersonal treatment lends confidence to employees for expecting the same treatment in future, boosting their personal resources (see also Masterson et al., 2000). Their research suggested that the ability to predict the future behavior of the supervisor helps an employee to exercise control by anticipating the same interpersonal treatment in the future. Therefore, the resulting effects of experiencing fair interpersonal treatment should also add to the amount of benefits to be parted with upon quitting the employment since employees have a desire for control (see also Cropanzano, Byrne et al., 2001). Overall, the foregoing research evidence grounded in the instrumental framework suggests that judgments pertaining to fair procedures, fair outcomes, and fair interpersonal treatment fulfill employees' psychological need for control by providing visibility into the future, minimizing uncertainty, and maximizing beneficial outcomes over the long run by enabling them to predict the behavior of their supervisors (see also Campbell et al., 2013; Cropanzano, Byrne et al., 2001).

As mentioned earlier, fairness heuristic theory (Lind, 2001a) propagates that it is general perceptions of fairness that predict different employee outcomes instead of the individual justice facets. Lind (2001a) maintained that the individual justice dimensions underlie overall fairness judgments, which then impact other outcomes. Essentially, he argued that people judge fairness experiences through a global lens by evaluating fairness information at the facet levels. With respect to the impact of fairness judgments on the sacrifice dimension, it can be predicted that it

should be overall justice that would contribute to the satisfaction of the control need of an employee (see also Cropanzano, Byrne et al., 2001). Drawing on fairness heuristic theory and the above-stated arguments, it can be concluded that general fairness perceptions carved out of the individual justice facets should strengthen the sacrifice dimension by offering different benefits to an employee such as ensuring predictability about how future outcomes would be calculated, how future processes would be implemented, and how future interpersonal treatment would be offered.

Given that employees tend to perceive fair treatment offered by organizational authorities as a voluntary behavior (Organ, 1990), there is no assurance of receiving the same benefits in another organization. Consequently, leaving the organization would mean giving up on these accrued benefits (Mitchell et al., 2001). As noted by Cropanzano, Byrne, and colleagues (2001), employees are motivated to use fairness judgments to infer the likelihood of receiving fair treatment from their organization in the future as well. Based on this instrumental framework and fairness heuristic theory, I predict that general fairness perceptions should contribute to estimated costs to forego upon quitting and thus, strengthen an employee's evaluations of the sacrifice dimension (see also Mitchell et al., 2001). Based on these arguments, I expect overall justice to impact the sacrifice dimension through serving the control need of an employee and therefore, hypothesize the following:

Hypothesis 1(c): Overall justice is positively associated with the sacrifice dimension.

The Moderating Role of Risk Aversion

In response to the recent calls for the investigation of contextual factors influencing the relationship of fairness perceptions and job embeddedness (Ghosh et al., 2017), I include a personality variable that can potentially impact the organizational justice-job embeddedness

relationship. Specifically, I examine the effect of risk aversion on the association between overall justice and job embeddedness. Colquitt and colleagues (2006) explained risk aversion as an individual's varied responses towards risky circumstances and the extent to which these responses are accompanied with behavior that shows concerns/fears and subsequent detachment on the part of an individual. These scholars identified this construct as having the potential to impact subsequent actions and reactions to situations that vary in their levels of uncertainty. Specifically, they argued that risk-taking individuals should feel encouraged to deal with situations that present new challenges whereas risk-averse individuals should be discouraged to deal with uncertain events.

Although the "Big Five" personality framework is considered the most popular personality framework including five personality dimensions—Extraversion, Emotional Stability, Agreeableness, Conscientiousness, and Openness (Judge & Zapata, 2015)—there is a reason to examine the effect of risk aversion as a personality trait in the current study. While the effects of "Big Five" have been studied on relationships associated with organizational justice, three narrower traits (i.e., risk aversion, trust propensity, and trait morality) have been found to have more explanatory power than these "Big Five" traits (Colquitt et al., 2006). Based on this argument, I believe that studying risk aversion on the overall justice-job embeddedness relationship should help explain more variance in job embeddedness and contribute to the literatures of these two broad constructs. Previous research has explored the relationship of risk aversion with the "Big Five" personality traits and the results have shown that extraversion and openness are inversely related to risk aversion whereas conscientiousness is directly related to risk aversion (Soane & Chmiel, 2005).

I draw upon uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002; see also Colquitt et al., 2006) to explain how risk aversion can be a relevant moderator to impact the relationship of general fairness perceptions with job embeddedness. While fairness heuristic theory (Lind, 2001a) focuses on uncertainty about trust, uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002) presents an overarching principle about an individual's desire for fairness by extending its focus to the general patterns of uncertainty. Specifically, this theory suggests that people desire to bring more certainty in their lives and therefore, they use fair experiences to either remove or minimize the uncertainty to reduce the uneasiness associated with them (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002). Consistent with fairness heuristic theory, uncertainty management theory argues that the holistic impressions of fairness developed by an individual help in mitigating the uncertainty rather than the granular dimensions (i.e., fairness information about outcomes, procedures, or interpersonal treatment) (Lind, 2001a; Lind & Van den Bos, 2002)

People wish to be able to predict their future, which leads them to resist those situations that bring uncertainty in their lives (Van den Bos & Lind, 2002; Lind & Van den Bos, 2002). Van den Bos and Lind (2002) noted that uncertainty relates to those situations where it is difficult to forecast what lies ahead or where there is misalignment among multiple thoughts, experiences, or behaviors. Specifically, they referred to it as the lack of visibility into the future that lowers one's ability to forecast. According to these two scholars, uncertainty brings discomfort to people and therefore, confronting uncertain situations is intimidating to people. Per this theory as argued by these Van den Bos and Lind (2002), there are two painful areas associated with uncertainty that can impact the self-respect of an individual: (a) the loss of self-confidence about appropriately behaving in certain settings because of inability to foresee the

future and (b) the fear of losing control over certain aspects of life. They also contended that fairness helps in dealing with this discomfort through serving two purposes (see also Lind & Van den Bos, 2002). Firstly, they noted that fairness assists in tackling uncertainty by providing assurance that good things will continue to prevail and providing the ability to forecast the future. Secondly, they argued that fairness also lowers down worries pertaining to any potential losses due to unfair treatment in future. This suggests that fairness provides not only the self-confidence to an employee but also the fulfillment of the need for control (see also Cropanzano, Byrne et al., 2001). In essence, the focus of this theory is that fairness has a primary function of managing or eliminating uncertainty and therefore, it exerts the maximum value in uncertain situations where it is valued the most (Lind & Van den Bos, 2002; see also Van den Bos & Lind, 2002).

Van den Bos and Lind (2002) presented empirical research to support their assertion that fairness should have a stronger impact on employees when there is heightened uncertainty. They found that people's tendency to use fairness information is contingent on the level of uncertainty regarding trustworthiness of authorities such that the more the trustworthiness (i.e., lesser uncertainty), the lesser is the use of fairness information and vice versa (see also Van den Bos, Van Schie, & Colenberg, 2002).

Drawing on the tenets of uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002), I argue that risk-averse people should experience a stronger effect of experiencing fairness on their job embeddedness. In other words, I suggest that risk aversion should determine whether or not the provision of un/fair treatment impacts job embeddedness of employees. As characterized by Colquitt and colleagues (2006), risk aversion is the extent to which an individual is willing to accept the uncertainty and therefore, it should determine the

magnitude of the impact of fairness experiences at the workplace. In relation to its connection with fairness experiences, these scholars argued that people who are reluctant to take risk should be driven to pay more attention to fairness information whereas people who are enthusiastic to take risk should be less concerned about fairness experiences. Supporting this assertion, they demonstrated empirically that the reactions of risk-averse individuals to fairness events were stronger than those of risk-taking individuals. Specifically, their research found that the strength of impact of fairness perceptions on performance as well as counterproductive behaviors was stronger for individuals who resist risky situations in their lives.

Using the same rationale, I predict that risk-averse individuals should be triggered more strongly to foster new connections, experience compatibility with organizational values, and evaluate higher costs of quitting of the job because of their holistic fairness experiences at the workplace. In other words, I suggest that risk-averse people would be expected to develop more links, experience more fit with their organization and assess higher sacrifice as a result of their general fairness perceptions at their jobs. Their embeddedness should be more strongly affected by fairness events because uncertainty has a strong bearing on fairness related events for risk-averse people (Colquitt et al., 2006). In essence, I theorize that overall fairness effects coupled with the risk taking ability of employees should collectively determine their job embeddedness.

In light of uncertainty management theory (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002; see also Colquitt et al., 2006) and the empirical evidence given above, I predict that risk-averse individuals should experience a stronger impact on their job embeddedness since they pay more attention to fairness perceptions to avoid uncertainty and risk-seeking individuals should experience a weaker effect on their job embeddedness since they do not seek fair treatment to mitigate uncertainty. Thus, I propose that the effect of overall justice on job

embeddedness should be stronger for individuals who are high on risk aversion. Specifically, I hypothesize:

> *Hypothesis 2(a): Risk aversion will moderate the effect of overall justice on the links dimension, such that the relationship is stronger when risk aversion is higher.*
>
> *Hypothesis 2(b): Risk aversion will moderate the effect of overall justice on the fit dimension, such that the relationship is stronger when risk aversion is higher.*
>
> *Hypothesis 2(c): Risk aversion will moderate the effect of overall justice on the sacrifice dimension, such that the relationship is stronger when risk aversion is higher.*

The Mediating Role of Job Embeddedness

While the existing research suggests that overall fairness perceptions have an impact on job satisfaction as well as turnover intentions (Jones & Martens, 2009; Kim & Leung, 2007), the current study introduces job embeddedness as a mediator to understand this relationship. Job satisfaction has been defined as "pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1300). It pertains to employees' assessment of their attitudes towards work or the related events on any day when they are at work (Illies, Wilson, & Wagner, 2009). This is an important construct since it is positively associated with multiple individual and organizational outcomes (Aziri, 2011; Judge, Parker, Colbert, Heller, & Ilies, 2001). For example, research has shown that job satisfaction leads to multiple positive outcomes such as better employee health (Faragher, Cass, & Cooper, 2005), higher organizational citizenship behaviors (Bateman & Organ, 1983), lower absenteeism (Scott & Taylor, 1985), and lower turnover (Cotton & Tuttle, 1986). The second outcome variable in this study, turnover intentions, has been defined as "conscious and deliberate willfulness to leave the organization" (Tett & Meyer, 1993, p. 262). Perryer and colleagues (2010) emphasized the importance of this construct by arguing that supervisors can proactively manage situations that can potentially impact the turnover intentions of an employee. Therefore, they noted that this

construct could provide a lot of relevant information to supervisors to proactively manage turnover in organizations as an employee has not departed the employer at the time of evaluating the intentions to quit (see also Steel & Ovalle, 1984).

The current study adopts social exchange theory (Blau, 1964) as a theoretical lens to establish the mediating role of job embeddedness on the relationship of overall justice with job satisfaction and turnover intentions. This theory has been widely accepted as a strong theoretical mechanism to explain people's behavior at work (Cropanzano & Mitchell, 2005). According to Cropanzano and Mitchell (2005), social exchange consists of a reciprocal relationship between two parties such that the action of one party is driven by the action of the opposite party in question. Specifically, these two scholars argued that these exchanges transform into trustworthy, loyal, and committed relationships between two parties. Blau (1964) noted that an important characteristic of these relationships is that the terms of these exchanges are not clearly identified. However, he argued that whenever one party extends a favor to another party, there is an expectation of receiving a favor from the other party in the future. Specifically, the party that accepts a favor is obligated to reciprocate by engaging in voluntary actions that would be beneficial for the party who originally extended the favor (see also Gouldner, 1960). As described by these theorists (Blau, 1964; Cropanzano & Mitchell, 2005), the feeling of reciprocity is engendered out of a feeling of appreciation, responsibility, and respect, which can foster a strong relationship between two parties.

It is well documented that social exchange explains the impact of fairness on employee attitudes and behaviors (Aryee, Budhwar, & Chen, 2002; Colquitt et al., 2013; Konovsky & Pugh, 1994; Masterson et al., 2000; Moorman, 1991; Pillai, Schriescheim, & Williams, 1999; Rupp & Cropanzano, 2002; Tekleab, Takeuchi, & Taylor, 2005). The present research considers

job embeddedness as a social exchange mechanism (Blau, 1964) to explain the impact of overall justice on job satisfaction and turnover intentions. These two attitudinal outcomes are consequences of social exchange quality, such that when employees are treated fairly by their organization, they tend to respond in kind by enhancing their job satisfaction and mitigating their turnover intentions (Aryee et al., 2002). Specifically, I argue that overall fairness perceptions would affect the extent to which employees are embedded in the organization and this influence would then be reflected in the degree to which they demonstrate higher job satisfaction and lower turnover intentions. While previous research has established the association of job embeddedness with job satisfaction and turnover intentions (Harris et al., 2011; Mitchell et al., 2001), I theorize these relationships in the interest of conceptualizing the mediating role of job embeddedness on the relationship of overall justice with job satisfaction and turnover intentions.

With regards to the impact of job embeddedness on job satisfaction, social exchange theory (Blau, 1964) predicts a positive relationship between them. Research has evidenced that job satisfaction is positively influenced upon experiencing positive work experiences (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Highly on-the-job embedded employees would perceive that the organization provides them with opportunities to create interpersonal connections (i.e., the links dimension), makes them experience a good fit with the organization (i.e., the fit dimension), and creates valuable experiences to be given up upon discontinuing with the present job (i.e., the sacrifice dimension) (Lee et al., 2004; Mitchell et al., 2001). As argued earlier, these positive experiences help employees satisfy their psychological needs (i.e., relational, moral, and control) (Cropanzano, Byrne et al., 2001). Accordingly, social exchange theory (Blau, 1964) would predict that these positive experiences such as satisfaction of psychological needs at work make employees feel obligated to reciprocate by exhibiting an

increase in their job satisfaction. Therefore, I propose that job embeddedness should play a role of social exchange mechanism between overall justice and job satisfaction. These theoretical arguments are further supported by available empirical evidence. It is also implied in the past research that the fulfillment of three psychological needs can result in higher job satisfaction. Specifically, Goldman and colleagues (2008) found that the existence of social support derived from interpersonal relationships at work is a source of job satisfaction, suggesting its relationship with the links dimension of job embeddedness (see also LaRocco, House, & French, 1980; Mitchell et al., 2001; Morrison, 2004). Further, they argued that financial outcomes from an employing organization contribute to job satisfaction, suggesting its relationship with the sacrifice dimension of job embeddedness (see also Mitchell et al., 2001; Schneider, Gunnarson, & Wheeler, 1992). They also argued that the inconsistency between the moral perspectives of the employee and those of the organization lowers down the job satisfaction of the employee, suggesting its relationship with the fit dimension of job embeddedness (see also Cranny, Smith, & Stone, 1992; Mitchell et al., 2001; Meglino, Ravlin, & Adkins, 1989; O'Reilly, Chatman, & Caldwell, 1991). Hence, the preceding arguments based on social exchange as well as the existing empirical research suggests that the links dimension, the fit dimension, and the sacrifice dimension of job embeddedness should be positively related to job satisfaction. Alternatively, the absence of these positive experiences should consequently be negatively related to job satisfaction. Given that job embeddedness is better understood by considering all dimensions together (Mitchell et al., 2001), it can be theorized that job embeddedness positively impacts the job satisfaction of an employee.

With regards to the relationship between job embeddedness and turnover intentions, social exchange theory (Blau, 1964) predicts a negative relationship between them. Consistent

with my previous contention, I expect that job embeddedness should also play the role of a social exchange mechanism between overall justice and turnover intentions. As argued earlier in the paper, job embeddedness is a source of fulfillment of psychological needs of employees (i.e., relational, moral, and control) (Cropanzano, Byrne et al., 2001). As such, social exchange theory (Blau, 1964) would predict that these positive experiences in the organization enhance employees' feelings of obligation to reciprocate by displaying lower turnover intentions. These theoretical arguments are further supported by empirical evidence. Past research has indirectly indicated that the satisfaction of three psychological needs can result in lower turnover intentions. The seminal paper on job embeddedness has demonstrated that job embeddedness is negatively related to turnover intentions (Mitchell et al., 2001). Mitchell and colleagues (2001) have argued that highly embedded employees are connected with other people (i.e., the links dimension), experience a great level of compatibility within their employing organization (i.e., the fit dimension), and would have to give away a lot if they decide to leave their jobs (i.e., the sacrifice dimension). Extending this research and testing the generalizability of these findings, multiple studies have confirmed this relationship in different types of organizations (Burton et al., 2010; Crossley, Bennett, Jex, & Burnfield, 2007; Halbesleben & Wheeler, 2008). Research has shown that these turnover intentions directly result in employee turnover (Griffeth, Hom, & Gartner, 2000; Tett & Meyer, 1993). Further, Peltokorpi and colleagues (2015) argued that the work environment of more embedded employees tends to lower situations that lead to disengagement on their part and thus, minimizes their turnover intentions. Further, Morrison (2004) has suggested that interpersonal relationships at work are negatively related to turnover intentions suggesting their relationship with the links dimension of job embeddedness (see also Mitchell et al., 2001). In addition, Moynihan and Pandey (2008) found that the compatibility

with organizational values leads to lowering turnover intentions, suggesting their relationship with the fit dimension of job embeddedness (see also Mitchell et al., 2001). Similarly, Currall and colleagues (2005) have shown that the satisfaction with salary is negatively related to turnover intentions as well, suggesting their relationship with the sacrifice dimension of job embeddedness (see also Mitchell et al., 2001). Based on arguments rooted in social exchange theory and the empirical evidence provided, I argue that the feeling of job embeddedness in employees should negatively impact their turnover intentions. Conversely, failure to experience these positive experiences should positively impact their turnover intentions. As mentioned before, since job embeddedness is better explained by adding up the influence of each of the individual dimensions (Mitchell et al., 2001), it can be argued that job embeddedness negatively influences the turnover intentions of employees.

Hypotheses 1 and the above discussion illustrates that the relationship between the overall fairness perceptions and job satisfaction as well as turnover intentions may exist through job embeddedness of an employee. Related to this study, social exchange theory (Blau, 1964) predicts that the delivery of fair treatment by organizational authorities resulting in the retention of an employee leads to beneficial actions from employees in the form of higher job satisfaction and lower turnover intentions. In sum, I theorize that the holistic perceptions of fairness should affect the job embeddedness of employees, which would then affect their job satisfaction and turnover intentions, suggesting the following two hypotheses:

Hypothesis 3: Job embeddedness mediates the relationship between overall justice and job satisfaction.

Hypothesis 4: Job embeddedness mediates the relationship between overall justice and turnover intentions.

Differential Effects of the Justice Facets on Job Embeddedness

Though I suggest that overall fairness perceptions may impact job embeddedness, I propose that the direct effects between the facets of these broad constructs may vary in strength depending upon the relationship in consideration. The unique characteristics of each facet of justice (i.e., distributive justice, procedural justice, and interactional justice) (Cropanzano, Byrne et al., 2001) should account for their unique relationships with each facet of job embeddedness (i.e., the links dimension, the fit dimension, and the sacrifice dimension) (see Mitchell et al., 2001). Grounded in the agent-system model (Bies & Moag, 1986; Masterson et al., 2000) as well as social exchange theory (Blau, 1964), I propose that the pattern of relationships between these individual dimensions of organizational justice and those of job embeddedness should depend on the source of behavior.

As previously noted, Blau (1964) argued that social exchange involves relationship between two entities such that the action of one entity is guided by the action of other entity. Specifically, he argued that the relationship between two parties is based on voluntarily returning the favor through actions that benefit the party who advanced kind behaviors in the first place. The agent-system model (Bies & Moag, 1986; Masterson et al., 2000) extends social exchange theory and advocates that different parties are responsible for different kinds of justice. As such, this model suggests that individuals tend to respond to perceived sources of un/fair treatment. Specifically, these scholars proposed that the source of interactional justice is the supervisor (i.e., the agent) whereas the source of procedural justice is the organization (i.e., the system) (Bies & Moag, 1986; Masterson et al., 2000; Malatesta & Byrne, 1997).

Scott and colleagues (2009) argued that a supervisor has minimum discretion in distributive justice, moderate discretion in procedural justice, and maximum discretion in

interactional justice. Namely, they argued that the extent to which a supervisor would display fairness while distributing outcomes or implementing procedures to the team member is guided more by systemic factors (i.e., prevailing organizational practices, existing protocols, and the demands of the current role) rather than the decision to offer fair interpersonal treatment, which is guided more by the supervisor's will. As such, they characterized distributive justice as guided most by systemic factors followed by procedural justice, and then interactional justice. They concluded that employees hold the organizational agent (i.e., the supervisor) more responsible for interactional justice and less responsible for distributive justice as well as procedural justice. Alternatively, they contended that employees would hold the system (i.e., the employing organization) more accountable for distributive justice as well as procedural justice and less responsible for interactional justice. Consistent with this argument, another study also added that interactional justice is positively associated with trust in the immediate supervisor while distributive justice and procedural justice is positively associated with trust in the organization (Aryee et al., 2002). These findings further indicated that employees largely attribute distributive justice and procedural justice perceptions to their employing organization whereas interactional justice perceptions to their supervisor.

While responding to justice-related events, employees may form different social exchange relationships with the supervisor and the organization (Rupp & Cropanzano, 2002). In consideration of theoretical perspectives grounded in the agent-system model as well as social exchange theory (Bies & Moag, 1986; Blau, 1964; Masterson et al., 2000), I argue that employees are likely to respond to perceived interactional fairness strongly by establishing a strong connection with their supervisor (i.e., strengthening the links dimension) (Mitchell et al., 2001). It can be expected that interactional justice should be strongly related to the links

dimension followed by procedural justice and then, distributive justice. Moreover, employees are likely to respond to distributive justice and procedural justice by building a perception of fit with their organization (i.e., strengthening the fit dimension) (Mitchell et al., 2001). Because distributive justice is guided more by systemic factors than procedural justice (Scott et al., 2009), I propose that distributive justice should be strongly related to the fit dimension followed by procedural justice and then, interactional justice. Therefore, I offer the following two hypotheses:

> *Hypothesis 5(a): Interactional justice is a strongest predictor of the links dimension followed by procedural justice and then, distributive justice.*
>
> *Hypothesis 5(b): Distributive justice is a strongest predictor of the fit dimension followed by procedural justice and then, interactional justice.*

With respect to the unique effects of the different justice types on the sacrifice dimension**,** I argue that all three justice dimensions should be uniformly related to this facet of job embeddedness. As such, I predict that there are no differential relationships expected between the individual justice facets and the sacrifice dimension. I draw on conservation of resources theory (COR) (Hobfoll, 1988, 1989) to establish these equivalent relationships. Hobfoll (1988, 1989) reasoned that individuals not only wish to protect their own resources but also want to get hold of new resources. As such, this scholar argued that people tend to avoid situations that can end up in having them lose any resources or anything that they consider valuable in their lives. The value of any resource is unique to people and their context (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). Hobfoll (1989) noted, "Resources are defined as those objects, personal characteristics, conditions, or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions, or energies" (p. 516).

Grounded in COR theory, Campbell and colleagues (2013) reasoned that fair outcomes, fair procedures, and fair interpersonal treatment offered to employees provide a viable route to employee to enhance their existing resource capacity. In relation to distributive justice, they argued that Adams (1965) noted that fair distribution of outcomes is related to satisfaction derived out of allocation of past resources (see also Ghosh et al., 2017). These scholars further added that distributive justice builds a perception among employees that their investment of resources has yielded a good output, contributing to replenishment of their resource base (see also Ghosh et al., 2017; Robbins, Ford, & Tetrick, 2012). In relation to procedural justice, Campbell and colleagues (2013) argued that fair procedures minimize the need to exhaust any more cognitive resources for dealing with potential resource loss as a result of any future procedural injustice. Drawing on the work of Cropanzano, Byrne, and colleagues (2001), this group of scholars suggested that fair procedures provide visibility into future allocation of outcomes, providing assurance that investment in resources will provide beneficial results. Further, Ghosh and colleagues (2017) argued that employees who experience procedural justice enjoy the benefit of multiple resources such as social support system, self-efficacy, information, respect by giving them voice in the decision making process (see also Zhang & Agarwal, 2009). In relation to interactional justice, Campbell and colleagues (2013) noted that fair interpersonal treatment helps an individual develop his/her self-concept by gaining respect and dignity from the supervisor, enhancing their personal resources (Masterson et al., 2000). Similar to distributive justice and procedural justice, these researchers argued that consistent fair interpersonal treatment provides confidence of receiving continued support from the perceived source of such treatment.

The act of terminating an existing relationship with the organization would suggest losing certain taken-for-granted aspects of that workplace (Mitchell et al., 2001). Campbell and colleagues (2013) argued that distributive justice, procedural justice, and interactional justice act as resource-oriented factors for an individual, therefore, quitting the job would mean giving up on each of these resources (see also Ghosh et al., 2017). COR theory (Hobfoll, 1989) predicts that an employee would want to preserve all resources as their loss can induce stress (Halbesleben et al., 2014). Furthermore, there is no assurance of receiving the same level of resources in the new job and as a result, COR theory (Hobfoll, 1989) would suggest that the thought of leaving the organization would be stress provoking for any employee. Accordingly, I suggest that when employees experience distributive, procedural, and interactional justice at work, they would want to stay in the current job in order to equally preserve all of these existing resources and accumulate more resources. Therefore, each of these resources as a result of fair experiences at work should equally contribute to the cumulative material and psychological costs of leaving the organization (i.e., the sacrifice dimension; Mitchell et al., 2001). These arguments suggest that all fairness experiences should equally make employees stick to their job because of the associated costs of missing out on these important resources. Based on above arguments, I predict that all justice dimensions are uniform predictors of the sacrifice dimension of job embeddedness and therefore, I hypothesize the following:

> *Hypothesis 5(c): There is no differential effect of each of the justice facets (i.e., distributive justice, procedural justice, and interactional justice) on the sacrifice dimension of job embeddedness. Specifically, all the justice dimensions have an equivalent relationship with the sacrifice dimension.*

CHAPTER THREE: METHODS

Data and Sample

The relationships among overall justice, job embeddedness, risk aversion, job satisfaction, and turnover intentions were examined in a field study. The data were gathered through the crowdsourcing Internet marketplace Amazon Mechanical Turk (MTurk) through the research platform TurkPrime.com (Litman, Robinson, & Abberbock, 2017). Multiple scholars have explained the varied benefits of crowdsourcing. To summarize, Behrend and colleagues (2011) emphasized the simplicity and adaptability of electronic sources, lower possibilities of making mistakes by getting rid of manual data recording techniques, potential to collect data from a wide variety and a larger number of participants at a faster speed (see also Gosling, Vazire, Srivastava, & John, 2004; Truell, Bartlett, & Alexander, 2002), cost effectiveness and affordability (see also Gosling et al., 2004; Kraut et al., 2004). In terms of data quality, research has demonstrated that the data collected from MTurk is as reliable as the other mediums of collecting data (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010).

The data were collected using survey methodology at two points in a gap of one month. At the first time point, I collected data for independent variables, moderator, and the demographics. While the independent variables in the study are distributive justice, procedural justice, and interactional justice, the moderating variable is risk aversion. At the second time point, I collected data for mediators and dependent variables. While the mediators are the links dimension, the fit dimension, and the sacrifice dimension, the dependent variables are job satisfaction and turnover intentions. Following Buhrmester et al. (2011), a medium length survey (<10 mins) should be compensated at $0.50 to get an adequate response rate. Given that the estimated time to complete each of the two surveys was about 10 minutes, participation in the

survey at first time point was paid at $0.50 and participation in the survey at second time point was paid at $0.60.

There are three conditions to be satisfied to establish causality: (a) the measurement of independent variables precedes the measurement of dependent variables, (b) independent and dependent variables are related to each other, and (c) there is no additional variable that provides an explanation of the relationship between independent and dependent variables (Shadish, Cook, & Campbell, 2002). Keeping a time lag between the measurement of the independent and the dependent variable addresses the first condition and it also helps to reduce the common method bias by minimizing the chances to recollect the independent variable (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). They argued that a reasonable time lag is important to prevent any interference from other related factors from influencing the measurement of both predictors and criterion variables. They reasoned that a long time gap can result in hiding relationships under the investigation and can also lead to a loss of participants. Therefore, I believe that one-month was not too long to hide the relationship between organizational justice and job embeddedness but was long enough to meet the standard for temporal precedence and address the common method bias issue. The choice of keeping one-month time lag was also supported by a previous study that considered the temporal separation of one month as a reasonable time lag between the measurement of organizational justice and job embeddedness (Collins & Mossholder, 2014).

The first survey was directed at workers whose current status was listed as "Employee" and location listed as "United States" in MTurk database. The second survey was directed at only those workers who were approved and paid in the first survey. The workers who accepted the task were redirected to Qualtrics to provide their responses to the survey. Researchers have emphasized that the anonymity of Mechanical Turk workers could be compromised with using a

Mechanical Turk Worker ID, which can be linked with a lot of personal information that can unveil the identity of the worker taking the survey (Lease et al., 2013). TurkPrime allows anonymizing Mechanical Turk Worker IDs by replacing them with encrypted TurkPrime Worker IDs. The workers in this study were assured that their identity would not be connected with responses they provide in each of the two surveys. They were also informed that the objective of obtaining encrypted TurkPrime Worker IDs was to compensate them and match their responses across the two surveys. After responses from both the surveys were matched, the encrypted TurkPrime Worker IDs were deleted from the dataset. The workers who successfully submitted their responses to Amazon Mechanical Turk were included in the dataset in both the surveys.

Data Cleaning

The data was initially screened through the verification of validation codes. The survey settings were such that there was a unique validation code generated at the end of the survey once the worker reached the end of the survey. The workers were instructed to copy and paste this code in Mechanical Turk account to receive their compensation for filling up the survey. The validation code was then verified to ensure that workers completed the survey and pasted the correct code in their Amazon Mechanical Turk account. Within the entries that were successfully submitted to Amazon Mechanical Turk, one worker did not put the right code in then Amazon Mechanical Turk Account in the second survey and hence, was deleted from the dataset.

Curran (2016) argued that self-reported surveys on Mechanical Turk are prone to careless responding and therefore, these careless responses can severely impact findings of any research (see also Huang, Curran, Keeney, Poposki, & DeShon, 2012). He suggested that the data should be screened minimally with the response time and Longstring analysis. Before the data analyses were done in the current study, the data were carefully inspected to identify any careless

responders. Upon the recommendation provided by Curran (2016), the current study adopted three data cleaning techniques: attention check items, response time, and Longstring (see also DeSimone, Harms, & Simone, 2015).

Attention checks items. Each of the two surveys included attention check items as a type of direct screening method that helped to improve the data quality (Peer, Vosgerau, & Acquisti, 2014). Two attention check items were placed in both the surveys. Sample attention checks items included were, "Green is a color.", "Yellow is a color.", and "Please select "Yes" as the answer." Inaccurate response to any of these questions resulted in rejection from the dataset. Within the entries successfully submitted to the Amazon Mechanical Turk, three workers (i.e., one from the first survey and two from the second survey) were deleted from the dataset because of incorrect response to the attention check items in surveys. Exclusion of responses that failed to answer attention check item correctly resulted in 998 participants for the first survey and 624 participants for the second survey.

Response time. This data-cleaning tool is based on the expectation that a participant needs a certain amount of time to be able to respond to the item correctly (DeSimone et al., 2015). Huang and colleagues (2012) noted that any participant would need at least two seconds per item. Although it is an arbitrary number, this cutoff was found to be suitable for both the surveys used in this study. Given that the first survey had 34 questions and the second survey had 31 questions, the participants who spent less than 68 seconds on the first survey and less than 62 seconds on the second survey were identified as careless responders. Based on this technique, 20 participants were further eliminated from the dataset.

Longstring. This data-cleaning tool is based on the assumption that a lot of identical responses by a same participant are indicative of poor data (DeSimone et al., 2015). Landers

(2016) recommended calculating Max Longstring using an Excel Macro. He suggested that this would result in a value that depicts the highest of all Longstring (i.e., same responses in a row) for all measures used in a study. Following his recommendation, a histogram was then plotted with Max Longstring values to identify outliers in the dataset. Figure 2 below presents the histogram of these results. The histogram depicts that Max Longstring values greater than 9 are off the main distribution. Therefore, the participants who had Max Longstring values 10 and above were identified as careless responders. Based on this technique, 26 participants were excluded from the dataset.

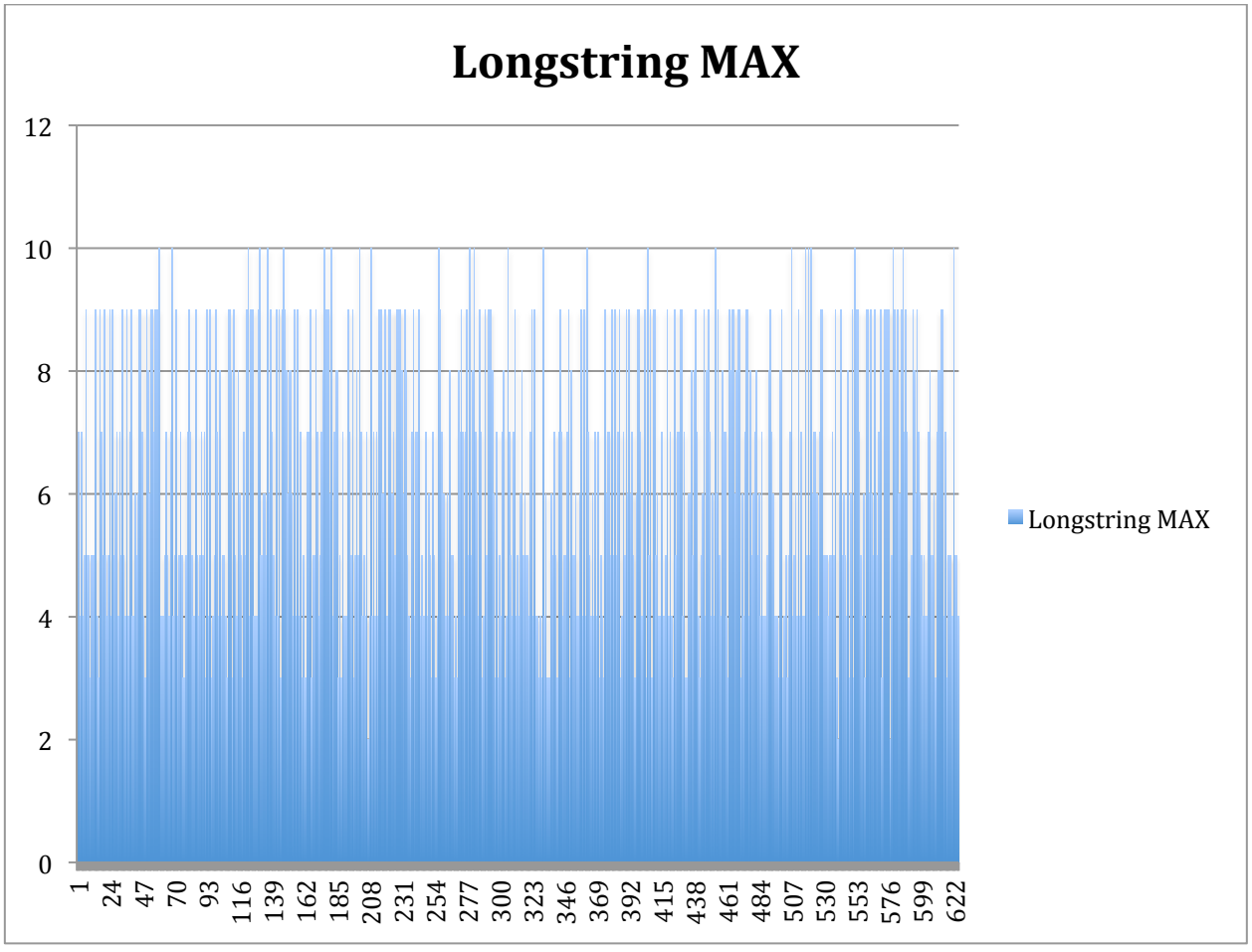

Figure 2: **Histogram Depicting the Results of Longstring Analysis**

In addition to these data cleaning techniques, the data were further screened for participants who completed the survey more than once using the same encrypted TurkPrime ID. Since this is a unique identifier, more than one attempt at completing a survey with the same encrypted TurkPrime ID was identified as a careless response. As a result, five cases were identified that provided duplicate entries and therefore, they were deleted from the dataset as well. It is important to note that few participants were highlighted as giving poor quality data in more than one technique and therefore, they were considered only once. As such, two participants were identified as careless responders in both the response time and Longstring analysis. In addition, one participant who provided repetitive response was also highlighted in the response time analysis. As a result, these three participants were counted only once and the total number of careless responders came to be 48. After the responses of the second survey were matched with those of the first survey and the data cleaning was completed, the final sample used in the study was 576.

Power Analysis

A Monte Carlo simulation using Mplus 7.11(Muthén & Muthén, 1998-2014) was used to conduct the power analysis for determining the minimum required sample size. The intended analysis method for the study was structural equation modeling. Based on the estimated power as .80 to detect the effect size ranging from .15 to .55, the estimated sample size was projected at 515.

Sample Description

The final sample after screening included 576 participants. Out of those, there are 255 males (44.27%) and 321 females (55.73%), with ages ranging from 22 to 74 with an average age of 41.53. Participants identified their race/ethnicity as 6.25% Asian or Pacific Islander, 2.08% as

Asian Indian, 10.42% as Black or African American, 71.18% as Caucasian or White, 1.04% as Native American, 6.42% as Latino or Hispanic, 0.17% as Puerto Rican, and 2.43% identified themselves with more than one race. The average work experience of participants was 20.78. [2]

Measures

A 5-point Likert type scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*) was used to assess all the constructs. Given than the cronbach alpha is based on the assumption of tau equivalence, it deflates the reliability coefficient when this assumption is not met (Dunn, Baguley, & Brunsden, 2014). Yang and Green (2011) noted that the tau-equivalence assumption suggests that the factor loadings of all items on their respective latent factor are all equal. Given the factor loadings of items on their underlying scales in the current study, the tau-equivalence of all scales may not be an appropriate conclusion (see Table 3 for standardized factor loadings of all scales; see also Yang & Green, 2011). Dunn and colleagues (2014) argued that this problem can be addressed using McDonald's omega (ω, see McDonald, 1999) to report the reliability estimates since this is a less restrictive way of assessing the reliability and does not require the tau equivalence assumption to be met (see also Cho & Kim, 2015). The current study reports both the alpha reliability (α) as an index of internal consistency (Peterson, 1994) as well as McDonald's omega reliability (ω) estimates. The survey items used in the current study are listed in the Appendix section.

Distributive justice. Following Colquitt (2001), I measured distributive justice using a 4-item scale. A sample item from his scale used in this study was, "Do your outcomes reflect the effort you have put into your work?" (see also Colquitt, LePine, Piccolo, Zapata, & Rich, 2012). The scale's coefficient alpha reliability (α) in this study was found to be .939. Using MLR,

[2] Please note that one participant mentioned the work experience as "over 20 years". The work experience of this participant was considered 20 years for statistical purposes (i.e., to calculate the average).

McDonald's omega (ω) estimates along with 95% confidence internals for the distributive justice scale are ω = 0.943, 95% CI [.927, .959].

Procedural justice. Following Colquitt (2001), I measured procedural justice using a 7-item scale. A sample item from his scale included in this research was, "Have you been able to express your views and feelings during these procedures?". The scale's coefficient alpha reliability (α) in this study was found to be .90. Using MLR, McDonald's omega (ω) estimates along with 95% confidence internals for the procedural justice scale are ω = 0.896, 95% CI [.873, .918].

Interactional justice. Following Colquitt (2001), I measured interactional justice using a 9-item scale (see also Ambrose & Schminke, 2003). A sample item from his scale included in this study was, "Has he/she treated you in a polite manner?". The scale's coefficient alpha reliability (α) in this study was found to be .938. Using MLR, McDonald's omega (ω) estimates along with 95% confidence internals for the interactional justice scale are ω = 0.929, 95% CI [.910, .947].

Overall justice. This measure included three subscales named *distributive justice*, *procedural justice, and interactional justice* created by Colquitt (2001). Consistent with the previous research, I measured this factor indirectly through creating a second order latent variable from these individual dimensions given the high correlation between these dimensions (Barclay & Kiefer, 2014; see also Colquitt & Shaw, 2005).

Links. I measured the links dimension by adapting the scale from Mitchell and colleagues (2001) to meet the research objectives of the current study. Given that the current study has confined the definition of the links dimension to connections with respect to only coworkers and the supervisor (Mitchell et al., 2001), the items were adapted accordingly. A

sample adapted item from their scale included in this study was, "I interact regularly with my coworkers" (Mitchell et al., 2001). The two items pertaining to coworkers were retained but the response format was changed to be consistent with other items. In addition, these two items were further adapted to reflect the relationship with the supervisor. Overall, the 4-item scale was used in the study to measure the links dimension. As reasoned earlier in the paper, the links dimension has been modeled as a reflective factor in this paper. The scale's coefficient alpha reliability (α) in this study was found to be .683. Using MLR, McDonald's omega (ω) estimates along with 95% confidence internals for the links dimension scale are ω = 0.711, 95% CI [.652, .771].

Fit. I measured the fit dimension using 7-items from the nine items scale developed by Mitchell and colleagues (2001). Given that I argue that a supervisor's actions are indicative of the organizational value system but not coworkers', the two items pertaining to coworkers were dropped. A sample item from their scale incorporated in the present research was, "My values are compatible with the organization's values" (Mitchell et al., 2001). As argued earlier in the paper, the fit dimension has been modeled as a reflective factor in this study. The scale's coefficient alpha reliability (α) in this study was found to be .915. Using MLR, McDonald's omega (ω) estimates along with 95% confidence internals for the fit dimension scale are ω = 0.907, 95% CI [.89, .925].

Sacrifice. I measured the sacrifice dimension using a 10-item scale developed by Mitchell and colleagues (2001). A sample item from their scale used in this paper was, "I would sacrifice a lot if I left this job". As theorized earlier in the paper, the sacrifice dimension has been modeled as a reflective factor in this research. The scale's coefficient alpha reliability (α) in this study was found to be .892. Using MLR, McDonald's omega (ω) estimates along with 95% confidence internals for the sacrifice dimension scale are ω = 0.887, 95% CI [.865, .91].

Job embeddedness. I measured this factor by creating a second order latent factor from the individual dimensions of job embeddedness. Mitchell and colleagues (2001) originated job embeddedness as a formative factor defined by *the links dimension, the fit dimension, and the sacrifice dimension.* As mentioned earlier in the paper, job embeddedness is operationalized as a formative construct in this study such that each of these three dimensions contribute to job embeddedness of the employee and not vice-versa (see Mitchell et al., 2001).

Risk aversion. Following Colquitt and colleagues (2006), I measured risk aversion using a 6-item scale developed from the International Personality Item Pool (2001). A sample item from their scale included in the study was, "I enjoy being reckless". The scale's coefficient alpha reliability (α) in this study was found to be .776. Using MLR, the McDonald's omega (ω) estimates along with 95% confidence internals for the risk aversion scale are ω = 0.776, 95% CI [.746, .806][3].

Job satisfaction. Following Judge, Bono, Erez, and Locke (2005), I measured job satisfaction using the short form of Brayfield and Rothe (1951) Job Satisfaction Scale. A sample item from their scale included in this study was, "Most days I am enthusiastic about my work". The scale's coefficient alpha reliability (α) in this study was found to be .902. Using MLR, the McDonald's omega (ω) estimates along with 95% confidence internals for the job satisfaction scale are ω = 0.902, 95% CI [.887, .917].[4]

Turnover intentions. Following Lichtenstein, Alexander, McCarthy, and Wells (2004), I measured turnover intentions using their 3-item scale adapted from Price and Mueller (1981).

[3] Four reverse worded items in the risk aversion scale were reverse coded for statistical analyses. The reverse coded items in this scale were, "I enjoy being reckless.", "I take risks.", "I seek danger.", and "I seek adventure."
[4] Two reverse worded items in the job satisfaction scale were reverse coded for statistical analyses. The reverse coded items in this scale were, "Each day at work seems like it will never end." and "I consider my job rather unpleasant."

A sample item from their scale included in this study was, "I frequently think of leaving this organization". The scale's coefficient alpha reliability (α) in this study was found to be .93. Using MLR, McDonald's omega (ω) estimates along with 95% confidence internals for the turnover intentions scale are ω = 0.931, 95% CI [.917, .945].

The number of items in each scale and the two estimates of internal consistency reliabilities (i.e., ω & α) are reported below in Table 1.

Table 1: Number of Items and Reliability Estimates

Scales	Number of Items	ω [95% CI]	Cronbach α
Distributive Justice	4	.943[.927,.959]	0.939
Procedural Justice	7	.896[.873,.918]	0.900
Interactional Justice	9	.929[.910,.947]	0.938
Risk Aversion	6	.776[.746,.806]	0.776
Links	4	.711[.652,.771]	0.683
Fit	7	.907[.890,.925]	0.915
Sacrifice	10	.887[.865,.910]	0.892
Job Satisfaction	5	.902[.887,.917]	0.902
Turnover Intentions	3	.931[.917,.945]	0.930

I would like to note that job satisfaction and turnover intentions have been set up as reflective indicators of job embeddedness in this study to help with model identification. There were three theoretical considerations that motivated this decision. Firstly, modeling these two constructs as indicators involved emitting arrows out of job embeddedness that is similar to a situation if they were treated as outcomes. Hence, they are no different than outcomes in terms of how their causality is modeled in the study. Research has suggested that organizational job embeddedness (i.e., on-the-job links, on-the-job fit, and on-the-job sacrifice) leads to higher job satisfaction and lower turnover intentions (Harris et al., 2001). This research suggested that the causal flow goes from job embeddedness to both these constructs since changes in job embeddedness results in changes in job satisfaction and turnover intentions but not vice versa.

Secondly, the next condition that satisfies modeling job satisfaction and turnover intentions as reflective indicators of job embeddedness is their interchangeability. Jarvis and colleagues (2003) argued that reflective indicators should follow a similar theme such that removing one of these indicators does not change or impact the meaning of the construct in question (i.e., job embeddedness). Related to this study, this argument implies that there should be similarity existing among job satisfaction, turnover intentions, and job embeddedness such that dropping one of these two indicators of job embeddedness should not impact its conceptual understanding. There are two overlapping themes existing among these constructs. Firstly, as noted by Mitchell and colleagues (2001), job satisfaction covers aspects related to organizational experiences (see also Illies et al., 2009; Locke, 1976) and therefore, it is limited to on-the-job experiences of employees. Similarly, Jackofsky (1984) argued that turnover intentions precede turnover in organizations since they are an intermediate step between the deliberations about quitting and actually quitting the job (see also Crossley et al., 2007; Mobley, 1977). This argument suggests that turnover intentions are also limited to on-the-job experiences of employees. As such, the study is also limited to studying on-the-job embeddedness of employees, suggesting that there is a common theme among these three constructs. Secondly, the other common linkage between job satisfaction and turnover intentions is that both these dimensions tap onto the affective side of job embeddedness (see also Mitchell et al., 2001). Mitchell and colleagues (2001) argued that there is a part of the fit dimension and the sacrifice dimension that also captures the affective reasons of staying on the job. Job satisfaction is the affective assessment or the evaluation of attitudes towards the current position or events at work (Illies et al., 2009; Locke, 1976). This suggests that job satisfaction taps on to the affective element of job embeddedness. With regards to turnover intentions, Lawler's theory (2001)

argues that turnover decisions are affective assessments toward the work organization (see also Taylor & Pillemer, 2009). This suggests that turnover intentions also tap on to the affective portion of job embeddedness. Through capturing the affective part of job embeddedness, it can be argued that both these constructs are interchangeable since dropping one of them would not change the underlying meaning of job embeddedness (Jarvis et al., 2003). Given that the conceptual meaning of job embeddedness is situated in three constructs: the links dimension, the fit dimension, and the sacrifice dimension (Mitchell et al., 2001), any other causal indicator to job embeddedness construct would not add to the core definition of this construct. Therefore, job satisfaction and turnover intentions can be considered interchangeable.

Thirdly, research has found that job satisfaction and turnover intentions are causally related such that there is a negative relationship between these two constructs (Hellman, 1997). This suggests that any change in one construct brings a change in the other construct. This causal relationship suggests that job satisfaction and turnover intentions covary with each other, confirming their reflective relationship with job embeddedness (Jarvis et al., 2003).

CHAPTER FOUR: ANALYSES AND RESULTS

Factor Correlations

The factor correlations derived from WITH statements in the measurement model are reported below in Table 2.

Table 2: Factor Correlations

Latent Factors	1	2	3	4	5	6
1. Overall Justice	1					
2. Risk Aversion	.072	1				
3. Links	.303**	-0.075	1			
4. Fit	.608**	.001	.492**	1		
5. Sacrifice	.472**	-0.115*	.317**	.736**	1	
6. Job Satisfaction	.516**	-0.005	.396**	.901**	.663**	1
7. Turnover Intentions	-0.462**	-0.082	-0.248**	-0.710**	-0.694**	-0.713**

Hypotheses Testing

Model estimation. Following Anderson and Gerbing (1988), a two-step approach was used to make sure that latent factors demonstrated factorial validity. They noted that the first step is to examine a measurement model using confirmatory factor analysis, which describes the relationship of latent variables with their associated indicators such that the causality flows from the latent variable to its indicators (see also Williams, Edwards, & Vandenberg, 2003). They argued that the second step is to test the structural model of interest, which estimates the theorized relationships that these variables share with one another. These scholars also emphasized that estimating these two models is important since any misspecification in the measurement model can influence the interpretations derived out of the structural model.

Given that job embeddedness is a formative construct (Mitchell et al., 2001), it was not added to the measurement model. The statistics used to assess the overall model fit for the measurement and structural models were the robust $\chi 2$, Tucker-Lewis Index (TLI), Comparative

Fit Index (CFI), and Root Mean Square Residual (RMSEA) (Hu & Bentler, 1999; Sass, Seal, & Martin, 2011). Given that scholars have noted that $\chi 2$ statistic is sensitive to complex models as well as large samples, robust $\chi 2$ statistics will be less emphasized than TLI, CFI and RMSEA in the interpretation of results in this study (Sass et al., 2011).

The estimator selected for estimating both the measurement model as well as the structural model was maximum likelihood robust (MLR) instead of weighted least-squares with mean and variance (WLSMV). There are two reasons that justify MLR estimator was a suitable primary method for analyses in the current study. First, since measures in the study use a 5-point scale, it can be safe to consider these variables as continuous (Byrne, 1998). Secondly, the structural model in the study includes a latent interaction term to test moderation effects and this analysis is not supported by WLSMV. Thus, MLR is the appropriate estimator for the current study. These models were estimated using Mplus 8, version 1.6 (Muthén & Muthén, 1998-2017).

Measurement Model

Following Anderson and Gerbing (1988), the measurement model (i.e., confirmatory factor analysis) was estimated first to ensure the quality of the factor structure. The measurement model evaluated the factor structure of ten latent factors (i.e., distributive justice, procedural justice, interactional justice, risk aversion, links, fit, sacrifice, job satisfaction, turnover intentions , and overall justice). Using maximum likelihood robust (MLR) estimator, the measurement model yielded a marginal model fit, $\chi 2$ (1406) = 4080.534, $p < .001$, CFI = .861, TLI = .853, RMSEA = .057, SRMR =.069. CFI and TLI should be at least .90 whereas RMSEA and SRMR should be less than .06 and .08 respectively for the model to demonstrate a good model fit (Hu & Bentler, 1999). Following these guidelines, the model fit statistics in the current study suggested that CFI and TLI suggest a marginal fit to the data since they both are close to .90 whereas

RMSEA and SRMR demonstrate a good fit to the data. The estimated factor loadings were significant and mostly large, providing sufficient evidence of factorial validity. The factor loadings derived out of the measurement model are provided below in Table 3.

Table 3: Standardized Factor Loadings from the Measurement Model

Latent factor/Item #	Estimate	S.E.
Distributive Justice		
i1	0.861	0.019
i2	0.918	0.015
i3	0.882	0.018
i4	0.904	0.013
Procedural Justice		
i5	0.699	0.030
i6	0.705	0.026
i7	0.822	0.019
i8	0.783	0.021
i9	0.854	0.016
i10	0.582	0.032
i11	0.814	0.018
Interactional Justice		
i12	0.893	0.018
i13	0.913	0.016
i14	0.922	0.014
i15	0.686	0.036
i16	0.757	0.031
i17	0.769	0.027
i18	0.822	0.022
i19	0.716	0.033
i20	0.650	0.038
Risk Aversion		
i21	0.65	0.042
i22	0.800	0.027
i23	0.667	0.040
i24	0.649	0.033
i25	0.446	0.043
i26	0.532	0.041
Links		
i27	0.611	0.081
i28	0.603	0.091

Table 3: Continued

i29	0.636	0.085
i30	0.532	0.098
Fit		
i31	0.702	0.030
i32	0.814	0.023
i33	0.795	0.023
i34	0.735	0.025
i35	0.784	0.021
i36	0.803	0.021
i37	0.829	0.018
Sacrifice		
i38	0.544	0.040
i39	0.751	0.023
i40	0.475	0.040
i41	0.663	0.031
i42	0.694	0.027
i43	0.696	0.027
i44	0.778	0.033
i45	0.706	0.036
i46	0.697	0.035
i47	0.742	0.025
Job Satisfaction		
i48	0.841	0.018
i49	0.867	0.017
i50	0.637	0.033
i51	0.870	0.015
i52	0.791	0.024
Turnover Intentions		
i53	0.916	0.014
i54	0.878	0.017
i55	0.923	0.016
Overall Justice		
Distributive Justice	0.666	0.036
Procedural Justice	0.986	0.022
Interactional Justice	0.782	0.032

Note: All parameter estimates are statistically significant at $p < .001$

The associated R^2 for each of the latent variables were statistically significant. Specifically, the associated R^2 for distributive justice is .443, the associated R^2 for procedural justice is .963, the associated R^2 for interactional justice is .618, the associated R^2 for the links dimension is .097, the associated R^2 for the fit dimension is .384, the associated R^2 for the sacrifice dimension is .263, the associated R^2 for job satisfaction is .880, the associated R^2 for turnover intentions is .583 and the associated R^2 for job embeddedness is .902. Drawing upon Cohen's (1988) effect size conventional standards of small (R^2 = .02), medium (R^2 = .13), and large (R^2 = .26), the R^2 effect sizes in this study were mostly large. Overall, these results indicated that these latent variables mostly explained an acceptable level of proportion in the outcome variable's variance.

Structural Model

As noted earlier, the structural model tests hypothesized relationships among the latent variables (Anderson & Gerbing, 1988). Following the recommendation of Anderson and Gerbing (1988), the measurement model was estimated first by running a confirmatory factor analysis to ensure the convergent and discriminant validity of latent factors and then, the structural model was estimated to test predictions among them. Essentially, the structural model estimated the impact of overall justice on job embeddedness through the links dimension, the fit dimension, and the sacrifice dimension. It also assessed the relationship of job embeddedness with job satisfaction and turnover intentions. Although a full mediation effect of job embeddedness was hypothesized between overall justice and job satisfaction as well as turnover intentions, the possibility of partial mediation was also explored. Specifically, the effect of overall justice on these two attitudinal outcomes was also estimated in the structural model. Essentially, this structural model specified relationships among these ten latent factors (i.e., distributive justice,

procedural justice, interactional justice, overall justice, links, fit, sacrifice, job satisfaction, turnover intentions, and job embeddedness). The model fit of the structural model was marginal, $\chi 2$ (1112) = 3661.108, $p < .001$, CFI = .856, TLI = .848, RMSEA = .063, SRMR = .082. Below are the results for each of the five hypotheses:

Hypothesis 1. This hypothesis tested whether overall justice is related to job embeddedness. The factor loadings of distributive justice ($\lambda = .665$, $p < .001$), procedural justice ($\lambda = .981$, $p < .001$), and interactional justice ($\lambda = .786$, $p < .001$) on the second order factor 'overall justice' were all large and statistically significant.

As noted earlier in the paper, job embeddedness is treated as a formative construct in the study (Mitchell et al., 2001). Cadogan and Lee (2013) have argued that different predictors of a formative variable share different relationships with the overall construct and therefore, neglecting to model the indicators of a formative variable as predictors in disaggregated form can impact the associated results derived out of this model (see also Cadogan, Souchon, & Procter, 2008). They proposed that any variation in the formative variable has to take place through its indicators and therefore, estimating the change in the formative variable should be assessed through the change in its related indicators. The formative indicators of job embeddedness (i.e., the links dimension, the fit dimension, and the sacrifice dimension) are modeled in the reflective form. The variance in these three indicators caused by overall justice helps to assess the relationship between overall justice and job embeddedness.

As theoretically expected, the links dimension ($\beta = .132$, $p < .05$), the fit dimension ($\beta = .798$, $p < .001$), and the sacrifice dimension ($\beta = .120$, $p < .05$) were found to be important formative indicators of job embeddedness. The structural coefficients from overall justice to each of the three dimensions of job embeddedness were all found to be statistically significant.

Overall justice was found to be a significant predictor of the links dimension (β = .260, $p < .001$), the fit dimension (β = .610, $p < .001$), and the sacrifice dimension (β = .485, $p < .001$). Collectively, the results suggested that overall justice is a significant predictor of job embeddedness and therefore, Hypothesis 1(a), 1(b), and 1(c) are all supported.

Hypothesis 2. This hypothesis suggested that risk aversion moderates the effect of overall justice on the links dimension, the fit dimension, and the sacrifice dimension such that these effects are stronger when risk aversion is high. The moderation effect was estimated by adding a latent interaction term (i.e., the interaction of overall justice and risk aversion) to the model. Please note that the MPlus software does not provide the model fit statistics when a latent interaction term is estimated. The results suggested that the moderation effects were significant for all three hypothesized relationships.

With respect to the relationship between overall justice and the links dimension, the moderation effect of risk aversion was found to be significant (β = 0.114, $p < .05$), suggesting that the slope of overall justice on the links dimension changes based on the values of risk aversion. Thus, risk aversion moderates the relationship between overall justice and the links dimension such that when risk aversion increases, the relationship between overall justice and the links dimension is strengthened. Conversely, when risk aversion decreases, the relationship between overall justice and the links dimension is weakened. These results did support the hypothesized relationship since the relationship between overall justice and the links dimension was theorized to get stronger for people with high risk aversion and vice versa. The results suggested that Hypothesis 2(a) is supported.

With respect to the relationship between overall justice and the fit dimension, the moderation effect of risk aversion was found to be significant (β = 0.116, $p < .05$), suggesting

that the association between overall justice and the fit dimension changes based on the values of risk aversion. Thus, risk aversion moderates the relationship between overall justice and the fit dimension such that when risk aversion increases, the relationship between overall justice and the fit dimension is strengthened. Conversely, when risk aversion decreases, the relationship between overall justice and the fit dimension is weakened. These results did support the hypothesized relationship since the relationship between overall justice and the fit dimension was expected to get stronger for people with high risk aversion and vice versa. The results suggested that Hypothesis 2(b) is also supported.

With respect to the relationship between overall justice and the sacrifice dimension, the moderation effect of risk aversion was found to be significant ($\beta = 0.130$, $p < .05$) suggesting that the connection between overall justice and the sacrifice dimension changes based on the values of risk aversion. Thus, risk aversion moderates the relationship between overall justice and the sacrifice dimension such that when risk aversion increases, the relationship between overall justice and the sacrifice dimension is strengthened. Conversely, as risk aversion decreases, the relationship between overall justice and the sacrifice dimension is weakened. These results did support the hypothesized relationship since the relationship between overall justice and the sacrifice dimension was expected to get stronger for people with high risk aversion and vice versa. The results suggested that Hypothesis 2(c) is also supported.

Mediation Tests

The two mediation hypotheses (i.e., Hypotheses 3 & 4) were tested using Baron and Kenny (1986) method tested through structural equation modeling (SEM) (see also Alge, Ballinger, Tangirala, & Oakley, 2006; Holmbeck, 1997; Prussia, Anderson, & Manz, 1998). Kenny, Kashy and Bolger (1998) summarized the four conditions to establish a mediation effect

as proposed by Baron and Kenny (1986) and Judd and Kenny (1986) (see also Rupp & Cropanzano, 2002). They noted that the first condition is that the independent variable has a statistically significant relationship with the dependent variable. Kenny and colleagues (1998) mentioned that this would suggest the presence of an effect that can be mediated by other variable (see also Baron & Kenny, 1986). They argued that the second condition is that the independent variable should have a statistically significant relationship with the mediator. Next, they noted that the third condition is the existence of a statistically significant relationship between the mediator and the dependent variable. Next, these scholars also argued that once the first three conditions are met, the magnitude of the effect of the independent variable on dependent variables should reduce statistically, once the mediator is considered in the model.

Upon using SEM instead of regression equations to test mediation hypotheses, Holmbeck (1997) recommended a series of steps to test mediation based on Baron and Kenny's approach (see also Rupp & Cropanzano, 2002). He suggested that the initial step is to test the direct effect of the predictor on the criterion. If this relationship were found to be statistically significant, he added that the next step would be to test a model where the predictor is associated with the mediator and the mediator is associated with the criterion. If these two relationships were also found to be statistically significant, he noted that the last step then would be to estimate a model with all those paths that were included in the second model, but also including the direct path between the predictor and the criterion. He argued that the chi-square difference test should then be estimated between the fit indices of models estimated at the second and the last step. Essentially, he advocated that a non-significant chi square difference test would suggest that including an additional direct path from the predictor to the criterion in the third model did not improve the model fit. Thus, his approach suggested that a non-significant chi-square difference

test would suggest that a full mediation is in effect whereas a significant chi-square difference test would suggest a partial mediation.

Applying these series of steps recommended by Holmbeck (1997) for testing hypotheses 3 and 4, the path from the independent variable to the dependent variable, the independent variable to the mediator, the mediator to the dependent variable were found to be significant (see also Baron & Kenny, 1986; Kenny et al., 1998). In addition, the path from the independent variable to the dependent variable turned non-significant when the mediator was included in the model. Three different structural models were estimated to test these recommended direct effects in each of the two hypotheses. The path coefficients and statistical significance of each of these relationships are reported below.

Hypothesis 3. This hypothesis suggested that job embeddedness mediates the relationship between overall justice and job satisfaction. The first structural model estimated the direct relationship between overall justice and job satisfaction. The results suggested that this relationship was statistically significant ($\beta = .899$, $p < .001$), satisfying the first condition of Baron and Kenny (1986). Given that the direct relationship between the independent variable and the outcome was significant, the second structural model estimated these two relationships: (a) overall justice and job embeddedness and (b) job embeddedness and job satisfaction. As mentioned earlier in this section, the three dimensions of job embeddedness account for the variance in job embeddedness. The results indicated that overall justice is a statistically significant predictor of job embeddedness, overall justice→the links dimension ($\beta = .260$, $p < .001$), overall justice→the fit dimension ($\beta = .610$, $p < .001$), overall justice→the sacrifice dimension ($\beta = .485$, $p < .001$), satisfying the second condition of Baron and Kenny (1986). The results also suggested that the link between job embeddedness and job satisfaction was large and

significant ($\lambda = .962$, $p < .001$), satisfying the third condition of Baron and Kenny (1986). To test the fourth condition of mediation, the chi-square difference test was used to assess whether the direct effect from overall justice to job satisfaction weakened when job embeddedness was included as a mediator in the model. The third structural model was estimated with direct effect from overall justice to job satisfaction added to the previous model over and above the paths estimated from overall justice to job embeddedness and job embeddedness to job satisfaction. When the mediator (i.e., job embeddedness) was added to the structural model, the direct relationship between overall justice to job satisfaction went from statistically significant to statistically non-significant, indicating a full mediation effect ($\beta = -0.043$, $p > .05$), satisfying the fourth and the final condition of Baron and Kenny (1986).

In addition, the chi-square difference test between the two models – the second structural model (i.e., the full mediation model) and the third structural model (i.e., the partial mediation model) suggested that the more parsimonious full mediation model provided a better fit to the data ($\chi 2\ \Delta\ (2) = 2.1942$, $p > .05$). This suggests that the additional path from overall justice to job satisfaction did not improve the model fit and therefore, the partial mediation model was rejected. Therefore, it can be concluded that Hypothesis 3 is supported since job embeddedness was found to be fully mediating the relationship between overall justice and job satisfaction.

Hypothesis 4. This hypothesis suggested that job embeddedness mediates the relationship between overall justice and turnover intentions. The first structural model was estimated to assess the relationship between overall justice and turnover intentions. This relationship was found to be statistically significant ($\beta = -0.752$, $p < .001$), satisfying the first condition of Baron and Kenny (1986). Given that the first condition of mediation is satisfied, the second structural model estimated these two relationships: (a) overall justice and job

embeddedness and (b) job embeddedness and turnover intentions. As noted earlier in this section, overall justice was found to be significantly associated with job embeddedness, overall justice→the links dimension (β =.260, $p < .001$), overall justice→the fit dimension (β =.610, $p < .001$), overall justice→the sacrifice dimension (β =.485, $p < .001$), satisfying the second condition of Baron and Kenny (1986). The results also showed that the link between turnover intentions and job embeddedness was large and significant (λ = -0.741, $p < .001$), satisfying the third condition of Baron and Kenny (1986).

Similar to the previous hypothesis, the chi-square difference test was adopted to evaluate whether the direct effect from overall justice to turnover intentions decreases statistically after including job embeddedness as a mediator in the model. This helped to assess the fourth condition of mediation, as stipulated by Baron and Kenny (1986). The third structural model was estimated with the direct effect from overall justice to turnover intentions added to the previous model in addition to the paths estimated from overall justice to job embeddedness and job embeddedness to turnover intentions. After the mediator (i.e., job embeddedness) was added to the structural model, the direct relationship between overall justice and turnover intentions changed from statistically significant to statistically non-significant, suggesting a full mediation effect (β = -0.037, $p > .05$), meeting the fourth and the last condition of Baron and Kenny (1986).

Further, the chi-square difference test between the two models – the second structural model (i.e., the full mediation model) and the third structural model (i.e., the partial mediation model) suggested that the more parsimonious full mediation model provided a better fit to the data ($\chi 2 \Delta (2) = 2.1942$, $p > .05$). This suggests that the direct link from overall justice to turnover intentions did not enhance the model fit and thus, the partial mediation model was rejected. Therefore, it can be concluded that Hypothesis 4 is supported since job embeddedness

was found to be a full mediator of the relationship between overall justice and turnover intentions.

Hypothesis 5. This hypothesis suggested that interactional justice was the strongest predictor of the links dimension, followed by procedural justice and then, distributive justice (H5a). Further, distributive justice is the strongest predictor of the fit dimension, followed by procedural justice, and then, interactional justice (H5b). Lastly, there is no differential effect of each of the three justice facets on the sacrifice dimension (H5c). I used confirmatory factor analysis (CFA) with hierarchically nested models to test these hypotheses by constraining the covariances to be equal. The reason I constrained covariances rather than betas to be equal was that I am interested in evaluating the relative effects of predictors (i.e., the different justice facets) on the dimensions of job embeddedness without controlling for the effect of other variables.

Bryant and Smith (2001) also provided two reasons to support CFA analyses over regular correlations. Firstly, they argued that CFA provides a systematic and superior approach to test differential relationships among variables. They noted that this method helps to control for measurement error that can weaken the strength of relationships. Secondly, they argued that CFA allows imposing equality constraints on correlation coefficients to test whether or not differences in their strength are statistically significant from each other. This method, according to their perspective, allows comparing the goodness of fit chi-square ($\chi 2$) statistic as well as degrees of freedom of two hierarchically nested models (i.e., a model that is freely estimated without imposing any equality constraints and a second model that does impose equality constraints over correlations of constructs in consideration). In relation to this study, the results would show support for differential hypotheses between organizational justice dimensions and job

embeddedness dimensions when chi-square ($\chi 2$) statistic is statistically significant and hence, the less constrained model should fit significantly better than the constrained model (Bryant & Smith, 2001). Upon comparing the nested models to evaluate covariances, the unstandardized estimates were considered. However, both unstandardized and standardized estimates have been reported here for reference purposes.

The unconstrained model (Model 0) for evaluating differential relationships of the justice facets with the links dimension was estimated with six latent variables (i.e., distributive justice, procedural justice, interactional justice, links, fit, and sacrifice). In this model, the unstandardized covariances of distributive justice with the links dimension ($\phi = .121$, $p < .05$), procedural justice with the links dimension ($\phi = .107$, $p < .05$), and interactional justice with the links dimension ($\phi = .101$, $p < .05$) were all statistically significant. In addition, the standardized covariances of distributive justice with the links dimension ($\phi = .271$, $p < .001$), procedural justice with the links dimension ($\phi = .292$, $p < .001$), and interactional justice with the links dimension ($\phi = .236$, $p < .001$) were also all statistically significant. Next, equality constraints were placed on each of these relationships (Model 1a). After imposing these constraints, the unstandardized covariances of distributive justice with the links dimension ($\phi = .110$, $p < .001$), procedural justice with the links dimension ($\phi = .110$, $p < .001$), and interactional justice with the links dimension ($\phi = .110$, $p < .001$) were all statistically significant. In addition, the standardized covariances of distributive justice with the links dimension ($\phi = .246$, $p < .001$), procedural justice with the links dimension ($\phi = .298$, $p < .001$), and interactional justice with the links dimension ($\phi = .254$, $p < .001$) were also all statistically significant. Table 4 below summarizes the model fit statistics for Model 0 and Model 1a.

Table 4: Model Fit Statistics for Model 0 and Model 1a (The Links Dimension)

Model#	Model Description	Chi-Square Statistic ($\chi 2$)	Degrees Of freedom	Scaling Correction Error	*p*-value	CFI	TLI	RMSEA	SRMR
Model 0	Unconstrained Model, (i.e., freely estimated without imposing any equality constraints)	2708.846	764	1.2050	0.0000	0.857	0.846	0.066	0.072
Model 1a	Model with covariances (WITH statements) between distributive justice and links, procedural justice and links, and interactional justice and links are constrained to be equal	2709.375	766	1.2050	0.0000	0.857	0.847	0.066	0.072

Given that the analysis is done using MLR estimator, the Satorra-Bentler scaled chi-square difference test was used to compare these nested models (Muthén & Muthén, 2005). Upon comparing Model 1a with Model 0, the results demonstrated that the constrained model fits very much the same as the less constrained model and that the chi-square difference test is non-significant. Specifically, the chi-square difference is .5290 and the change in degrees of freedom is 2.000 ($p > .05$). Table 5 below provides the comparison of these two models.

Table 5: Comparison of CFA Models (The Links Dimension)

Satorra-Bentler Chi-Square Difference Test						
Model Comparison	**Difference Test Scaling Correction (CD)**	**Sattora-Bentler Scaled Chi-Square Difference (TRd)**	**Difference in Degrees of Freedom**	**Difference in CFI**	***p*-value**	**Significant/Not Significant**
Model 0 with Model 1a	1.2050	.5290	2.0000	0	0.76759	Not Significant

The above results suggested that the covariances between these variables (i.e., the individual justice facets and the links dimension) do not differ in their strength and hence, can be

considered equal (Bryant & Smith, 2001). Therefore, the restrictive and the more parsimonious model was accepted. These findings are not consistent with the hypothesized relationships since it was predicted that each of the justice facets should have a unique relationship with the links dimension. The results suggested that each of the justice dimensions has an equivalent relationship with the links dimension. Overall, Hypothesis 5(a) is not supported.

Next, the unconstrained model (Model 0) for evaluating differential relationships of the justice facets with the fit dimension was also estimated with only six latent variables (i.e., distributive justice, procedural justice, interactional justice, links, fit, and sacrifice). The results for this unconstrained model depicted that the unstandardized covariances of distributive justice with the fit dimension ($\phi = .307$, $p < .001$), procedural justice with the fit dimension ($\phi = .312$, $p < .001$), and interactional justice with the fit dimension ($\phi = .310$, $p < .001$) are all statistically significant. In addition, the standardized covariances of distributive justice with the fit dimension ($\phi = .472$, $p < .001$), procedural justice with the fit dimension ($\phi = .585$, $p < .001$), and interactional justice with the fit dimension ($\phi = .497$, $p < .001$) were also all statistically significant. After estimating the constrained model, equality constraints were placed on each of these relationships (Model 2a). The resulting model showed that the unstandardized covariances of distributive justice with the fit dimension ($\phi = .310$, $p < .001$), procedural justice with the fit dimension ($\phi = .310$, $p < .001$), and interactional justice with the fit dimension ($\phi = .310$, $p < .001$) were all statistically significant. In addition, the standardized covariances of distributive justice with the fit dimension ($\phi = .474$, $p < .001$), procedural justice with the fit dimension ($\phi = .584$, $p < .001$), and interactional justice with the fit dimension ($\phi = .496$, $p < .001$) were also all statistically significant. Table 6 below summarizes the model fit statistics for Model 0 and Model 2a.

Table 6: Model Fit Statistics for Model 0 and Model 2a (The Fit Dimension)

Model#	Model description	Chi-Square Statistic ($\chi 2$)	Degrees of freedom	Scaling Correction Error	*p*-value	CFI	TLI	RMSEA	SRMR
Model 0	Unconstrained Model (i.e., freely estimated without imposing any equality constraints)	2708.846	764	1.2050	0.0000	0.857	0.846	0.066	0.072
Model 2a	Model with covariances (WITH statements) between distributive justice and fit, procedural justice and fit, and interactional justice and fit are constrained to be equal	2707.566	766	1.2056	0.0000	0.857	0.847	0.066	0.072

Using Satorra-Bentler scaled chi-square difference test to compare these nested models (i.e., Model 2a with Model 0) (see Muthén & Muthén, 2005), the results showed that the model fit indices of the constrained model fit almost the same as the less constrained model and that the chi-square difference test is also non-significant. As such, the chi-square difference is .0572 and the change in degrees of freedom is 2.000 ($p > .05$). Table 7 below provides the comparison of these models.

Table 7: Comparison of CFA Models (The Fit Dimension)

Satorra-Bentler Chi-Square Difference Test						
Model comparison	**Difference Test Scaling Correction (CD)**	**Sattora-Bentler Scaled Chi-Square Difference (TRd)**	**Difference in Degrees of Freedom**	**Difference in CFI**	**p-value**	**Significant/Not Significant**
Model 0 with Model 2a	1.4348	.0572	2.0000	0	.971805	Not Significant

Similar to the links dimension, these results indicated that the covariances between these variables (i.e., the individual justice facets and the fit dimension) do not differ in their relative

contribution and hence, can be considered equal (Bryant & Smith, 2001). Hence, the restrictive model was retained. These findings do not support the hypothesized relationships since it was predicted that each of the justice facets has a different relationship with the fit dimension. The results suggested that each of justice dimensions has the same relationship with the fit dimension. Overall, Hypothesis 5(b) is not supported.

Further, the unconstrained model (Model 0) for assessing differential relationships of the justice facets with the sacrifice dimension was also estimated with only six latent variables (i.e., distributive justice, procedural justice, interactional justice, links, fit, and sacrifice). The results for this unconstrained model depicted that the unstandardized covariances of distributive justice with the sacrifice dimension ($\phi = .204$, $p < .001$), procedural justice with the sacrifice dimension ($\phi = .201$, $p < .001$), and interactional justice with the sacrifice dimension ($\phi = .219$, $p < .001$) were all statistically significant. In addition, the standardized covariances of distributive justice with the sacrifice dimension ($\phi = .367$, $p < .001$), procedural justice with the sacrifice dimension ($\phi = .442$, $p < .001$), and interactional justice with the sacrifice dimension ($\phi = .412$, $p < .001$) were also all statistically significant. Upon placing equality constraints on each of these relationships (Model 3a), the resulting model showed that the unstandardized covariances of distributive justice with the sacrifice dimension ($\phi = .208$, $p < .001$), procedural justice with the sacrifice dimension ($\phi = .208$, $p < .001$), and interactional justice with the sacrifice dimension ($\phi = .208$, $p < .001$) were all statistically significant. In addition, the standardized covariances of distributive justice with the sacrifice dimension ($\phi = .374$, $p < .001$), procedural justice with the sacrifice dimension ($\phi = .449$, $p < .001$), and interactional justice with the sacrifice dimension ($\phi = .395$, $p < .001$) were also all statistically significant. Table 8 below summarizes the model fit statistics for Model 0 and Model 3a.

Table 8: Model Fit Statistics for Model 0 and Model 3a (The Sacrifice Dimension)

Model#	Model Description	Chi-Square Statistic ($\chi 2$)	Degrees of Freedom	Scaling Correction Error	*p*-value	CFI	TLI	RMSEA	SRMR
Model 0	Unconstrained Model (i.e., freely estimated without imposing any equality constraints)	2708.846	764	1.2050	0.0000	0.857	0.846	0.066	0.072
Model 3a	Model with covariances (WITH statements) between distributive justice and sacrifice, procedural justice and sacrifice, and interactional justice and sacrifice are constrained to be equal	2709.063	766	1.2053	0.0000	0.857	0.847	0.066	0.072

Satorra-Bentler scaled chi-square difference test was used to compare these nested models (i.e., Model 3a with Model 0) (Muthén & Muthén, 2005). The results suggested that the constrained model fits almost the same as the less constrained model and the chi-square difference test is also non-significant. Essentially, the chi-square difference is .8139 and the change in degrees of freedom is 2.000 ($p > .05$). Table 9 below provides the comparison of these models.

Table 9: Comparison of CFA Models (The Sacrifice Dimension)

Satorra-Bentler Chi-Square Difference Test						
Model comparison	**Difference Test Scaling Correction (CD)**	**Sattora-Bentler Scaled Chi-Square Difference (TRd)**	**Difference in Degrees of Freedom**	**Difference in CFI**	***p*-value**	**Significant/Not Significant**
Model 0 with Model 3a	1.3199	0.8139	2.0000	0	0.665677	Not Significant

Consistent with the links and the fit dimensions, these results suggested that the covariances between these variables (i.e., the individual justice facets and the sacrifice dimension) do not vary in their relative impact and hence, can be treated equal (see Bryant & Smith, 2001). Based on these results, the restrictive model was accepted. These findings did support the hypothesized relationships since it was proposed that there is no differential relationship between the justice facets and the sacrifice dimension and the results supported my prediction. The results suggested that each of justice dimensions has the same relationship with the sacrifice dimension. Overall, Hypothesis 5(c) is supported. Figure 3 summarizes the results for Hypothesis 1, 2, 3, and 4.

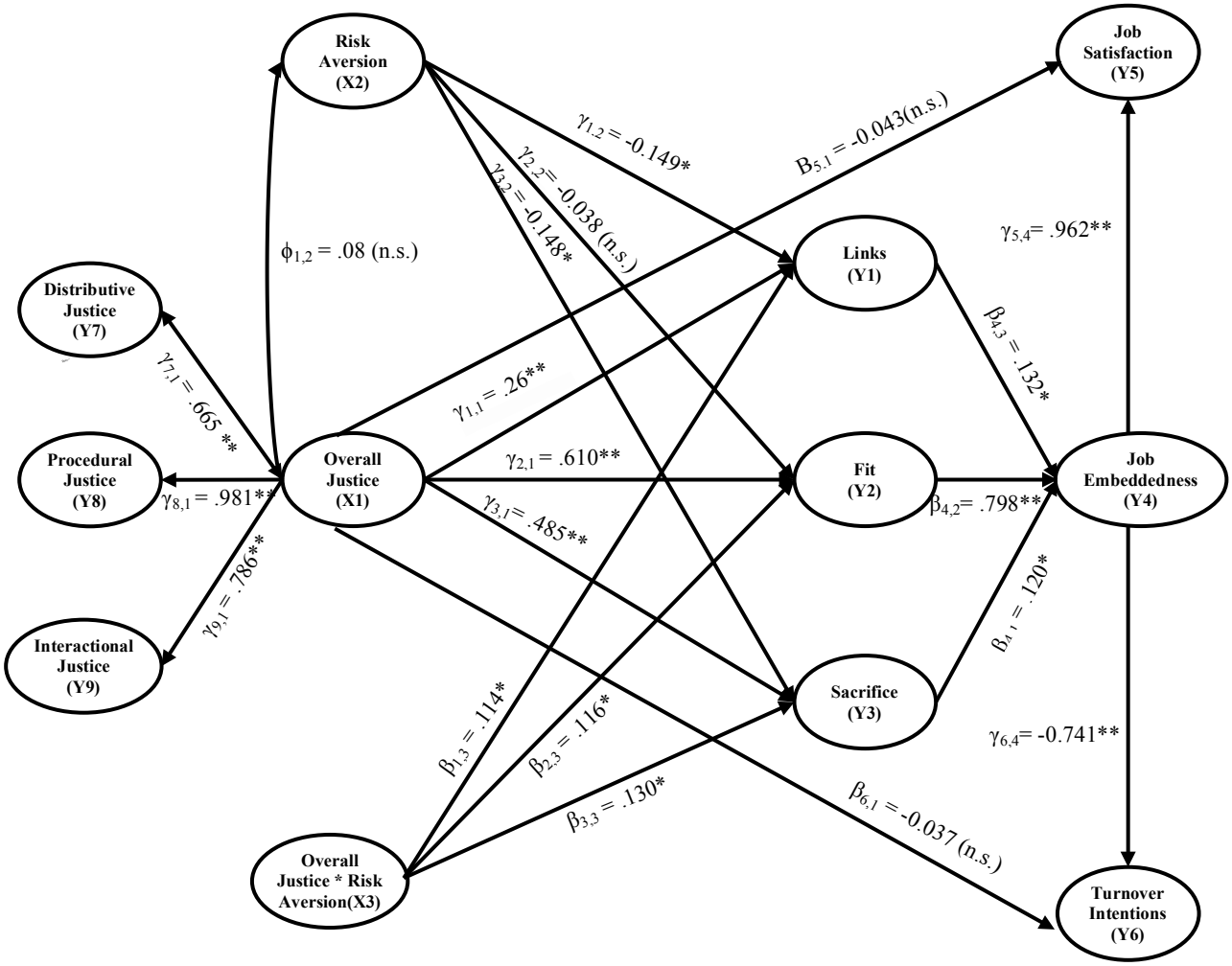

Figure 3: Standardized Structural Coefficients for the Hypothesized Model

Supplemental Analyses

Following these analyses, supplemental analyses were further conducted with each job embeddedness dimension (i.e., the links dimension, the fit dimension, and the sacrifice dimension) as the mediator of the relationships involving overall justice with job satisfaction and turnover intentions. Specifically, three models were estimated, the first one with the links dimension as the mediator, the second one with the fit dimension as the mediator, and the third one with the sacrifice dimension as the mediator.

Scholars have noted that there are challenges pertaining to modeling formative latent variables as endogenous variables in a study (Cadogan & Lee, 2013). Cadogan and Lee (2013) noted that the variance accounted by the predictor in the endogenous formative variable could be determined only through its indicators. Therefore, these scholars suggested that these relationships should be estimated at the individual indicator level in order to capture the true variance accounted by the exogenous variable in the formative variable. Given these limitations with formative variables, the additional analyses helped to understand the robustness of findings of the previous model estimated. As such, the previous model had job embeddedness (i.e., an overall construct) as a formative factor and therefore, the links dimension, the fit dimension, and the sacrifice dimension were modeled as predictors of job embeddedness. In these additional analyses below, the three models have the links dimension, the fit dimension, and the sacrifice dimension (i.e., the individual dimensions) as reflective factors modeled separately in three models instead of modeling them as predictors of a formative construct (i.e., job embeddedness). The analyses helped to ascertain whether these findings of the model with global level construct differs from findings of the model with every individual dimension estimated separately.

The noticeable finding of these analyses is that the fit dimension fully mediates the relationship between overall justice and the attitudinal outcomes. However, the links dimension and the sacrifice dimension partially mediates this relationship. This suggests that the fit dimension is a stronger mediating connection, in comparison with the links dimension and the sacrifice dimension, for the relationship of overall justice with job satisfaction and turnover intentions. The results from each of these three analyses are presented below.

Supplemental analysis 1. In this analysis, I modeled the links dimension as the mediator of the relationships involving overall justice with job satisfaction as well as turnover intentions. Using MLR estimator, the results suggested a good support for the proposed model based on model fit indices, $\chi 2$ (655) = 1818.081, $p < .001$, CFI = .905, TLI = .898, RMSEA = .056, SRMR = .056. The proposed direct effects are all statistically significant with large standardized structural coefficients and significant *p*-values. The direct effect from overall justice to the links dimension ($\beta = .298$, $p < .001$), the direct effect from the links dimension to job satisfaction ($\beta = .273$, $p < .001$), the direct effect from the links dimension to turnover intentions ($\beta = -0.127$, $p < .05$), the direct effect from overall justice to job satisfaction ($\beta = .425$, $p < .001$), the direct effect from overall justice to turnover intentions ($\beta = -0.418$, $p < .001$) are all statistically significant and have relatively large standardized structural coefficients.

In this research, I also investigated whether mediation or indirect effects (IE) were statistically significant or not. The presence of a statistically significant indirect effect of overall justice on job satisfaction and turnover intentions through the links dimension was estimated using IND under Model Indirect command. This command calculates the indirect effect statistically by the product of coefficients approach where it multiplies the regression coefficient of the relationship between the predictor and the mediator with the regression coefficient of the

relationship between the mediator and the outcome variable (Enders, Fairchild, & MacKinnon, 2013). As such, the variable on the left side of IND is the outcome variable (i.e., job satisfaction/turnover intentions) and the right side of IND is the mediator variable (i.e., the links dimension) followed by the predictor variable (i.e., overall justice). The results suggested that these indirect effects were statistically significant in both the situations.

The links dimension partially mediated the relationship between overall justice and job satisfaction (IE = .080, $p < .001$) since the direct effect from overall justice to job satisfaction was found to be statistically significant ($\beta = .425$, $p < .001$). Likewise, the links dimension was also found to partially mediate the relationship between overall justice and turnover intentions (IE = -0.037, $p < .05$) since the direct effect from overall justice to turnover intentions ($\beta = -0.418$, $p < .001$) was found to be statistically significant.

In addition, the moderation effect of risk aversion on the relationship of overall justice with the links dimension was also estimated. The moderation effect was found to be statistically significant with the structural coefficient as .126, $p < .05$, suggesting that the slope of overall justice on the links dimension varies with respect to the extent to which an individual is willing to take any risk. Thus, this relationship is strengthened, as an individual becomes more risk averse. Alternatively, this relationship is weakened, as an individual increases his risk taking ability. Figure 4 summarizes these results below.

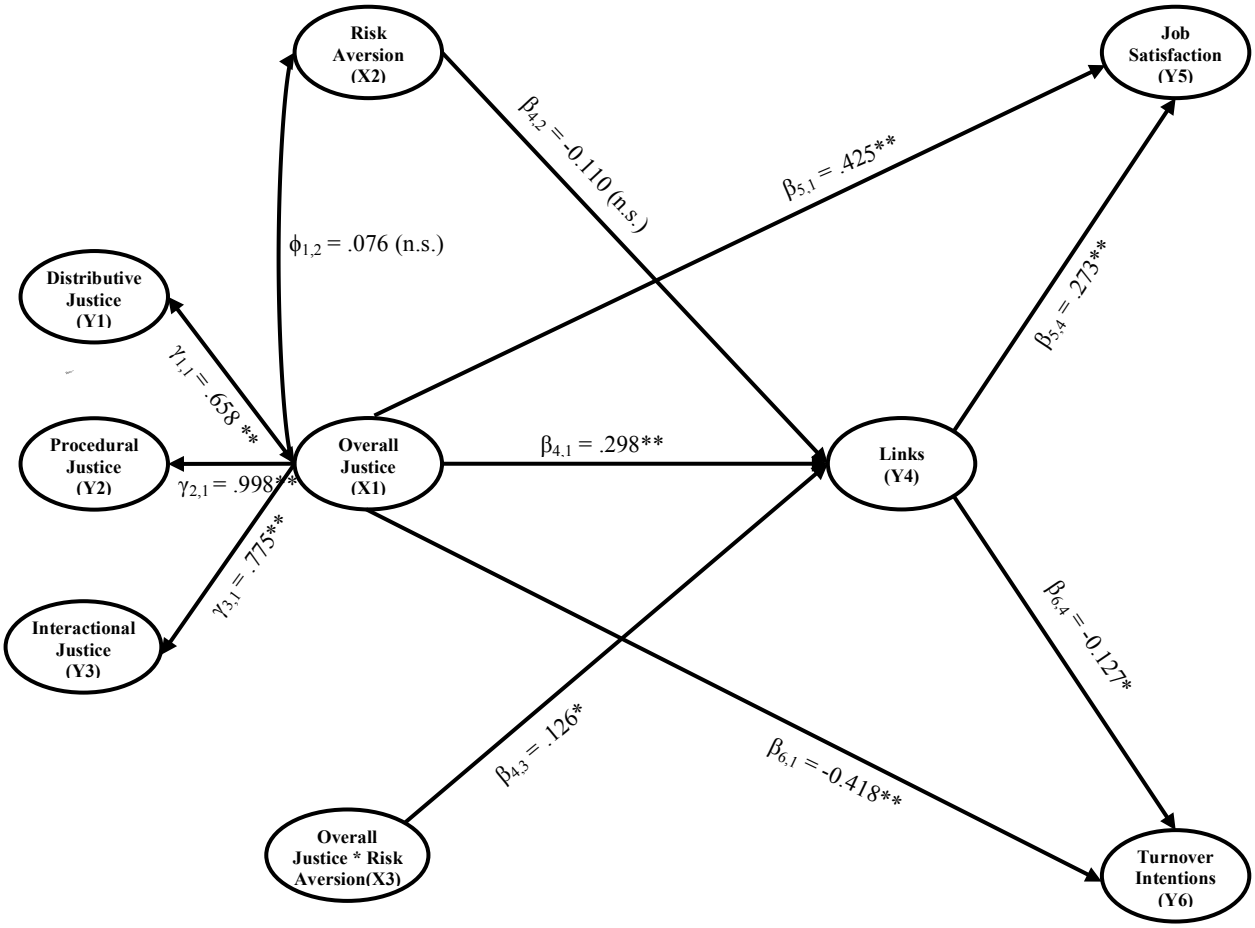

Figure 4: Standardized Structural Coefficients when the Links Dimension is the Mediator

Supplemental analysis 2. In this analysis, I modeled the fit dimension as the mediator of the relationships involving overall justice with job satisfaction as well as turnover intentions.. Using MLR estimator, the results suggested a good support for the proposed model based on model fit indices, $\chi 2$ (551) = 1768.177, p < .001, CFI = .907, TLI = .899, RMSEA = .062, SRMR = .059. The direct effects from overall justice to the fit dimension (β = .610, p < .001), the direct effect from the fit dimension to job satisfaction (β = .932, p < .001), the direct effect from the fit dimension to turnover intentions (β = -0.682, p < .001) were all statistically significant with large standardized structural coefficients and significant p-values. However, the direct effect from overall justice to job satisfaction (β = -0.051, p > .05) and the direct effect from overall justice to turnover intentions (β = -0.046, p > .05) were not statistically significant.

In the current study, the mediation or indirect effects (IE) of overall justice on job satisfaction and turnover intentions through the fit dimension were also estimated. The same procedure used previously was followed to estimate these indirect effects. Specifically, the variable on the left side of IND is the outcome variable (i.e., job satisfaction/turnover intentions) and the right side of IND is the mediator variable (i.e., the fit dimension) followed by the predictor variable (i.e., overall justice). These indirect effects were found to be statistically significant in both the cases.

The fit dimension fully mediated the relationship between overall justice and job satisfaction (IE = .564, p < .001) since the direct effect from overall justice to job satisfaction was not found to be significant (β = -0.051, p > .05). Similarly, the fit dimension was also found to fully mediate the relationship between overall justice and turnover intentions (IE = -0.413, p < .001) since the direct effect from overall justice to turnover intentions (β = -0.046, p > .05) was not found to be significant.

Further, the moderation effect of risk aversion on the relationship of overall justice with the fit dimension was also estimated. The moderation effect was found to be statistically significant with the structural coefficient as .125, $p < .05$, suggesting that the slope of overall justice on the fit dimension changes based on the risk-taking capacity of an individual. As a result, the relationship between overall justice and the fit dimension is strengthened as an individual becomes wary of taking risks in life whereas this relationship is attenuated as an individual is open to taking risks in life. Figure 5 summarizes these results below.

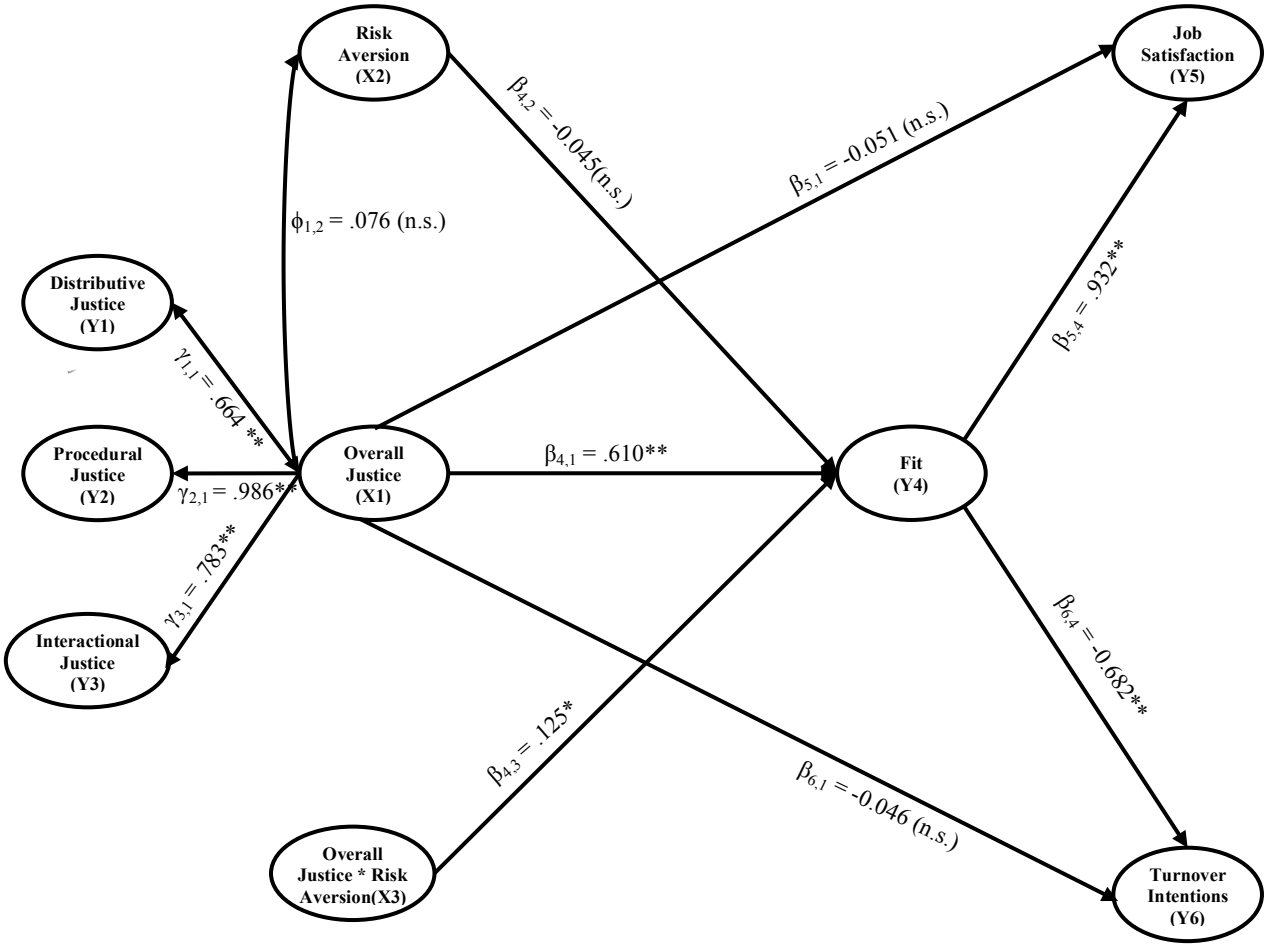

Figure 5: Standardized Structural Coefficients when the Fit Dimension is the Mediator

Supplemental analysis 3. In this analysis, I modeled the sacrifice dimension as the mediator of the relationships involving overall justice with job satisfaction as well as turnover intentions.. Using MLR estimator, the results demonstrated a marginal support for the proposed model based on model fit indices, $\chi 2$ (656) = 2296.972, $p < .001$, CFI = .880, TLI = .871, RMSEA = .066, SRMR = .076. The direct effects from overall justice to the sacrifice dimension (β=.476, $p < .001$), the direct effect from the sacrifice dimension to job satisfaction (β = .520, $p < .001$), the direct effect from the sacrifice dimension to turnover intentions (β = -0.600, $p < .001$), the direct effect from overall justice to job satisfaction (β = .273, $p < .001$) and the direct effect from overall justice to turnover intentions (β = -0.183, $p < .001$) were all significant with large standardized structural coefficients and significant *p*-values.

In the present study, I also investigated whether mediation or indirect effects (IE) of overall justice on job satisfaction and turnover intentions through the sacrifice dimension were statistically significant or not. The same methodology used previously was adopted to estimate these effects. In this case, the variable on the left side of IND is the outcome variable (i.e., job satisfaction/turnover intentions) and the right side of IND is the mediator variable (i.e., the sacrifice dimension) followed by the predictor variable (i.e., overall justice). The results indicated that these indirect effects were statistically significant in both the scenarios.

The sacrifice dimension partially mediated the relationship between overall justice and job satisfaction (IE =.241, $p < .001$) since the direct effect from overall justice to job satisfaction was found to be significant (β = .273, $p < .001$). Consistent with these findings, the sacrifice dimension was also found to partially mediate the relationship between overall justice and turnover intentions (IE = -0.278, $p < .001$) since the direct effect from overall justice to turnover intentions (β = -0.183, $p < .001$) was found to be significant.

In addition, the moderation effect of risk aversion on the relationship of overall justice with the sacrifice dimension was also estimated. The moderation effect was found to be statistically significant with the structural coefficient as .143, $p < .05$, suggesting that the slope of overall justice on the sacrifice dimension depends on the risk aversion of an individual. As such, the relationship between overall justice and the sacrifice dimension is strengthened as an individual stays away from taking risks in life whereas this relationship is diminished, as an individual becomes more risk taking in life. Figure 6 summarizes these results below.

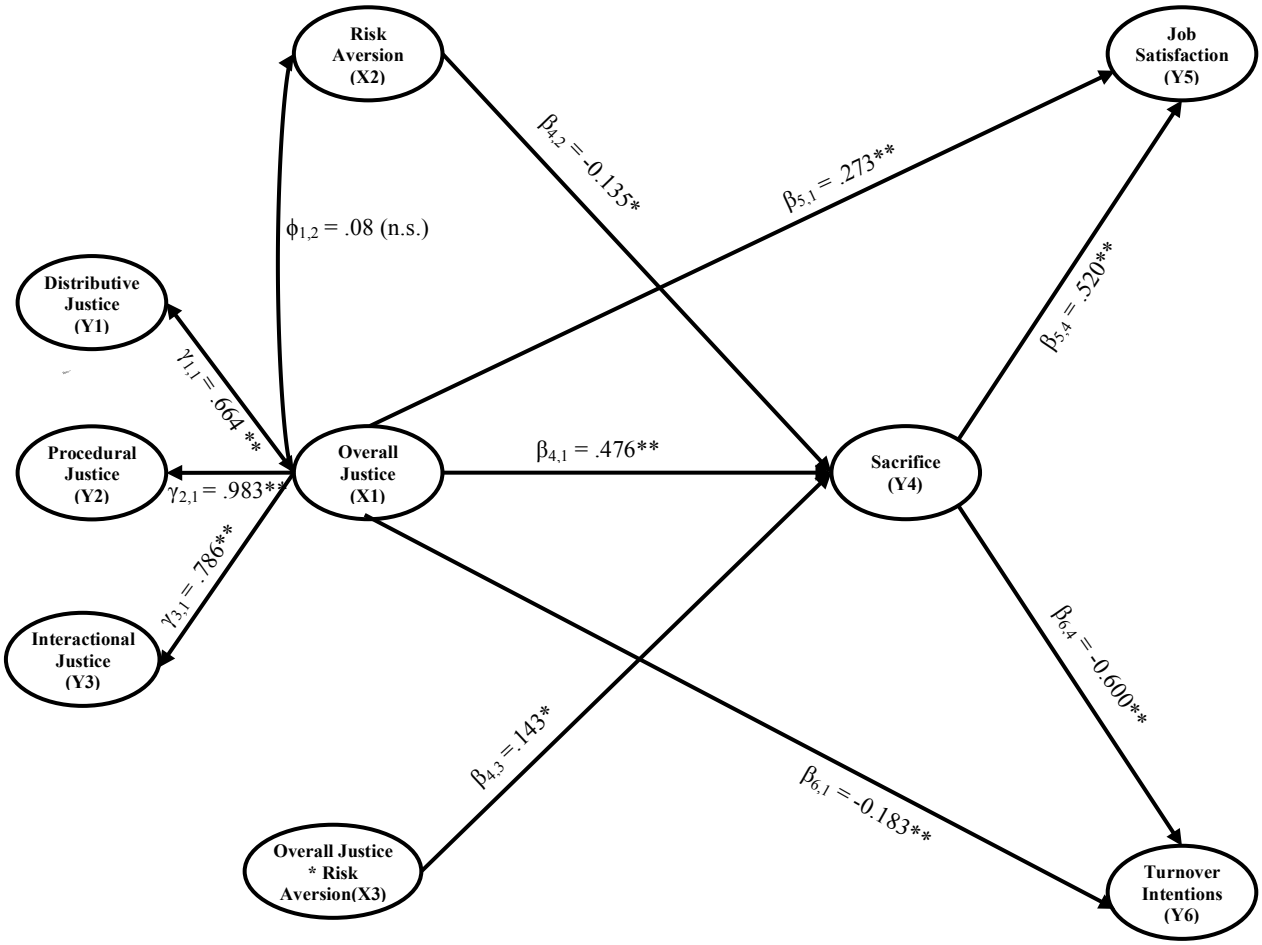

Figure 6: Standardized Structural Coefficients when the Sacrifice Dimension is the Mediator

CHAPTER FIVE: DISCUSSION

Although past research has revealed a lot about the relationship of organizational justice with workplace outcomes (Cohen-Charash & Spector, 2001; Colquitt et al., 2001), very few studies research have investigated fairness and its association with job embeddedness. In short, the role of organizational justice in creating embeddedness has not been thoroughly examined. There is only a handful of research that has studied these two constructs together. For example, few studies have looked at the moderating role of job embeddedness on relationships such as justice effects and turnover intentions (Karatepe & Shahriari, 2014), interactional justice with OCBs and production deviance (Collins & Mossholder, 2014), and fairness with citizenship behaviors (Cheng, 2019). Another study has investigated the mediating role of job embeddedness on the relationship of distributive and procedural justice with in-role performance (Ghosh et al., 2017). Even though scholars have urged researchers to study overall justice (Ambrose & Schminke, 2009), to my knowledge, there is no research that has explored the association between overall justice and job embeddedness. In this research, I present one study that sheds light on the relationship between overall justice, job embeddedness, and attitudinal outcomes using self-reported data from Amazon Mechanical Turk workers on TurkPrime platform. This research is undertaken to understand how overall fairness perceptions can influence job embeddedness of an employee, with a novel assumption that the satisfaction of specific human needs as a result of fairness experiences at the workplace should map on to the individual dimensions of job embeddedness. Overall, the pattern of results suggested that global fairness perceptions bear a strong impact on the embeddedness of an employee.

Hypothesis 1 proposed that overall justice is positively related to job embeddedness. The results suggested that overall justice is positively related to the links dimension, the fit

dimension, and the sacrifice dimension. This hypothesis was supported and is consistent with the multiple needs model (Cropanzano, Byrne et al., 2001). A major assumption in my study is that each dimension of job embeddedness corresponds to one of the three unique psychological needs that are satisfied through the means of experiencing fairness in an organization. The finding that overall justice leads to job embeddedness supported the connection of theoretical framework of the multiple needs model to job embeddedness. Although a direct test of satisfaction of these needs through organizational justice was not conducted in this study, it can be suggested that the need for interpersonal affiliation strengthens the links dimension by predisposing employees to perceive fairness perceptions as means to build more relationships (see also Mitchell et al., 2001). Likewise, the need for meaningful existence strengthens the fit dimension by influencing employees to perceive fairness perceptions as means to build compatibility with the organization (see also Mitchell et al., 2001). Lastly, the need for control strengthens the sacrifice dimension by leading employees to perceive fairness perceptions as a means to assess the cost of leaving the organization (see also Mitchell et al., 2001). Essentially, these findings suggested that general fairness perceptions contributive to retention of employees by enmeshing them in the current work environment.

Hypothesis 2 proposed that job embeddedness is influenced by the interaction of overall justice and risk aversion. The results revealed that the relationship between overall justice and job embeddedness is contingent on the extent to which an individual is prone to taking risks. These findings are consistent with uncertainty management theory, which argues that the uncertainty experienced by risk averse people should lead them to act quickly on their evaluations of fairness experiences (Lind & Van den Bos, 2002; Van den Bos & Lind, 2002; see also Colquitt et al., 2006). Therefore, I argue that risk-averse people engender more connections,

build stronger perceptions of fit and perceive higher costs to leave the organization as a result of experiencing fairness at work. As such, this finding implied that although employees' overall fairness perceptions influence their job embeddedness, these perceptions would have a stronger impact on job embeddedness when employees are high on risk aversion. Alternatively, the results indicated that holistic perceptions of fairness should have a weaker impact on the retention of those employees who consider themselves risk-takers.

Hypothesis 3 predicted that job embeddedness acts as a mediator of the relationship between overall justice and job satisfaction whereas Hypothesis 4 predicted that job embeddedness acts as a mediator of the relationship between overall justice and turnover intentions. The results suggested that job embeddedness fully mediates the relationship of overall justice with job satisfaction and turnover intentions, suggesting that it is a strong mediating mechanism through which general fairness perceptions influence these attitudes. These findings are consistent with social exchange theory (Blau, 1964), indicating that the positive influence of organizational justice on work outcomes is explicable in terms of higher job embeddedness, subsequently leading to higher job satisfaction and lower turnover intentions. Experiencing fair treatment results in a positive social exchange by fulfilling employees' psychological needs of belonging, self esteem, meaningful existence, and control (see also Cropanzano, Byrne et al., 2001). It is implied that the satisfaction of these needs embeds employees into the organization via fostering more interpersonal connections, instilling perceptions of fit, and leading to higher evaluations of cost of quitting the job. In response to the fulfillment of these primary psychological needs, employees reciprocate by displaying favorable attitudes in the form of higher job satisfaction and lower turnover intentions towards their employer (Blau, 1964).

Therefore, this would account for the positive influence of overall justice on these two employee attitudes through the mechanism of job embeddedness.

While the results suggested that job embeddedness fully mediates the relationship of overall justice with job satisfaction and turnover intentions, the supplemental analyses provided additional inputs into the role of the individual dimensions of job embeddedness on this relationship. Specifically, the results indicated that the links dimension and the sacrifice dimension of job embeddedness partially mediates the relationship of overall justice with job satisfaction and turnover intentions. However, the fit dimension fully mediates the relationship of overall justice with job satisfaction and turnover intentions. These results suggested that the fit dimension is the strongest mechanism for these relationships between overall justice and the two attitudinal outcomes (i.e., job satisfaction and turnover intentions) to transpire. It can be said that people's assessment of holistic fairness perceptions has the strongest impact on their evaluations of perceived compatibility with the organization, leading to higher job satisfaction and lower turnover intentions. In other words, it can also be inferred that fostering relationships or the estimation of costs to be forfeited upon quitting the organization is not always a certain path for general fairness perceptions to influence these two employee attitudes.

Hypothesis 5 predicted whether fairness assessments of outcomes, processes, and interpersonal treatment exert different effects on each component of job embeddedness.
The existing literature has not yielded a comprehensive understanding of the differential impact of the three justice facets on the individual dimensions of job embeddedness. Because the available research has focused on the two dimensions of justice while studying the unique effects of the justice facets on job embeddedness (Ghosh et al., 2017), it does not completely capture the variation existing in these direct relationships. In light of this gap, the current study attempted to

investigate this topic and predicted that the strength of relationships of the justice facets on the dimensions of job embeddedness varies depending on the specific facet of justice in question. The common thread in these findings is that each of the justice facets uniformly impacts the retention of employees. The results for each dimension are explained in the following paragraphs.

Pertaining to the links dimension, the current study predicted that fairness perceptions pertaining to outcomes, procedures, and interpersonal treatment have differential relationship with this facet of job embeddedness. None of these justice facets had a more pronounced effect than the other on the links dimension. These findings are surprising and are not consistent with the agent-system model (Bies & Moag, 1986; Masterson et al., 2000), which predicted that person-referenced outcomes (i.e., the links dimension) should be more strongly associated with interactional justice than other justice facets. It can be inferred from these results that employees don't distinguish the system (i.e., the employing organization) from the agent (i.e., the supervisor) when interpreting fairness perceptions for the fulfillment of their psychological needs, which eventually embeds them in organizations. Colquitt and colleagues (2001) argued that the importance of interactional justice in explaining variance in behavioral outcomes is underrated in the agent-system model. Extending this argument of Colquitt and colleagues (2001) to the present study, this provides explanation that the agent-system model may not be accurately positioning interactional justice in its potential impact on the dimensions of job embeddedness, resulting in the misalignment between the proposed relationships and the actual findings.

As noted earlier, the findings supported the assertion that people associate fairness assessments of outcomes, procedures, and interpersonal treatment as an indication of being

valued in a group setting and hence, they feel obligated to reciprocate this favorable treatment by establishing a strong relationship with their supervisors (Blau, 1964; Lind & Tyler, 1988). Scholars have also argued that distributive justice can provide an opportunity to build an advice network that would foster more social ties within the organization (Ghosh et al., 2017). Specifically, Ghosh and colleagues (2017) reasoned that the fair distribution of outcomes motivates people to collaborate with one another for exchanging resources and fulfills their goals to earn desired outcomes (see also Sparrowe, Liden, Wayne, & Kraimer, 2001). Drawing on the research by Kiazad and colleagues (2015), they argued that performance driven evaluations can lead to the formation of a group of employees for work related purposes. Another explanation could be that social exchange theory (Blau, 1964) predicts that this positive feeling from the satisfaction of relational needs through experiencing fair treatment (Cropanzano, Byrne et al., 2001) would motivate people to connect strongly with one another to reciprocate the favorable treatment, thus strengthening their interpersonal relationships. Given that today's organizations function a lot in teams (Einola & Alvesson, 2019), it is plausible that employees form a larger advice network as result of fair distribution of outcomes in their organization. Therefore, the dependence on a team based work environment in organizations could be another reason for all fairness dimensions to be as strongly associated with fostering more connections as the interactional justice dimension.

With regards to the fit dimension, the current study hypothesized that distributive justice, procedural justice, and interactional justice exert differential effects on this facet of job embeddedness. None of these justice dimensions supported the existence of a unique relationship with the fit dimension. These findings are also unexpected and inconsistent with the agent-system model (Bies & Moag, 1986; Masterson et al., 2000), which predicted that system

referenced outcomes (i.e., the fit dimension) should be more strongly associated with distributive justice than with the other justice facets. The present study concluded that employees associate each of the three justice facets (i.e., distributive justice, procedural justice, and interactional justice) (Cropanzano, Byrne et al., 2001) uniformly with the fit dimension. Although previous research has suggested that employees interpret fairness of outcomes as a stronger reflection of the organizational values than fairness of procedures (Scott et al., 2009), the results suggested that all fairness perceptions uniformly impact the perceived compatibility with organizational values, contributing equally to the fit dimension. As such, the results showed that the fairness of procedures implemented is also as strong indicator of the organizational value system as the fairness of outcomes. Even though Scott and colleagues' (2009) research proposed that interactional justice may not impact the perceptions of fit with the organization, Mayer and colleagues (2007) have argued that the behavior of supervisor is reflective of organizational objectives. The results from the current study suggested that the provision of distributive justice, procedural justice, and interactional justice should equally contribute to the fit dimension by satisfying the need for meaningful existence (see also Cropanzano, Byrne et al., 2001).

In relation to the sacrifice dimension, the study predicted that each of the justice facets has an equivalent relationship with this facet of job embeddedness. As such, I hypothesized that employees treat fairness pertaining to outcomes, processes, or interpersonal treatment equally in determining the cost of leaving the organization. This hypothesis was supported and is consistent with conservation of resources theory (Hobfoll, 1988,1989). Given that each of these justice dimensions ensures visibility of future by allowing foreseeing distribution of outcomes, procedures, and interpersonal treatment, they all help to fulfill the instrumental need (Cropanzano, Byrne et al. 2001). The current study found that employees weigh each of these

fairness perceptions equally when assessing the potential resources to lose upon parting with the job. Following conservation of resources theory (Hobfoll, 1988, 1989), each of these facets contributes to the resource base of employees and therefore, they want to preserve each one of these resources in their possession. Consistent with findings pertaining to the links dimension and the fit dimension, the pattern of results for the sacrifice dimension suggested that employees don't distinguish among the different facets of justice when evaluating the sacrifice of leaving the job and therefore, each of the justice facets holds an equal place for them.

Theoretical and Practical Implications

The findings of this study highlight important theoretical and practical implications. From a theoretical standpoint, the current paper extends the organizational justice and job embeddedness literatures in several ways. Although few studies have shown a connection between fairness perceptions and job embeddedness (Collins & Mossholder, 2017; Ghosh et al., 2017; Karatepe & Shahriari, 2014), they have taken a granular focus to understand the effect of fairness perceptions on job embeddedness. To my knowledge, the present study is the first one to examine the relationship of overall justice with job embeddedness. Through theorizing these relationships, the study extends the use of the multiple needs model (Cropanzano, Byrne et al., 2001) to studying employee retention. Further, the present study advanced the current literature by also demonstrating that risk aversion may potentially affect the relationship between organizational justice and job embeddedness. This finding suggested that it is important to take the personality of an individual in consideration when examining overall fairness as an antecedent of job embeddedness. In addition, this study presented a moderated mediation model that illustrates how general fairness perceptions influence job satisfaction and turnover intentions. Specifically, the model yielded novel insights into a new mechanism that can

influence how overall justice can impact these two attitudinal outcomes. Lastly, the available research does focus on the differential impact of the justice dimensions by considering only two dimensions (Ghosh et al., 2017). However, it does not provide a comprehensive understanding of such differential effects all the three justice facets together. In an attempt to address this gap, the study adds to the organizational justice literature and the job embeddedness literature by building on the agent-system model and conservation of resources theory to explore the distinct role played by each of the justice facets in influencing the individual dimensions of job embeddedness.

From a practical standpoint, the most salient finding of this research is the identification of conditions that may impact the retention of employees through embedding them in organizations. The empirical support found for the relationship between overall justice and job embeddedness in this study offers insights into how employees process fairness information in making a decision on staying with the organization. As such, the support for my prediction using fairness heuristic theory (Lind, 2001a) suggested that employees do not wait to process fairness information on all dimensions when assessing their choice of continuing with their present job. As such, this implies that organizations would benefit from trying to understand that employees process fairness information in a holistic manner before creating retention strategies grounded in the provision of fair treatment to workforce. As mentioned earlier, fairness heuristic theory advocates that overall justice comprises of a general assessment of fairness information and that employees replace unavailable information about any fairness dimension with inputs from the other justice facets (Lind, 2001a). Jones and Martens (2009) further advocated that an increased extent of one type of fair treatment could cover up for other fairness dimensions when holistic fairness perceptions are developed.

Based on these theoretical arguments and the empirical support for the relationship between overall justice and job embeddedness, it can be suggested that organizations can strive to positively impact the retention of employees by increasing the extent of at least one or more of the three types of fair treatment to them (see also Jones & Martens, 2009; Lind, 2001a). Essentially, they can invest in one or more of these initiatives to train their supervisors in (a) allocating outcomes fairly to employees (i.e., distributive justice), (b) implementing fair practices, norms, and programs throughout the organization (i.e., procedural justice), and (c) maintaining cordial relationships with their subordinates (i.e., interactional justice) (see also Cropanzano, Byrne et al., 2001; Jones & Martens, 2009). This is even more important since meta-analysis has shown that turnover impacts the performance of any organization (Park & Shaw, 2013). Therefore, the current study suggests that organizations can positively impact job embeddedness and the employee attitudes by ensuring that supervisors offer an increased degree of fair treatment on at least one of these fairness dimensions since employees judge fairness experiences globally (see also Jones & Martens, 2009; Lind, 2001a). However, an important extension to these findings is that there does not exist a distinct association between these relationships and therefore, these findings would help to offer recommendations for supervisors who look for strengthening any specific dimension of job embeddedness. Given that this study indicated that employees don't differentiate between the fairness of outcomes, procedures, and interpersonal treatment, organizations should treat all dimensions with highest importance in their efforts to manage employee retention. In other words, the success of these efforts would depend on maintaining the same attention to fair outcomes, fair procedures, and fair interpersonal treatment. Another important implication of this study is that general fairness perceptions can be used as a tool to manage retention of only those employees who consider

themselves risk averse. Therefore, it is important for organizations to understand these conditions under which fairness can be used as a successful intervention to manage employee retention to allow for judicious use of their resources. For example, offering employees their deserving outcomes and taking opportunities to engage in extensive communication with them could help risk-averse employees better manage uncertainty but it may not trigger risk-taking employees to react to these initiatives (see also Lind & Van den Bos, 2002; Van Den Bos & Lind, 2002). This study also found that the positive effects of job embeddedness as a result of overall fairness perceptions would ultimately translate into higher job satisfaction and lower turnover intentions. In an endeavor to help employees become more embedded in an organization and effectively impact their job satisfaction and turnover intentions, the key implication of this study is that organizations should continue to strive to socialize and train both new and existing managers on two things: (a) assisting them in building an understanding of how employees interpret fairness experiences (i.e., general fairness assessments) and (b) practicing to deliver high degree of fairness on at least one of the fairness dimensions (Jones & Martens, 2009; Lind, 2001a).

Limitations and Future Research

As with any study, the present study has also few limitations that must be acknowledged. Firstly, the order of the survey items was not randomized in this study. The sequencing of survey questions such that the previous question influences the response of the subsequent question is more prominent in the online surveys (Fan & Yan, 2002). Therefore, I anticipate that the order effects might have affected the responses of participants (see also Krosnick & Alwin, 1987; Tourangeau, Couper, & Conrad, 2004).

Secondly, the study incorporated the use of self-reported data and thus, the participants may not have responded honestly in providing their answers because of social desirability

(Gonyea, 2005). Although I sought to minimize the common method bias issue by separating the data collection time points by one month and assuring anonymity (Podsakoff et al., 2003), these techniques may not have completely eliminated the issue. Thus, future research should consider different sources for data collection and consider expanding the pool to include additional inputs from different sources to alleviate concerns of the common method bias (Podsakoff et al., 2003).

Thirdly, the study adopted a non-traditional approach to test mediation. Although the benefit of using structural equation modeling was to adjust for the measurement error that could attenuate hypothesized relationships, this approach required making adjustments to the structural model (Cheung & Lau, 2008; Jarvis et al., 2003; see also Baron & Kenny, 1986; Hoyle & Smith, 1994). Given the formative nature of job embeddedness, the outcomes of this variable cannot be causal in nature for model identification purposes (Mitchell et al., 2001; Jarvis et al., 2003). Therefore, the existence of a causal relationship between turnover intentions and job satisfaction necessitated the modeling of these variables as indicators of job embeddedness (Jarvis et al., 2003; Hellman, 1997). One of the required conditions for mediation to occur is the existence of a statistically significant relationship between the mediator and the dependent variable (Baron & Kenny, 1986). Pertaining to the current study, this means that job embeddedness should predict job satisfaction as well as turnover intentions. As noted above, the study modeled these two variables as the indicators and not the outcomes of the mediator. Although I have provided a theoretical justification of modeling job satisfaction and turnover intentions as indicators, the statistical appropriateness of considering indicators as equivalent to outcomes in a meditation relationship merits further methodological testing. Therefore, the satisfaction of the four conditions for mediation (Baron & Kenny, 1986) in this study may not be sufficient to prove the appropriateness of a mediation relationship. To my knowledge, there is no other research that has

adopted this approach to test mediation. As such, future research should replicate this model with a different statistical approach that does not necessitate modeling these outcome variables as indicators of the mediator.

Fourthly, the current study looked at risk aversion as the moderator of the relationship between overall justice and job embeddedness but there is a possibility of more contextual factors identified by justice scholars (Colquitt et al., 2006) such as trust propensity and trait morality that could accentuate or attenuate the impact of overall justice on job embeddedness. Given that the results of this study suggested the importance of overall fairness perceptions in influencing the embeddedness of the employee, future research should continue to explore other contextual factors that could potentially influence this relationship.

Lastly, this field study is limited to studying only two attitudinal outcomes, and thus, an important extension of the current study would be to expand this research to other behavioral outcomes such as affective commitment, employee engagement, employee motivation etc.

Conclusion

Organizations can impact the retention of employees and embed them in the organization by influencing their holistic fairness perceptions. In an effort to enhance job embeddedness of their subordinates, the present study recommends that supervisors should ensure the provision of increased degree of at least one form of justice through allocating fair decision outcomes (i.e., distributive justice), implementing fair procedures (i.e., procedural justice), and providing fair interpersonal treatment (i.e., interactional justice) (Cropanzano, Byrne et al, 2001; Jones & Martens, 2009). As such, the present study also suggests that employees evaluate each of these justice facets uniformly, when considering their decision to stay with the organization. This equivalent impact indicates that organizations do not need to order these justice facets in their

level of importance, when aiming to strengthen a certain dimension of job embeddedness. It is also important for organizations to consider that risk aversion of employees may also play a role in embedding employees in their jobs. Although this study makes multiple contributions to the existing literatures, future researchers should further extend the research on associations between organizational justice, job embeddedness, and attitudinal as well as behavioral outcomes.

APPENDIX A: SURVEY ITEMS FROM DIFFERENT SCALES

Distributive Justice Scale (Adapted from Colquitt, 2001; see also Colquitt, LePine, Piccolo, Zapata & Rich, 2012)

1. "Do your outcomes reflect the effort you have put into your work?"
2. "Are your outcomes appropriate for the work you have completed?"
3. "Do your outcomes reflect what you have contributed to the organization?"
4. "Are your outcomes justified, given your performance?"

Procedural Justice Scale (Colquitt, 2001)

1. "Have you been able to express your views and feelings during those procedures?"
2. "Have you had the influence over the outcomes arrived at by those procedures?"
3. "Have those procedures been applied consistently?"
4. "Have those procedures been free of bias?"
5. "Have those procedures been based on accurate information?"
6. "Have you been able to appeal the outcome(s) arrived at by those procedures?"
7. "Have those procedures upheld ethical and moral standards?"

Interactional Justice Scale (Colquitt, 2001)

1. "Has he/she treated you in a polite manner?"
2. "Has he/she treated you with dignity?"
3. "Has he/she treated you with respect?"
4. "Has he/she refrained from improper remarks or comments?"
5. "Has he/she been candid in his/her communications with you?"
6. "Has he/she explained the procedures thoroughly?"
7. "Were his/her explanations regarding the procedures reasonable?"
8. "Has he/she communicated details in a timely manner?"
9. "Has he/she seemed to tailor his or her communications to individuals' specific needs?"

Risk Aversion Scale (Colquitt et al., 2006)

1. "I enjoy being reckless."
2. "I take risks."
3. "I seek danger."
4. "I seek adventure."
5. "I would never go hang-gliding or bungee jumping."
6. "I would never make a high risk investment."

The Links Dimension Scale (Adapted from Mitchell et al., 2001)

1. "I interact regularly with my coworkers."
2. "My coworkers are highly dependent on me."
3. "I interact regularly with my supervisor."
4. "My supervisor is highly dependent on me."

The Fit Dimension Scale (Adapted from Mitchell et al., 2001)

1. "My job utilizes my skills and talents well."

2. "I feel like I am a good match for this company."
3. "I fit with the company's culture."
4. "I like the authority and responsibility I have at this company."
5. "My values are compatible with the organization's values."
6. "I can reach my professional goals working for this organization."
7. "I feel good about my professional growth and development."

The Sacrifice Dimension Scale (Mitchell et al., 2001)

1. "I have a lot of freedom on this job to decide how to pursue my goals."
2. "The perks on this job are outstanding."
3. "I feel that people at work respect me a great deal."
4. "I would sacrifice a lot if I left this job."
5. "My promotional opportunities are excellent here."
6. "I am well compensated for my level of performance."
7. "The benefits are good on this job."
8. "The health-care benefits provided by this organization are excellent."
9. "The retirement benefits provided by this organization are excellent."
10. "The prospects for continuing employment with this company are excellent."

Job Satisfaction Scale (Judge et al., 2005)

1. "Most days I am enthusiastic about my work."
2. "I feel fairly satisfied with my present job."
3. "Each day at work seems like it will never end."
4. "I find real enjoyment in my work."
5. "I consider my job rather unpleasant."

Turnover Intentions Scale (Lichtenstein et al., 2004)

1. "There is a good chance that I will leave the organization in the next year."
2. "I frequently think of leaving this organization."
3. "I will probably look for a new organization in the next year."

APPENDIX B: IRB APPROVAL

Approval of Research Not Requiring Annual Review		
Document No.:	Date:	Page:
HRP-521-MI	14 Nov 2018	Page 1 of 1

Deeksha Munjal
COB-Management
(704) 497-0427
Deeksha.munjal@utsa.edu

Dear Principal Investigator:

On November 14, 2018 the IRB approved:

Type of review:	**Initial**
Title:	**Integrating justice and job embeddedness: An empirical analysis to unlock the differential effects of justice dimensions on job embeddedness and the associated boundary condition**
Principal investigator:	**Deeksha Munjal**
IRB number:	**19-052E**
Faculty Sponsor	**Huy Le, Ph.D.**
Documents reviewed:	**Initial Review Application; Research Personnel; Protocol; HIT Description-Survey 1 and 2; Information Sheet; Survey Reminder Email; Survey 1 and 2**

Copies of any approved consent documents, consent scripts, or assent documents are attached.

In conducting this study, you are required to follow the requirements in "INVESTIGATOR GUIDANCE: Investigator Obligations (HRP-800)."

If you plan on conducting this research for more than 3 years, or if you wish to make any substantive changes to your study, contact the IRB Office.

Sincerely,

Tammy Lopez, J.D. Date: 2018.11.14 08:57:00 -06'00'

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REFERENCES

Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology*. New York: Academic Press.

Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the S back in corporate social responsibility: A multilevel theory of social change in organizations. *Academy of Management Review*, 32, 836-863.

Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracı´n, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 173-221). Mahwah, NJ: Erlbaum.

Alexander, S., & Ruderman, M. (1987). The role of procedural and distributive justice in organizational behavior. *Social Justice Research*, 7, 177-198.

Alge, B. J., Ballinger, G. A., Tangirala, S., & Oakley, J. L. (2006). Information privacy in organizations: Empowering creative and extrarole performance. *Journal of Applied Psychology*, 91, 221-232.

Allen, D.G. (2006). Do organizational socialization tactics influence newcomer embeddedness and turnover? *Journal of Management*, 32, 237-257.

Ambrose, M. L., & Arnaud, A. (2005). Distributive and procedural justice: Construct distinctiveness, construct interdependence, and overall justice. In J. Greenberg & J. Colquitt (Eds.), *The handbook of organizational justice* (pp. 59-84). Mahwah, NJ: Erlbaum.

Ambrose, M. L., & Schminke, M. (2003). Organizational structure as a moderator of the relationship between procedural justice, interactional justice, perceived organizational support, and supervisory trust. *Journal of Applied Psychology*, 88, 295-305.

Ambrose, M. L., & Schminke, M. (2009). The role of overall justice judgments in organizational justice research. *Journal of Applied Psycho*logy, 94, 491-500.

Ambrose, M. L.,Wo, D. X. H., & Griffith, M. D. (2015). Overall justice: Past, present, and future. In R. Cropanzano & M. A. Ambrose (Eds.), *Oxford handbook of justice in the workplace* (pp. 109-135). Oxford, UK: Oxford University Press.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411-423.

Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23, 267-285.

Aziri, B. (2011). Job Satisfaction: A Literature Review. *Management Research and Practice*, 3, 77-86.

Barclay, L. J., & Kiefer, T. (2014). Approach or avoid? Exploring overall justice and the differential effects of positive and negative emotions. *Journal of Management*, 40, 1857-1898.

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.

Bateman, T. S., & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between affect and "citizenship". *Academy of Management Journal*, 26, 587-595.

Behrend, T. S., Sharek, D. J., Meade, A. W., & Wiebe, E. N. (2011). The viability of crowdsourcing for survey research. *Behavior Research Methods*, 43, 800-813.

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.

Blau, P. (1964). *Exchange and power in social life*. New York: Wiley.

Bobocel, D. R., & Gosse, L. (2015). Procedural Justice: A Historical Review and Critical Analysis. In R. Cropanzano & M. L. Ambrose (Eds.)*, Oxford handbook of justice in the workplace* (pp. 51-88). New York: Oxford University Press.

Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35, 307-311.

Bryant, F. B., & Smith, B.D. (2001). Refining the architecture of aggression: A measurement model for the Buss-Perry Aggression Questionnaire. *Journal of Research in Personality*, 35, 138-167.

Budner, S. (1962). Intolerance of ambiguity as a personality variable. *Journal of Personality*, 30, 29-59.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6, 3-5.

Burton, J., Holtom, B., Sablynski, C., Mitchell, T., & Lee, T. (2010). The buffering effects of job embeddedness on negative shocks. *Journal of Vocational Behavior*, 76, 42-51.

Byrne, B.M. (1998). *Structural Equation Modeling with LISREL, PRELIS and SIMPLIS: Basic Concepts, Applications and Programming*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Cadogan, J.W., & Lee, N. (2013). Improper Use of Endogenous Formative Variables. *Journal of Business Research*, 66, 233-41.

Cadogan J.W., Souchon, A.L., & Procter, D.B. (2008). The quality of market-oriented behaviors: formative index construction and validation. *Journal of Business Research*, 61, 1263-77.

Campbell, N. S., Perry, S. J., Maertz, C. P., Allen, A. G., & Griffeth, R. W. (2013). All you need is . . . resources. The effects of justice and support on burnout and turnover. *Human Relations*, 66, 759-782.

Cheng, K.T. (2019). The role of job embeddedness: a moderator for justice and citizenship behavior in the workplace. *European Journal of International Management.*13, 287-306.

Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables. *Organizational Research Methods*, 11, 296-325.

Cho, E., & Kim, S. (2015). Cronbach's coefficient alpha well known but poorly understood. *Organizational Research Methods*, 18, 207-230.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.).* Hillsdale, NJ: Erlbaum.

Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 278-321.

Cole, M. S., Bernerth, J. B., Walter, F., & Holt, D. T. (2010). Organizational justice and individuals' withdrawal: unlocking the influence of emotional exhaustion. *Journal of Management Studies*, 43, 368-89.

Collins, B. J., & Mossholder, K. W. (2014). Fairness means more to some than others: Interactional fairness, job embeddedness, and discretionary work behaviors. *Journal of Management*, 43, 293-318.

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86, 356-400.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86, 425-445.

Colquitt, J. A., Greenberg, J., & Scott, B. A. (2005). Organizational justice: Where do we stand? In. J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice* (pp. 589-619). Mahwah, NJ: Erlbaum.

Colquitt, J.A., Greenberg, J., & Zapata-Phelan, C. P. (2005). What Is Organizational Justice? A Historical Overview. In J. Greenberg, & J. Colquitt (Eds.), *Handbook of Organizational Justice* (pp. 3-46). New Jersey: Lawrence Erlbaum Associate Publishers.

Colquitt, J. A., LePine, J. A., Piccolo, R. F., Zapata, C. P., & Rich, B. L. (2012). Explaining the justice-performance relationship: Trust as exchange deepener or trust as uncertainty reducer? *Journal of Applied Psychology*, 97, 1-15.

Colquitt, J.A., Scott, B., Rodell, J., Long, D., Zapata, C., Conlon, D., & Wesson, M. (2013). Justice at the millennium, a decade later: A meta-analytic test of social exchange and affect-based perspectives. *Journal of Applied Psychology*, 98, 199-236.

Colquitt, J.A., Scott, B.A. , Judge, T.A., & Shaw, J.C. (2006). Justice and personality: Using integrative theories to derive moderators of justice effects. *Organizational Behavior and Human Decision Processes*, 100, 110–127.

Colquitt, J. A., & Shaw, J. C. (2005). How should organizational justice be measured? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of Organizational Justice***,** 113-152. Mahwah, NJ: Erlbaum.

Cotton, J. L., & Tuttle, J. M. (1986). Employee turnover: A meta-analysis and review with implications for research. *Academy of Management Review*, 11, 55-70.

Cranny, C. J., Smith, P. C., & Stone, E. (1992). *Job satisfaction*. New York: Lexington Books.

Cronbach, L.J. (1960). *Essentials of Psychological Testing* (2nd edn), Harper & Row, New York.

Cropanzano, R., Byrne, Z. S., Bobocel, D. R., & Rupp, D. E. (2001). Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior*, 58, 164-209.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31, 874-900.

Cropanzano, R., Prehar, C. A., & Chen, P. Y. (2002). Using social exchange theory to distinguish procedural from interactional justice. *Group & Organizational Management*, 27, 324-351.

Cropanzano, R., Rupp, D. E., Mohler, C. J., & Schminke, M. (2001). Three roads to organizational justice. In J. Ferris (Ed.), *Research in personnel and human resources management*, 20, 1-113. Greenwich, CT: JAI.

Crossley, C.D., Bennett, R.J., Jex, S.M., & Burnfield, J.L. (2007). Development of a global measure of job embeddedness and integration into a traditional model of voluntary turnover**.** *Journal of Applied Psychology*, 92, 1031-1042.

Currall, S.C., Towler, A.J., Judge, T.A., & Kohn, L. (2005). Pay Satisfaction and Organizational Outcomes. *Personnel Psychology*, 58, 613-640.

Curran, P. G. (2016). Methods for the Detection of Carelessly Invalid Responses in Survey Data. *Journal of Experimental Social Psychology*, 66, 4-19.

Desai, S. D., Sondak, H., & Diekmann, K. A. (2011). When fairness neither satisfies nor motivates: The role of risk aversion and uncertainty reduction in attenuating and reversing the fair process effect. *Organizational Behavior and Human Decision Processes*, 116, 32-45.

Desimone, J. A., Harms, P. D., & Desimone, A.J. (2015). Best practice recommendations for data screening. *Journal of Organizational Behavior, 36*, 171-181.

Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice? *Journal of Social Issues*, 31, 137-150.

Dunn, T. J., Baguley, T., & Brunsden, V. (2014). From alpha to omega: A practical solution to the pervasive problem of internal consistency estimation. *British Journal of Psychology*, 105, 399-412.

Einola, K., Alvesson, M. (2019). The making and unmaking of teams. *Human Relations*.

Enders, C. K., Fairchild, A. J., & MacKinnon, D. P. (2013). A Bayesian approach for estimating mediation effects with missing data. *Multivariate Behavioral Research*, 48, 340-369.

Erdogan B., Liden R.C., & Kraimer M.L. (2006). Justice and leader-member exchange: the moderating role of organizational culture. *Personnel Psychology*, 49, 395-406.

Fan, W., & Yan, Z. (2010). Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behavior*, 26, 132-139.

Faragher, E. B., Cass, M., & Cooper, C. L. (2005). The relationship between job satisfaction and health: A meta-analysis. *Occupational Environmental Medicine*, 62, 105-112.

Folger, R. (1998). Fairness as a moral virtue. In M. Schminke (Ed.), *Managerial ethics: Moral management of people and processes*, (pp. 13-34). Mahwah, NJ: Erlbaum.

Ghosh, D., Sekiguchi, T., & Gurunathan, L. (2017). Organizational embeddedness as a mediator between justice and in-role performance. *Journal of Business Research,* 75, 130-137.

Goldman, B. M., Slaughter, J. E., Schmit, M. J., Wiley, J. W., & Brooks, S. M. (2008). Perceptions of discrimination: A multiple needs model perspective. *Journal of Management*, 34, 952-977.

Gonyea, R. M. (2005). Self-reported data in institutional research: Review and recommendations. In P. D. Umbach (Ed.), *Survey research: Emerging issues. New Directions for Institutional Research* (Vol. 127, pp. 73-89). San Francisco: Jossey-Bass.

Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust Web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist*, 59, 93-104.

Gouldner, A. W. (1960). The norm of reciprocity. *American Sociological Review*, 25, 165-167.

Greenberg, J. (1990). Organizational justice: Yesterday, today and tomorrow. *Journal of Management*, 16, 399-432.

Greenberg, J. (1993b). The social side of fairness: Interpersonal and informational classes of organizational justice. In R. Cropanzano (Ed.), *Justice in the workplace: Approaching fairness in human resource management* (pp. 79-103). Hillsdale, NJ: Erlbaum.

Greenberg, J. (2001). Setting the justice agenda: Seven unanswered questions about "what, why, and how." *Journal of Vocational Behavior*, 58, 210-219.

Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the millennium. *Journal of Management*, 26, 463-488.

Halbesleben, J. R. B., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR". Understanding the role of resources in conservation of resources theory. *Journal of Management*, 40, 1334-1364.

Halbesleben, J. R. B., & Wheeler, A. R. (2008). The relative roles of engagement and embeddedness in predicting job performance and intention to leave. *Work and Stress*, 22, 242-256.

Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2011). The mediating role of organizational job embeddedness in the LMX-outcomes relationships. *The Leadership Quarterly*, 22, 271-281.

Hauenstein, N. M. T., McGonigle, T., & Flinder, S. W. (2001). A meta-analysis of the relationship between procedural justice and distributive justice: Implications for justice research. *Employee Responsibilities and Rights Journal*, 13, 39-56.

Hellman, C. M. (1997). Job Satisfaction and Intent to Leave. *Journal of Social Psychology,* 137, 677-89.

Hobfoll, S.E. (1988). *The ecology of stress*. New York: Hemisphere.

Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.

Hogan, J., & Roberts, B. W. (1996). Issues and non-issues in the fidelity-bandwidth trade-off. *Journal of Organizational Behavior*, 17, 627-637.

Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology*, 4, 599-610.

Holtom, B. C., Burton, J. P., & Crossley, C. D. (2012). How negative affectivity moderates the relationship between shocks, embeddedness and worker behaviors. *Journal of Vocational Behavior*, 80, 434-443.

Holtom, B. C., Mitchell, T. R., & Lee, T. W. (2006). Increasing human and social capital by applying job embeddedness theory. *Organizational Dynamics*, 35, 316–331.

Hoyle, R. H., & Smith, G. T. (1994). Formulating clinical research hypotheses as structural equation models: A conceptual overview. *Journal of consulting and clinical psychology*, 62, 429-440.

Hu, L. , & Bentler, P.M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives. *Structural Equation Modeling*, 6, 1-55.

Huang, J. L., Curran, P. G., Keeney, J., Poposki, E. M., & DeShon, R. P. (2012). Detecting and deterring insufficient effort responding to surveys. *Journal of Business and Psychology*, *27*, 99-114.

Illies, R., Wilson, K. S., & Wagner, D. T. (2009). The spillover of daily job satisfaction onto employees' family lives: The facilitating role of work-family integration. *Academy of Management Journal*, 52, 87-102.

International Personality Item Pool. (2001). *A scientific collaborator for the development of advanced measures of personality traits and other individual differences.* Retrieved from http://ipip.ori.org/. Internet Web Site.

Jackofsky, E. E (1984). Turnover and job performance: An integrated process model. *Academy of Management Review*, 9, 74-83.

Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30, 199-218.

Jiang, K., Liu, D., McKay, P.F., Lee, T.W., & Mitchell, T.R. (2012). "When and how is job embeddedness predictive of turnover? A meta-analytic investigation", *Journal of Applied Psychology*, 95, 1077-1096.

Johanson, C. J. (2000). Correlations of self-esteem and intolerance of ambiguity with risk aversion. *Psychological Reports*, 87, 534.

Johnson, R. E., Rosen. C. C., & Chang, C. H. D., Djurdjevic, E., & Taing, M. U. (2012). Recommendations for improving the construct clarity of higher-order multidimensional constructs. *Human Resource Management Review*, 22, 62-72.

Jones, D. A., & Martens, M. L. (2009). The mediating role of overall fairness and the moderating role of trust certainty in justice-criteria relationships: The formation and use of fairness heuristics in the workplace. *Journal of Organizational Behavior*, 30, 1025-1051.

Judd, C.M., & Kenny, D.A. (1981). Process analysis: Estimating mediation in treatment evaluations. *Evaluation Review*, 5, 602-619.

Judge, T.A., Bono, J.E., Erez, A., & Locke, E.A. (2005). Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *Journal of Applied Psychology*, 90, 257-268.

Judge, T. A., Parker, S., Colbert, A. E., Heller, D., & Ilies, R. (2001). Job satisfaction: A cross-cultural review. In N. Anderson, D. S. Ones, H. K. Singangil, & C. Viswesvaran (Eds.), *Handbook of industrial and organizational psychology* (pp. 25-52). London, England: Sage.

Judge, T. A., & Zapata, C. P. (2015). The person–situation debate revisited: Effect of situation strength and trait activation on the validity of the Big Five personality traits in predicting job performance. *Academy of Management Journal*, 58, 1149-1179.

Karatepe, O. M., & Shahriari, S. (2014). Job embeddedness as a moderator of the impact of organisational justice on turnover intentions: A study in Iran. *International Journal of Tourism Research*, 16, 22-32.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 233-265). Boston, MA: McGraw-Hill.

Kiazad, K., Holtom, B. C., Hom, P. W., & Newman, A. (2015). Job embeddedness: A multifoci theoretical extension. *Journal of Applied Psychology*, 100, 641-659.

Kim, T., & Leung, K. (2007). Forming and reacting to overall fairness: A cross-cultural comparison. *Organizational Behavior and Human Decision Processes*, 104, 83-95.

Konovsky, M. A. (2000). Understanding procedural justice and its impact on business organizations. *Journal of Management*, 26, 489-513.

Konovsky, M. A., & Pugh, S. D. (1994). Citizenship behavior and social exchange. *Academy of Management Journal*, 37, 656-669.

Kraut, R., Olson, J., Banaji, M., Bruckman, A., Cohen, J., & Couper, M. (2004). Psychological research online: Report of board of scientific affairs advisory group on the conduct of research on the Internet. *The American Psychologist*, 59, 105-117.

Krosnick, J.A., & Alwin, D. F. (1987). An Evaluation of a Cognitive Theory of Response-Order Effects in Survey Measurement. *Public Opinion Quarterly*, 51, 201-219.

Lamertz, K. (2002). The social construction of fairness: Social influence and sense making in organizations. *Journal of Organizational Behavior*, 23, 19-37.

Landers, R. (2016, December 21). *Calculating LongString in Excel to Detect Careless Responders.* Retrieved from http://neoacademic.com/2016/12/21/calculating-longstring-excel-detect-careless- responders/

LaRocco, J. M., House, J. S., & French, J. R. P., Jr. (1980). Social support, occupational stress, and health. *Journal of Health and Social Behavior*, 2, 202-218.

Lawler, E. J. (2001). An Affect Theory of Social Exchange. *The American Journal of Sociology*, 107, 321-52.

Lease, M., Hullman, J., J.P. Bigham, M. Bernstein, J. Kim, W. Lasecki, S. Bakhshi, T. Mitra, & R.C. Miller. (2013). Mechanical turk is not anonymous. *Social Science Research Network*.

Lee, T. W., Mitchell, T. R., Sablynski, C. J., Burton, J. P., & Holton, B. C. (2004). The effects of job embeddedness on organizational citizenship, job performance, volitional absences, and voluntary turnover. *Academy of Management Journal*, 47, 711-722.

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 Press.

Lichtenstein, R., J. A. Alexander, J. F. McCarthy, & R. Wells. (2004). Status differences in crossfunctional teams: Effects on individual member participation, job satisfaction, and intent to quit. *Journal of Health and Social Behavior*, 45, 322-335.

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

Lind, E. A. (2001b). Thinking critically about justice judgments. *Journal of Vocational Behavior*, *58*, 220–226.

Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum Press.

Lind, E. A., & Van den Bos, K. (2002). When fairness works: Toward a general theory of uncertainty management. In B. M. Staw & R. M. Kramer (Eds.), *Research in organizational behavior* (Vol. 24, pp. 181-222). Boston: JAI Press.

Litman, L., Robinson, J., & Abberbock, T. (2016). TurkPrime.com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods* (pp. 1–10).

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1343). Chicago: Rand McNally.

Malatesta, R.M., & Byrne, Z.S. (1997). *The impact of formal and interactional justice on organizational outcomes.* Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, St. Louis.

Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43, 738-748.

Mayer, D., Nishii, L., Schneider, B., & Goldstein, H. (2007). The precursors and products of justice climates: Group leader antecedents and employee attitudinal consequences. *Personnel Psychology*, 60, 929-963.

McDonald, R. P. (1999). *Test theory: A unified treatment*. Mahwah, NJ: L. Erlbaum Associates.

Meglino, B. M., Ravlin, E. C., & Adkins, C. L. (1989). A work values approach to corporate culture: A field test of the value congruence process and its relationship to individual outcomes. *Journal of Applied Psychology*, 74, 424-432.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61, 20-52.

Mitchell, T. R., Holtom, B. C., Lee, T. W., Syblynski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44, 1102-1121.

Mobley W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62, 237-240.

Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76, 845-855.

Morrison, R. 2004. Information relationships in the workplace: Association with job satisfaction, organizational commitment and turnover intentions. *New Zealand Journal of Psychology*, 33, 144-128.

Moynihan, D. P., & Pandey, S. K. (2008). The ties that bind: Social networks, person organization value fit, and turnover intention. *Journal of Public Administration Research and Theory*, 18, 205-227.

Murphy, W.M., Burton, J.P., Henagan, S.C. & Briscoe, J.P. (2013). Employee Reactions to Job Insecurity in a Declining Economy: A Longitudinal Study of the Mediating Role of Job Embeddedness, *Group & Organization Management*, 38, 512–537.

Muthén, L. K., & Muthén, B. O. (1998-2014). *Mplus user's guide. (7th ed.)*. Los Angeles, CA: Muthén & Muthén.

Muthén, L.K., & Muthén, B.O. (2005) *Chi-square difference testing using the S-B scaled chi-square*. Retrieved from www.statmodel.com.

Ng, T. W. H., & Feldman, D. C. (2010). The impact of job embeddedness on innovation-related behaviors. *Human Resource Management*, 49, 1067-1087.

Ones, D. S., & Viswesvaran, C. (1996). Bandwidth-fidelity dilemma in personality measurement for personnel selection. *Journal of Organizational Behavior*, 17, 609-626.

O'Reilly, C.A., & Chatman, J.A. (1996). Culture as social control: Corporations, cults, and commitment. *Research in Organizational Behavior,* 18, 157-200.

O'Reilly, C. A., Chatman, J.A., & Caldwell, D.F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34, 487-516.

Organ, D.W. (1990). 'The motivational basis of organizational citizenship behavior'. In: Staw, B. M. and Cummings, L. L. (Eds), *Research in Organizational Behavior* (Vol. 12, pp. 43-72). JAI Press, Greenwich, CT.

Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Tur**k.** *Judgment and Decision Making*, 5, 411-419.

Park, T., & Shaw, J. D. (2013). Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology*, 98, 268-309.

Peltokorpi, V., Allen, D., & Froese, F.J. (2015). Organizational embeddedness, turnover intentions and voluntary turnover: The moderating effects of employee demographic characteristics 37 and value orientations. *Journal of Organizational Behavior*, 36, 292-312.

Peer, E., Vosgerau, J., & Acquisti, A. (2014). Reputation as a sufficient condition for data quality on Amazon Mechanical Turk. *Behavior Research Methods*, 46, 1023-1031.

Perryer, C., Jordan C. , I. Firns, & A. Travaglione. (2010). Predicting Turnover Intentions: The Interactive Effects of Organizational Commitment and Perceived Organizational Support. *Management Research Review*, 33, 911-923.

Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research*, 21, 381-391.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remdies. *Journal of Applied Psychology*, 88, 879-903.

Pillai, R., Schriesheim, C. A., & Williams, E. S. (1999). Fairness perceptions and trust as mediators for transformational and transactional leadership: A two-sample study. *Journal of Management*, 25, 897-933.

Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for nurses. *Academy of Management Joumal*, 24, 543-565.

Proudfoot, D., & Lind, E. A. (2015). Fairness heuristic theory, the uncertainty management model, and fairness at work. In R. Cropanzano & M. L. Ambrose (Eds.), *Oxford handbook of organizational justice* (pp. 371-385). Oxford, England: Oxford University Press.

Prussia, G. E., Anderson, J. S., & Manz, C. C. (1998). Self-leadership and performance outcomes: The mediating influence of self-efficacy. *Journal of Organizational Behavior*, 19, 523-538.

Robbins, J. M., Ford, M. T., & Tetrick, L. E. (2012). Organizational justice and employee health: A meta-analytic integration. *Journal of Applied Psychology*, 97, 235-272.

Rupp, D. E., & Cropanzano, R. (2002). The mediating effects of social exchange relationships in predicting workplace outcomes from multifoci organizational justice. *Organizational Behavior and Human Decision Processes*, 89, 925-946.

Rupp, D. E., Shapiro, D. L., Folger, R., Skarlicki, D. P., & Shao, R. (2017). A critical analysis of the conceptualization and measurement of organizational justice: Is it time for reassessment? *Academy of Management Annals,*11, 919-959.

Sandberg, J., & Alvesson, M. (2011). Ways of constructing research questions: Gap-spotting or problematization? *Organization*, 18, 23-44.

Sass, D., Seal, A. K., & Martin, N. K. (2011). Predicting teacher retention using stress and support variables. *Journal of Educational Administration*, 49, 200-215.

Schein, E. 1990, "Organizational culture", *American Psychologist*, 4, 109-119.

Schneider, B., Gunnarson, S. K., & Wheeler, J. K. (1992). The role of opportunity in the conceptualization and measurement of job satisfaction. In C. J. Cranny, P. C. Smith, & E. F. Stone (Eds.), *Job satisfaction* (pp. 195-217). New York: Lexington Books.

Scott, B. A., Colquitt, J. A., & Paddock, E. L. (2009). An actor-focused model of justice rule adherence and violation: The role of managerial motives and discretion. *Journal of Applied Psychology*, 94: 756-769.

Scott, K. D., & Taylor, G. S. (1985). An examination of conflicting findings on the relationship between job satisfaction and absenteeism: A meta-analysis. *Academy of Management Journal*, 28, 599-612.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference.* Boston: Houghton Mifflin.

Shaw, J. D., Delery, J. E., Jenkins, G. D., & Gupta, N. (1998). An organization-level analysis of voluntary and in-voluntary turnover. *Academy of Management Journal*, 41, 511-525.

Sinclair, A. L. (2003). The effects of justice and cooperation on team effectiveness. *Small Group Research*, 34, 74-100.

Soane, E., & Chmiel, N. (2005). Are risk preferences consistent? The influence of decision domain and personality. *Personality and Individual Differences*, 38, 1781-1791.

Sorensen, J. B. (2002). The strength of corporate culture and the reliability of firm performance. *Administrative Science Quarterly*, 47, 70-91.

Sparrowe, R. T., Liden, R. C., Wayne, S. J., & Kraimer, M. L. (2001). Social networks and the performance of individuals and groups. *Academy of Management Journal*, 44, 316-325.

Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69, 673-686.

Taylor, C., & Pillemer, K. (2009). Using affect to understand employee turnover: a

context-specific application of a theory of social exchange. *Sociological Perspectives*, 52, 481-504.

Tekleab, A.G., Takeuchi, R., & Taylor, M.S. (2005). Extending the chain of relationships among organizational justice, social exchange, and employee reactions: The role of contract violations. *Academy of Management Journal*, 48,146-157.

Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology*, 46, 259-293.

Thibaut, J. W., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Erlbaum.

Thibaut, J. W., & Walker, L. (1978). *A theory of procedure*. *California Law Review*, 66, 541-566.

Tornblom, K. Y., & Vermunt, R. (1999). An integrative perspective on social justice: Distributive and procedural fairness evaluations of positive and negative outcome allocations. *Social Justice Research*, 12, 39-64.

Tourangeau, R., Couper, M. P., & Conrad, F. (2004). Spacing, position, and order – Interpretive heuristics for visual features of survey questions. *Public Opinion Quarterly*, 68, 368-393.

Truell, A. D., Bartlett, J. E., & Alexander, M. W. (2002). Response rate, speed, and completeness: A comparison of Internet-based and mail surveys. *Behavior Research Methods, Instruments, & Computers*, 34, 46-49.

Tyler, T. R. (1989). The psychology of procedural justice: A test of the group-value model. *Journal of Personality and Social Psychology*, 57, 830-838.

Tyler, T. R. (1994). Psychological models of the justice motive: Antecedents of distributive and procedural justice. *Journal of Personality & Social Psychology*, 67, 850-863.

Tyler, T.R., & Lind, E.A. (1992). A relational model of authority in groups. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 115-192). New York: Academic Press.

Van den Bos, K., & Lind, E. A. (2002). Uncertainty management by means of fairness judgments. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 1-60). San Diego, CA: Academic Press.

Van den Bos, K., Lind, E.A., & Wilke, H. A. M. (2001). The psychology of procedural and distributive justice viewed from the perspective of fairness heuristic theory. In, R. Cropanzano, (Ed.), *Justice in the workplace*: *From theory to practice* (Vol. 2, pp. 49-66), Mahwah, NJ: Erlbaum.

Van den Bos, K., Van Schie, E. C. M., & Colenberg, S. E. (2002). Parents' reactions to child day care organizations: The influence of perceptions of procedures and the role of organizations' trustworthiness. *Social Justice Research*, 15, 53-62.

Yang, Y., & Green, S. (2011). Coefficient alpha: A reliability coefficient for the 21st century? *Journal of Psychoeducational Assessment*, 29, 377-392.

Yao, X., Lee, T.W., Mitchell, T.R., Burton, J.P., & Sablynski, C.S. (2004). Job embeddedness: Current research and future directions. In R. Griffeth & P. Hom (Eds.), *Understanding employee retention and turnover* (pp. 153-187). Greenwich, CT: Information Age.

Williams, L. J., Edwards, J. R., & Vandenberg, R. J. (2003). Recent Advances in Causal Modeling Methods for Organizational and Management Research. *Journal of Management*, 29, 903-936.

Zhang, H., & Agarwal, N. C. (2009). The mediating roles of organizational justice on the relationships between hr practices and workplace outcomes: An investigation in China. *The International Journal of Human Resource Management*, 20, 676-693.

Zhang, M., Fried, D.D., & Griffeth, R.W. (2012). A review of job embeddedness: Conceptual, measurement issues, and directions for future research. *Human Resource Management Review*, 22, 220-231.

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